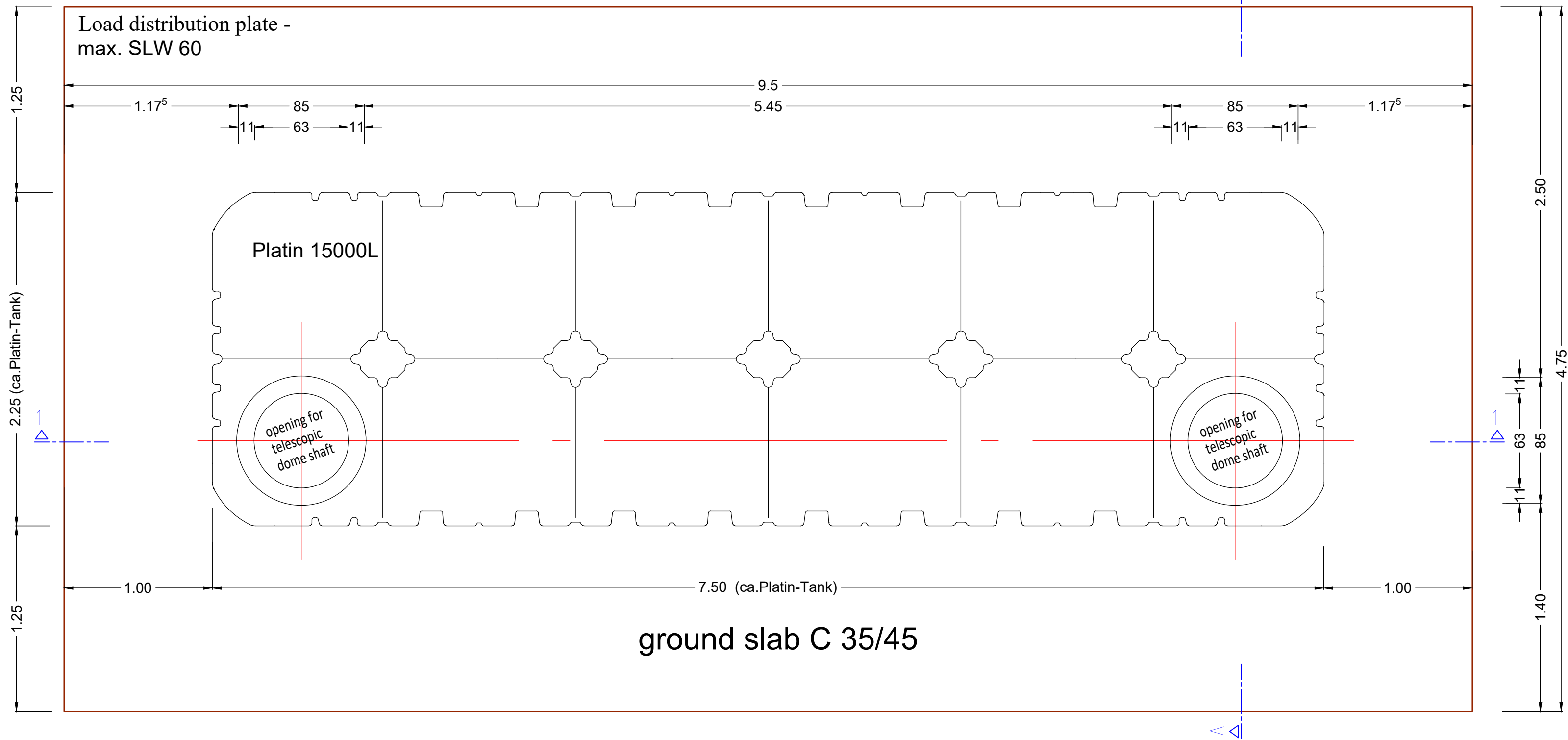


layout ground slab thickness = 30 cm



Rebar - BOM BS1 - B 500 A				
pos.	piece	Ø	length m	weight kg
1	28	14	2,05	57,40
2	14	14	2,63	36,82
3	14	14	2,2	30,80
4	28	14	2	56,00
5	4	14	1,45	5,80
6	4	14	2,5	10,00
7	14	14	2,35	32,90
8	14	14	3,28	45,92
9	76	14	4,6	349,60
10	88	14	1,53	134,64
11	80	14	5,43	434,40
12	14	14	5,35	74,90
13	4	14	1,25	5,00
14	2	14	5,85	11,70
15	37	14	9,35	345,95
16	47	14	1,5	70,50
17	39	14	10,15	395,85
18	4	14	9,97	39,88
19	4	14	5,22	20,88
20	16	14	1,9	30,40
21	24	16	1,9	45,60
Total amount (rebar - B500 A)				
	14	1,21 kg/m	2189,34	2649,10
	16	1,58 kg/m	45,60	72,05
Total				2721,15

Supporting cages				
position	piece	TYP	length m	weight kg
1	30	DBV-BS13	2,00	18,87

Spacer type DBV-BS



30 pieces h=13cm in the area of the entire floor slab.
Total area approx. 45 m².

Floor slab, can be driven on by SLW 60 or LM1 according to DIN technical report 101

Concrete with a tensile strength of $f_{ct,eff}$ of no more than 70% of the average tensile resistance f_{ctm} after 5 days (max $f_{ct,eff,5d} = 0.7 f_{ctm,28d}$) was assumed when limiting the crack width.
Crack width limitation of the floor slab $w_{cal} \leq 0.30$ mm.

Observe the information from the construction management when selecting the concrete quality and concrete composition! Additional surface protection or use of concrete additives may be necessary, depending on requirements.

The floor slab must be placed on a uniform, load-bearing subsoil. Soil layers that are not load-bearing must be replaced with lean concrete or similar. 5 cm of lean concrete must be placed under the floor slab as granular subbase, with 2 layers of PE films between the floor slab and lean concrete.

A load-bearing section installed in layers and sufficiently compacted with a capillary-breaking and draining function is required to make the foundation frost-proof. The depth of the frost-resistant foundation must be specified to match the situation on site.

The plan is based on the following assumed soil indices:
- Floor category 1, density 20 kN/m³, friction angle 35°
- Constrained modulus: $E_s = 25000$ kN/m²
The reliability of the above values must be reviewed by the responsible construction manager after production of the backfilling and before application of the lean concrete. It must be documented in a written record!
If the responsible construction manager is lacking the expertise required for this, he must have a corresponding specialist engineer involved.

All sizes must be reviewed at the construction site!

The plan only applies in connection with the plans of the competent specialist engineers! Deviations must be reported to the construction management at once; the executing person shall be liable for non-observation.

For bending shapes, see round-steel extensions
For bending shapes see mat extensions

round steel B500: --	Reinforcing steel DIN 488	Check the number and sizes of the rods before cutting to size! Secure the position of the reinforcement with spacers!
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Minimum values of the bending roll diameters at one-time bending in accordance with DIN EN 1992-1-1/NA			
Hooks / angle hooks Loops (D min)	Diagonal rods or other bent rods (D min)	Rod diameter Ø	Minimum values of the concrete coverage, orthogonal to the bending level
Regular concrete	4 Ø	7 Ø	10 Ø
		15 Ø	20 Ø

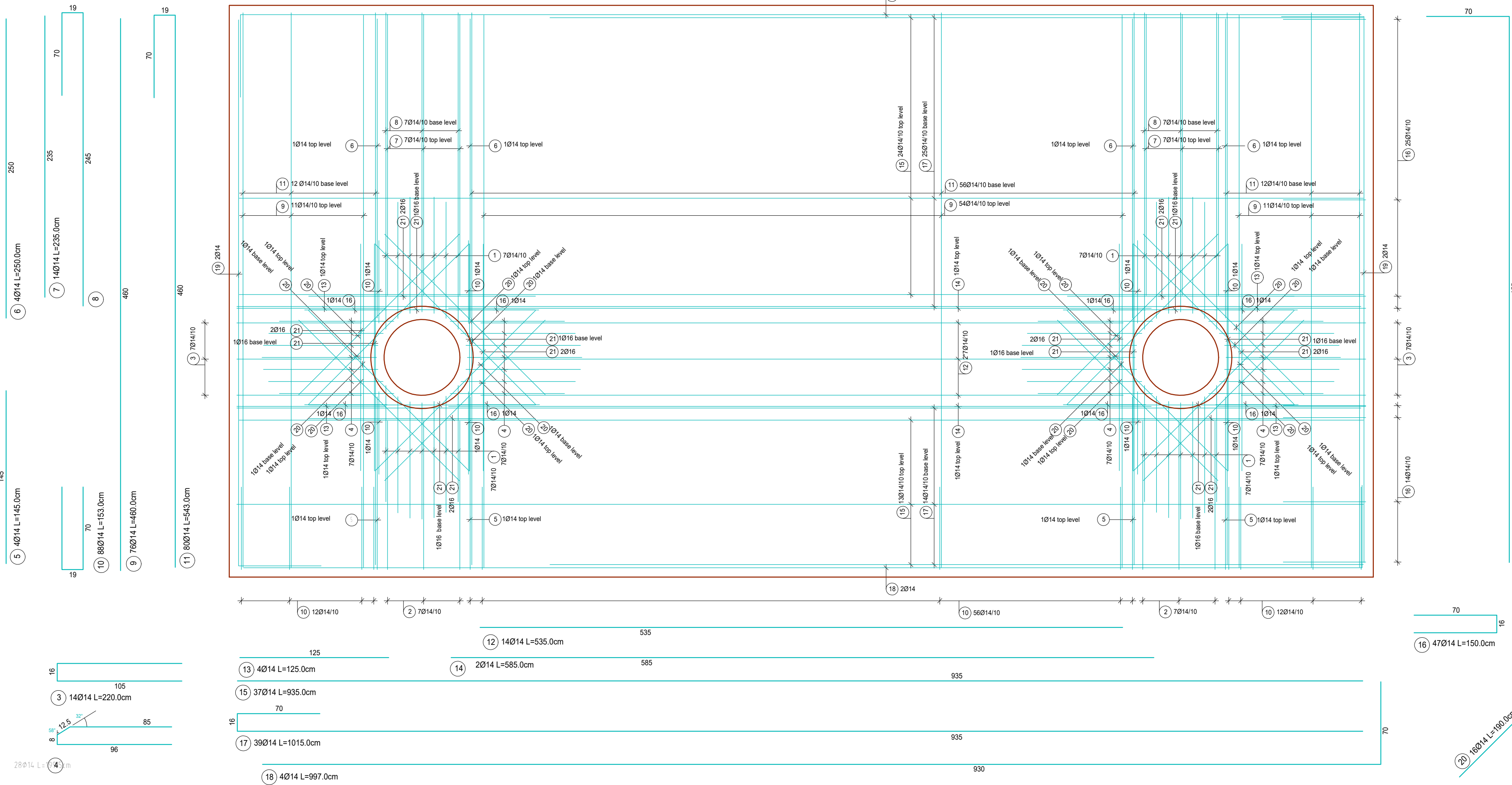
Spacers				
Components	Designation	Type	Distance in longitudinal direction	Distance in transverse direction
Floor slab	Lateral	DBV- 55 - L1/F	B2	Ø 700mm/mind. 2 Stick
	Bottom	DBV- 50 - L2/F	C1	Ø 700mm

Concrete quality in accordance with DIN EN 1992-1-1/NA				
Components	Concrete quality	Exposure classes	Concrete coverage	
			Allowance RC (mm)	Installation size Cy (mm)
Lean concrete	C12/15	X0, WF	Unreinforced	
Floor slab	Top	C35/45	15	60
	Lateral	C35/45	15	55
	Bottom	C35/45	15	50

revision			
revision			
Concrete reinforcement layout			
Load distribution plate für Platin - Tank 15000 L - SLW 60			
gezeichnet drawn	ISC	Gewicht weight	Otto Graf GmbH
Datum date	2020.02.06	Toleranz tolerance	Carl-Zeiss-Str. 2-6
Maßstab scale	M 1:25	Einheiten units	DE-79331 Tengen
			mail@graf.info
			www.graf.info

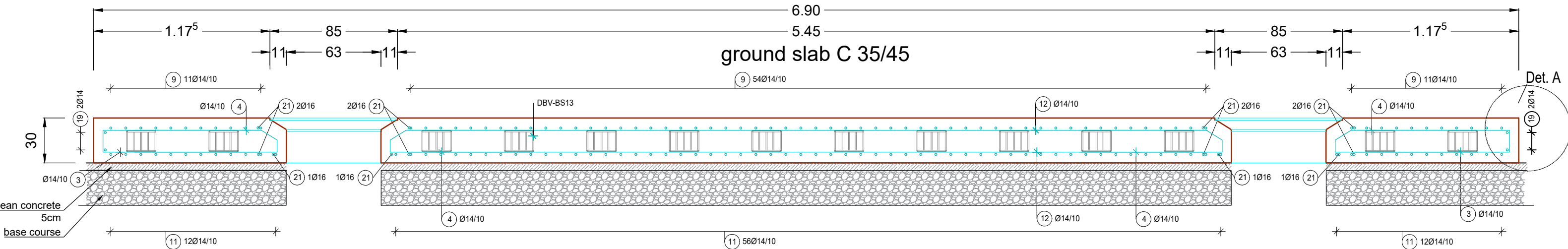


upper and lower reinforcement layout

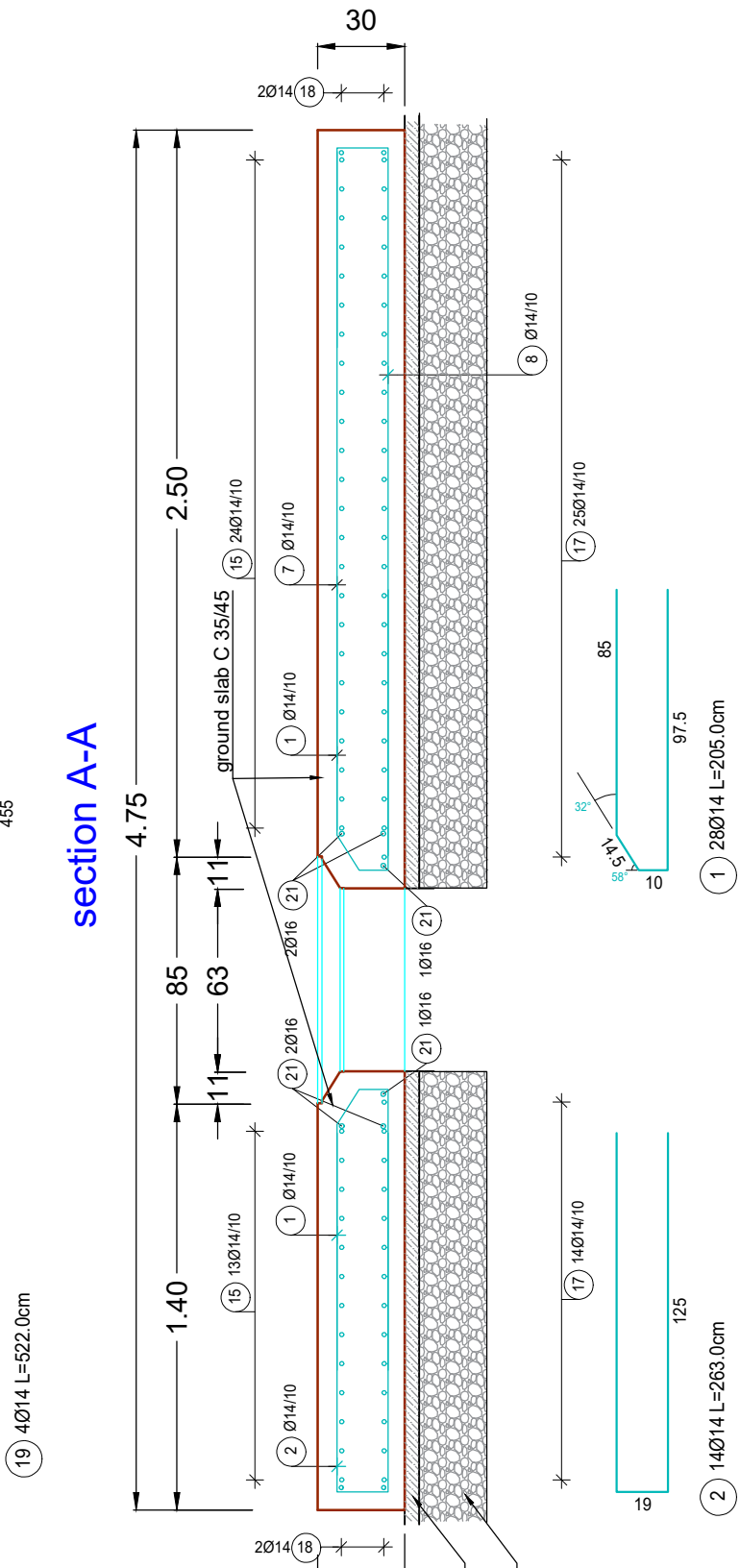


section 1-1

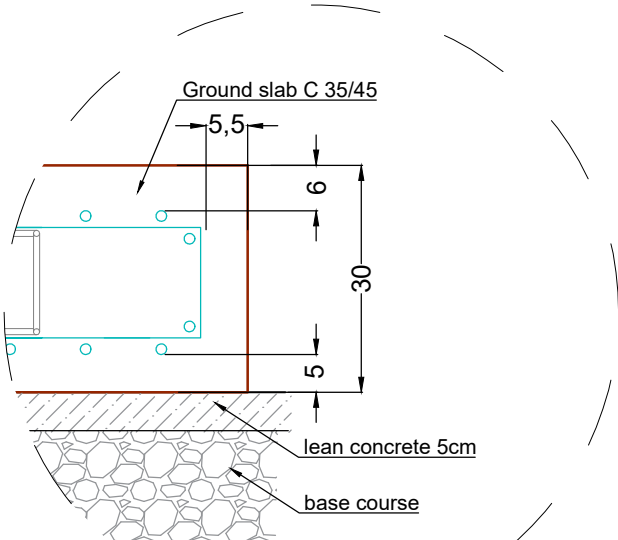
ground slab C 35/45



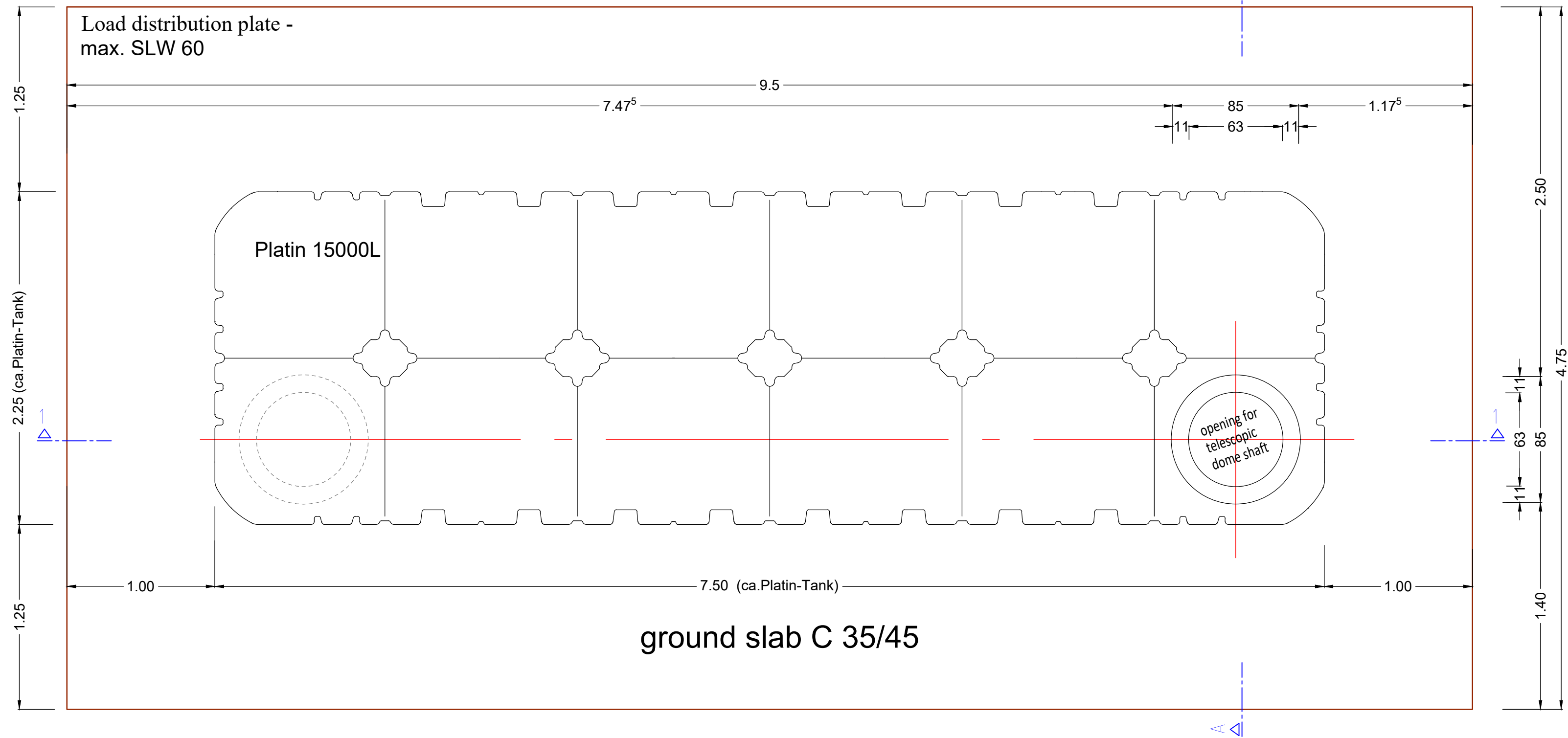
section A-A



detail A M 1:10



layout ground slab thickness = 30 cm



Rebar - BOM BS1 - B 500 A					
pos.	piece	Ø	length m	TL m	weight kg
1	14	14	2,05	28,70	34,73
2	7	14	2,63	18,41	22,28
3	14	14	2,20	30,80	37,27
4	14	14	2,00	28,00	33,88
5	2	14	1,45	2,90	3,51
6	2	14	2,50	5,00	6,05
7	7	14	2,35	16,45	19,90
8	7	14	3,28	22,96	27,78
9	83	14	4,60	381,80	461,98
10	91	14	1,53	139,23	168,47
11	87	14	5,43	472,41	571,62
12	14	14	7,30	102,20	123,66
13	2	14	1,25	2,50	3,03
14	2	14	7,60	15,20	18,39
15	37	14	9,35	345,95	418,60
16	43	14	1,50	64,50	78,05
17	39	14	10,15	395,85	478,98
18	4	14	9,97	39,88	48,25
19	4	14	5,22	20,88	25,26
20	8	14	1,90	15,20	18,39
21	12	16	1,90	22,80	72,05
Total amount (rebar - B500 A)					
	14	1,21 kg/m	2148,82	2600,07	
	16	1,58 kg/m	22,80	36,02	
Total				2636,10	

Supporting cages				
position	piece	TYP	length m	weight kg
1	30	DBV-BS13	2,00	18,87

Spacer type DBV-BS



30 pieces h=13cm in the area of the entire floor slab.
Total area approx. 45 m².

Floor slab, can be driven on by SLW 60 or LM1 according to DIN technical report 101

Concrete with a tensile strength of $f_{ct,eff}$ of no more than 70% of the average tensile resistance f_{ctm} after 5 days (max $f_{ct,eff,5d} = 0.7 f_{ctm,28d}$) was assumed when limiting the crack width.
Crack width limitation of the floor slab $w_{calc} \leq 0.30$ mm.

Observe the information from the construction management when selecting the concrete quality and concrete composition! Additional surface protection or use of concrete additives may be necessary, depending on requirements.

The floor slab must be placed on a uniform, load-bearing subsoil. Soil layers that are not load-bearing must be replaced with lean concrete or similar. 5 cm of lean concrete must be placed under the floor slab as granular subbase, with 2 layers of PE films between the floor slab and lean concrete.

A load-bearing section installed in layers and sufficiently compacted with a capillary-breaking and draining function is required to make the foundation frost-proof. The depth of the frost-resistant foundation must be specified to match the situation on site.

The plan is based on the following assumed soil indices:

- Floor category 1, density 20 kN/m³, friction angle 35°
- Constrained modulus: $E_s = 25000$ kN/m²

The reliability of the above values must be reviewed by the responsible construction manager after production of the backfilling and before application of the lean concrete. It must be documented in a written record!

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For bending shapes, see round-steel extensions
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round steel B500: --	Reinforcing steel DIN 488	Check the number and sizes of the rods before cutting to size! Secure the position of the reinforcement with spacers!
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Minimum values of the bending roll diameters at one-time bending in accordance with DIN EN 1992-1-1/NA				
Hooks / angle hooks Loops (D min)	Diagonal rods or other bent rods (D min)	Rod diameter Ø	Minimum values of the concrete coverage, orthogonal to the bending level	
			>100mm	>50mm
4 Ø	7 Ø	10 Ø	15 Ø	20 Ø
Regular concrete				

Spacers				
Components	Designation	Typ e	Distance in longitudinal direction	Distance in transverse direction
Floor slab	Lateral	DBV- 55 -L1/F	B2	Ø 700mm/mind. 2 Stick
	Bottom	DBV- 50 -L2/F	C1	Ø 700mm

Concrete quality in accordance with DIN EN 1992-1-1/NA					
Components	Concrete quality	Exposure classes	Concrete coverage		Special features
			Allowance RC (%)	Installation size Cx (mm)	
Lean concrete	C12/15	X0, WF	Unreinforced		--
Floor slab	Top	C35/45	15	60	--
	Lateral	C35/45	15	55	--
	Bottom	C35/45	15	50	--

revision			
revision			
Concrete reinforcement layout			
Load distribution plate für Platin - Tank 15000 L - SLW 60			
gezeichnet drawn	ISC	Gewicht weight	Otto Graf GmbH
Datum date	2020.07.22	Toleranz tolerance	Carl-Zeiss-Str. 2-6 DE-79331 Tengen
Maßstab scale	M 1:25	Einheiten units	mailto:graf@otto-graf.de www.graf.info
1			



upper and lower reinforcement layout

