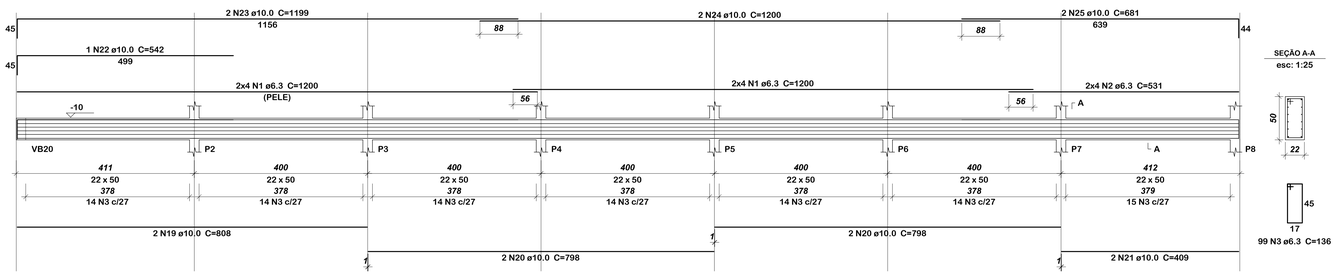
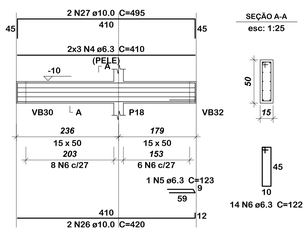
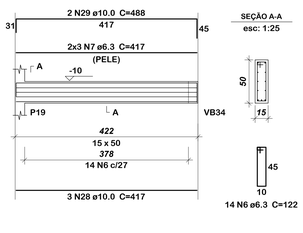
VB1 (22 x 50)
esc: 1:50



VB3 (15 x 50)
esc: 1:50



VB4 (15 x 50)
esc: 1:50



Relação do aço

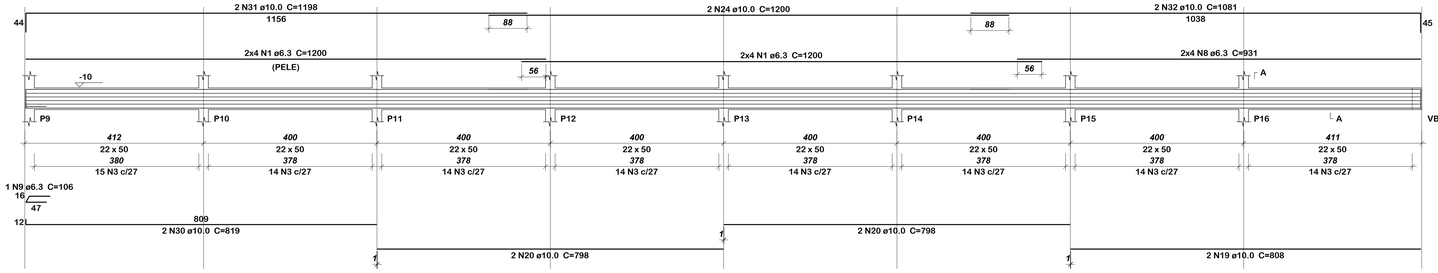
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	48	1200	57600
	2	6.3	16	531	8496
	3	6.3	328	136	44608
	4	6.3	6	410	2460
	5	6.3	2	123	246
	6	6.3	101	122	12322
	7	6.3	30	417	12510
	8	6.3	8	931	7448
	9	6.3	1	106	106
	10	6.3	6	242	1452
	11	6.3	6	239	1434
	12	6.3	8	507	4056
	13	6.3	32	237	7584
	14	6.3	16	322	5152
	15	6.3	16	78	1248
	16	8.0	6	417	2502
	17	8.0	2	239	478
	18	8.0	12	154	1848
	19	10.0	6	808	4848
	20	10.0	12	798	9576
	21	10.0	4	409	1636
	22	10.0	1	542	542
	23	10.0	4	1199	4796
	24	10.0	6	1200	7200
	25	10.0	4	681	2724
	26	10.0	2	420	840
	27	10.0	2	495	990
	28	10.0	9	417	3753
	29	10.0	2	488	976
	30	10.0	2	819	1638
	31	10.0	2	1198	2396
	32	10.0	2	1081	2162
	33	10.0	6	427	2562
	34	10.0	2	242	484
	35	10.0	2	313	626
	36	10.0	2	249	498
	37	10.0	2	501	1002
	38	10.0	2	507	1014
	39	10.0	1	173	173
	40	10.0	2	533	1066
	41	10.0	4	102	408
	42	10.0	1	967	967
	43	10.0	1	215	215
	44	10.0	4	369	1476
	45	12.5	6	261	1566
	46	12.5	1	414	414
	47	12.5	2	426	852
	48	12.5	1	323	323
	49	12.5	2	331	662

Resumo do aço

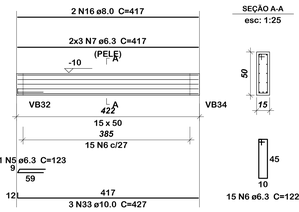
AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	1675.3	409.9
	8.0	48.3	19.1
	10.0	546.2	336.7
	12.5	41.2	39.7
PESO TOTAL (kg)			
CA50	805.4		

Volume de concreto (C-20) = 13.93 m³
Área de forma = 168.65 m²

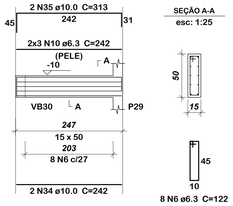
VB2 (22 x 50)
esc: 1:50



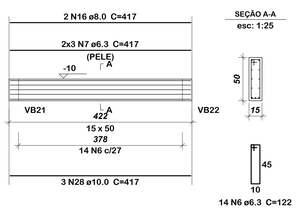
VB5 (15 x 50)
esc: 1:50



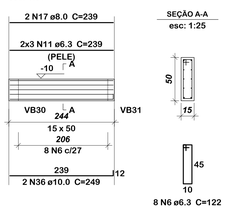
VB7 (15 x 50)
esc: 1:50



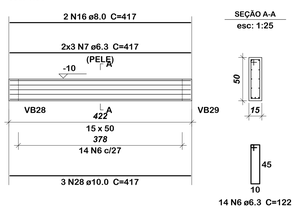
VB6 (15 x 50)
esc: 1:50



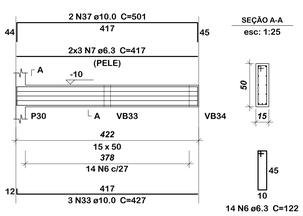
VB8 (15 x 50)
esc: 1:50



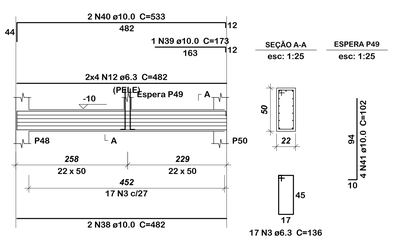
VB9 (15 x 50)
esc: 1:50



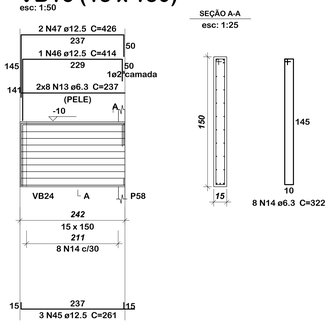
VB10 (15 x 50)
esc: 1:50



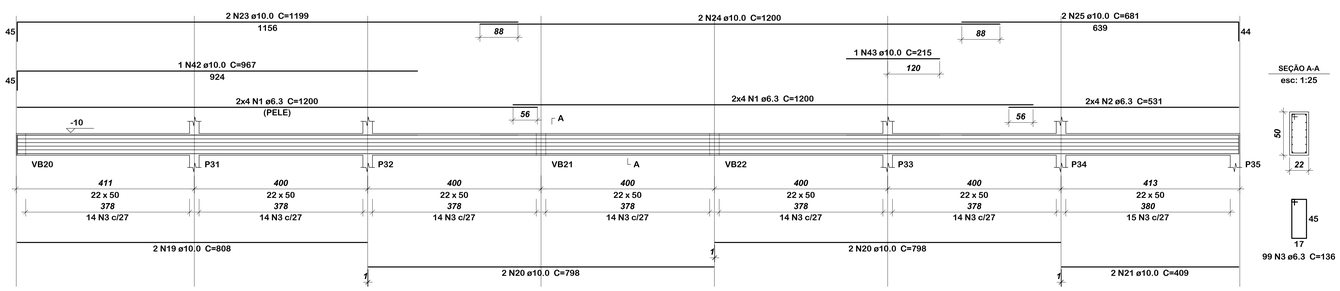
VB14 (22 x 50)
esc: 1:50



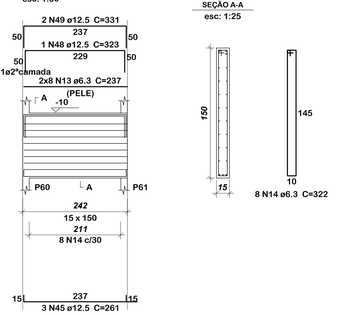
VB16 (15 x 150)
esc: 1:50



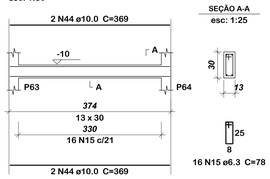
VB11 (22 x 50)
esc: 1:50



VB17 (15 x 150)
esc: 1:50



VB18 (13 x 30)
esc: 1:50



VB1 VB2 VB3
VB4 VB5 VB6
VB7 VB8 VB9
VB10 VB11 VB14
VB16 VB17 VB18

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE LAVRAS

EMPRESA
EMPRESA: AS BUILT ENGENHARIA DE PROJETOS LTDA
CNPJ: 09.480.531/0001-01

PROJETO
TÍTULO: PROJETO ESTRUTURAL DBI
CONTEÚDO: FERRAGEM DAS VIGAS: BALDRAMES (1/3)
AUTOR DO PROJETO: CARLOS HENRIQUE DE SOUZA GONÇALVES, ENGENHEIRO CIVIL - CREA-PR 156CD
EXECUÇÃO DE OBRA:

DATA:	REVISÃO DATA:	PROJETO:
12/2014	-	EXECUTIVO
ESCALA:	ÁREA: (m²)	FOLHA:
INDICADA	1.859,96	EST 05 /20