StructBOQ — Structural Estimation Report

CPS-026/270

DISCLAIMER: Quantities extracted from IFC file. Reinforcement steel weight calculated from modeled IfcReinforcingBar geometry (CrossSectionArea x BarLength x 7850 kg/m3) — exact rebar schedule used. Verify all quantities against approved design drawings before use in contracts or procurement.

Project:	**CPS-026/270**	Client:	**—**
Prepared by:	**—**	Revision:	**R0**
Generated:	**29 May 2026 23:34**	Currency:	**EUR (€)**
Concrete rate:	**€120.0/m3**	Steel rate:	**€1.2/kg**
Wall Filter:	**Load-bearing only (partitions excluded)**		

PROJECT SUMMARY

225	122.267 m3	2,410 kg	€29,263.77
Total Elements	Concrete Volume	Total Steel	Total Cost

FILE DATA CONFIDENCE

Data Source	Elements	Share	Reliability
BaseQuantities (IFC certified)	206	100%	PRIMARY
Pset Properties (authored)	1	0%	SECONDARY
Partial Pset + Defaults	0	0%	—
Geometry Extraction (3D solid)	0	0%	—
Hardcoded Defaults	0	0%	—
Overall Data Reliability			**HIGH**

ELEMENT DATA CONFIDENCE

Element Type	Total	BaseQty	Pset	Geo	IFC%	Flagged
Columns	91	91	0	0	100%	0
Beams	52	51	1	0	98%	1
Slabs	5	5	0	0	100%	3
Footings	59	59	0	0	100%	41
Walls	18	0	0	0	—	0
TOTAL	**225**	**206**	**1**	**0**	**100%**	**45**

COST BREAKDOWN

Cost Component	Amount (€)	% of Total
Material — Concrete	€14,843.86	50.7%
Material — Steel	€2,891.76	9.9%
Waste / Contingency	€1,773.56	6.1%
Labor	€9,754.59	33.3%
TOTAL	**€29,263.77**	**100%**

STRUCTURAL QUANTITY SUMMARY

Type	Subtype	Count	Volume (m3)	Rate	Cost (€)	Pricing	Src
Columns	300x200 C25	64	8.35	€120/m3	€1,654	USE	BQ
	400x200 C25	27	5.18	€120/m3	€1,027	USE	BQ
Beams	150x1000 C25	4	4.58	€120/m3	€907	USE	BQ
	500x200 C25	47	23.92	€120/m3	€4,736	USE	BQ
	500x200 C25 †	1	0.60	€120/m3	€119	ESTIMATE	P
Slabs	Ground Floor Slab *	1	13.38	€120/m3	€2,650	USE	BQ
	RC Floor Slab	1	18.68	€125/m3	€3,847	USE	BQ
	Stair Landing	1	0.37	€120/m3	€72	USE	BQ
	Waterproofed Slab	2	17.12	€125/m3	€3,525	USE	BQ
Footings	1000x1000	32	9.60	€120/m3	€1,901	USE	BQ
	1200x1200	9	3.89	€120/m3	€770	USE	BQ
	600x200 C25	18	16.59	€120/m3	€3,285	USE	BQ
Walls (NC)	**Non-structural (18 elements)**	**18**	**EXCLUDED**	**—**	**0**	**—**	**NC**

* Structural concrete layer only — multi-layer floor construction detected. Sand/earth layers excluded from quantity.
† Quantity estimated — not from BaseQuantities. Verify against drawings.

Src codes: BQ = BaseQuantities (IFC certified) | P = Pset properties | PD = Partial Pset + defaults | G = Geometry extraction | D = Defaults only | NC = Non-concrete

REINFORCEMENT STEEL SCHEDULE

Source: 1,252 individual IfcReinforcingBar elements modeled in IFC file.
Extraction method: CrossSectionArea x BarLength x 7850 kg/m3 — exact bar schedule, no estimation used.

Bar Type	Dia (mm)	Count	Total Length (m)	Unit Weight (kg/m)	Weight (kg)	Cost (€)
T8	8	457	883.1	0.395	348.5	€418
T10	10	657	2,550.6	0.617	1,572.5	€1,887
T12	12	114	272.9	0.888	242.3	€291
T16	16	24	156.2	1.578	246.5	€296
TOTAL	**—**	**—**	**3,862.8**	**—**	**2,409.8**	**€2,892**

MODEL DATA QUALITY FINDINGS

45 elements flagged for review | 1 High severity | 0 Medium | 44 Low | Overall model quality: **MINOR ISSUES NOTED**

High Severity — 1 Elements (Quantity Accuracy Affected)

Finding 1

Elements: Concrete-Rectangular Beam:500x200 GBM:1818908

Issue: BaseQuantities present but NetVolume = 0.0 in IFC export. Volume derived from Pset length and element name dimensions. Verify volume against structural drawings.

Data confidence: 40%

Low Severity — 44 Elements (Minor Concern)

Finding 2 (41 elements)

Elements: Footing-Rectangular:1200x1200x300mm B1:181539; Footing-Rectangular:1200x1200x300mm B1:181539; and 39 further elements of the same type

Issue: Exported as Slab but detected as Footing via PredefinedType=BASESLAB. Auto-reclassified. Verify type against structural drawings.

Data confidence: 75%

Finding 3 (2 elements)

Elements: Floor:150mm THK. Solid Waterproofed Slab:1816972; Cast-In-Place Stair:Stair:1855568 Landing 1

Issue: Volume read from IFC BaseQuantities. Missing dimensions estimated using L=6.00m, W=6.00m (industry defaults). Verify element dimensions against drawings.

Data confidence: 85%

Finding 4

Elements: Floor:150mm THK. Solid Waterproofed Slab:1817031

Issue: Volume read from IFC BaseQuantities. Missing dimensions estimated using L=6.00m (industry defaults). Verify element dimensions against drawings.

Data confidence: 85%

High severity items affect quantity accuracy and should be resolved before use in cost estimation. Low severity items are informational — verify against drawings during detailed design stage.