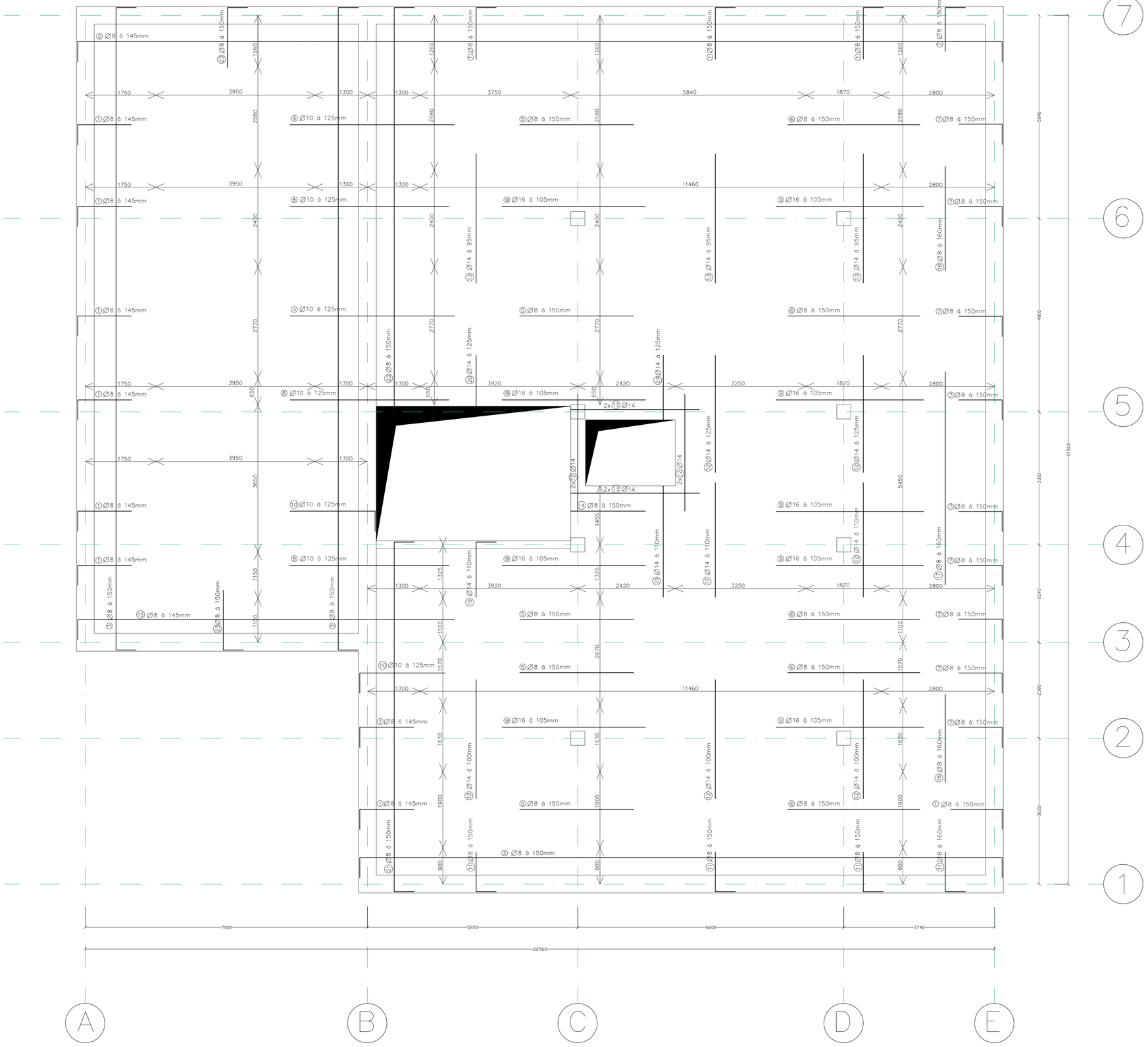

LIST OF UPPER REINFORCEMENT:

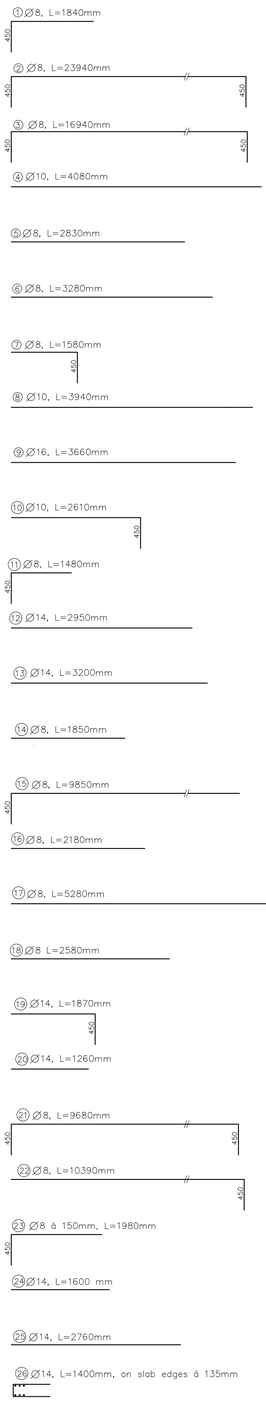

TABLE OF UPPER REINFORCEMENT:

Specification	Pieces	Length/1 bar [m]	Total length [m]	Total mass [kg]
①Ø8	217	1,84	399,28	159,712
②Ø8	9	23,94	215,46	86,184
③Ø8	27	16,94	457,38	182,952
④Ø10	43	4,08	175,44	108,7728
⑤Ø8	66	2,83	186,78	74,712
⑥Ø8	66	3,28	216,48	86,592
⑦Ø8	136	1,58	213,3	85,32
⑧Ø10	34	3,94	133,96	83,0552
⑨Ø16	146	3,66	534,36	844,2888
⑩Ø10	13	2,61	33,93	21,0366
⑪Ø8	95	1,48	140,6	56,24
⑫Ø14	189	2,95	545,75	674,6355
⑬Ø14	113	3,2	361,6	437,536
⑭Ø8	11	1,85	20,35	8,14
⑮Ø8	8	9,85	78,8	31,52
⑯Ø8	19	2,18	41,42	16,568
⑰Ø8	19	5,28	100,32	40,128
⑱Ø8	19	2,58	49,02	19,608
⑲Ø14	32	1,87	59,84	72,4064
⑳Ø14	28	1,26	35,28	42,6888
㉑Ø8	9	9,68	87,12	34,848
㉒Ø8	9	10,39	93,51	37,404
㉓Ø8	27	1,98	53,46	21,384
㉔Ø14	19	1,6	30,4	36,784
㉕Ø14	22	2,76	60,72	73,4712
㉖Ø14	100	1,4	140	169,4

3 505, 388 kg

ANCHORAGE LENGTH:

$$l_{b,rqd} = \frac{\emptyset}{4}\,\frac{f_{yd}}{f_{bd}}$$

$$f_{bd} = 2{,}25 * f_{ctd}$$

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

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

$$l_{b,rqd} = \frac{\emptyset}{4}\,\frac{435}{2{,}9925} = \emptyset * 36{,}34$$

$l_{b,rqd}$ (Ø8) = 290 mm
$l_{b,rqd}$ (Ø10) = 360 mm
$l_{b,rqd}$ (Ø14) = 500 mm
$l_{b,rqd}$ (Ø16) = 580 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. Iva Broukalová, Ph.D.	

DRAWING:

RC SLAB REINFORCEMENT
Upper reinforcement

FORMATE	A1
SCALE	1:50
DATE	10.1.2018