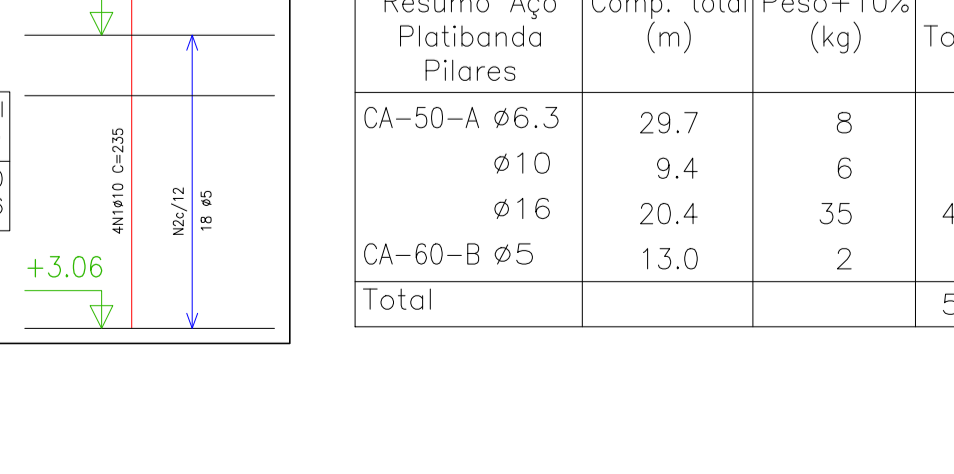
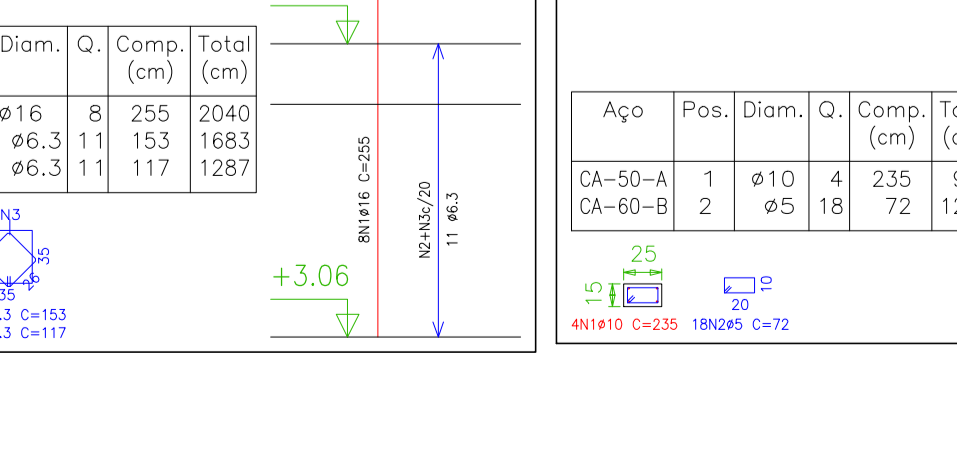
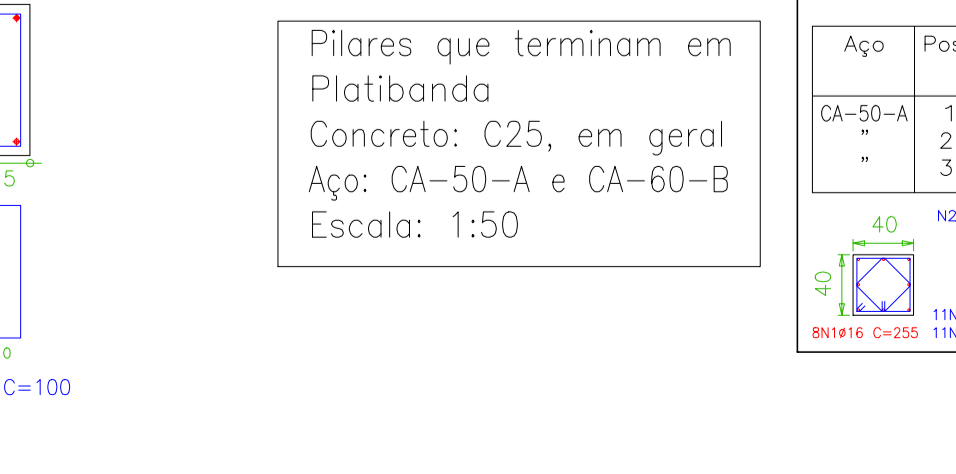
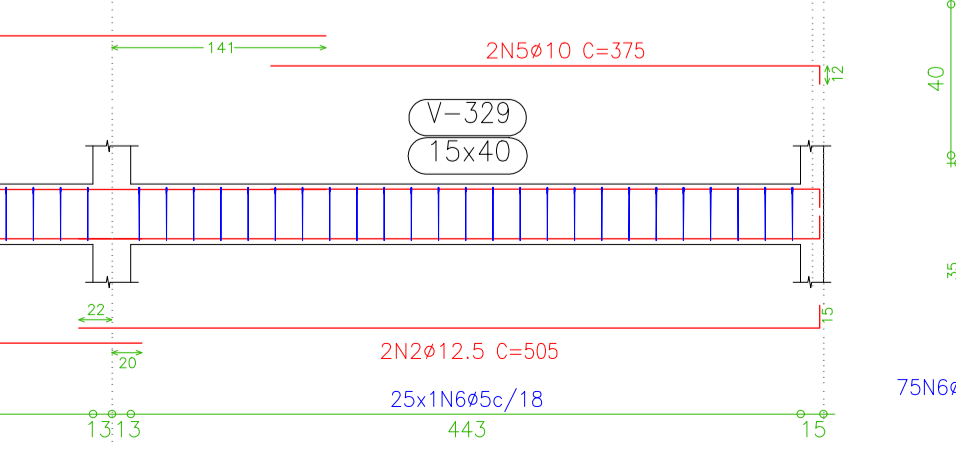
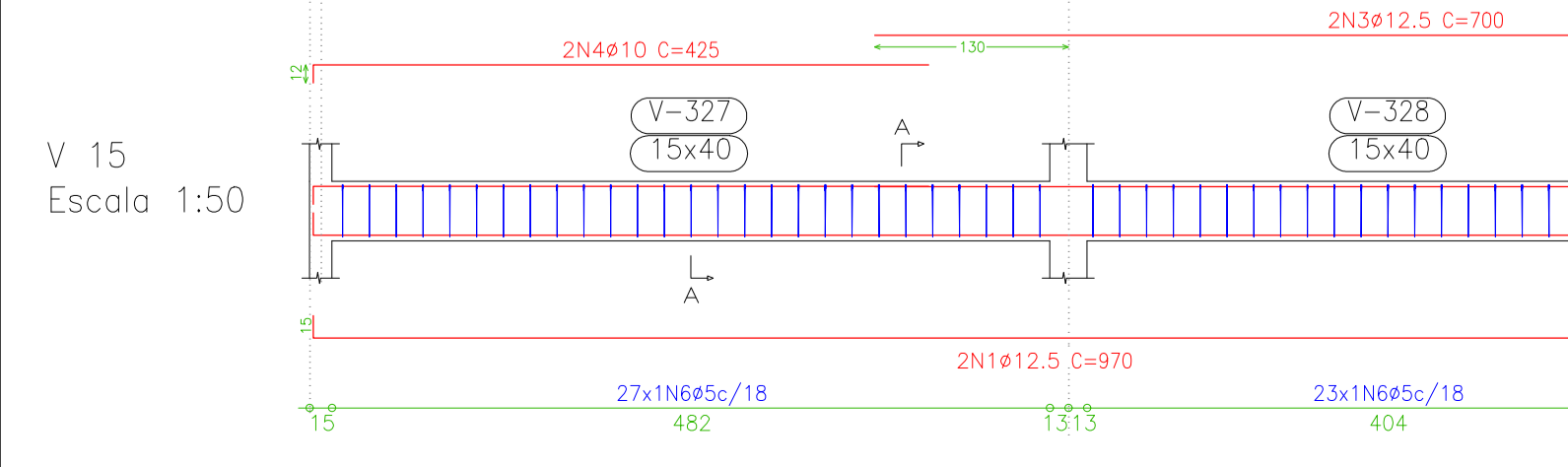
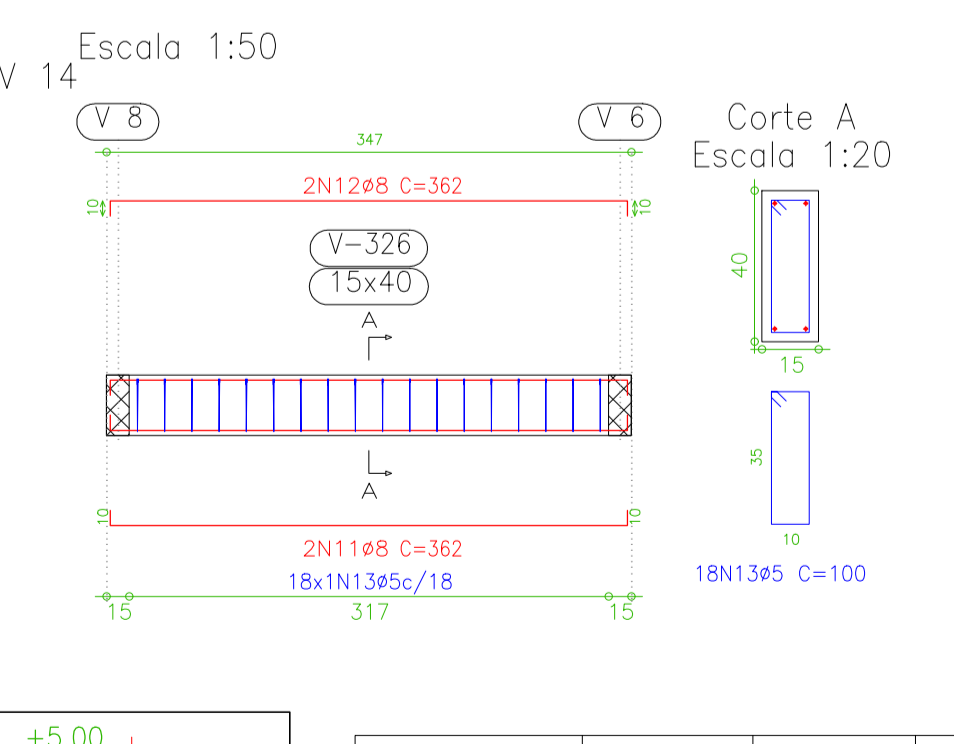
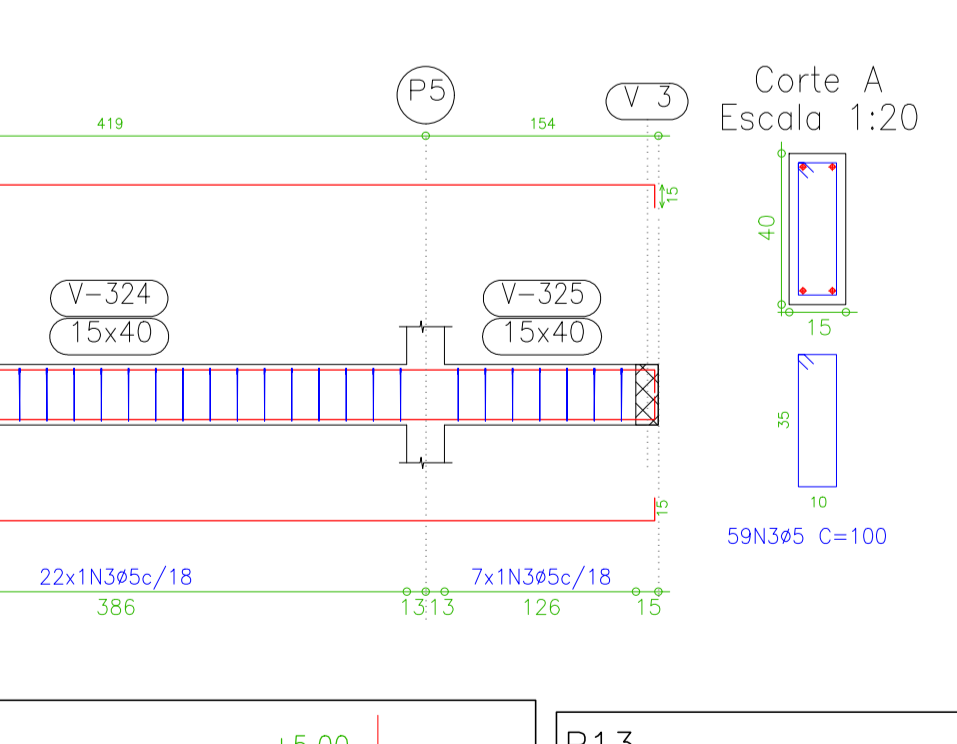
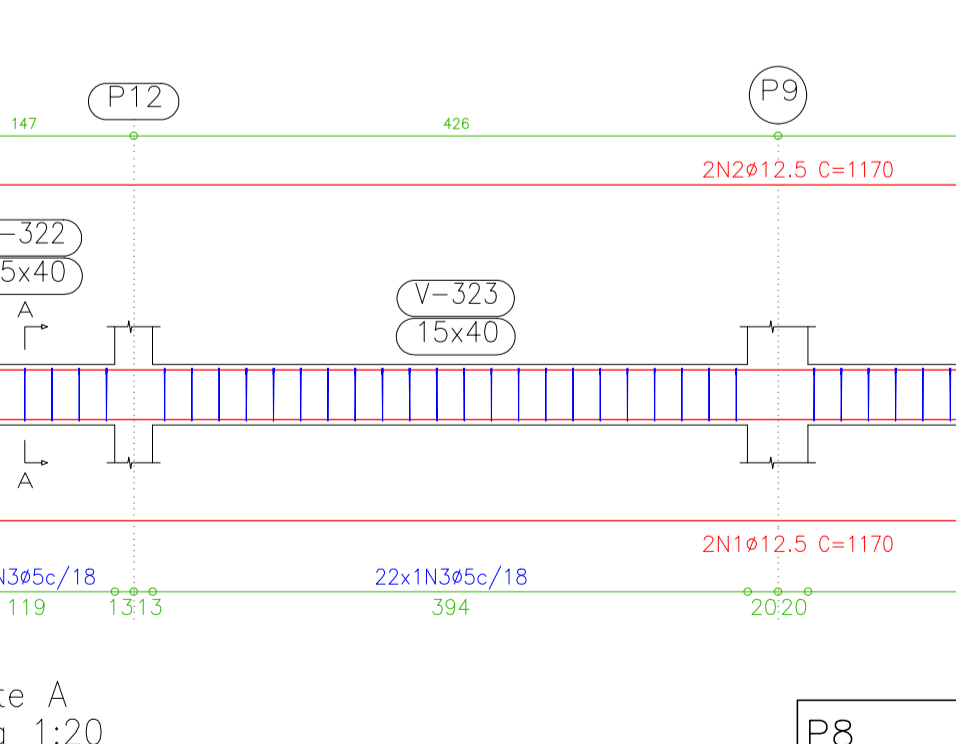
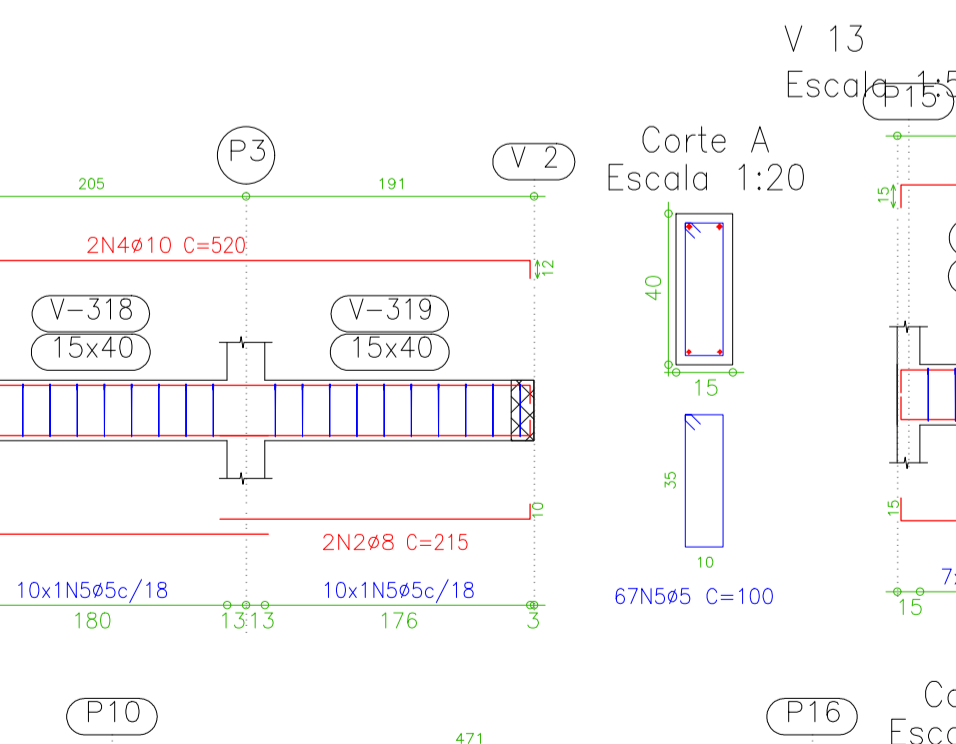
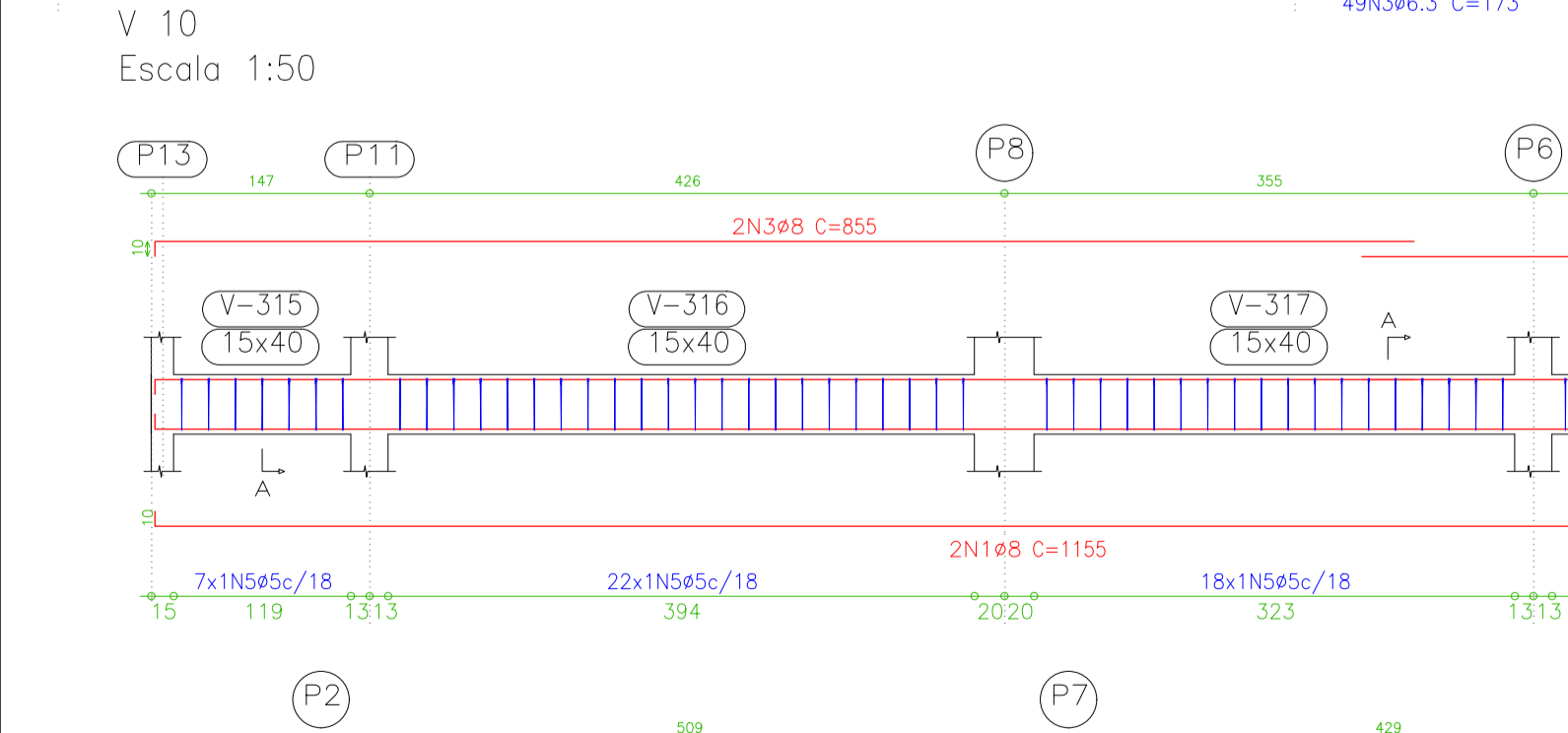
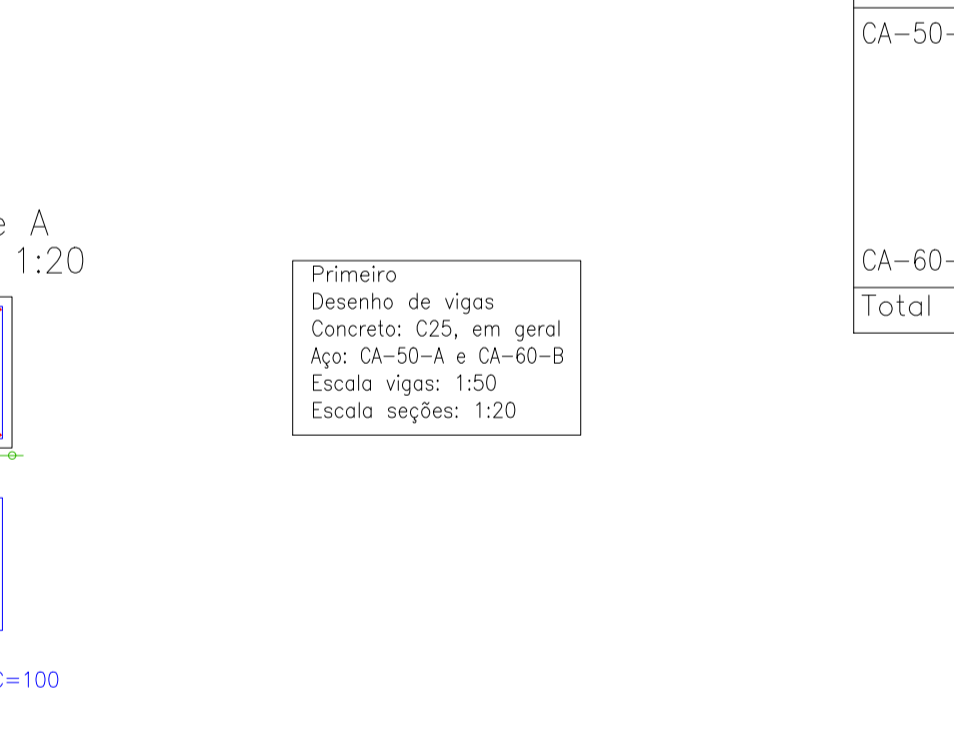
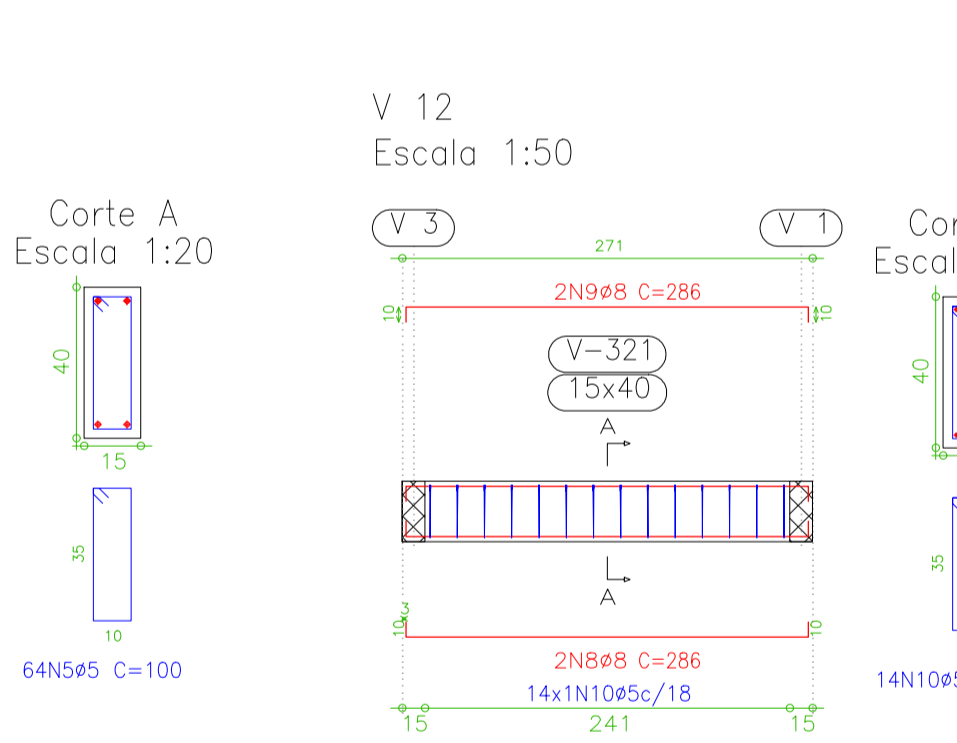
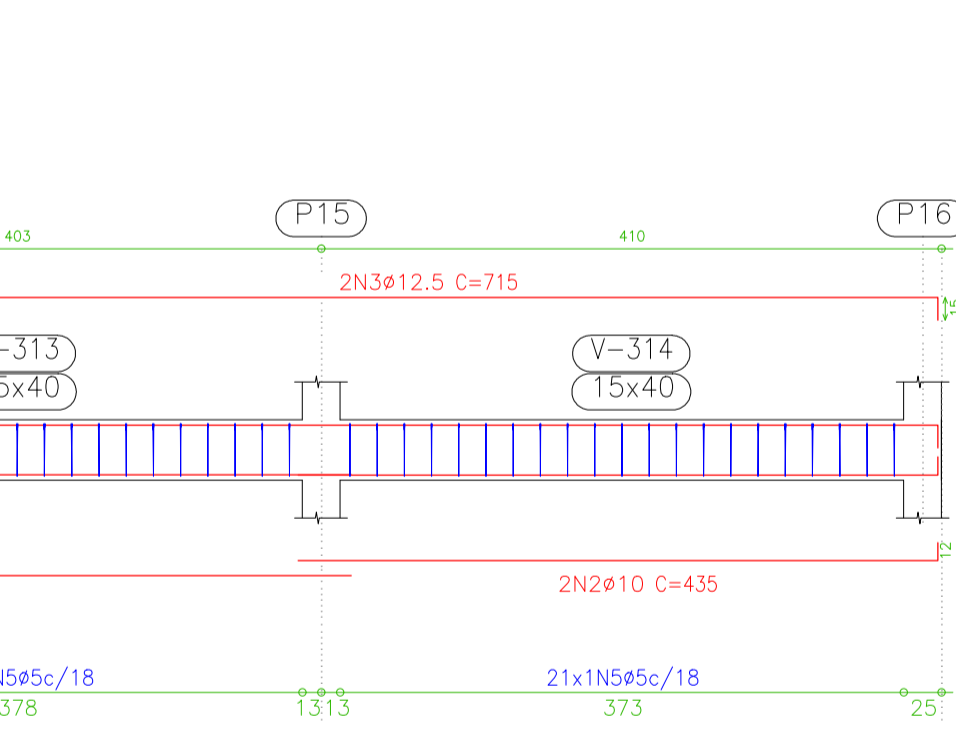
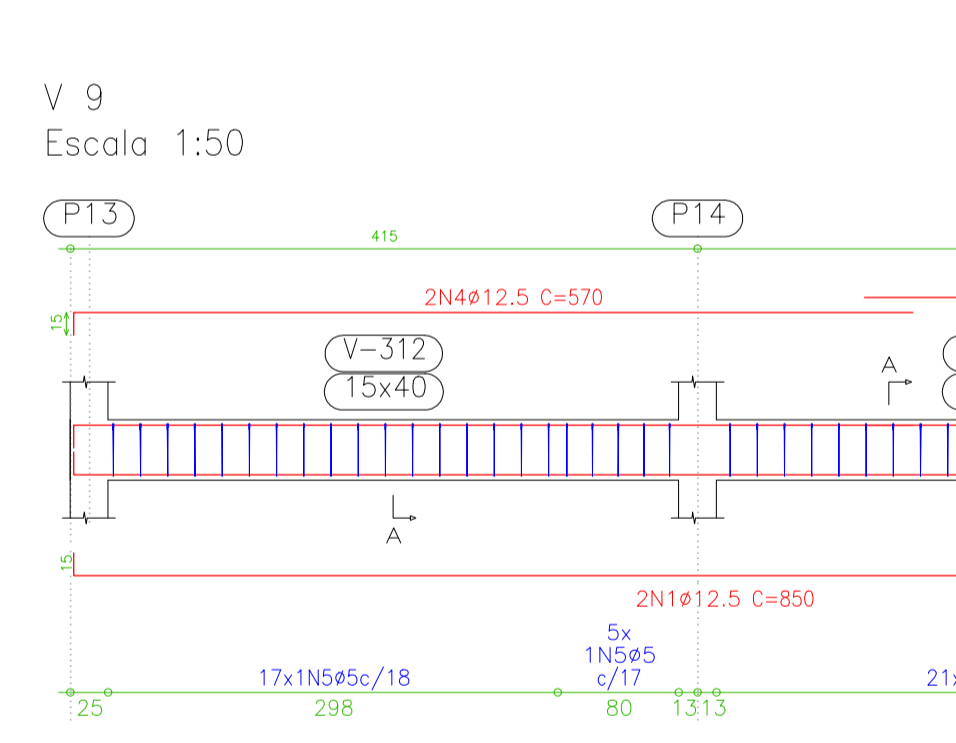
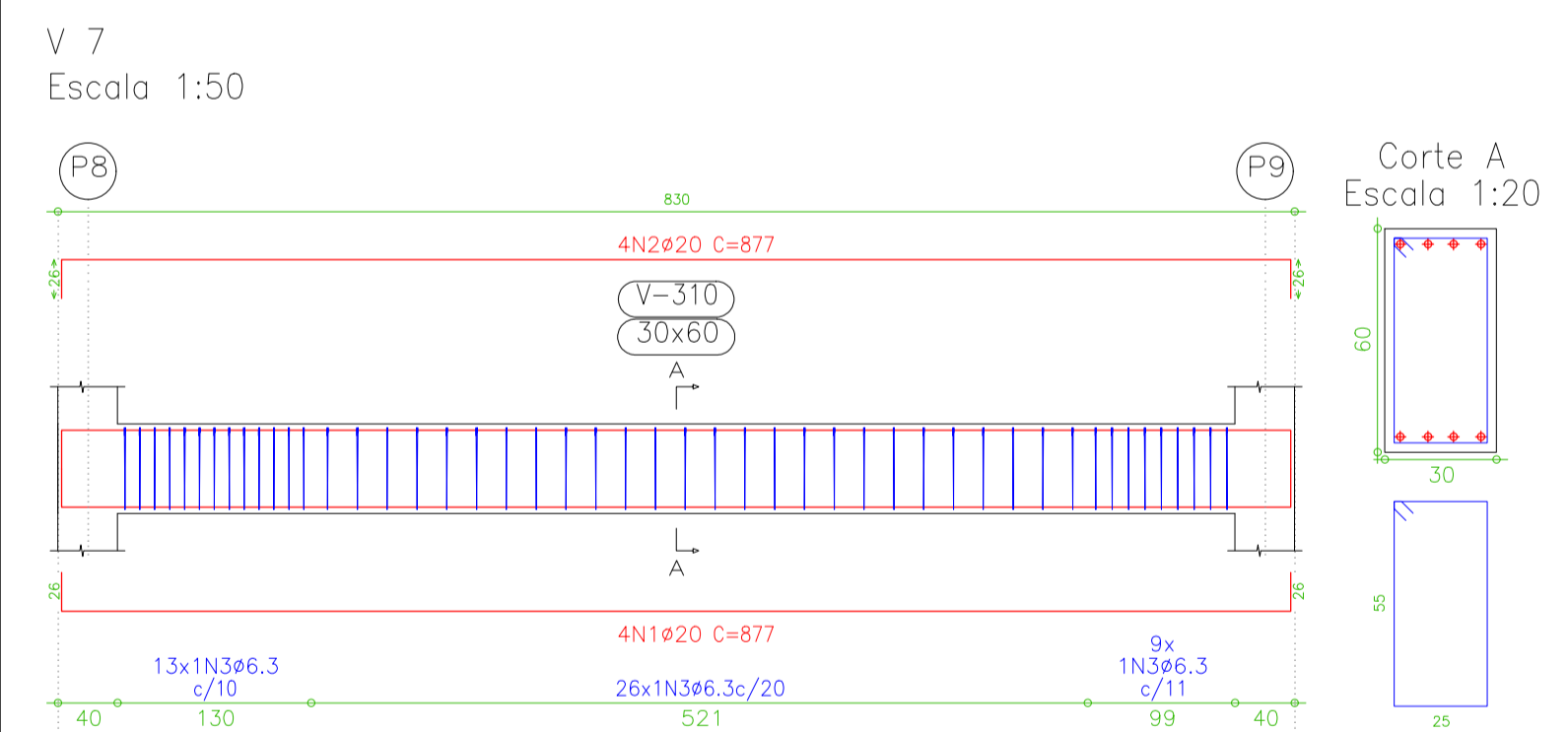
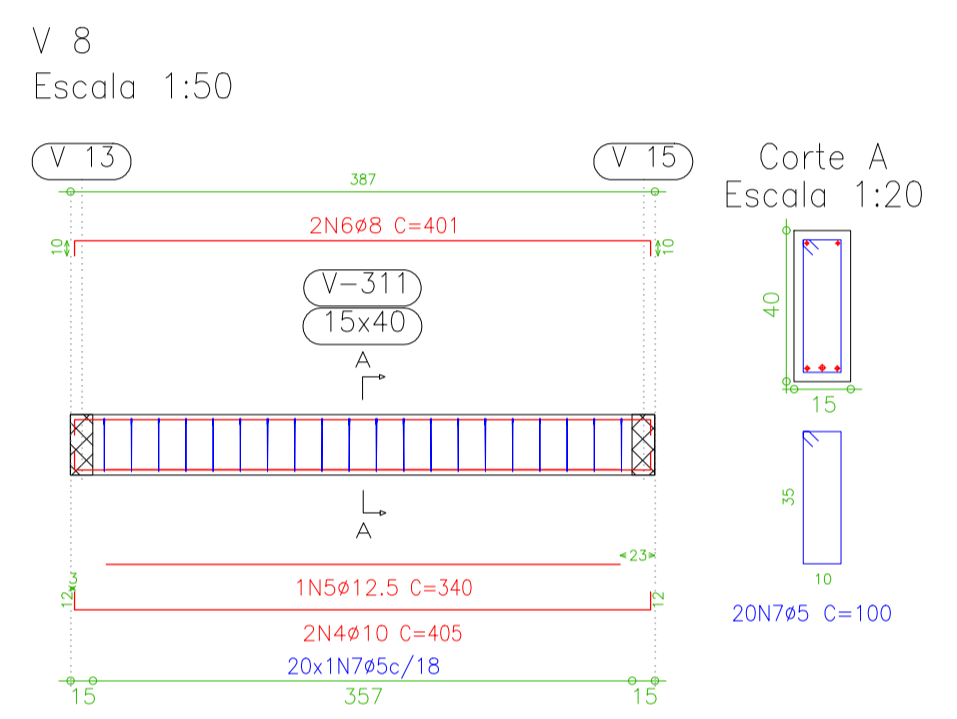
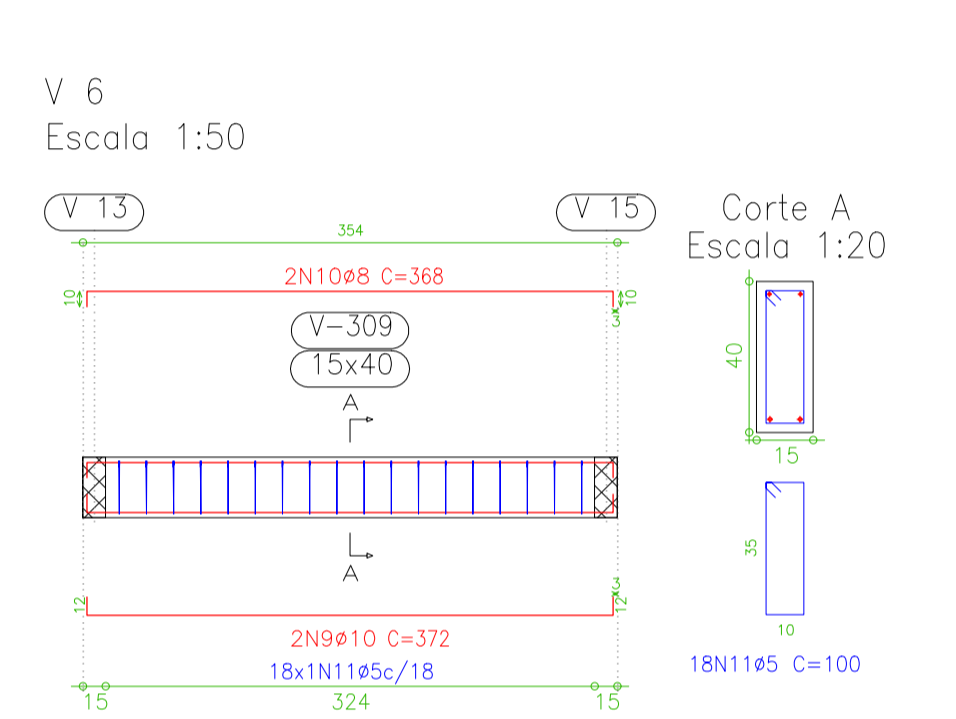
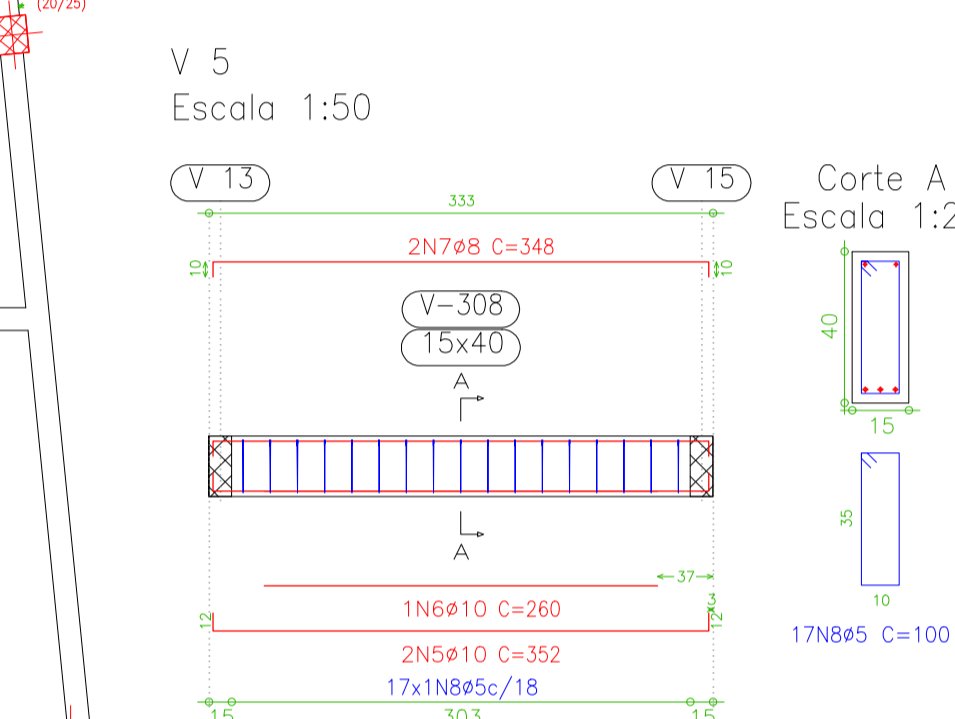
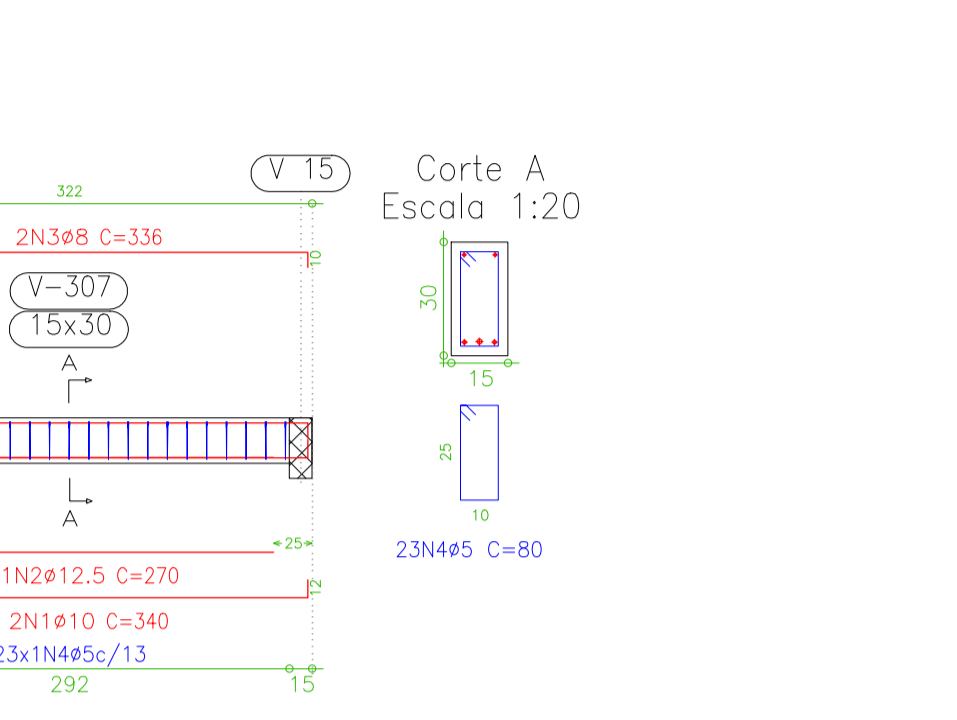
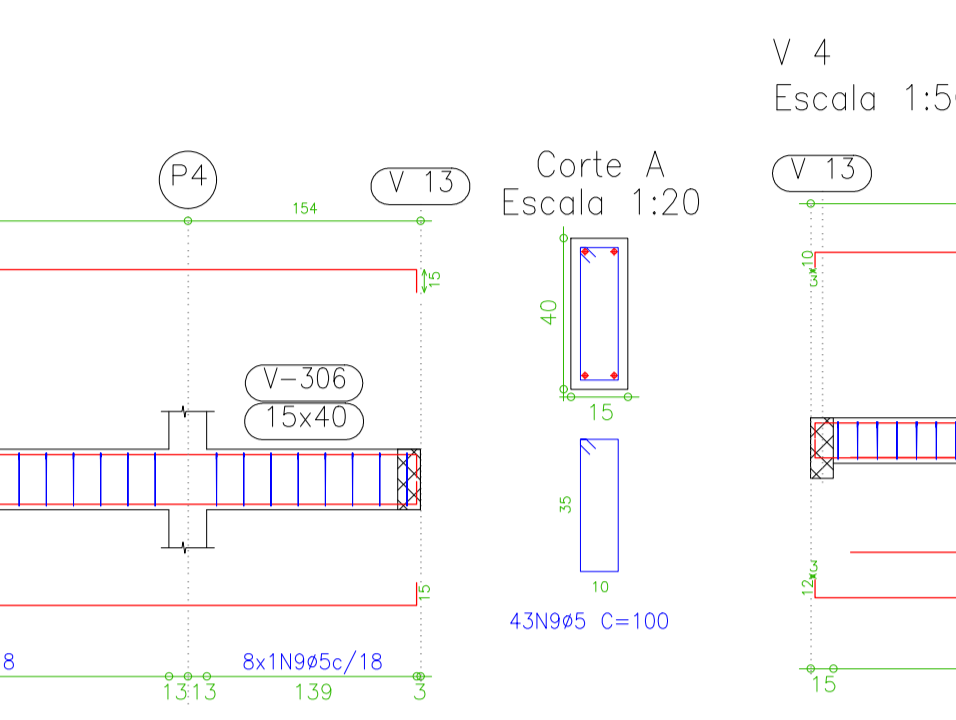
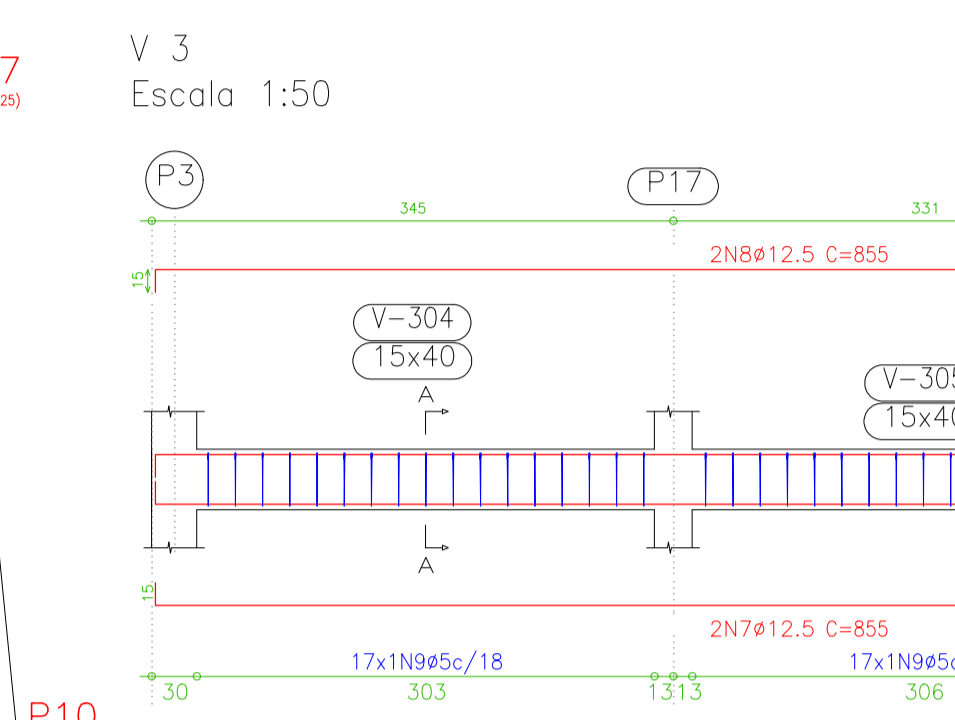
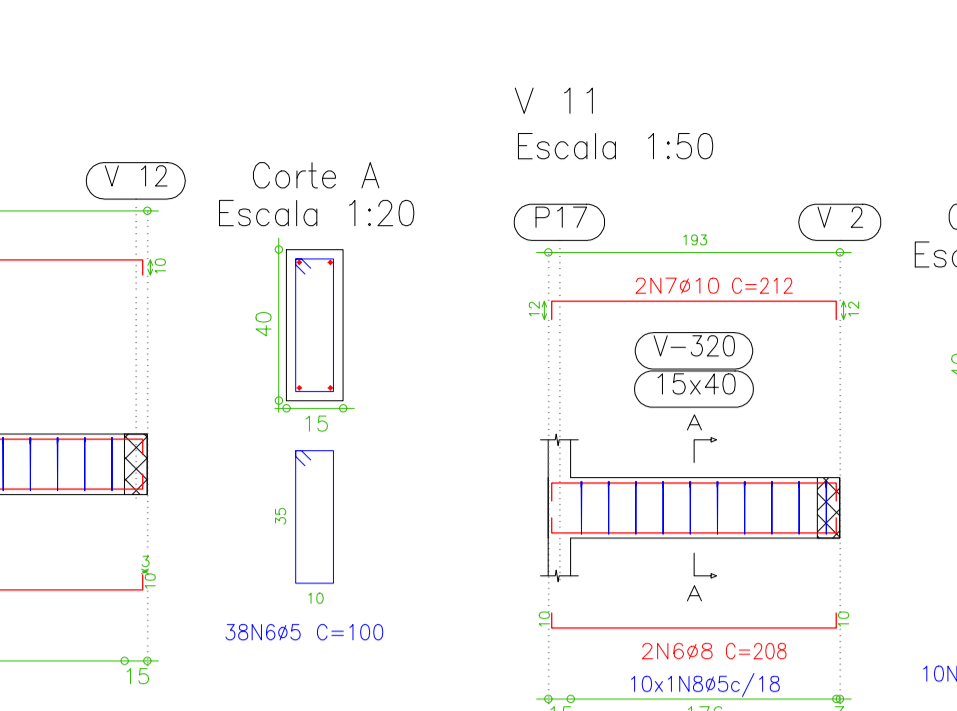
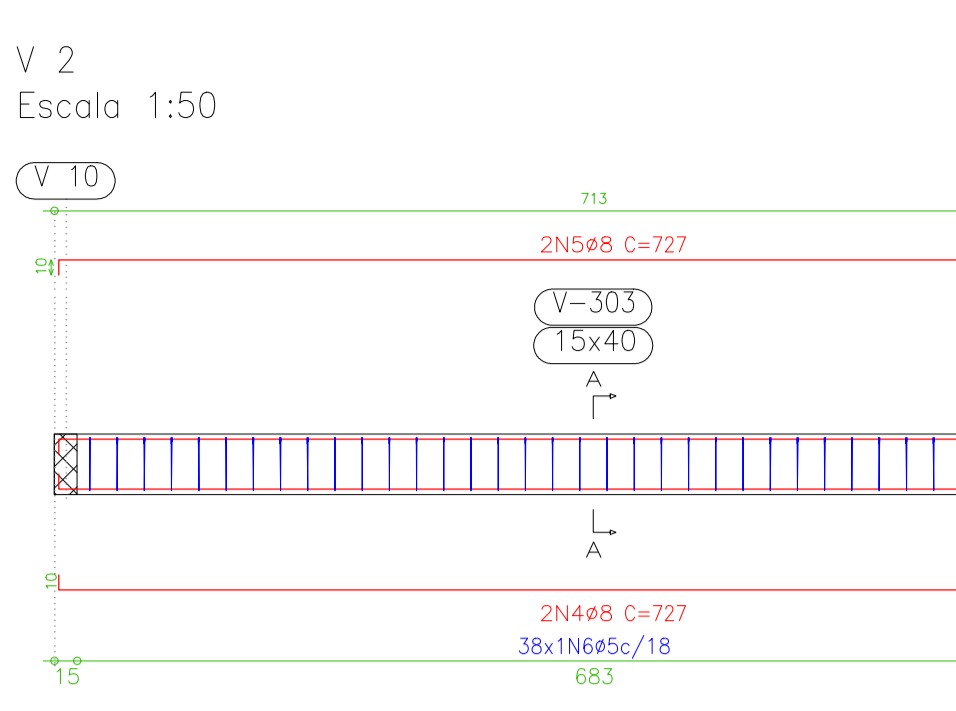
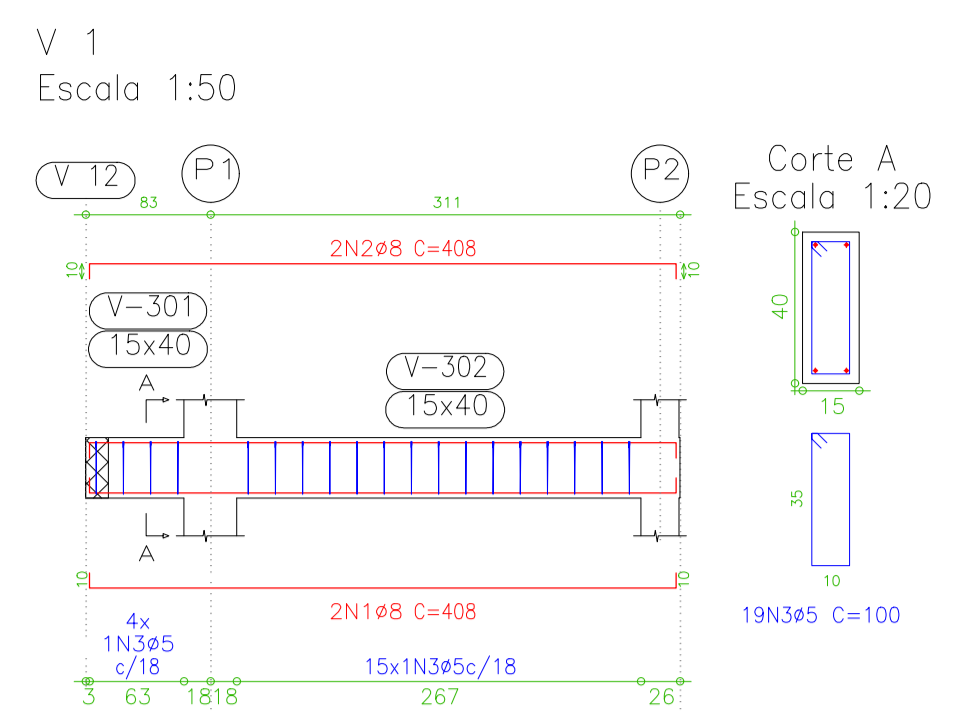
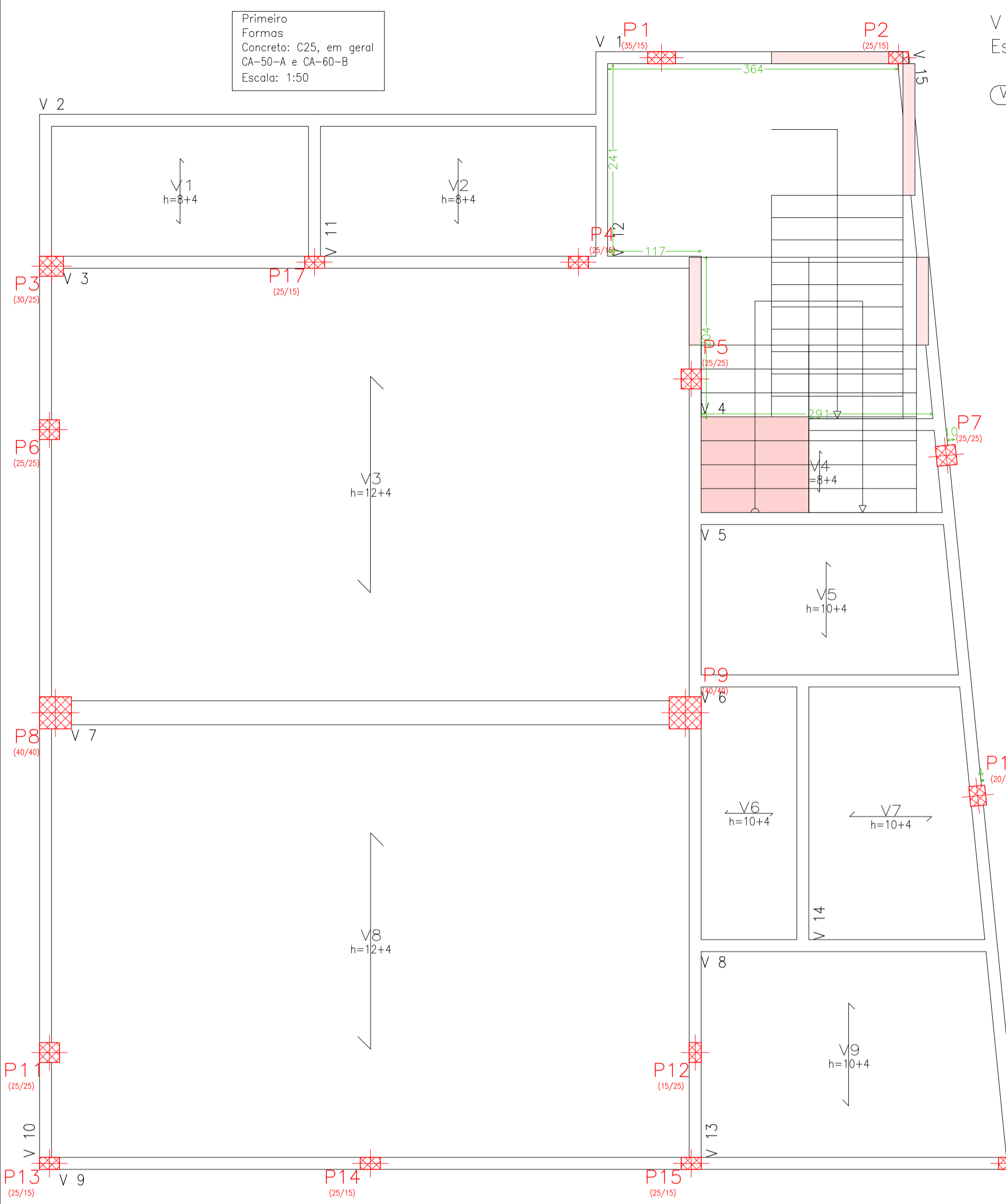


Primeiro Formas
 Concreto: C25, em geral
 CA-50-A e CA-60-B
 Escala: 1:50



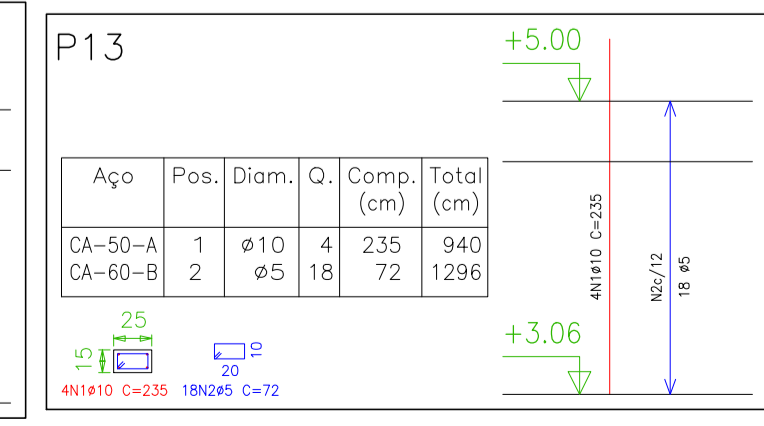
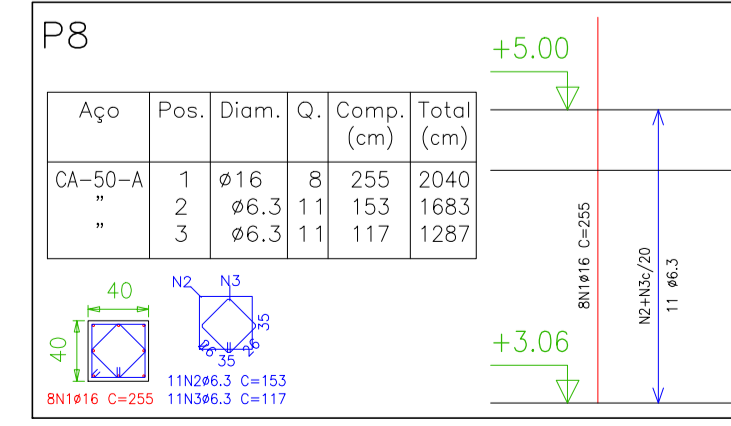
Elemento	Pos.	Diam.	Q.	Dob.	Ret.	Comp.	Total	CA-50-A	CA-60-B	
				(cm)	(cm)	(cm)	(cm)	(kg)	(kg)	
V 1	1	ø8	2	10	388	10	408	816	3.2	
	2	ø8	2	10	388	10	408	816	3.2	
	3	ø5	19				100	1900	3.0	
	Total+10%							7.0	3.3	
V 2	4	ø8	2	10	707	10	727	1454	5.7	
	5	ø8	2	10	707	10	727	1454	5.7	
	6	ø5	38				100	3800	6.0	
	Total+10%							12.5	6.6	
V 3	7	ø12.5	2	15	825	15	855	1710	16.8	
	8	ø12.5	2	15	825	15	855	1710	16.8	
	9	ø5	42				100	4200	6.6	
	Total+10%							37.0	7.3	
V 4	1	ø10	2	12	516	12	340	680	4.3	
	2	ø12.5	1	10	270	10	270	270	2.6	
	3	ø8	2	10	316	10	336	672	2.6	
	4	ø5	23				80	1840	2.9	
	Total+10%							10.5	3.2	
V 5	5	ø10	2	12	328	12	352	704	4.4	
	6	ø10	2	12	260	12	260	520	1.6	
	7	ø8	2	10	328	10	348	696	2.7	
	8	ø5	17				100	1700	2.7	
	Total+10%							9.6	3.0	
V 6	9	ø10	2	12	348	12	372	744	4.7	
	10	ø8	2	10	348	10	368	736	2.9	
	11	ø5	18				100	1800	2.8	
	Total+10%							8.4	3.1	
V 7	1	ø20	4	26	825	26	877	3508	86.7	
	2	ø20	4	26	825	26	877	3508	86.7	
	3	ø6.3	48				173	8304	20.5	
	Total+10%							213.3		
V 8	4	ø10	2	12	381	12	405	810	5.1	
	5	ø12.5	2	10	340	10	340	340	3.3	
	6	ø8	2	10	381	10	401	802	3.1	
	7	ø5	20				100	2000	3.4	
	Total+10%							12.7	3.4	
V 9	1	ø12.5	2	15	835	15	850	1700	16.7	
	2	ø10	2	12	423	12	435	870	5.5	
	3	ø12.5	2	15	700	15	715	1430	14.0	
	4	ø12.5	2	15	555	15	570	1140	11.2	
	5	ø5	64				100	6400	10.0	
	Total+10%							52.1	11.0	
V 10	1	ø8	2	10	1145	10	1155	2310	9.1	
	2	ø8	2	10	205	10	215	430	1.7	
	3	ø8	2	10	845	10	855	1710	6.7	
	4	ø10	2	12	508	12	520	1040	6.5	
	5	ø5	67				100	6700	10.5	
	Total+10%							26.4	11.6	
V 11	6	ø8	2	10	188	10	208	416	1.6	
	7	ø10	2	12	188	12	212	424	2.7	
	8	ø5	10				100	1000	1.8	
	Total+10%							4.8	2.2	
V 12	8	ø8	2	10	266	10	286	572	2.2	
	9	ø8	2	10	266	10	286	572	2.2	
	10	ø5	14				100	1400	2.2	
	Total+10%							4.8	2.4	
V 13	1	ø12.5	2	15	1140	15	1170	2340	23.0	
	2	ø12.5	2	15	1140	15	1170	2340	23.0	
	3	ø5	58				100	5800	9.1	
	Total+10%							50.6	10.0	
V 14	11	ø8	2	10	342	10	362	724	2.8	
	12	ø8	2	10	342	10	362	724	2.8	
	13	ø5	18				100	1800	2.8	
	Total+10%							6.2	3.1	
V 15	1	ø12.5	2	15	955	15	970	1940	19.0	
	2	ø12.5	2	15	490	15	505	1010	9.9	
	3	ø12.5	2	15	700	15	700	1400	13.7	
	4	ø10	2	12	413	12	425	850	5.3	
	5	ø10	2	12	363	12	375	750	4.7	
	6	ø5	75				100	7500	11.8	
	Total+10%							57.9	13.0	

Resumo Aço Primeiro Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	83.0	23	
ø8	149.0	64	
ø10	71.3	49	
ø12.5	173.3	187	
ø20	70.2	191	514
CA-60-B ø5	478.4	83	83
Total			597

Primeiro - Superfície total: 142,31 m²			
Elemento	Formas (m²)	Voluma (m³)	Barros (kg)
LAJES	126.35	10.87	282
Vigas: fundo	14.91	6.83	597
Forma lateral	58.16		
Pilares (Sup. Formas)	45.90	2.89	584
Escadas	13.04	2.26	192
Total	268.36	22.85	1655
Índices (por m²)	1.815	0.161	11.63

Primeiro Desenho de vigas
 Concreto: C25, em geral
 Aço: CA-50-A e CA-60-B
 Escala vigas: 1:50
 Escala seções: 1:20

Pilares que terminam em Platibanda
 Concreto: C25, em geral
 Aço: CA-50-A e CA-60-B
 Escala: 1:50



Resumo Aço Platibanda Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø6.3	29.7	8	
ø10	9.4	6	
ø16	20.4	35	49
CA-60-B ø5	13.0	2	2
Total			51