
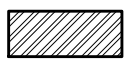
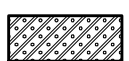
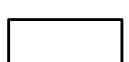
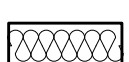
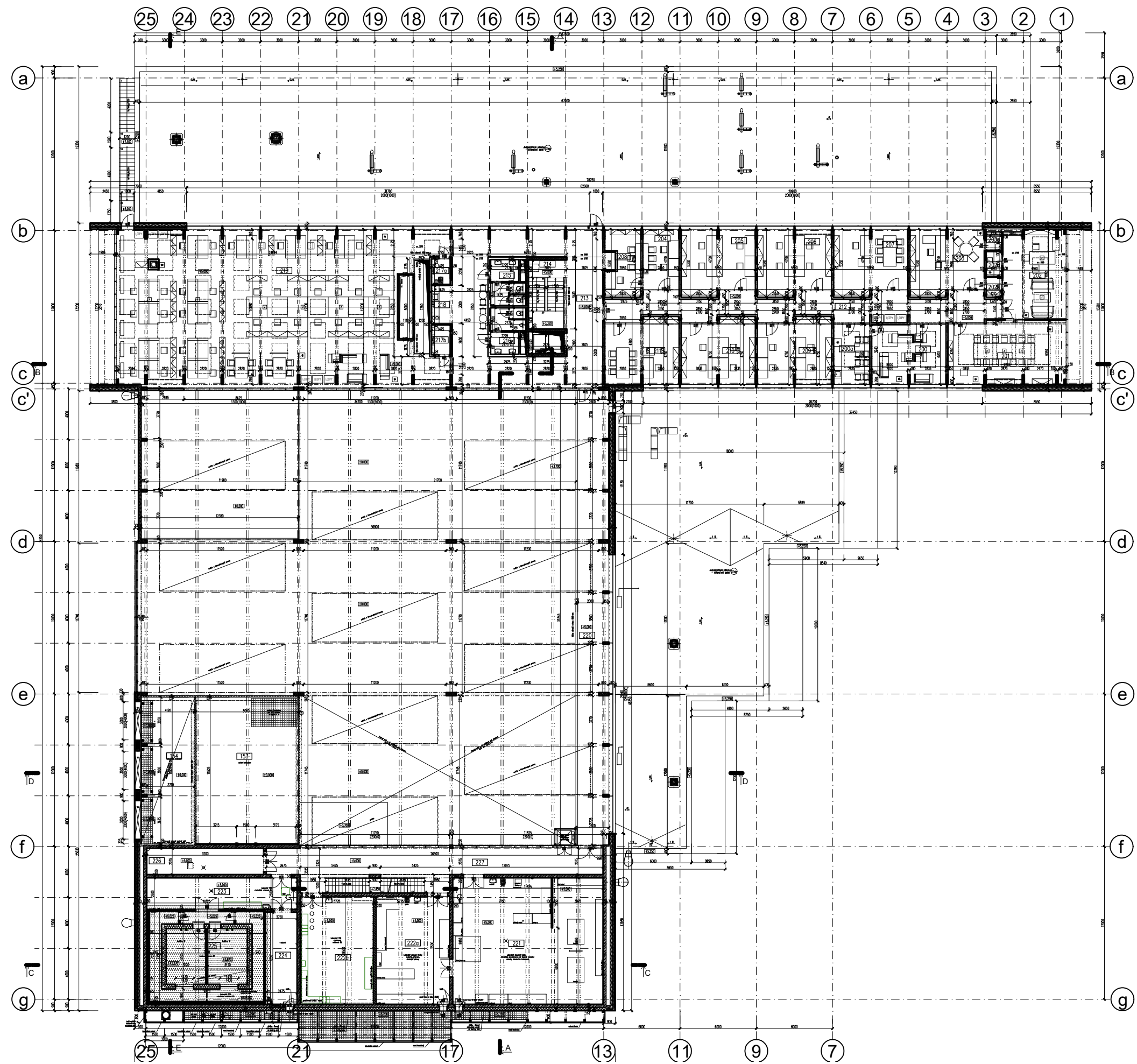



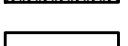
PŘÍLOHA 1
VÝKRESY BUDOVY ČVUT-UCEEB
(DOKUMENTACE SKUTEČNÉHO PROVEDENÍ)



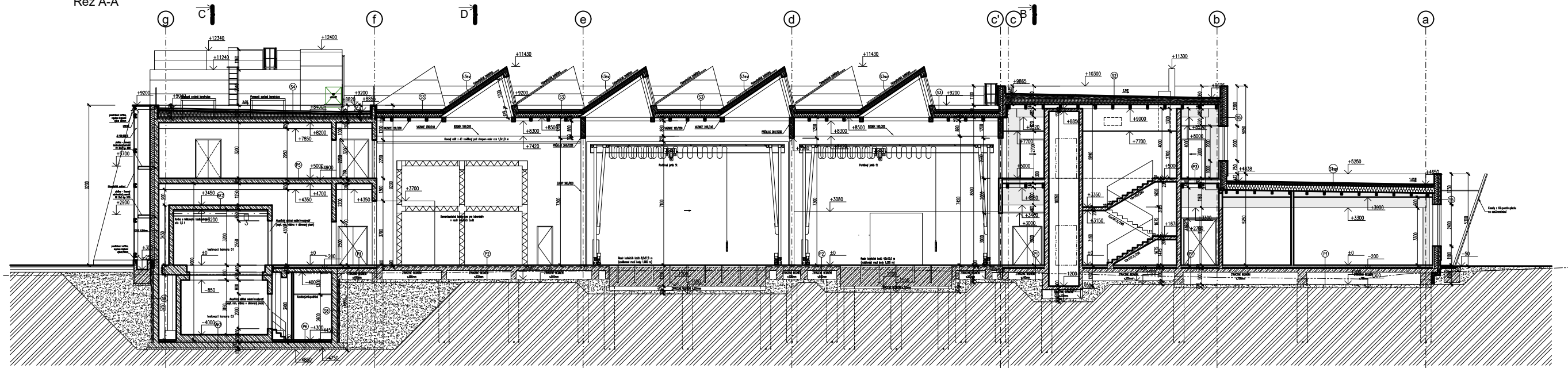
Legenda materiálů

-  Železobeton
-  Cihelné bloky
-  Porobeton
-  Montované příčky – SDK/OSB
-  Tepelná izolace

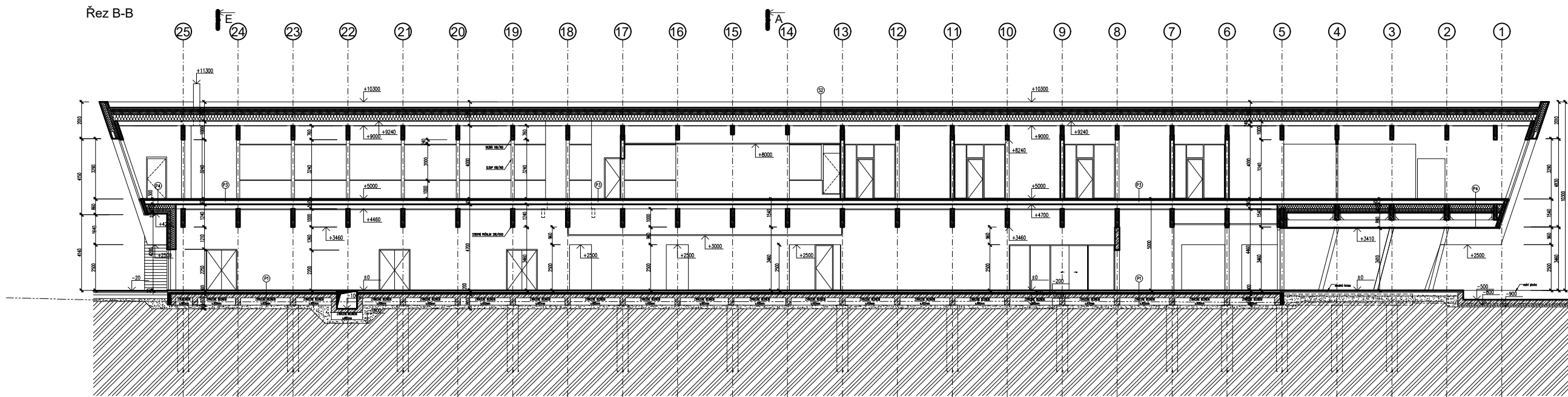


- Legenda materiálů
-  Železobeton
 -  Cihelné bloky
 -  Porobeton
 -  Montované příčky – SDK
 -  Tepelná izolace
 -  Obvodový plášť

Řez A-A

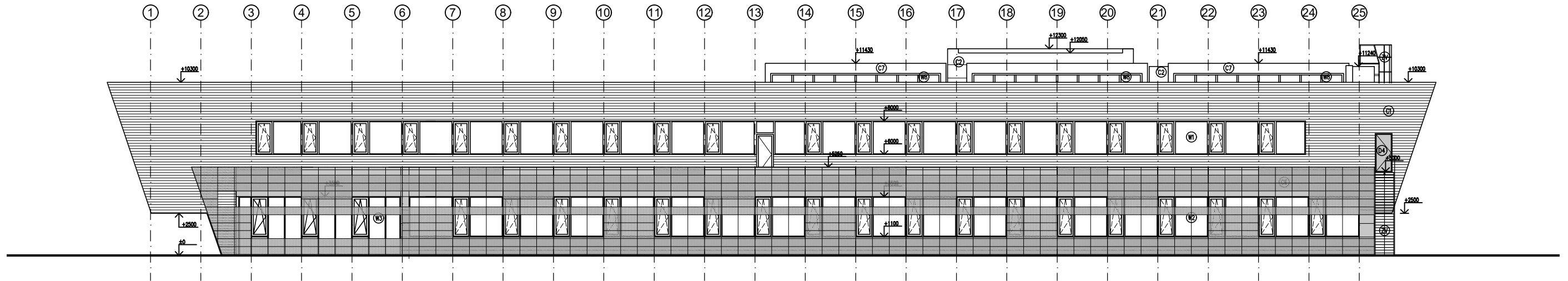


Řez B-B

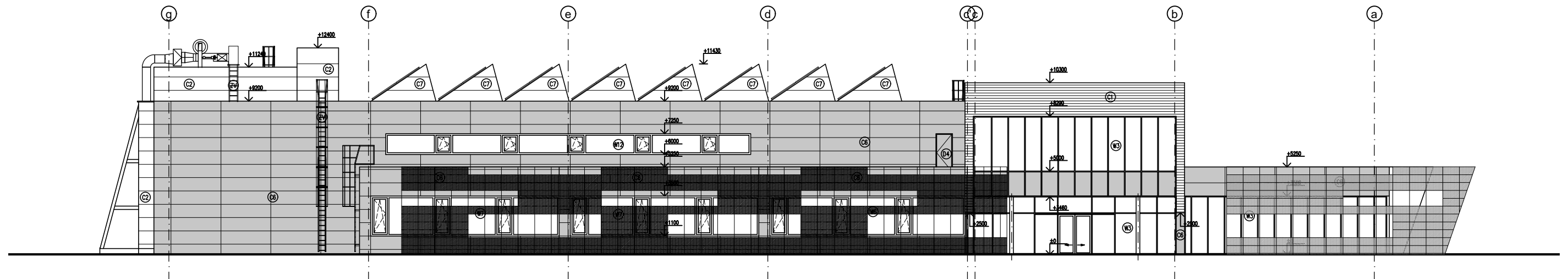


- Legenda materiálů
-  Železobeton
 -  Cihelné bloky
 -  Porobeton
 -  Montované příčky – SDK
 -  Tepelná izolace
 -  Zhutněný násyp
 -  Zemina původní

POHLED SEVERNÍ



POHLED VÝCHODNÍ



PŘÍLOHA 2
ZADÁNÍ A VÝSTUP Z PROGRAMU ONE CLICK LCA

Stávající stav – zadání do programu OneClick

1. Foundations and substructure ☁️ 485 Tonnes CO_{2e} - 2 %

Materials in the foundations will never be replaced, no matter assessment period length (except for RE2020 and FEC tools). For BREEAM UK Mat 1 IMPACT equivalent provide the data for site excavation fuel use here, choose resource Excavation works.

Foundation, sub-surface, basement and retaining walls ➕ Create a group ➡ Move materials 🔗 Add to compare

Resource	Quantity	CO _{2e}	Comment	Building Parts	Transport, kilometers	Transport, leg 2, kilometers	Service life	Localisation
Ready-mix concrete, normal strength ?	270480.0 kg	35t - 0,1%		1.1.1 Piles	60 Concrete mixer truck	Not defined	Permanent	☒ Czech Republic IEA2020
Ready-mix concrete, normal strength ?	265673 kg	35t - 0,1%		1.1.3 Retaining walls	60 Concrete mixer truck	Not defined	Permanent	☒ Czech Republic IEA2020
Crushed gravel (One Click LCA) ?	1203680 kg	15t - 0,1%		1.1.2 Basements	40 Dumper truck, 19 ton	Not defined	Permanent	☒ Czech Republic IEA2020
Ready-mix concrete, normal strength ?	1509674 kg	196t - 0,7%		1.1.2 Basements	60 Concrete mixer truck	Not defined	Permanent	☒ Czech Republic IEA2020
XPS insulation panels, L=0.033 W/mK ?	8085 kg	41t - 0,1%		1.1.2 Basements	430 Trailer combination, 40	Not defined	Permanent	☒ Czech Republic IEA2020
Asphalt-based waterproof coating, S ?	9932 kg	0,61t - ~0%		1.1.2 Basements	90 Dumper truck, 19 ton	Not defined	Permanent	Czech Republic IEA2020
Reinforcement steel (rebar), 7850 k ?	154645.0 kg	120t - 0,4%		1.1.2 Basements	370 Trailer combination, 40	Not defined	Permanent	Local, not needed
Reinforcement steel (rebar), 7850 k ?	29594.0 kg	23t - 0,1%		1.1.3 Retaining walls	370 Trailer combination, 40	Not defined	Permanent	Local, not needed
Reinforcement steel (rebar), 7850 k ?	27475.0 kg	21t - 0,1%		1.1.1 Piles	370 Trailer combination, 40	Not defined	Permanent	Local, not needed
Glass foam insulation, 0.103 W/m ?	0 kg			1.1 Foundations (substructure)	60 Trailer combination, 40	Not defined	Permanent	Not available ?

2. Vertical structures and facade 📍 529 Tonnes CO_{2e} - 2 %

External walls and facade ➕ Create a group ➡ Move materials 🔗 Add to compare

Resource	Quantity	CO _{2e}	Comment	Building Parts	Transport, kilometers	Transport, leg 2, kilometers	Service life	Localisation
Wooden cladding and decking, 445 kg ?	3785 kg	0,44t - ~0%		1.2.3 External walls	220 Trailer combination, 40	Not defined	As building	Local, not needed
Softwood beam, kiln dried, planed, ?	56805 kg	14t - ~0%		1.2.3 External walls	220 Trailer combination, 40	Not defined	As building	☒ Czech Republic IEA2020
Wood fibre flexible insulation for ?	0 kg			1.2.3 External walls	350 Trailer combination, 40	Not defined	As building	☒ Czech Republic IEA2020
PE foil, PE, 1.2 kg/m ² ?	2,44 kg	29kg - ~0%		1.2.3 External walls	430 Trailer combination, 40	Not defined	30	Czech Republic IEA2020
Oriented strand board (OSB), 613 kg ?	9940 kg	4,8t - ~0%		1.2.3 External walls	340 Trailer combination, 40	Not defined	As building	☒ Czech Republic IEA2020
Aluminium frame glass façade syste ?	34980 kg	73t - 0,3%		1.2.3 External walls	380 Trailer combination, 40	Not defined	As building	Czech Republic IEA2020
Fire-protection cement board, 15.5 ?	15237 kg	11t - ~0%		1.2.3 External walls	60 Trailer combination, 40	Not defined	As building	Czech Republic IEA2020
Rock wool (mineral wool) insulation ?	27834 kg	43t - 0,2%		1.2.3 External walls	60 Trailer combination, 40	Not defined	As building	☒ Czech Republic IEA2020

Columns and load-bearing vertical structures [+ Create a group](#) [+ Move materials](#) [Add to compare](#)

Start typing or click the arrow

Resource	Quantity	CO ₂ e	Comment	Building Parts	Transport, kilometers	Transport, leg 2, kilometers	Service life	Localisation
Glue laminated timber (Glulam), 544 ?	130422.5 kg	47t - 0,2%		1.2.1 Frame (beams, columns and	0 Trailer combination, 40	Not defined	As building	Czech Republic IEA2020
Reinforcement steel (rebar), 7850 k ?	17034.0 kg	13t - ~0%		1.2.2 Upper floors	370 Trailer combination, 40	Not defined	As building	Local, not needed
Ready-mix concrete, normal strength ?	47449.0 kg	3,3t - ~0%		1.2.1 Frame (beams, columns and	60 Concrete mixer truck	Not defined	As building	Czech Republic IEA2020
Reinforcement steel (rebar), 7850 k ?	4867.0 kg	3,8t - ~0%		1.2.1 Frame (beams, columns and	370 Trailer combination, 40	Not defined	As building	Local, not needed
Softwood beam, kiln dried, planed, ?	3907 kg	0,93t - ~0%		1.2.2 Upper floors	220 Trailer combination, 40	Not defined	As building	Czech Republic IEA2020
Ready-mix concrete, normal strength ?	614123.0 kg	78t - 0,3%		1.2.3 External walls	60 Concrete mixer truck	Not defined	As building	Czech Republic IEA2020
Reinforcement steel (rebar), 7850 k ?	65469.0 kg	51t - 0,2%		1.2.3 External walls	370 Trailer combination, 40	Not defined	As building	Local, not needed
Ready-mix concrete, normal strength ?	17034 kg	2,2t - ~0%		1.2.2 Upper floors	60 Concrete mixer truck	Not defined	As building	Czech Republic IEA2020

Internal walls and non-bearing structures [+ Create a group](#) [+ Move materials](#) [Add to compare](#)

Start typing or click the arrow

Resource	Quantity	CO ₂ e	Comment	Building Parts	Transport, kilometers	Transport, leg 2, kilometers	Service life	Localisation	Repair/year
Glass partitioning system with alum ?	3475 kg	5,7t - ~0%		1.3.2 Internal walls	380 Trailer combination, 40	Not defined	As building	Czech Republic IEA2020	None
Clay bricks, Porotherm Profi, Porot ?	184052 kg	34t - 0,1%		1.3.2 Internal walls	60 Trailer combination, 40	Not defined	As building	Local, not needed	None
Ready-mix concrete, normal strength ?	587466 kg	76t - 0,3%		1.3.2 Internal walls	60 Concrete mixer truck	Not defined	As building	Czech Republic IEA2020	None
Reinforcement steel (rebar), 7850 k ?	60445.0 kg	47t - 0,2%		1.3.2 Internal walls	370 Trailer combination, 40	Not defined	As building	Local, not needed	None
Ready-mix concrete, normal strength ?	30406.0 kg	2,1t - ~0%		1.3.3 Stairs and ramps	60 Concrete mixer truck	Not defined	As building	Czech Republic IEA2020	None
Reinforcement steel (rebar), 7850 k ?	3061.0 kg	2,4t - ~0%		1.3.3 Stairs and ramps	370 Trailer combination, 40	Not defined	As building	Local, not needed	None
Internal wall system with glass woo ?	39928.0 kg	17t - 0,1%		1.3.2 Internal walls	60 Trailer combination, 40	Not defined	As building	Not available	None

3. Horizontal structures: beams, floors and roofs ? ☁ 94 Tonnes CO₂e

Floor slabs, ceilings, roofing decks, beams and roof ? [+ Create a group](#) [+ Move materials](#) [Add to compare](#)

Start typing or click the arrow ▼

Resource ↕	Quantity ↕	CO ₂ e ↕	Comment ↕	Building Parts	Transport, kilometers ? ↕	Transport, leg 2, kilometers ? ↕	Service life ? ↕	Localisation ? ↕
Softwood beam, kiln dried, planed, ?	50500 kg ▼	12t - ~0%		1.5.1 Structure	220 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Oriented strand board (OSB), 613 kg ?	46674 kg ▼	23t - 0,1%		1.5.1 Structure	340 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Cellular glass insulation, L = 0.04 ?	305,44 kg ▼	0,16t - ~0%		1.5.2 Weatherproofing	60 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Bitumen roof waterproofing system, ? ⚠	9932 kg ▼	0,28t - ~0%		1.5.2 Weatherproofing	90 Trailer combination, 40	<input type="checkbox"/> Not defined	20	Czech Republic IEA2020
Plastic waterproofing membrane, 1.5 ? ⚠	1,75 kg ▼	7,7kg - ~0%		1.5.2 Weatherproofing	430 Trailer combination, 40	<input type="checkbox"/> Not defined	30	Czech Republic IEA2020
Precast concrete paving tiles, 2350 ?	63710.0 kg ▼	9,6t - ~0%		1.5.2 Weatherproofing	60 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	Czech Republic IEA2020
Gypsum board, fire resistant, 12.5 ?	18483 kg ▼	12t - ~0%		1.3.1 Ground floor slab	60 Trailer combination, 40	<input type="checkbox"/> Not defined	40	Local, not needed
Fibre cement boards, 1300 kg/m ³ (81 ?	3848 kg ▼	3,7t - ~0%		1.3.1 Ground floor slab	60 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Ready-mix concrete, normal strength ?	186425 kg ▼	24t - 0,1%		1.5.1 Structure	60 Concrete mixer truck	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Wood fibre flexible insulation for ?	5973 kg ▼	6,6t - ~0%		1.3.1 Ground floor slab	350 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Softwood beam, kiln dried, planed, ?	13032 kg ▼	3,1t - ~0%		1.3.1 Ground floor slab	220 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Particle board, 9.36 kg/m ² , RECOMA ?	0 kg ▼			1.3.1 Ground floor slab	340 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	Czech Republic IEA2020

4. Other structures and materials ? ☁ 109 Tonnes CO₂e

Other structures and materials ? [+ Create a group](#) [+ Move materials](#) [Add to compare](#)

Start typing or click the arrow ▼

Resource ↕	Quantity ↕	CO ₂ e ↕	Comment ↕	Building Parts	Transport, kilometers ? ↕	Transport, leg 2, kilometers ? ↕	Service life ? ↕	Localisation ? ↕	Repair/year (B3)
White ceramic sanitary ware product ? ⚠	466 kg ▼	16kg - ~0%		2.1.1 Sanitary fittings	320 Large delivery truck, 9	<input type="checkbox"/> Not defined	As building	Not available ?	None
Glazed steel sink, Long. 860 mm Lar ?	40 kg ▼	0,2t - ~0%		2.1.1 Sanitary fittings	320 Large delivery truck, 9	<input type="checkbox"/> Not defined	As building	Not available ?	None

Windows and doors ? [+ Create a group](#) [+ Move materials](#) [Add to compare](#)

Start typing or click the arrow ▼

Resource ↕	Quantity ↕	CO ₂ e ↕	Comment ↕	Building Parts	Transport, kilometers ? ↕	Transport, leg 2, kilometers ? ↕	Service life ? ↕	Localisation ? ↕	Repair/year (B3)
MDF hollow-core door, glossy, 25.8 ?	32 unit ▼	6,3t - ~0%		1.3.2 Internal walls	350 Trailer combination, 40	<input type="checkbox"/> Not defined	40	Czech Republic IEA2020	None

Finishes and coverings [+ Create a group](#) [+ Move materials](#) [Add to compare](#)

Start typing or click the arrow ▼

Resource ↕	Quantity ↕	CO ₂ e ↕	Comment ↕	Building Parts	Transport, kilometers ? ↕	Transport, leg 2, kilometers ? ↕	Service life ? ↕	Localisation ? ↕
Ready-mix concrete, normal strength ?	31418 kg ▼	4,8t - ~0%		1.2.3 External walls	60 Concrete mixer truck	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Heterogeneous PVC flooring, 2 mm, 3 ? ⚠	13539 kg ▼	59t - 0,2%		2.1.5 Floor coverings and	430 Trailer combination, 40	<input type="checkbox"/> Not defined	25	Local, not needed
Cement, Portland cement clinker (Sv ?	186116 kg ▼	16t - 0,1%		2.1.5 Floor coverings and	110 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	Local, not needed
PE foil, PE, 1.2 kg/m ² ?	1,1 kg ▼	13kg - ~0%		2.1.5 Floor coverings and	430 Trailer combination, 40	<input type="checkbox"/> Not defined	30	Czech Republic IEA2020
Fiber reinforced plasterboard for w ?	2081 kg ▼	0,24t - ~0%		2.1.5 Floor coverings and	60 Trailer combination, 40	<input type="checkbox"/> Not defined	40	Czech Republic IEA2020
Wood fibre flexible insulation for ?	7248 kg ▼	8,1t - ~0%		2.1.5 Floor coverings and	350 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
Oriented strand board (OSB), 613 kg ?	13590 kg ▼	6,6t - ~0%		2.1.5 Floor coverings and	340 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020
EPS insulation panels, graphite, L= ?	1225 kg ▼	7t - ~0%		2.1.5 Floor coverings and	430 Trailer combination, 40	<input type="checkbox"/> Not defined	As building	☒ Czech Republic IEA2020

Stávající stav – vyhodnocení

Life-Cycle Assessment for Level(s) in compliancy with EN 15978 [Download Results Summary](#)

Result category	Global warming kg CO2e ?	Biogenic carbon storage kg CO2e bio ?	Ozone Depletion kg CFC11e ?	Acidification kg SO2e ?	Eutrophication kg PO4e ?	Formation of ozone of lower atmosphere kg Ethenee ?	Abiotic depletion potential (ADP-elements) for non fossil resources kg Sbe ?	Abiotic depletion potential (ADP-fossil fuels) for fossil resources MJ ?	
A1-A3 ?	Construction Materials	9,96E+05	6,02E+05	5,62E-02	5,17E+03	1,63E+03	3,22E+02	4,39E+01	5,33E+07
+ A4 ?	Transportation to site	4,13E+04		7,34E-03	1,02E+02	2,18E+01	4,96E+00	9,77E+01	7,51E+05
+ A5 ?	Construction/installation process	6,13E+04		4,64E-03	3,30E+02	1,05E+02	2,31E+01	1,79E+01	2,81E+06
+ B1 ?	Use phase	0,00E+00		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
+ B3 ?	Repair	0,00E+00		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
+ B4-B5 ?	Material replacement and refurbishment	3,73E+04		2,13E-03	5,05E+01	3,19E+01	1,47E+01	6,66E+00	1,93E+05
B6 ?	Energy consumption	2,66E+07		5,16E-01	1,54E+05	1,59E+05	5,68E+03	7,93E+01	4,76E+08
B7 ?	Water use	8,62E+03		6,18E-04	5,90E+01	1,37E+01	2,07E+00	2,60E-02	1,25E+05
+ C1-C4 ?	End of life	8,15E+04		7,55E-03	2,05E+02	4,63E+01	5,39E+00	2,03E+02	9,45E+05
+ D ?	External impacts (not included in totals)	-1,21E+06		-4,56E-02	-5,83E+03	-1,09E+03	-5,19E+02	-5,99E+00	-1,40E+07
	Total	2,79E+07	6,02E+05	5,95E-01	1,60E+05	1,61E+05	6,05E+03	4,48E+02	5,34E+08
	Results per denominator								
	Per gross internal floor area m2 / year	1,11E+02	2,39E+00	2,36E-06	6,34E-01	6,39E-01	2,40E-02	1,78E-03	2,12E+03
	Per gross internal floor area m2	5,53E+03	1,19E+02	1,18E-04	3,17E+01	3,19E+01	1,20E+00	8,89E-02	1,06E+05

Varianta 1 – vyhodnocení

Life-Cycle Assessment for Level(s) in compliancy with EN 15978 [Download Results Summary](#)

Result category	Global warming kg CO2e ?	Biogenic carbon storage kg CO2e bio ?	Ozone Depletion kg CFC11e ?	Acidification kg SO2e ?	Eutrophication kg PO4e ?	Formation of ozone of lower atmosphere kg Ethenee ?	Abiotic depletion potential (ADP-elements) for non fossil resources kg Sbe ?	Abiotic depletion potential (ADP-fossil fuels) for fossil resources MJ ?	
A1-A3 ?	Construction Materials	1,13E+06	7,48E+05	7,82E-02	5,60E+03	2,02E+03	3,32E+02	6,58E+01	5,48E+07
+ A4 ?	Transportation to site	3,92E+04		6,93E-03	9,29E+01	1,97E+01	4,82E+00	8,26E+01	6,91E+05
+ A5 ?	Construction/installation process	5,95E+04		4,51E-03	3,07E+02	1,11E+02	2,11E+01	1,81E+01	2,78E+06
+ B1 ?	Use phase	0,00E+00		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
+ B3 ?	Repair	0,00E+00		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
+ B4-B5 ?	Material replacement and refurbishment	3,69E+05		4,98E-02	1,69E+03	7,40E+02	9,06E+01	6,39E+01	4,65E+06
B6 ?	Energy consumption	2,17E+07		4,61E-01	1,23E+05	1,26E+05	4,58E+03	6,45E+01	3,86E+08
B7 ?	Water use	8,62E+03		6,18E-04	5,90E+01	1,37E+01	2,07E+00	2,60E-02	1,25E+05
+ C1-C4 ?	End of life	6,53E+04		7,11E-03	1,99E+02	4,60E+01	4,85E+00	2,03E+02	9,25E+05
+ D ?	External impacts (not included in totals)	-1,29E+06		-4,97E-02	-6,16E+03	-1,14E+03	-5,64E+02	-4,76E+00	-1,51E+07
	Total	2,34E+07	7,48E+05	6,08E-01	1,31E+05	1,29E+05	5,03E+03	4,98E+02	4,49E+08
	Results per denominator								
	Per gross internal floor area m2 / year	9,27E+01	2,97E+00	2,41E-06	5,18E-01	5,12E-01	2,00E-02	1,97E-03	1,78E+03
	Per gross internal floor area m2	4,63E+03	1,48E+02	1,21E-04	2,59E+01	2,56E+01	9,99E-01	9,87E-02	8,92E+04

Varianta 2 – vyhodnocení

Life-Cycle Assessment for Level(s) in compliancy with EN 15978 [Download Results Summary](#)

Result category	Global warming kg CO2e ?	Biogenic carbon storage kg CO2e bio ?	Ozone Depletion kg CFC11e ?	Acidification kg SO2e ?	Eutrophication kg PO4e ?	Formation of ozone of lower atmosphere kg Ethenee ?	Abiotic depletion potential (ADP-elements) for non fossil resources kg Sbe ?	Abiotic depletion potential (ADP-fossil fuels) for fossil resources MJ ?	
A1-A3 ?	Construction Materials	1,26E+06	7,48E+05	9,78E-02	6,26E+03	2,31E+03	3,64E+02	8,17E+01	5,65E+07
+ A4 ?	Transportation to site	3,95E+04		6,99E-03	9,42E+01	2,00E+01	4,85E+00	8,48E+01	6,99E+05
+ A5 ?	Construction/installation process	5,95E+04		4,52E-03	3,07E+02	1,11E+02	2,11E+01	1,80E+01	2,77E+06
+ B1 ?	Use phase	0,00E+00		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
+ B3 ?	Repair	0,00E+00		0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
+ B4-B5 ?	Material replacement and refurbishment	6,44E+05		8,92E-02	3,04E+03	1,33E+03	1,53E+02	1,11E+02	8,33E+06
B6 ?	Energy consumption	1,73E+07		4,11E-01	9,50E+04	9,66E+04	3,60E+03	5,13E+01	3,05E+08
B7 ?	Water use	4,94E+03		3,54E-04	3,38E+01	7,86E+00	1,19E+00	1,49E-02	7,19E+04
+ C1-C4 ?	End of life	6,60E+04		7,20E-03	2,02E+02	4,65E+01	4,90E+00	2,06E+02	9,37E+05
+ D ?	External impacts (not included in totals)	-1,35E+06		-5,31E-02	-6,42E+03	-1,18E+03	-6,00E+02	-5,13E+00	-1,59E+07
	Total	1,94E+07	7,48E+05	6,17E-01	1,05E+05	1,00E+05	4,15E+03	5,53E+02	3,74E+08
	Results per denominator								
	Per gross internal floor area m2 / year	7,69E+01	2,97E+00	2,45E-06	4,16E-01	3,99E-01	1,65E-02	2,19E-03	1,49E+03
	Per gross internal floor area m2	3,85E+03	1,48E+02	1,22E-04	2,08E+01	1,99E+01	8,23E-01	1,10E-01	7,43E+04

PŘÍLOHA 3

Indicator_2.1_excel_v1.2.

Indicator_2.4.calculator_v2.0.

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Bill of quantities organised by the main building parts and elements <i>Fictive entries have been added below for illustration purposes, please delete any information in the green or yellow cells before starting</i>								Building floor area (m2)			5040	Bill of Materials by material type (% weight). <i>Enter the approximate % split by material according to the options below (especially important if intending to report on indicator 2.2, construction and demolition waste). Note: If using LCA software, the split of materials in the EPD or chosen LCI inventory may be adapted to the options below.</i>											Assumed building life (yrs)	50	Weight of materials needed over lifetime
Tier 1 building element	Tier 2 building element	Tier 3 building element	Optional further description of the product/material being purchased	Bill of Quantities (number of units)	Unit	Conversion factor (kg/unit)	TOTAL (kg)	Cost €/unit	Cost €/kg	TOTAL cost €	Concrete, brick, tile, ceramic etc.	Wood	Glass	Plastic	Bituminous mixtures	Metals	Insulation materials	Gypsum	Mixed	Electrical and Electronic Equipment	Total % (should be 100%)	Assumed lifetime of product/material (years)	Normalised requirement factor over building lifetime	Weight of materials needed over lifetime	
Core	Foundations_substr	Piles	Reinforced concrete pile foundations with rebar	121,1	m3	2500	302750	-	-	-	90%					10,0%						100,0%	50	1	302750
Core	Foundations_substr	Retaining walls	Reinforced concrete walls	189,28	m3	2500	473200				90%					10,0%						100,0%	50	1	473200
Core	Foundations_substr	Basements	Reinforced concrete baseplate	676,08	m3	2500	1690200	-	-	-	90%					10,0%						100,0%	50	1	1690200
Core	Foundations_substr	Basements	Waterproofing - asphalt	7,64	m3	1300	9932	-	-	-					100,0%							100,0%	40	1,25	12415
Core	Foundations_substr	Basements	Insulation - XPS	245	m3	33	8085	-	-	-						100,0%						100,0%	50	1	8085
Core	Foundations_substr	Basements	Gravel	752,3	m3	1600	1203680				100,0%											100,0%	50	1	1203680
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Partitions - plasterboard	35,26	m3	640	22566,4	-	-	-								100,0%				100,0%	50	1,0	22566,4
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Mineral wool in partitions	236,26	m3	60	14175,6										100,0%					100,0%	50	1,0	14175,6
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Aluminium frame	1,18	m3	2700	3186									100,0%						100,0%	50	1,0	3186
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Doors - MDF doards	-	m3	-	825,6	-	-	-				100,0%								100,0%	50	1,0	825,6
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Partitions - glass	1,39	m3	2500	3475	-	-	-			100,0%									100,0%	50	1,0	3475
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Partitions - masonry	167,32	m3	800	133856	-	-	-	100,0%											100,0%	50	1,0	133856
Shell	Non_loadbearing_el	Internal walls, partitions and doors	Reinforced concrete walls	263,12	m3	2500	657800	-	-	-	90,0%					10,0%						100,0%	50	1,0	657800
Shell	Non_loadbearing_el	Stairs and ramps	Stairs from reinforced concrete	13,61	m3	2500	34025	-	-	-	90,0%					10,0%						100,0%	50	1,0	34025
Shell	Loadbearing_struct	Frame (beams, columns and slabs)	Beams from glued laminated timber (2. floor)	51,75	m3	450	23287,5	-	-	-		100,0%										100,0%	50	1,0	23287,5
Shell	Loadbearing_struct	Frame (beams, columns and slabs)	Columns from glued laminated timber (2. floor)	27,36	m3	450	12312	-	-	-		100,0%										100,0%	50	1,0	12312
Shell	Loadbearing_struct	Frame (beams, columns and slabs)	Beams from glued laminated timber (hall)	82,63	m3	450	37183,5	-	-	-		100,0%										100,0%	50	1,0	37183,5
Shell	Loadbearing_struct	Frame (beams, columns and slabs)	Columns from glued laminated timber (hall)	28,03	m3	450	12613,5	-	-	-		100,0%										100,0%	50	1,0	12613,5
Shell	Loadbearing_struct	Frame (beams, columns and slabs)	Beams from glued laminated timber (1. floor)	114,26	m3	450	51417	-	-	-		100,0%										100,0%	50	1,0	51417
Shell	Loadbearing_struct	Upper floors	Columns from glued laminated timber (1. floor)	5,8	m3	450	2610					100,0%										100,0%	50	1,0	2610
Shell	Loadbearing_struct	Upper floors	Reinforced concrete slabs	74,57	m3	2500	186425				90,0%					10,0%						100,0%	50	1,0	186425
Shell	Loadbearing_struct	Upper floors	Wood - KVH	8,88	m3	440	3907,2	-	-	-		100,0%										100,0%	50	1,0	3907,2
Shell	Loadbearing_struct	Frame (beams, columns and slabs)	Beams from reinforced concrete	21,2	m3	2500	53000	-	-	-	90,0%					10,0%						100,0%	50	1,0	53000
Shell	Loadbearing_struct	External walls	Walls from reinforced concrete	267,01	m3	2500	667525	-	-	-	90,0%					10,0%						100,0%	50	1,0	667525
Shell	Facades	External wall systems, cladding and shading	Glass facade	12,75	m3	2500	31875	-	-	-			100,0%									100,0%	30	1,7	53125
Shell	Facades	External wall systems, cladding and shading	Aluminium profiles	1,15	m3	2700	3105	-	-	-						100,0%						100,0%	50	1,0	3105
Shell	Facades	External wall systems, cladding and shading	Wooden cladding	7,57	m3	500	3785	-	-	-			100,0%									100,0%	35	1,4	5407,142857
Shell	Facades	External wall systems, cladding and shading	Facing boards-Cetris	5,69	m3	500	2845	-	-	-	70,0%	30,0%										100,0%	35	1,4	4064,285714
Shell	Facades	External wall systems, cladding and shading	Diffusion film - polypropylen	2,65	m3	0,92	2,438	-	-	-				100,0%								100,0%	50	1,0	2,438
Shell	Facades	External wall systems, cladding and shading	Mineral wool	463,9	m3	60	27834	-	-	-						100,0%						100,0%	30	1,7	46390
Shell	Facades	External wall systems, cladding and shading	Wooden grate	37,87	m3	500	18935	-	-	-		100,0%										100,0%	50	1,0	18935
Shell	Facades	External wall systems, cladding and shading	OSB boards	19,88	m3	600	11928	-	-	-		100,0%										100,0%	50	1,0	11928
Shell	Facades	External wall systems, cladding and shading	Fermacell boards	13,25	m3	1150	15237,5	-	-	-		30,0%						70,0%				100,0%	50	1,0	15237,5

VARIANTA 1

Bill of quantities organised by the main building parts and elements <i>Fictive entries have been added below for illustration purposes, please delete any information in the green or yellow cells before starting</i>								Building floor area (m2)			5040	Bill of Materials by material type (% weight). <i>Enter the approximate % split by material according to the options below (especially important if intending to report on indicator 2.2, construction and demolition waste). Note: If using LCA software, the split of materials in the EPD or chosen LCI inventory may be adapted to the options below.</i>											Assumed building life (yrs)	50	Weight of materials needed over lifetime
Tier 1 building element	Tier 2 building element	Tier 3 building element	Optional further description of the product/material being purchased	Bill of Quantities (number of units)	Unit	Conversion factor (kg/unit)	TOTAL (kg)	Cost €/unit	Cost €/kg	TOTAL cost €	Concrete, brick, tile, ceramic etc.	Wood	Glass	Plastic	Bituminous mixtures	Metals	Insulation materials	Gypsum	Mixed	Electrical and Electronic Equipment	Total % (should be 100%)	Assumed lifetime of product/material (years)	Normalised requirement factor over building lifetime	Weight of materials needed over lifetime	
Core	Foundations_substructure	Piles	Reinforced concrete pile foundations with rebar	121,1	m3	2500	302750	-	-	-	90%					10,0%						100,0%	50	1	302750
Core	Foundations_substructure	Retaining walls	Reinforced concrete walls	189,28	m3	2500	473200	-	-	-	90%					10,0%						100,0%	50	1	473200
Core	Foundations_substructure	Basements	Reinforced concrete baseplate	676,08	m3	2500	1690200	-	-	-	90%					10,0%						100,0%	50	1	1690200
Core	Foundations_substructure	Basements	Waterproofing - asphalt	7,64	m3	1300	9932	-	-	-					100,0%							100,0%	40	1,25	12415
Core	Foundations_substructure	Basements	Insulation - XPS	245	m3	33	8085	-	-	-							100,0%					100,0%	50	1	8085
Core	Foundations_substructure	Basements	Gravel	752,3	m3	1600	1203680	-	-	-	100,0%											100,0%	50	1	1203680
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Ekopanel (straw construction)	119,46	m3	379	45275,34	-	-	-		100,0%										100,0%	50	1,0	45275,34
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Wood fibre insulation	119,46	m3	50	5973	-	-	-		100,0%					100,0%					100,0%	50	1,0	5973
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Wood frame	32,5	m3	400	13000	-	-	-		100,0%										100,0%	50	1,0	13000
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Doors - MDF doards	-	m3	-	825,6	-	-	-				100,0%								100,0%	50	1,0	825,6
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - glass	1,39	m3	2500	3475	-	-	-			100,0%									100,0%	50	1,0	3475
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - masonry	167,32	m3	800	133856	-	-	-	100,0%											100,0%	50	1,0	133856
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Reinforced concrete walls	263,12	m3	2500	657800	-	-	-	90,0%					10,0%						100,0%	50	1,0	657800
Shell	Non_loadbearing_elements	Stairs and ramps	Stairs from reinforced concrete	13,61	m3	2500	34025	-	-	-	90,0%					10,0%						100,0%	50	1,0	34025
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (2. floor)	51,75	m3	450	23287,5	-	-	-		100,0%										100,0%	50	1,0	23287,5
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Columns from glued laminated timber (2. floor)	27,36	m3	450	12312	-	-	-		100,0%										100,0%	50	1,0	12312
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (hall)	82,63	m3	450	37183,5	-	-	-		100,0%										100,0%	50	1,0	37183,5
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Columns from glued laminated timber (hall)	28,03	m3	450	12613,5	-	-	-		100,0%										100,0%	50	1,0	12613,5
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (1. floor)	114,26	m3	450	51417	-	-	-		100,0%										100,0%	50	1,0	51417
Shell	Loadbearing_structural_frame	Upper floors	Columns from glued laminated timber (1. floor)	5,8	m3	450	2610	-	-	-		100,0%										100,0%	50	1,0	2610
Shell	Loadbearing_structural_frame	Upper floors	Reinforced concrete slabs	74,57	m3	2500	186425	-	-	-	90,0%					10,0%						100,0%	50	1,0	186425
Shell	Loadbearing_structural_frame	Upper floors	Wood - KVH	8,88	m3	440	3907,2	-	-	-		100,0%										100,0%	50	1,0	3907,2
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from reinforced concrete	21,2	m3	2500	53000	-	-	-	90,0%					10,0%						100,0%	50	1,0	53000
Shell	Loadbearing_structural_frame	External walls	Walls from reinforced concrete	267,01	m3	2500	667525	-	-	-	90,0%					10,0%						100,0%	50	1,0	667525
Shell	Facades	External wall systems, cladding	Glass facade	12,75	m3	2500	31875	-	-	-			100,0%									100,0%	30	1,7	53125
Shell	Facades	External wall systems, cladding	Aluminium profiles	1,15	m3	2700	3105	-	-	-						100,0%						100,0%	50	1,0	3105
Shell	Facades	External wall systems, cladding	Wooden cladding	7,57	m3	500	3785	-	-	-			100,0%									100,0%	35	1,4	5407,142857
Shell	Facades	External wall systems, cladding	Facing boards - Cetris	5,69	m3	500	2845	-	-	-	70,0%	30,0%										100,0%	35	1,4	4064,285714
Shell	Facades	External wall systems, cladding	Diffusion film - polypropylen	2,65	m3	0,92	2,438	-	-	-				100,0%								100,0%	50	1,0	2,438
Shell	Facades	External wall systems, cladding	Wood fibre insulation	569	m3	50	28 439	-	-	-		100,0%										100,0%	30	1,7	47398,33333
Shell	Facades	External wall systems, cladding	Wooden grate	37,87	m3	500	18935	-	-	-		100,0%										100,0%	50	1,0	18935
Shell	Facades	External wall systems, cladding	OSB boards	19,88	m3	600	11928	-	-	-		100,0%										100,0%	50	1,0	11928
Shell	Facades	External wall systems, cladding	Fermacell boards	13,25	m3	1150	15237,5	-	-	-		10,0%							90,0%			100,0%	50	1,0	15237,5
Shell	Facades	Façade openings (including	Front wall - aluminium sheet	4,48	m3	2700	12096	-	-	-						100,0%						100,0%	50	1,0	12096

Shell	Facades	Façade openings (including)	Doors	0,24	m3	2700	648	-	-	-										100,0%								100,0%	50	1,0	648		
Shell	Facades	Façade openings (including)	Gate	4,45	m3	2700	12015	-	-	-											100,0%								100,0%	50	1,0	12015	
Shell	Facades	Façade openings (including)	Skylight glazing	13,68	m3	2500	34200	-	-	-				100,0%															100,0%	25	2,0	68400	
Shell	Facades	Façade openings (including)	Aluminium profiles	1,23	m3	2700	3321	-	-	-											100,0%								100,0%	50	1,0	3321	
Shell	Facades	Façade openings (including)	Wooden window frame	1,61	m3	500	805	-	-	-				100,0%															100,0%	50	1,0	805	
Shell	Facades	Façade openings (including)	Window glazing	27,7	m3	2500	69250	-	-	-				100,0%															100,0%	25	2,0	138500	
Shell	Roof	Weatherproofing	Concrete tiles	27,7	m3	2300	63710	-	-	-				100,0%															100,0%	50	1,0	63710	
Shell	Roof	Weatherproofing	PE textile	1,91	m3	0,92	1,7572	-	-	-																			100,0%	50	1,0	1,7572	
Shell	Roof	Weatherproofing	Waterproofing - asphalt	7,64	m3	1300	9932	-	-	-																			100,0%	30	1,7	16553,33333	
Shell	Roof	Weatherproofing	EPS	1527,2	m3	20	30544	-	-	-																			100,0%	30	1,7	50906,66667	
Shell	Roof	Structure	OSB boards	77,79	m3	600	46674	-	-	-				100,0%															100,0%	50	1,0	46674	
Shell	Roof	Structure	Wood - KVH	20,2	m3	2500	50500	-	-	-				100,0%															100,0%	50	1,0	50500	
Shell	Roof	Structure	Reinforced concrete slabs	74,57	m3	2500	186425	-	-	-				90,0%															10,0%	50	1,0	186425	
Core	Fittings_and_furnishings	Sanitary fittings	Toilet	-	-	-	120	-	-	-				100,0%															100,0%	50	1,0	120	
Core	Fittings_and_furnishings	Sanitary fittings	Urinal	-	-	-	30	-	-	-				100,0%																100,0%	50	1,0	30
Core	Fittings_and_furnishings	Sanitary fittings	Wash basin	-	-	-	216	-	-	-				100,0%																100,0%	50	1,0	216
Core	Fittings_and_furnishings	Sanitary fittings	Sink	-	-	-	40	-	-	-																			100,0%	50	1,0	40	
Core	Fittings_and_furnishings	Sanitary fittings	Bath tub	-	-	-	50	-	-	-				100,0%																100,0%	50	1,0	50
Core	Fittings_and_furnishings	Sanitary fittings	Shower	-	-	-	50	-	-	-				100,0%																100,0%	50	1,0	50
Core	Fittings_and_furnishings	Floor coverings and finishes	Concrete trowel	13,66	m3	2300	31418	-	-	-				100,0%																100,0%	50	1,0	31418
Core	Fittings_and_furnishings	Floor coverings and finishes	PVC	9,81	m3	1380	13537,8	-	-	-																			100,0%	20	2,5	33844,5	
Core	Fittings_and_furnishings	Floor coverings and finishes	Cement	132,94	m3	1400	186116	-	-	-				100,0%																100,0%	50	1,0	186116
Core	Fittings_and_furnishings	Floor coverings and finishes	PE foil	1,23	m3	0,92	1,1316	-	-	-																			100,0%	50	1,0	1,1316	
Core	Fittings_and_furnishings	Floor coverings and finishes	Fermacell boards	1,81	m3	1150	2081,5	-	-	-				10,0%																90,0%	50	1,0	2081,5
Core	Fittings_and_furnishings	Floor coverings and finishes	Wood fibre	36,24	m3	200	7248	-	-	-				100,0%																100,0%	50	1,0	7248
Core	Fittings_and_furnishings	Floor coverings and finishes	OSB boards	22,65	m3	600	13590	-	-	-				100,0%																100,0%	50	1,0	13590
Core	Fittings_and_furnishings	Floor coverings and finishes	Insulation - EPS	8,28	m3	60	496,8	-	-	-																			100,0%	50	1,0	496,8	
Core	Fittings_and_furnishings	Ceilings	Plasterboards	28,88	m3	640	18483,2	-	-	-																			100,0%	50	1,0	18483,2	
Core	Fittings_and_furnishings	Ceilings	Boards - Cetris	2,68	m3	1300	3484	-	-	-																				0,0%	50	1,0	3484
Core	Fittings_and_furnishings	Ceilings	Aluminium profiles	0,773	m3	2700	2087,1	-	-	-																			100,0%	50	1,0	2087,1	
Core	Energy_system	Electricity generation and distribution	Photovoltaic polycrystalline panel	844	m2	14,5	12238	-	-	-				20,0%															80,0%	100,0%			

VARIANTA 2

Bill of quantities organised by the main building parts and elements <i>Fictive entries have been added below for illustration purposes, please delete any information in the green or yellow cells before starting</i>								Building floor area (m2)			5040	Bill of Materials by material type (% weight). <i>Enter the approximate % split by material according to the options below (especially important if intending to report on indicator 2.2, construction and demolition waste). Note: If using LCA software, the split of materials in the EPD or chosen LCI inventory may be adapted to the options below.</i>											Assumed building life (yrs)	50	Weight of materials needed over lifetime
Tier 1 building element	Tier 2 building element	Tier 3 building element	Optional further description of the product/material being purchased	Bill of Quantities (number of units)	Unit	Conversion factor (kg/unit)	TOTAL (kg)	Cost €/unit	Cost €/kg	TOTAL cost €	Concrete, brick, tile, ceramic etc.	Wood	Glass	Plastic	Bituminous mixtures	Metals	Insulation materials	Gypsum	Mixed	Electrical and Electronic Equipment	Total % (should be 100%)	Assumed lifetime of product/material (years)	Normalised requirement factor over building lifetime	Weight of materials needed over lifetime	
Core	Foundations_substructure	Piles	Reinforced concrete pile foundations with rebar	121,1	m3	2200	266420	-	-	-	90%					10,0%						100,0%	50	1	266420
Core	Foundations_substructure	Retaining walls	Reinforced concrete walls	189,28	m3	2200	416416				90%					10,0%							50	1	416416
Core	Foundations_substructure	Basements	Reinforced concrete baseplate	676,08	m3	2200	1487376	-	-	-	90%					10,0%						100,0%	50	1	1487376
Core	Foundations_substructure	Basements	Waterproofing - asphalt	7,64	m3	1300	9932	-	-	-					100,0%							100,0%	40	1,25	12415
Core	Foundations_substructure	Basements	Foam glass insulation	551	m3	33	18183	-	-	-							100,0%					100,0%	50	1	18183
Core	Foundations_substructure	Basements	Gravel	0	m3	1600	0				100,0%												50	1	0
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Ekopanel (straw construction)	119,46	m3	379	45275,34	-	-	-		100,0%										100,0%	50	1,0	45275,34
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Wood fibre insulation	119,46	m3	50	5973					100,0%					100,0%						50	1,0	5973
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Wood frame	32,5	m3	400	13000					100,0%											50	1,0	13000
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Doors - MDF doards	-	m3	-	825,6	-	-	-				100,0%								100,0%	50	1,0	825,6
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - glass	1,39	m3	2500	3475	-	-	-			100,0%									100,0%	50	1,0	3475
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - masonry	167,32	m3	800	133856	-	-	-	100,0%											100,0%	50	1,0	133856
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Reinforced concrete walls	263,12	m3	2200	578864	-	-	-	90,0%					10,0%						100,0%	50	1,0	578864
Shell	Non_loadbearing_elements	Stairs and ramps	Stairs from reinforced concrete	13,61	m3	2200	29942	-	-	-	90,0%					10,0%						100,0%	50	1,0	29942
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (2. floor)	51,75	m3	450	23287,5	-	-	-		100,0%										100,0%	50	1,0	23287,5
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Columns from glued laminated timber (2. floor)	27,36	m3	450	12312	-	-	-		100,0%										100,0%	50	1,0	12312
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (hall)	82,63	m3	450	37183,5	-	-	-		100,0%										100,0%	50	1,0	37183,5
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Columns from glued laminated timber (hall)	28,03	m3	450	12613,5	-	-	-		100,0%										100,0%	50	1,0	12613,5
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (1. floor)	114,26	m3	450	51417	-	-	-		100,0%										100,0%	50	1,0	51417
Shell	Loadbearing_structural_frame	Upper floors	Columns from glued laminated timber (1. floor)	5,8	m3	450	2610					100,0%										100,0%	50	1,0	2610
Shell	Loadbearing_structural_frame	Upper floors	Reinforced concrete slabs	74,57	m3	2200	164054				90,0%					10,0%						100,0%	50	1,0	164054
Shell	Loadbearing_structural_frame	Upper floors	Wood - KVH	8,88	m3	440	3907,2	-	-	-		100,0%										100,0%	50	1,0	3907,2
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from reinforced concrete	21,2	m3	2200	46640	-	-	-	90,0%					10,0%						100,0%	50	1,0	46640
Shell	Loadbearing_structural_frame	External walls	Walls from reinforced concrete	267,01	m3	2200	587422	-	-	-	90,0%					10,0%						100,0%	50	1,0	587422
Shell	Facades	External wall systems, cladding	Glass facade	12,75	m3	2500	31875	-	-	-			100,0%									100,0%	30	1,7	53125
Shell	Facades	External wall systems, cladding	Aluminium profiles	1,15	m3	2700	3105	-	-	-					100,0%							100,0%	50	1,0	3105
Shell	Facades	External wall systems, cladding	Wooden cladding	7,57	m3	500	3785	-	-	-			100,0%									100,0%	35	1,4	5407,142857
Shell	Facades	External wall systems, cladding	Facing boards - Cetris	5,69	m3	500	2845	-	-	-	70,0%	30,0%										100,0%	35	1,4	4064,285714
Shell	Facades	External wall systems, cladding	Diffusion film - polypropylen	2,65	m3	0,92	2,438	-	-	-				100,0%								100,0%	50	1,0	2,438
Shell	Facades	External wall systems, cladding	Wood fibre insulation	569	m3	50	28 439	-	-	-		100,0%										100,0%	30	1,7	47398,33333
Shell	Facades	External wall systems, cladding	Wooden grate	37,87	m3	500	18935	-	-	-		100,0%										100,0%	50	1,0	18935
Shell	Facades	External wall systems, cladding	OSB boards	19,88	m3	600	11928	-	-	-		100,0%										100,0%	50	1,0	11928

Shell	Facades	External wall systems, cladding	Fermacell boards	13,25	m3	1150	15237,5	-	-	-		10,0%					90,0%			100,0%	50	1,0	15237,5	
Shell	Facades	Façade openings (including)	Front wall - aluminium sheet	4,48	m3	2700	12096									100,0%				100,0%	50	1,0	12096	
Shell	Facades	Façade openings (including)	Doors	0,24	m3	2700	648									100,0%				100,0%	50	1,0	648	
Shell	Facades	Façade openings (including)	Gate	4,45	m3	2700	12015	-	-	-						100,0%				100,0%	50	1,0	12015	
Shell	Facades	Façade openings (including)	Skylight glazing	13,68	m3	2500	34200	-	-	-			100,0%							100,0%	25	2,0	68400	
Shell	Facades	Façade openings (including)	Aluminium profiles	1,23	m3	2700	3321	-	-	-						100,0%				100,0%	50	1,0	3321	
Shell	Facades	Façade openings (including)	Wooden window frame	1,61	m3	500	805	-	-	-			100,0%							100,0%	50	1,0	805	
Shell	Facades	Façade openings (including)	Window glazing	27,7	m3	2500	69250	-	-	-				100,0%						100,0%	25	2,0	138500	
Shell	Roof	Weatherproofing	Concrete tiles	27,7	m3	2300	63710	-	-	-		100,0%								100,0%	50	1,0	63710	
Shell	Roof	Weatherproofing	PE textile	1,91	m3	0,92	1,7572	-	-	-				100,0%						100,0%	50	1,0	1,7572	
Shell	Roof	Weatherproofing	Waterproofing - asphalt	7,64	m3	1300	9932	-	-	-					100,0%					100,0%	30	1,7	16553,33333	
Shell	Roof	Weatherproofing	EPS	1527,2	m3	20	30544	-	-	-						100,0%				100,0%	30	1,7	50906,66667	
Shell	Roof	Structure	OSB boards	77,79	m3	600	46674	-	-	-			100,0%							100,0%	50	1,0	46674	
Shell	Roof	Structure	Wood - KVH	20,2	m3	2500	50500	-	-	-			100,0%							100,0%	50	1,0	50500	
Shell	Roof	Structure	Reinforced concrete slabs	74,57	m3	2200	164054	-	-	-			90,0%					10,0%		100,0%	50	1,0	164054	
Core	Fittings_and_furnishings	Sanitary fittings	Toilet	-	-	-	120					100,0%								100,0%	50	1,0	120	
Core	Fittings_and_furnishings	Sanitary fittings	Urinal	-	-	-	30					100,0%								100,0%	50	1,0	30	
Core	Fittings_and_furnishings	Sanitary fittings	Wash basin	-	-	-	216					100,0%								100,0%	50	1,0	216	
Core	Fittings_and_furnishings	Sanitary fittings	Sink	-	-	-	40									100,0%				100,0%	50	1,0	40	
Core	Fittings_and_furnishings	Sanitary fittings	Bathtub	-	-	-	50					100,0%								100,0%	50	1,0	50	
Core	Fittings_and_furnishings	Sanitary fittings	Shower	-	-	-	50					100,0%								100,0%	50	1,0	50	
Core	Fittings_and_furnishings	Floor coverings and finishes	Concrete trowel	13,66	m3	2300	31418					100,0%								100,0%	50	1,0	31418	
Core	Fittings_and_furnishings	Floor coverings and finishes	PVC	9,81	m3	1380	13537,8									100,0%				100,0%	20	2,5	33844,5	
Core	Fittings_and_furnishings	Floor coverings and finishes	Cement	132,94	m3	1400	186116					100,0%								100,0%	50	1,0	186116	
Core	Fittings_and_furnishings	Floor coverings and finishes	PE foil	1,23	m3	0,92	1,1316									100,0%				100,0%	50	1,0	1,1316	
Core	Fittings_and_furnishings	Floor coverings and finishes	Fermacell boards	1,81	m3	1150	2081,5						10,0%					90,0%		100,0%	50	1,0	2081,5	
Core	Fittings_and_furnishings	Floor coverings and finishes	Wood fibre	36,24	m3	200	7248						100,0%							100,0%	50	1,0	7248	
Core	Fittings_and_furnishings	Floor coverings and finishes	OSB boards	22,65	m3	600	13590						100,0%							100,0%	50	1,0	13590	
Core	Fittings_and_furnishings	Floor coverings and finishes	Insulation - EPS	8,28	m3	60	496,8											100,0%		100,0%	50	1,0	496,8	
Core	Fittings_and_furnishings	Ceilings	Plasterboards	28,88	m3	640	18483,2	-	-	-									100,0%	100,0%	50	1,0	18483,2	
Core	Fittings_and_furnishings	Ceilings	Boards - Cetris	2,68	m3	1300	3484	-	-	-										0,0%	50	1,0	3484	
Core	Fittings_and_furnishings	Ceilings	Aluminium profiles	0,773	m3	2700	2087,1	-	-	-										100,0%	100,0%	50	1,0	2087,1
Core	Energy_system	Electricity generation and distribution	Photovoltaic polycrystalline panel	1541	m2	14,5	22344,5						20,0%							80,0%	100,0%	50	1,0	22344,5
Core	Sanitary_systems	Water treatment systems	Water tanks for grey sewage water	-	-	-	130													100,0%	100,0%	50	1,0	130
Core	Sanitary_systems	Water treatment systems	Piping network for grey sewage water	-	-	-	165													100,0%	100,0%	50	1,0	165

Level(s) indicator 2.4 design for deconstruction calculator

Tier 1 building element	Tier 2 building element	Tier 3 building element	(Tier 4) Further explanation of entry (optional)	Quantity (kg)	Value (EUR)	Circularity (best practical outcome)	Circularity coefficient	Circularity score (by mass)
Core	Foundations_substructure	Piles	Ready mix concrete	270480	-	Reuse (preparing for)	0,90	243432
Core	Foundations_substructure	Retaining walls	Ready mix concrete	265673	-	Reuse (preparing for)	0,90	239105,7
Core	Foundations_substructure	Basements	Baseplate -ready mix concrete	1509674	-	Reuse (preparing for)	0,90	1358706,6
Core	Foundations_substructure	Basements	Waterproofing - asphalt	9932	-	Reuse (direct)	1,00	9932
Core	Foundations_substructure	Basements	Insulation - XPS	8575	-	Recycling (pure stream)	0,75	6431,25
Core	Foundations_substructure	Basements	Gravel	1203680	-	Reuse (direct)	1,00	1203680
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - plasterboard	22566,4	-	Landfill (inert or non-haz)	0,01	225,664
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Mineral wool in partitions	34966,48	-	Recycling (pure stream)	0,75	26224,86
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Aluminium frame	3186	-	Recycling (pure stream)	0,75	2389,5
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Doors	825,6	-			
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - glass	3475	-	Recycling (pure stream)	0,75	2606,25
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Partitions - masonry	184052	-			
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Ready mix concrete in concrete walls	587466	-	Reuse (preparing for)	0,90	528719,4
Shell	Non_loadbearing_elements	Stairs and ramps	Stairs from reinforced concrete	30406	-	Reuse (preparing for)	0,90	27365,4
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (2. floor)	23287,5	-	Reuse (preparing for)	0,90	20958,75
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Columns from glued laminated timber (2. floor)	12312	-	Reuse (preparing for)	0,90	11080,8
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (hall)	37183,5	-	Reuse (preparing for)	0,90	33465,15
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Columns from glued laminated timber (hall)	12613,5	-	Reuse (preparing for)	0,90	11352,15
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from glued laminated timber (1. floor)	51417	-	Reuse (preparing for)	0,90	46275,3
Shell	Loadbearing_structural_frame	Upper floors	Columns from glued laminated timber (1. floor)	2610	-	Reuse (preparing for)	0,90	2349
Shell	Loadbearing_structural_frame	Upper floors	Reinforced concrete slabs	166520	-	Recycling (pure stream)	0,75	124890
Shell	Loadbearing_structural_frame	Upper floors	Wood - KVH	3907,2	-	Reuse (preparing for)	0,90	3516,48
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Beams from reinforced concrete	47449	-	Recycling (pure stream)	0,75	35586,75
Shell	Loadbearing_structural_frame	External walls	Walls from reinforced concrete	614123	-	Recycling (pure stream)	0,75	460592,25
Shell	Facades	External wall systems, cladding and shading devices	Glass facade	31875	-	Recycling (pure stream)	0,75	23906,25
Shell	Facades	External wall systems, cladding and shading devices	Aluminium profiles	3105	-	Recycling (pure stream)	0,75	2328,75
Shell	Facades	External wall systems, cladding and shading devices	Wooden cladding	3785	-	Reuse (preparing for)	0,90	3406,5
Shell	Facades	External wall systems, cladding and shading devices	Facing boards	2845	-	Reuse (preparing for)	0,90	2560,5
Shell	Facades	External wall systems, cladding and shading devices	Diffusion film - polypropylen	2,438	-	Recycling (pure stream)	0,75	1,8285
Shell	Facades	External wall systems, cladding and shading devices	Mineral wool	27834	-	Recycling (mixed stream)	0,50	13917
Shell	Facades	External wall systems, cladding and shading devices	Wooden grate	18935	-	Reuse (preparing for)	0,90	17041,5

Shell	Facades	External wall systems, cladding and shading devices	OSB boards	11928	-	Recycling (mixed stream)	0,50	5964
Shell	Facades	External wall systems, cladding and shading devices	Fermacell boards	15237,5	-	Recycling (mixed stream)	0,50	7618,75
Shell	Facades	Façade openings (including windows and external doors)	Front wall - aluminium sheet	12096	-	Recycling (pure stream)	0,75	9072
Shell	Facades	Façade openings (including windows and external doors)	Doors	648	-	Reuse (direct)	1,00	648
Shell	Facades	Façade openings (including windows and external doors)	Gate	12015	-	Reuse (direct)	1,00	12015
Shell	Facades	Façade openings (including windows and external doors)	Skylight glazing	34200	-	Recycling (pure stream)	0,75	25650
Shell	Facades	Façade openings (including windows and external doors)	Aluminium profiles	3321	-	Recycling (pure stream)	0,75	2490,75
Shell	Facades	Façade openings (including windows and external doors)	Wooden window frame	805	-	Reuse (preparing for)	0,90	724,5
Shell	Facades	Façade openings (including windows and external doors)	Window glazing	69250	-	Recycling (pure stream)	0,75	51937,5
Shell	Roof	Weatherproofing	Concrete tiles	63710	-	Reuse (direct)	1,00	63710
Shell	Roof	Weatherproofing	PE textile	1,7572	-	Recycling (pure stream)	0,75	1,3179
Shell	Roof	Weatherproofing	Waterproofing - asphalt	9932	-	Reuse (direct)	1,00	9932
Shell	Roof	Weatherproofing	EPS	305,44	-	Recycling (pure stream)	0,75	229,08
Shell	Roof	Structure	OSB boards	46674	-	Recycling (mixed stream)	0,50	23337
Shell	Roof	Structure	Wood - KVH	50500	-	Reuse (preparing for)	0,90	45450
Shell	Roof	Structure	Concrete slabs	143207,2	-	Reuse (preparing for)	0,90	128886,48
Core	Fittings_and_furnishings	Sanitary fittings	Toilet	120	-	Reuse (direct)	1,00	120
Core	Fittings_and_furnishings	Sanitary fittings	Urinal	30	-	Reuse (direct)	1,00	30
Core	Fittings_and_furnishings	Sanitary fittings	Wash basin	216	-	Reuse (direct)	1,00	216
Core	Fittings_and_furnishings	Sanitary fittings	Sink	40	-	Reuse (direct)	1,00	40
Core	Fittings_and_furnishings	Sanitary fittings	Bathtub	50	-	Reuse (direct)	1,00	50
Core	Fittings_and_furnishings	Sanitary fittings	Shower	50	-	Reuse (direct)	1,00	50
Core	Fittings_and_furnishings	Floor coverings and finishes	Concrete trowel	31418	-	Reuse (preparing for)	0,90	28276,2
Core	Fittings_and_furnishings	Floor coverings and finishes	PVC	13537,8	-	Recycling (mixed stream)	0,50	6768,9
Core	Fittings_and_furnishings	Floor coverings and finishes	Cement	326116	-	Reuse (preparing for)	0,90	293504,4
Core	Fittings_and_furnishings	Floor coverings and finishes	PE foil	1,1316	-	Recycling (mixed stream)	0,50	0,5658
Core	Fittings_and_furnishings	Floor coverings and finishes	Fermacell boards	2081,5	-	Recycling (mixed stream)	0,50	1040,75
Core	Fittings_and_furnishings	Floor coverings and finishes	Wood fibre	7248	-	Landfill (inert or non-haz)	0,01	72,48
Core	Fittings_and_furnishings	Floor coverings and finishes	OSB boards	13590	-	Recycling (mixed stream)	0,50	6795
Core	Fittings_and_furnishings	Floor coverings and finishes	Insulation - EPS	1225,44	-	Recycling (pure stream)	0,75	919,08
Core	Fittings_and_furnishings	Ceilings	Plasterboards	18483,2	-	Recycling (mixed stream)	0,50	9241,6
Core	Fittings_and_furnishings	Ceilings	Boards - Cetriz	3484	-	Recycling (mixed stream)	0,50	1742
Core	Fittings_and_furnishings	Ceilings	Aluminium profiles	2087	-	Recycling (pure stream)	0,75	1565,25
Core	Fittings_and_furnishings	Floor coverings and finishes	Wood fibre	7248	-	Landfill (inert or non-haz)	0,01	72,48
Core	Fittings_and_furnishings	Floor coverings and finishes	OSB boards	13590	-	Recycling (mixed stream)	0,50	6795
Core	Fittings_and_furnishings	Floor coverings and finishes	Insulation - EPS	1225,44	-	Recycling (pure stream)	0,75	919,08
Core	Fittings_and_furnishings	Ceilings	Plasterboards	18483,2	-	Recycling (mixed stream)	0,50	9241,6
Core	Fittings_and_furnishings	Ceilings	Boards - Cetriz	3484	-	Recycling (mixed stream)	0,50	1742
Core	Fittings_and_furnishings	Ceilings	Aluminium profiles	2087,1	-	Recycling (mixed stream)	0,50	1043,55
Core	Foundations_substructure	Piles	Steel rebar	27475	-	Recycling (pure stream)	0,75	20606,25
Core	Foundations_substructure	Retaining walls	Steel rebar	29594,5	-	Recycling (pure stream)	0,75	22195,875
Core	Foundations_substructure	Basements	Steel rebar in baseplate	154645	-	Recycling (pure stream)	0,75	115983,75
Shell	Non_loadbearing_elements	Internal walls, partitions and doors	Steel rebar in wall from concrete	60445	-	Recycling (pure stream)	0,75	45333,75
Shell	Non_loadbearing_elements	Stairs and ramps	Steel rebar in stairs	3061,5	-	Recycling (pure stream)	0,75	2296,125
Shell	Loadbearing_structural_frame	Upper floors	Steel rebar	17034,5	-	Recycling (pure stream)	0,75	12775,875
Shell	Loadbearing_structural_frame	External walls	Steel rebar	65469	-	Recycling (pure stream)	0,75	49101,75
Shell	Loadbearing_structural_frame	Frame (beams, columns and slabs)	Steel rebar	4867	-	Recycling (pure stream)	0,75	3650,25
Shell	Roof	(Roof) Structure	Steel rebar	17034,5	-	Recycling (pure stream)	0,75	12775,875