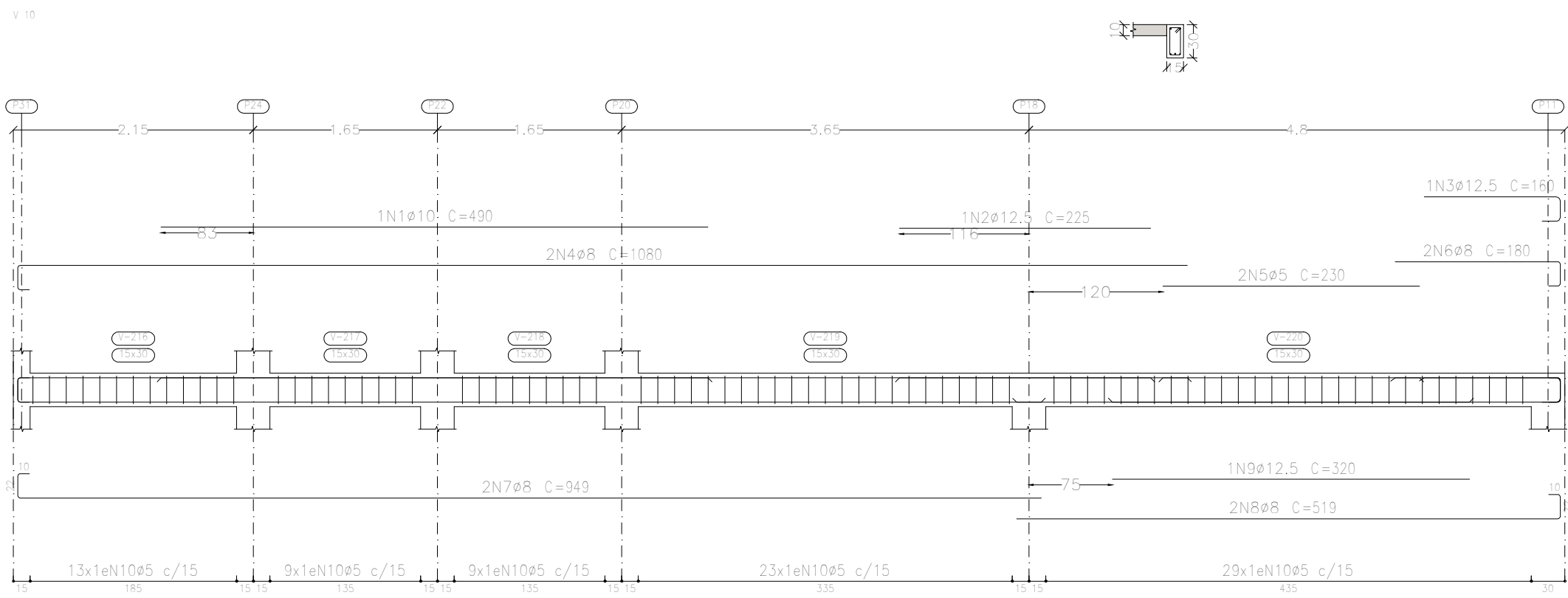
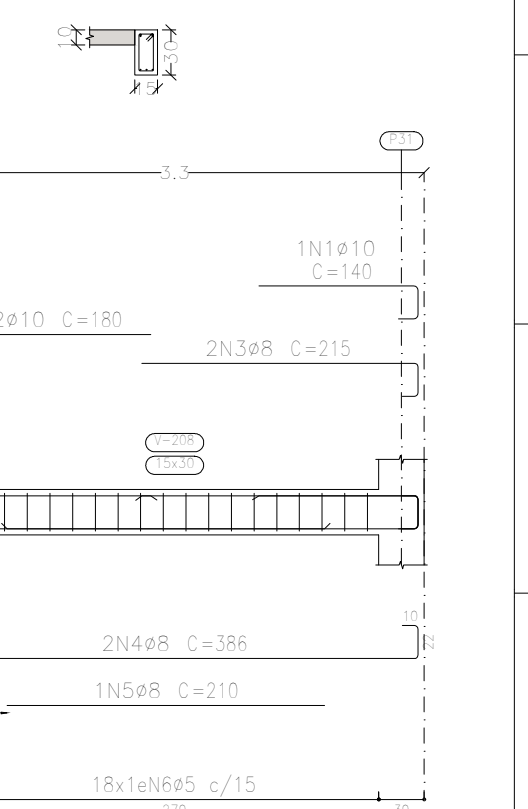
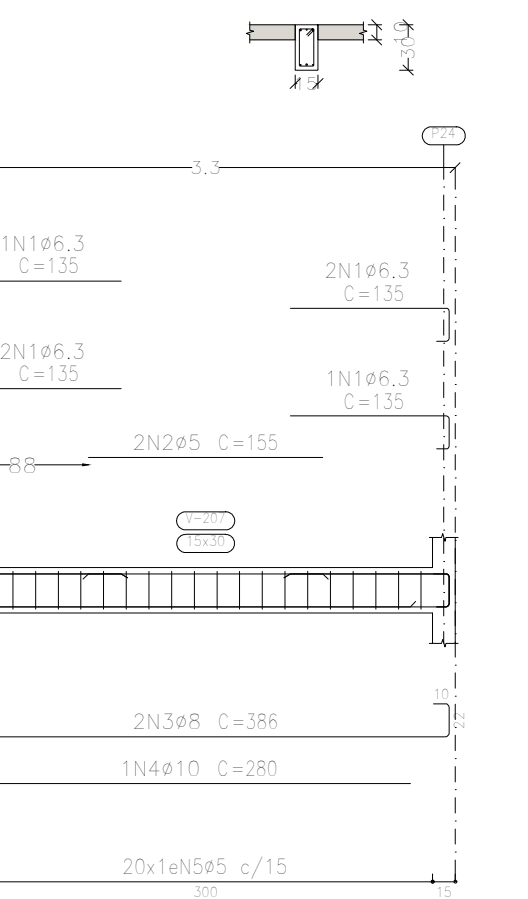
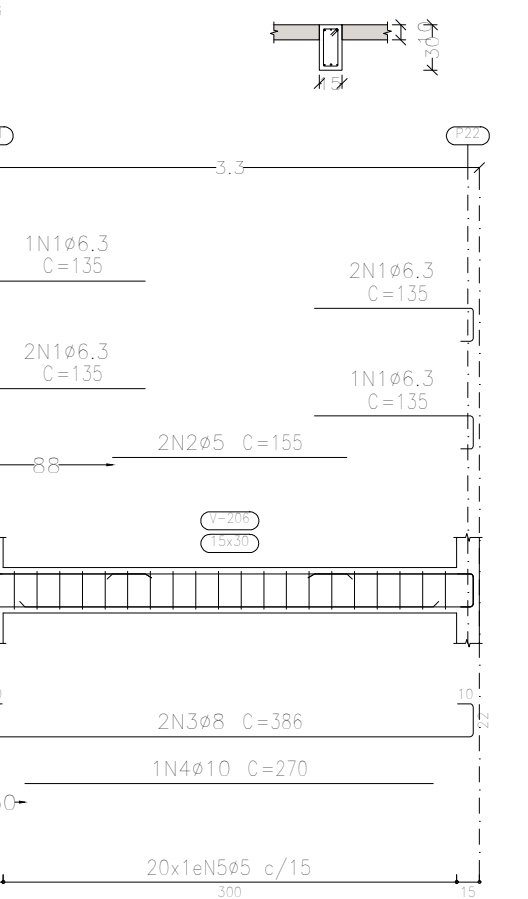
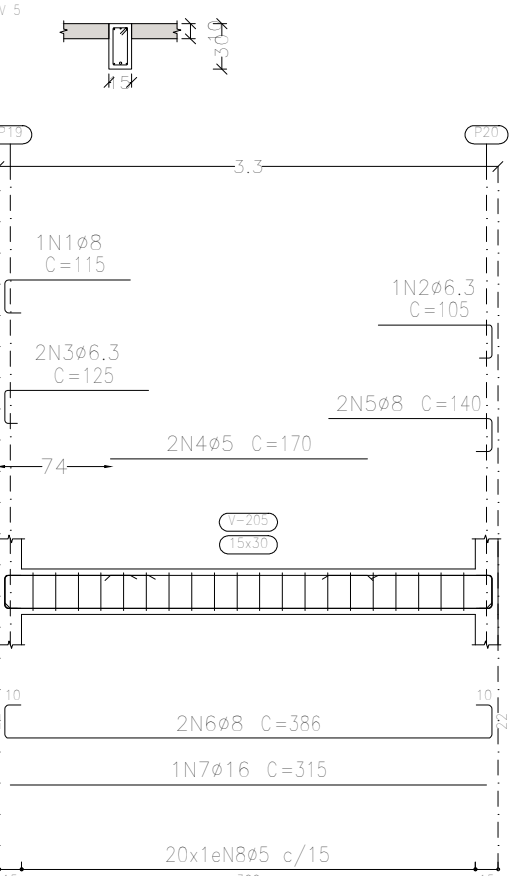
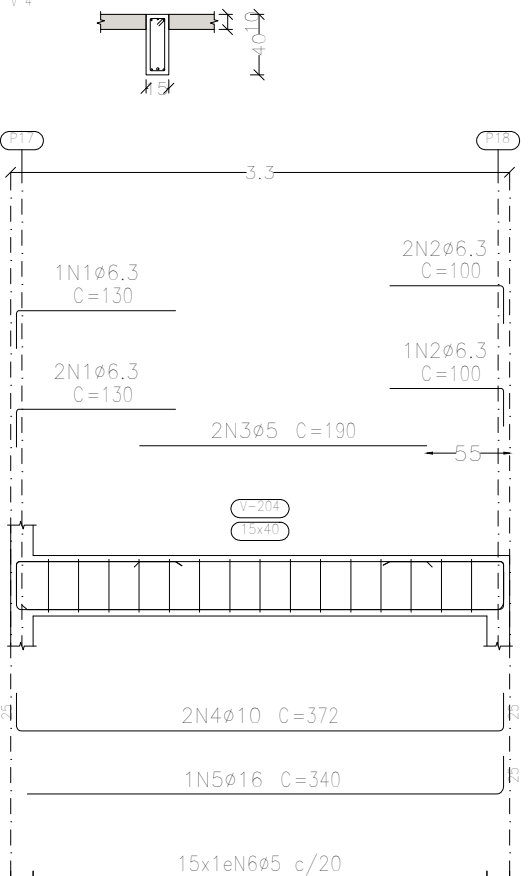
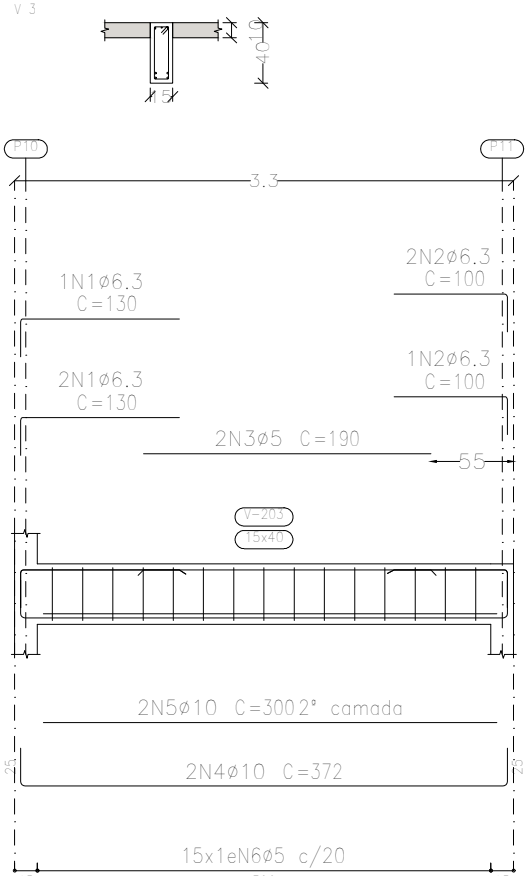
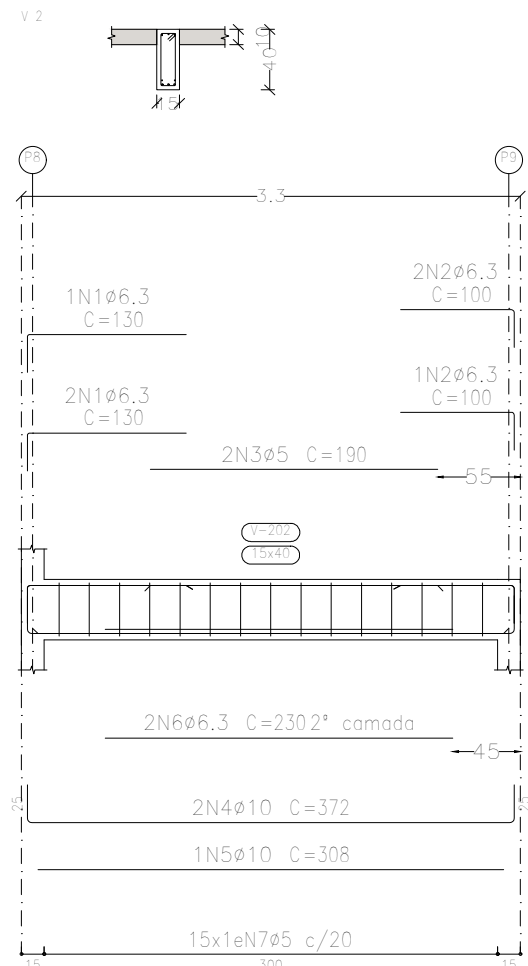
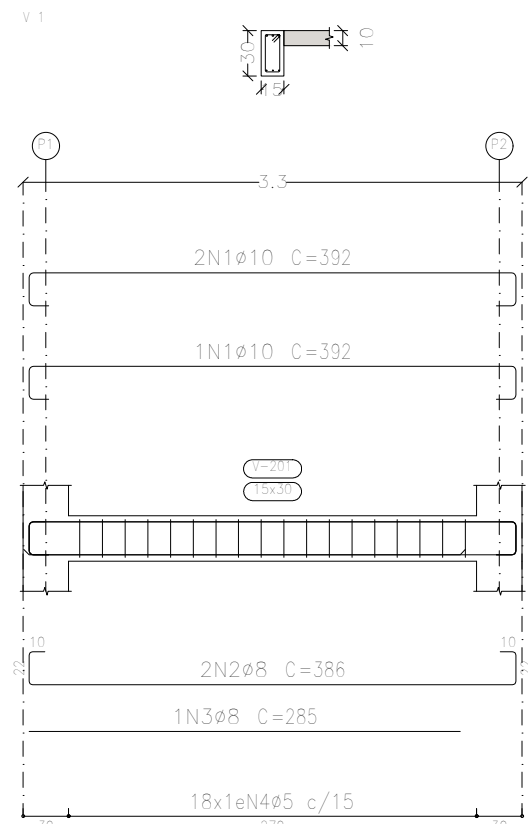
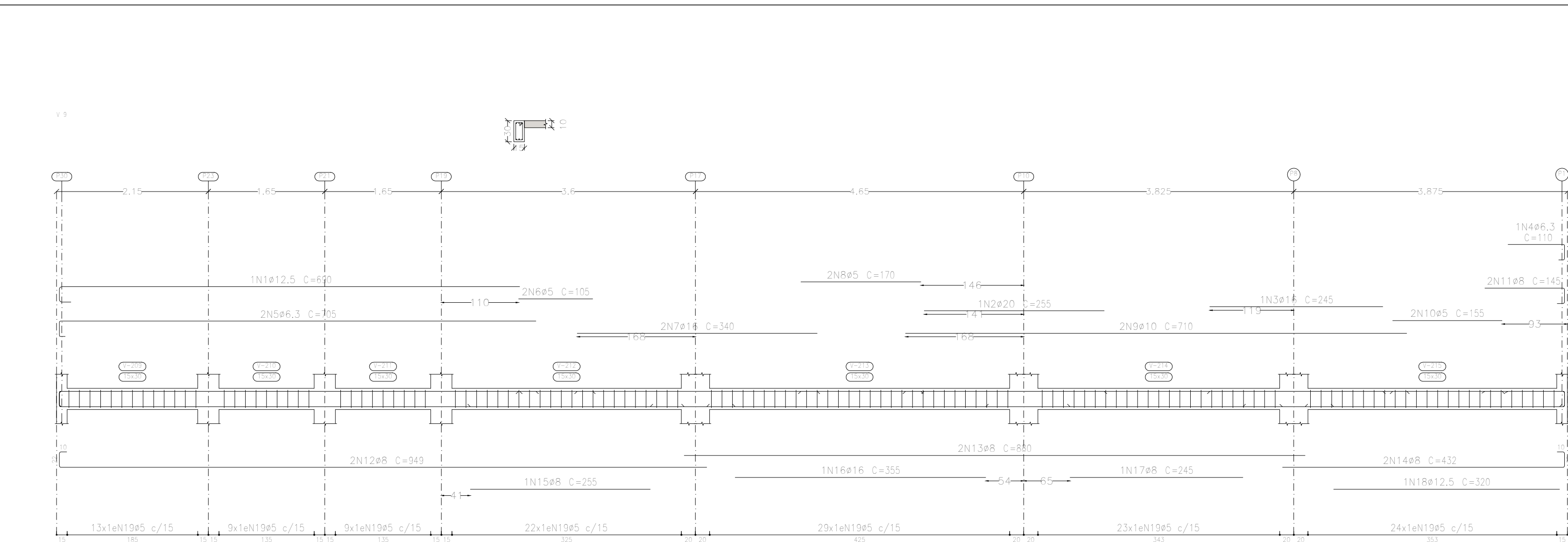


Laje
Desenho de vigas
Concreto: C25, em geral
Aço das barras: CA-50 e CA-60
Aço dos estribos: CA-50 e CA-60
Escala vigas 1:50
Escala seções 1:50
Escala aberturas 1:50

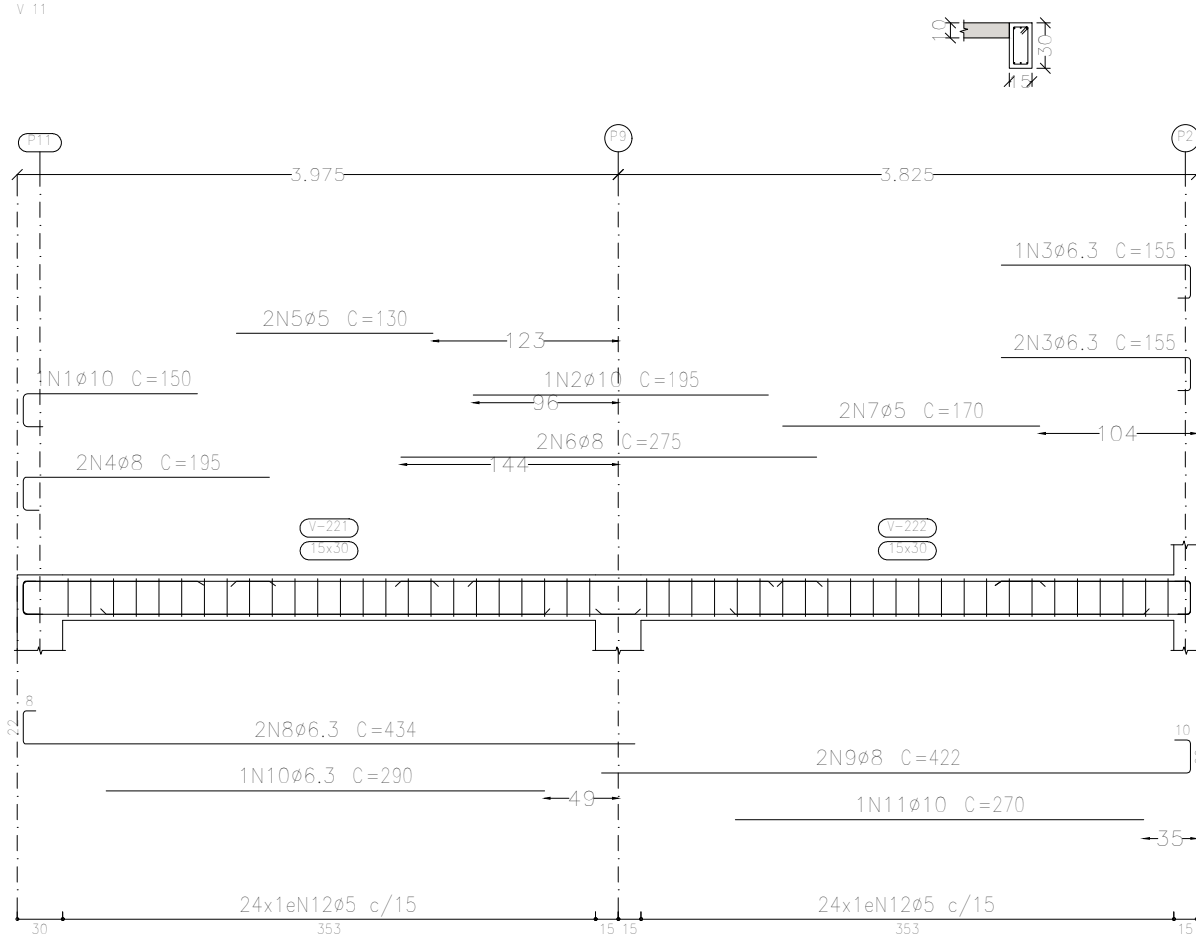


Resumo Aço		Comp. total (m)	Peso+10% (kg)	Total
Desenho de vigas				
CA-50	ø6.3	76.5	21	210
	ø8	177.3	77	
	ø10	78.9	53	
	ø12.5	17.2	18	
	ø16	19.4	34	
	ø20	2.6	7	
CA-60	ø5	362.0	63	63
Total				273

Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V 10	1	ø10	1	490	490	3.0		
	2	ø12.5	1	225	225	2.2		
	3	ø8	1	160	160	1.5		
	4	ø8	2	1080	2160	8.5		
	5	ø5	2	230	460		0.7	
	6	ø8	2	180	360	1.4		
	7	ø8	2	949	1898	7.5		
	8	ø8	2	519	1038	4.1		
	9	ø12.5	1	320	320	3.1		
	10	ø5	83	78	6474		10.2	
				Total+10%	34.4	12.0		

Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V 11	1	ø10	1	150	150	0.9		
	2	ø10	1	195	195	1.2		
	3	ø6.3	3	155	465	1.1		
	4	ø8	2	195	390	1.5		
	5	ø5	2	130	260		0.4	
	6	ø8	2	275	550	2.2		
	7	ø5	2	170	340		0.5	
	8	ø6.3	2	434	868	2.1		
	9	ø8	2	422	844	3.3		
	10	ø6.3	1	290	290	0.7		
				Total+10%	16.2	7.5		

Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V 1	1	ø10	3	392	1176	7.2		
	2	ø8	2	386	772	3.0		
	3	ø8	1	285	285	1.1		
	4	ø5	18	78	1404		2.2	
				Total+10%	12.4	2.4		
V 2	1	ø6.3	3	130	390	1.0		
	2	ø6.3	3	100	300	0.7		
	3	ø5	2	150	300		0.6	
	4	ø10	2	372	744	4.6		
	5	ø10	1	308	308	1.9		
	6	ø6.3	2	230	460		1.1	
				Total+10%	10.2	3.2		
V 3	1	ø6.3	3	130	390	1.0		
	2	ø6.3	3	100	300	0.7		
	3	ø5	2	150	300		0.6	
	4	ø10	2	372	744	4.6		
	5	ø10	2	300	600	3.7		
	6	ø5	15	98	1470		2.3	
				Total+10%	11.0	3.2		
V 4	1	ø6.3	3	130	390	1.0		
	2	ø6.3	3	100	300	0.7		
	3	ø5	2	150	300		0.6	
	4	ø10	2	372	744	4.6		
	5	ø16	1	340	340	5.4		
	6	ø5	15	98	1470		2.3	
				Total+10%	12.9	3.2		
V 5	1	ø8	1	115	115	0.5		
	2	ø6.3	1	105	105	0.3		
	3	ø6.3	2	125	250	0.6		
	4	ø5	2	170	340		0.5	
	5	ø8	2	140	280	1.1		
	6	ø8	2	366	732	3.0		
	7	ø16	1	315	315	5.0		
	8	ø5	20	78	1560		2.4	
				Total+10%	11.6	3.2		
V 6	1	ø6.3	6	135	810	2.0		
	2	ø5	2	155	310		0.5	
	3	ø8	2	386	772	3.0		
	4	ø10	1	270	270	1.7		
	5	ø5	20	78	1560		2.4	
				Total+10%	7.4	3.2		
V 7	1	ø6.3	6	135	810	2.0		
	2	ø5	2	155	310		0.5	
	3	ø8	2	386	772	3.0		
	4	ø10	1	280	280	1.7		
	5	ø5	20	78	1560		2.4	
				Total+10%	7.4	3.2		
V 8	1	ø10	1	140	140	0.9		
	2	ø10	2	180	360	2.2		
	3	ø8	2	215	430	1.7		
	4	ø8	2	386	772	3.0		
	5	ø8	1	210	210	0.8		
	6	ø5	18	78	1404		2.2	
				Total+10%	9.5	2.4		
V 9	1	ø12.5	1	690	690	6.6		
	2	ø20	1	255	255	6.3		
	3	ø16	1	245	245	3.9		
	4	ø6.3	1	110	110	0.3		
	5	ø6.3	2	705	1410	3.5		
	6	ø5	2	105	210		0.3	
	7	ø16	2	340	680	10.7		
	8	ø5	2	170	340		0.5	
	9	ø10	2	710	1420	8.8		
	10	ø5	2	155	310		0.5	
V 10	1	ø8	2	145	290	1.1		
	2	ø8	2	949	1898	7.5		
	3	ø8	2	880	1760	6.9		
	4	ø8	2	432	864	3.4		
	5	ø8	1	255	255	1.0		
	6	ø16	1	355	355	5.6		
	7	ø8	1	245	245	1.0		
	8	ø12.5	1	320	320	3.1		
	9	ø5	129	78	10062		15.8	
				Total+10%	76.7	18.8		
				ø5:	0.0	62.3		
				ø6.3:	20.8	0.0		
				ø8:	76.6	0.0		
				ø10:	53.5	0.0		
				ø12.5:	18.2	0.0		
				ø16:	33.7	0.0		
				ø20:	6.9	0.0		
				Total:	209.7	62.3		



Garagem p Ônibus Escolares	Data:	16/08/2023
Local:	Número de desenho:	
Promotor:		
Garagem para Ônibus Escolares	Escola:	Indicado
Eduardo Rampanelli Tosetto	Data:	
Número do CREA: 1220503037	16/08/2023	