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LIST OF LOWER REINFORCEMENT:

- ① Ø10, L=6760mm
- ② Ø8, L=5010mm
- ③ Ø10, L=6500mm
- ④ Ø8, L=3530mm
- ⑤ Ø8, L=6720mm
- ⑥ Ø8, L=6460mm
- ⑦ Ø10, L=4130mm
- ⑧ Ø8, L=15280mm
- ⑨ Ø8 & 150mm, L=3410mm
- ⑩ Ø8 & 150mm, L=4660mm
- ⑪ Ø8 & 150mm, L=3160mm
- ⑫ Ø8 & 150mm, L=4830mm
- ⑬ Ø8, L=4590mm
- ⑭ Ø8, L=1390mm
- ⑮ Ø10, L=2450mm
- ⑯ Ø10, L=2215mm
- ⑰ Ø10, L=2950mm
- ⑱ Ø10, L=2700mm

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TABLE OF LOWER REINFORCEMENT:

Specification	Pieces	Length/1 bar [m]	Total length [m]	Total mass [kg]
① Ø10	98	6,76	662,48	410,7376
② Ø8	127	5,01	636,27	254,508
③ Ø10	130	6,5	845	523,9
④ Ø8	144	3,53	508,32	203,328
⑤ Ø8	16	6,72	107,52	43,008
⑥ Ø8	15	6,46	96,9	38,76
⑦ Ø10	14	4,13	57,82	35,8484
⑧ Ø8	47	15,28	718,16	287,264
⑨ Ø8	104	3,41	354,64	141,856
⑩ Ø8	173	4,66	806,18	322,472
⑪ Ø8	53	3,16	167,48	66,992
⑫ Ø8	104	4,83	502,32	200,928
⑬ Ø8	34	4,59	156,06	62,424
⑭ Ø8	16	1,39	22,24	8,896
⑮ Ø10	2	2,45	4,9	3,038
⑯ Ø10	2	2,215	4,43	2,7466
⑰ Ø10	2	2,95	5,9	3,658
⑱ Ø10	2	2,7	5,4	3,348

2 613,713 kg

ANCHORAGE LENGTH:

$$l_{b,rd} = \frac{\sigma}{4} \frac{f_{yd}}{f_{bd}}$$

$$f_{bd} = 2,25 \cdot f_{ctd}$$

$$f_{ctd} = \frac{f_{ctk,0.05}}{1,5} = \frac{2,0}{1,5} = 1,333 \text{ MPa}$$

$$f_{bd} = 2,25 \cdot 1,333 = 2,9925 \text{ MPa}$$

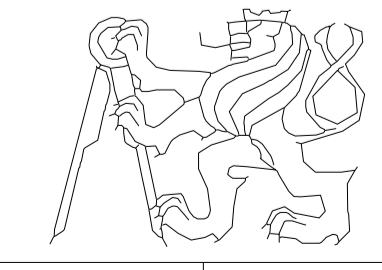
$$l_{b,rd} = \frac{\sigma}{4} \frac{435}{2,9925} = \sigma \cdot 36,34$$

- $l_{b,rd} (\text{Ø}8) = 290 \text{ mm}$
- $l_{b,rd} (\text{Ø}10) = 360 \text{ mm}$
- $l_{b,rd} (\text{Ø}14) = 500 \text{ mm}$
- $l_{b,rd} (\text{Ø}16) = 580 \text{ mm}$

MATERIALS:

CONCRETE C30/37
STEEL B500B

COVER DEPTH MIN. 20 MM

PROGRAMME	DEPARTMENT	NAME	
D-39	K 133	Sabina Adámková	
YEAR	CHECKED BY		
2017/2018	Ing. Ivá Braukolová, Ph.D.		
DRAWING:			
RC SLAB REINFORCEMENT Lower reinforcement			
FORMATE	A1		
SCALE	1:50		
DATE	10.1.2018		