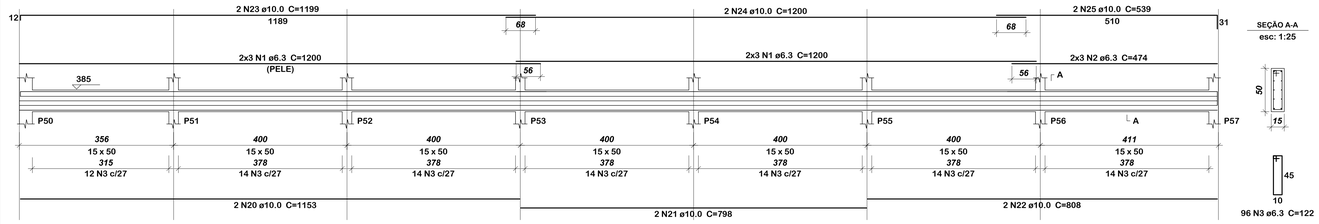
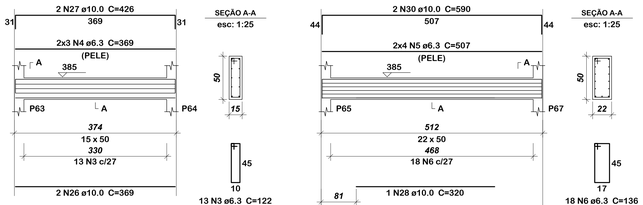
V214 (15 x 50)
esc: 1:50



V217 (15 x 50)
esc: 1:50

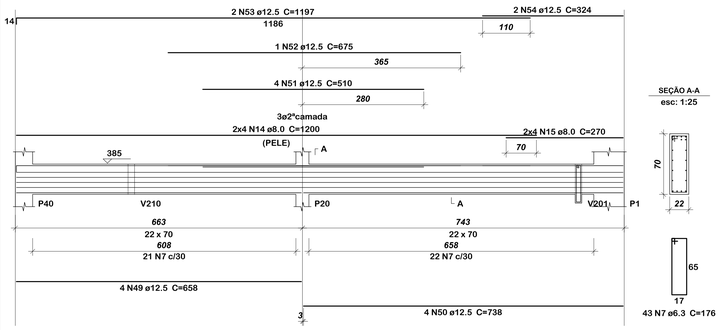


V218 (22 x 50)
esc: 1:50

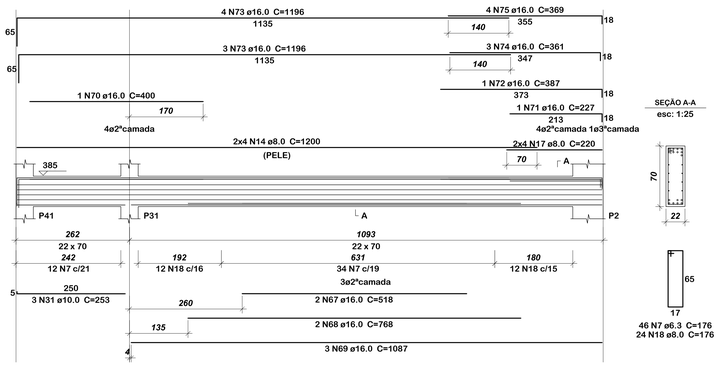
Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	12	1200	14400
	2	6.3	6	474	2844
	3	6.3	187	122	22814
	4	6.3	6	369	2214
	5	6.3	8	507	4056
	6	6.3	18	136	2448
	7	6.3	342	176	60192
	8	6.3	6	665	3990
	9	6.3	12	672	8064
	10	6.3	2	99	198
	11	6.3	6	222	1332
	12	6.3	2	123	246
	13	6.3	53	102	5406
	14	8.0	32	1200	38400
	15	8.0	8	270	2160
	16	8.0	1	202	202
	17	8.0	24	220	5280
	18	8.0	24	176	4224
	19	8.0	2	222	444
	20	10.0	2	1153	2306
	21	10.0	2	798	1596
	22	10.0	2	808	1616
	23	10.0	2	1199	2398
	24	10.0	8	1200	9600
	25	10.0	2	539	1078
	26	10.0	2	369	738
	27	10.0	2	426	852
	28	10.0	1	320	320
	29	10.0	2	507	1014
	30	10.0	2	590	1180
	31	10.0	14	253	3542
	32	10.0	2	694	1388
	33	10.0	6	238	1428
	34	10.0	12	277	3324
	35	10.0	8	1108	8864
	36	10.0	1	679	679
	37	10.0	5	682	3410
	38	10.0	2	232	464
	39	10.0	2	736	1472
	40	10.0	4	265	1060
	41	10.0	4	300	1200
	42	10.0	2	250	500
	43	10.0	2	273	546
	44	10.0	2	313	626
	45	10.0	2	320	640
	46	10.0	2	260	520
	47	10.0	1	218	218
	48	10.0	2	282	564
	49	12.5	4	658	2632
	50	12.5	4	738	2952
	51	12.5	4	510	2040
	52	12.5	1	675	675
	53	12.5	2	1197	2394
	54	12.5	2	324	648
	55	12.5	1	452	452
	56	12.5	3	689	2067
	57	12.5	2	373	746
	58	12.5	4	665	2660
	59	12.5	8	683	5464
	60	12.5	2	378	756
	61	12.5	4	653	2612
	62	12.5	1	438	438
	63	12.5	2	633	1266
	64	12.5	4	1083	4332
	65	12.5	2	356	712
	66	12.5	2	730	1460
	67	16.0	2	518	1036
	68	16.0	2	768	1536
	69	16.0	9	1087	9783
	70	16.0	2	400	800
	71	16.0	1	227	227
	72	16.0	1	387	387
	73	16.0	23	1196	27508
	74	16.0	5	361	1805
	75	16.0	8	369	2952
	76	16.0	2	608	1216
	77	16.0	1	405	405
	78	16.0	1	383	383
	79	16.0	2	345	690
	80	16.0	4	349	1396
	81	16.0	3	445	1335
	82	16.0	1	1059	1059
	83	16.0	2	1196	2392
	84	16.0	2	353	706
	85	16.0	3	450	1350
	86	16.0	1	1058	1058
	87	16.0	2	1196	2392
	88	16.0	2	352	704
	89	16.0	1	425	425
	90	16.0	1	393	393
	91	16.0	4	355	1420
	92	16.0	2	603	1206

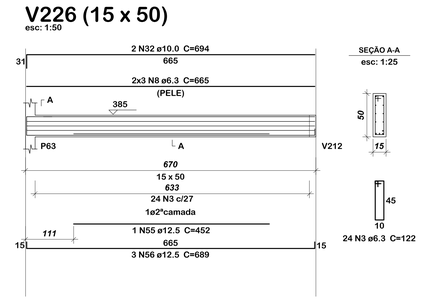
V219 (22 x 70)
esc: 1:50



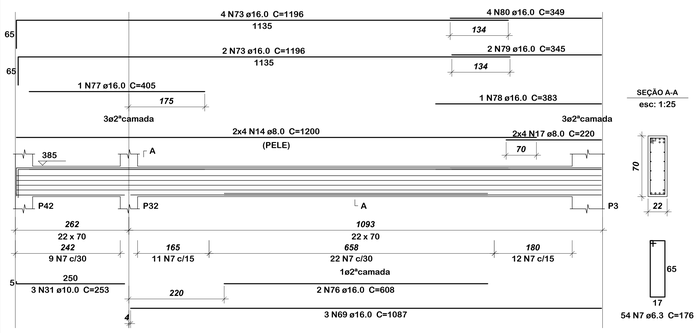
V220 (22 x 70)
esc: 1:50



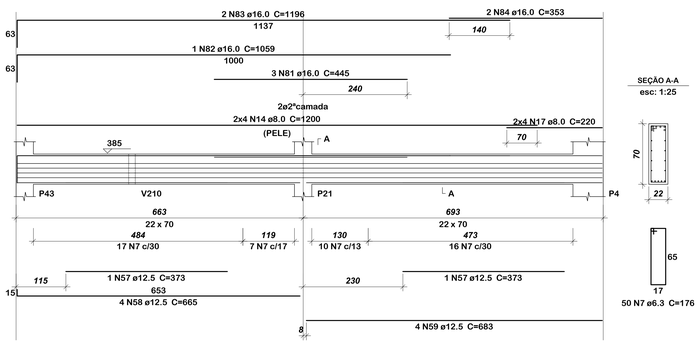
V226 (15 x 50)
esc: 1:50



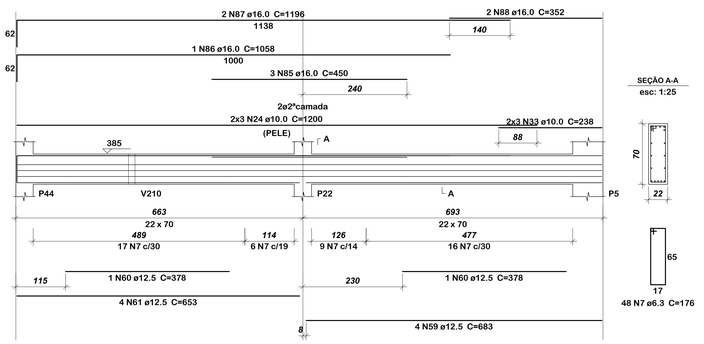
V221 (22 x 70)
esc: 1:50



V222 (22 x 70)
esc: 1:50



V223 (22 x 70)
esc: 1:50

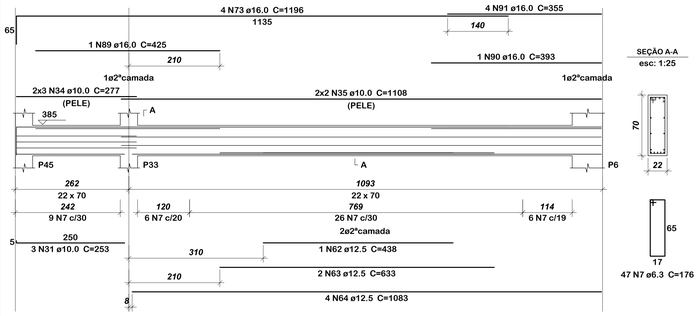


Resumo do aço

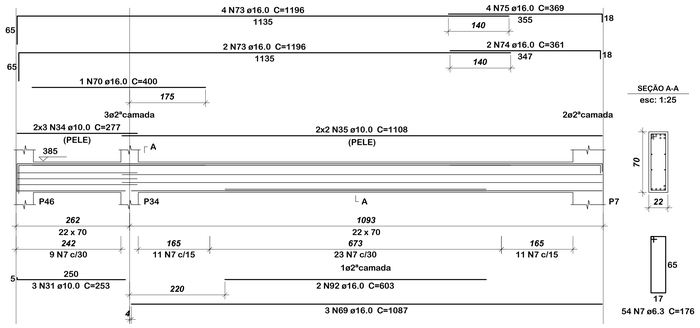
AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	1280.6	313.4
	8.0	507.1	200.1
	10.0	530.5	327
	12.5	343.1	330.5
	16.0	645.7	1019
PESO TOTAL (kg)			
CA50	2190		

Volume de concreto (C-20) = 20.04 m³
Área de forma = 234.63 m²

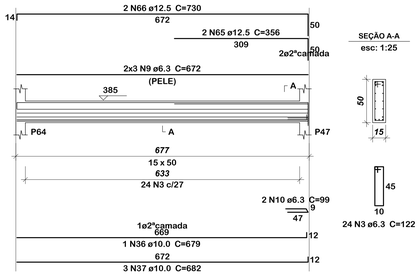
V224 (22 x 70)
esc: 1:50



V225 (22 x 70)
esc: 1:50

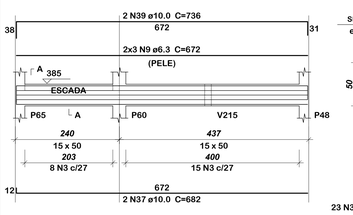


V227 (15 x 50)
esc: 1:50

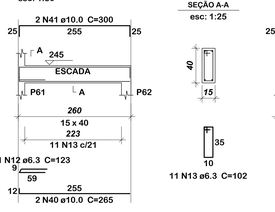


V214 V217 V218
V219 V220 V221
V222 V223 V224
V225 V226 V227
V229 V243 V244
V245 V246 V247
V241

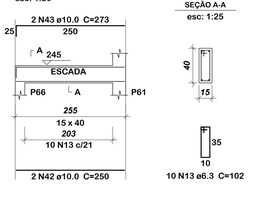
V229 (15 x 50)
esc: 1:50



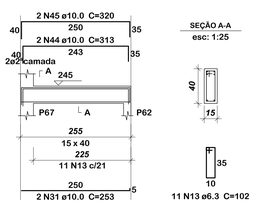
V243 (15 x 40)
esc: 1:50



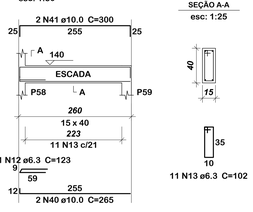
V244 (15 x 40)
esc: 1:50



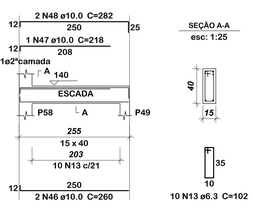
V245 (15 x 40)
esc: 1:50



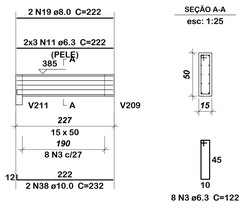
V246 (15 x 40)
esc: 1:50



V247 (15 x 40)
esc: 1:50



V241 (15 x 50)
esc: 1:50



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: FERRAGEMDAS VIGAS:
PAVIMENTO SUPERIOR (2/3)
AUTOR DO PROJETO: CARLOS HENRIQUE DE SOUZA GONÇALVES
ENGENHEIRO CIVIL - CREA-PR 76820
EXECUÇÃO DE OBRA:

DATA:	REVISÃO DATA:	PROJETO:
12/2014	-	EXECUTIVO
ESCALA:	ÁREA: (m²)	FOLHA:
INDICADA	1.859,96	EST 11 /20