

Premeasurement for quantity surveying of steel and concrete

Stability and watertightness proof

	Area [m ²]	Wall thickness [m]	Volume concrete [m ³]	kg steel / m ² [kg/m ²]	kg steel [kg]
Cover	876,3	0,20	175,3	12,0	10.516
Wall outside	622,0	0,30	186,6	15,0	9.330
Wall inside	486,5	0,25	121,6	12,5	6.081
Buttom	876,3	0,30	262,9	25,0	21.908
Buttom diagonal	182,7	-	38,4	2,0	365
Total			784,8		48.200

Volume

	Necessary	Selected
Buffer	875,0 m ³	875,0 m ³
SBR	2.547,3 m ³	2.547,3 m ³
Sludge storage	651,4 m ³	651,4 m ³
Total	4.073,6 m³	4.073,6 m³

Cover

Concrete quality: C 25/30
 Steel: BST 500 as mat and bar steel in 8mm - 16mm
 Cover: Reinforced concrete class A, walk-in
 Reinforced concrete class D, passable
 Grid / open

Wall outside, wall inside, floor

Concrete quality: C 30/37 WU, watertightness
 Steel: BST 500 as mat and bar steel in 8mm - 16mm
 Groundwater: Without Buoyancy protection
 With Buoyancy protection

Buttom diagonal

Concrete quality: C 15/20
 Steel: BST 500 as mat steel in 8mm

Data

Type CW 10000-S
 Design capacity 10.000 PE
 Daily water flow per PE 150 l/(PE*d)
 Daily inflow capacity 1.500 m³/d

The above mentioned calculation is an estimating calculation. The following planning will be done after order:

Planning documents

The planning documents contain the complete technical outfitting of the clarifier, pipe cross-sections incl. all necessary pipe routings, location and dimensions of the pump. Equipment descriptions and installation parts can be obtained from the planning documents.

Structural analysis

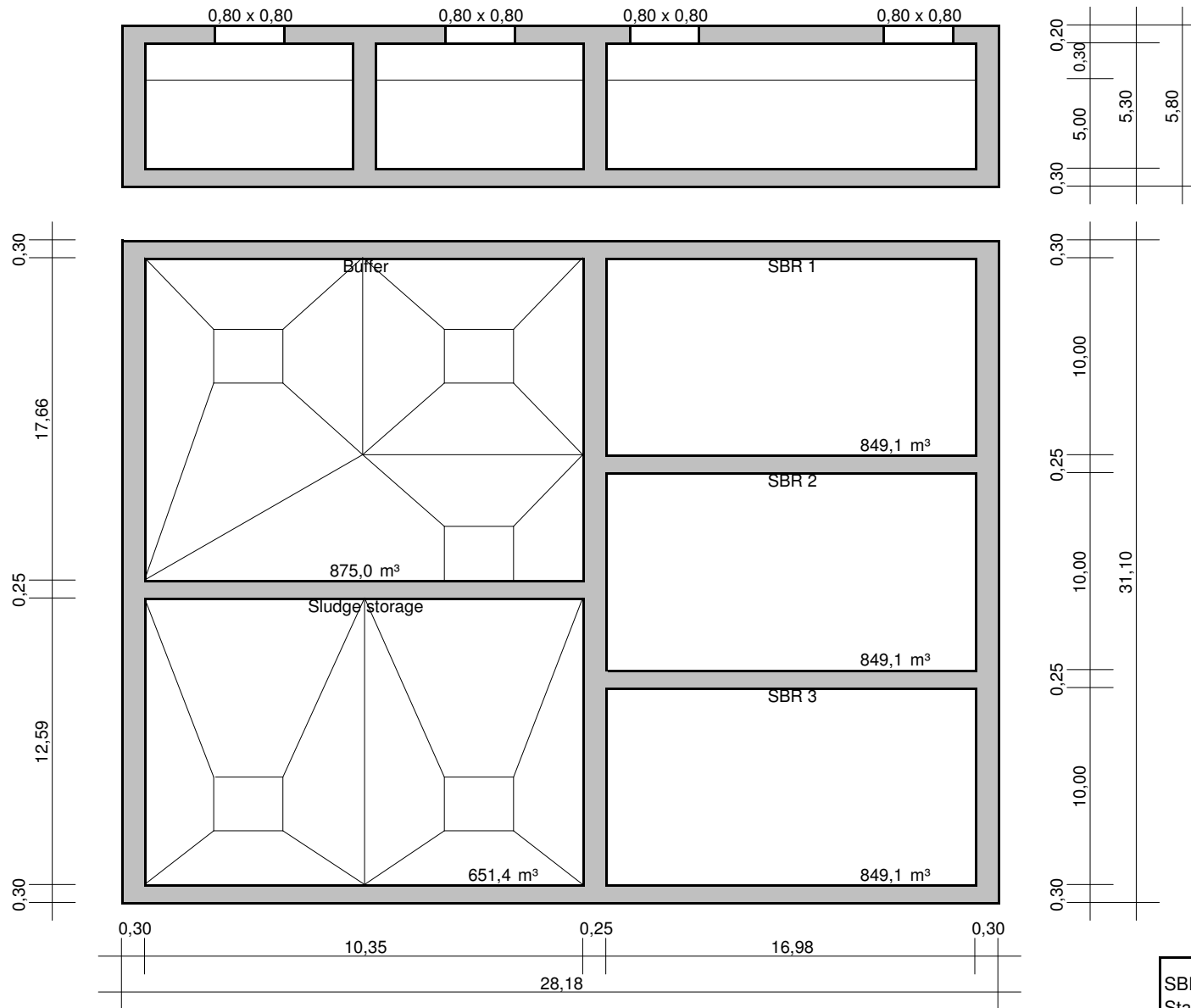
Stress calculation including determination and optimisation of all necessary concrete cross-sections. Also including specifications of foundations and ground conditions.

Skin and reinforcement plans

The formwork plans provide the basis for all calibration, forming and thus erection on site and in the precast concrete plant. Necessary breakthroughs are specified, dimensioned and diagrammed. Specifications of joint forms are included. The reinforcement plans include all necessary steel quantities and bending forms. Steel lists are prepared which are subdivided into round and weld-mesh steel.

SBR sewage treatment plant Clear Water CW 10000-S
 Stability and watertightness proof
 Project:
 No.: I00343

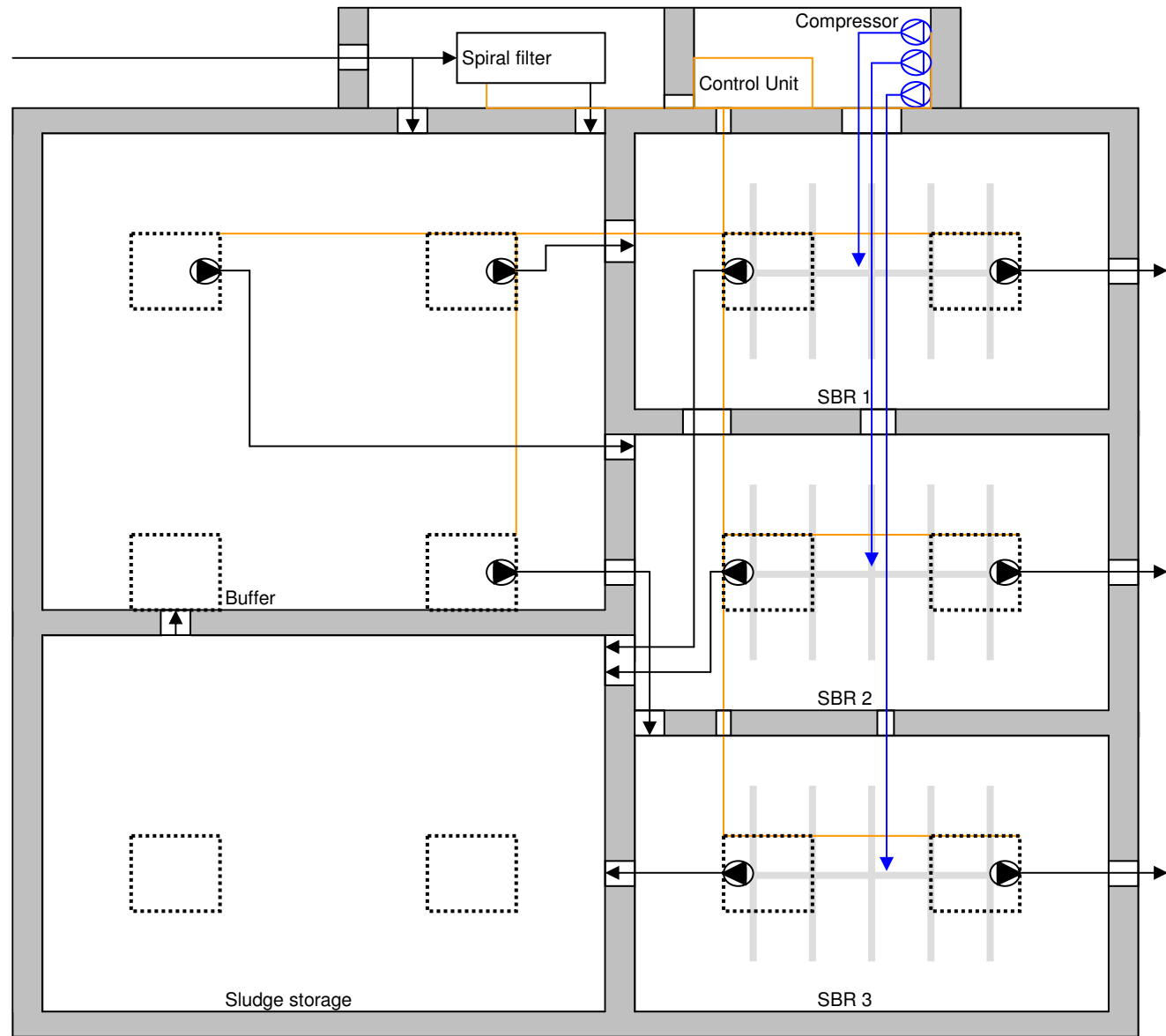
Tank size



Cover	876.3 m²
Wall outside	622.0 m²
Wall inside	486.5 m²
Bottom	876.3 m²
Bottom diagonal	182.7 m²

SBR sewage treatment plant Clear Water CW 10000-S
 Stability and watertightness proof
 Project:
 No.: I00343

Layout



SBR sewage treatment plant Clear Water CW 10000-S
Stability and watertightness proof
Project:
No.: I00343