

Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)	
C1	1	Ø12	7	245	245	1715	15.2	Total+10%: 81.4		
	2	Ø12	14	15	119	149	2086			
	3	Ø12	7	245	245	1715	15.2			
	4	Ø12	14	15	119	149	2086			
	5	Ø12	6	30	83	113	6.0			
	6	Ø6	3	94	94	282	0.6			
C2	7	Ø12	5	210	210	1050	9.3	Total+10%: 42.0		
	8	Ø12	10	15	99	129	1290			
	9	Ø16	2	30	83	113	226			
	10	Ø20	4	30	102	132	528			
	11	Ø6	3	114	114	342	0.8			
	C3	12	Ø12	9	295	295	2655			23.6
13		Ø12	19	15	139	169	3211			
14		Ø12	9	295	295	2655	23.6			
15		Ø12	19	15	139	169	3211			
16		Ø12	2	30	93	123	246			
17		Ø16	4	30	103	133	532			
C4=C6	18	Ø6	3	94	94	282	0.6	Total+10%: 106.0 (62)		
	19	Ø12	8	275	275	2200	19.5			
	20	Ø12	16	15	134	164	2624			
	21	Ø12	8	275	275	2200	19.5			
	22	Ø12	16	15	134	164	2624			
	23	Ø12	2	30	88	118	236			
C5	24	Ø16	4	30	98	128	512	Total+10%: 150.2		
	25	Ø6	3	94	94	282	0.6			
	26	Ø12	10	315	315	3150	28.0			
	27	Ø12	21	15	149	179	3759			
	28	Ø12	10	315	315	3150	28.0			
	29	Ø12	21	15	149	179	3759			
C9	30	Ø16	6	30	108	138	828	Total+10%: 117.7		
	31	Ø6	3	94	94	282	0.6			
	32	Ø12	9	285	285	2565	22.8			
	33	Ø12	18	15	134	164	2952			
	34	Ø12	9	285	285	2565	22.8			
	35	Ø12	18	15	134	164	2952			
C10	36	Ø16	4	30	103	133	532	Total+10%: 179.3		
	37	Ø6	3	94	94	282	0.6			
	38	Ø16	7	325	325	2775	35.9			
	39	Ø16	13	16	153	185	2405			
	40	Ø16	7	325	325	2775	35.9			
	41	Ø16	13	16	153	185	2405			
Ø6: 5.5	42	Ø16	6	30	112	142	852	Total: 909.5		
	43	Ø6	3	94	94	282	0.6			
	Ø6:	5.5								
	Ø12:	656.5								
	Ø16:	233.2								
	Ø20:	14.3								

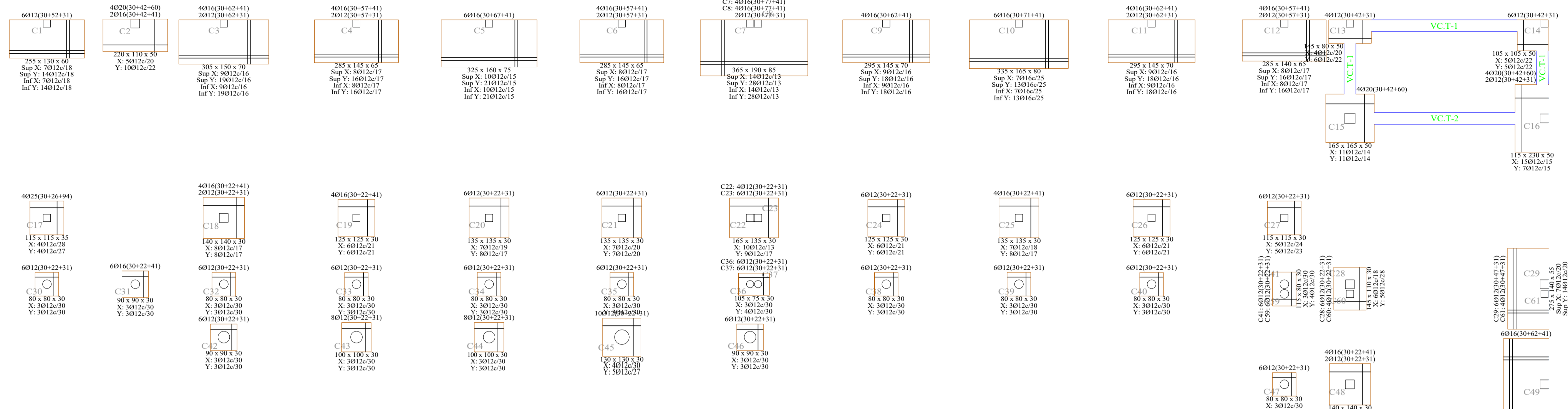
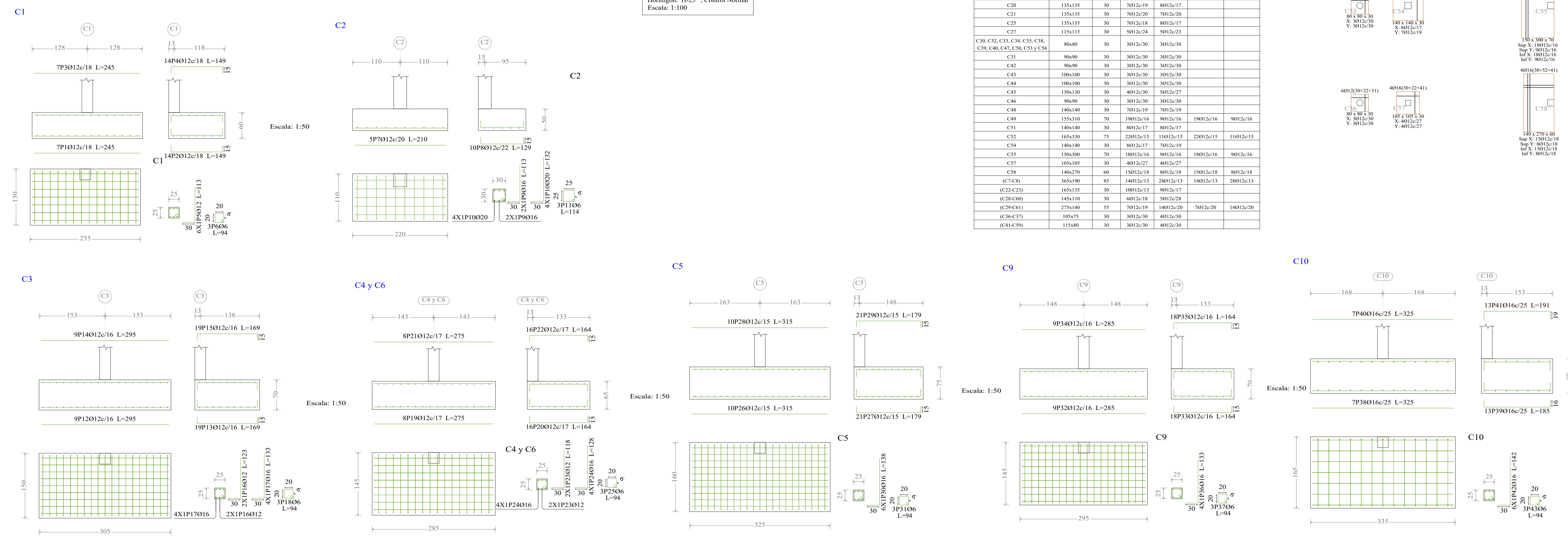


Tabla de vigas centradoras

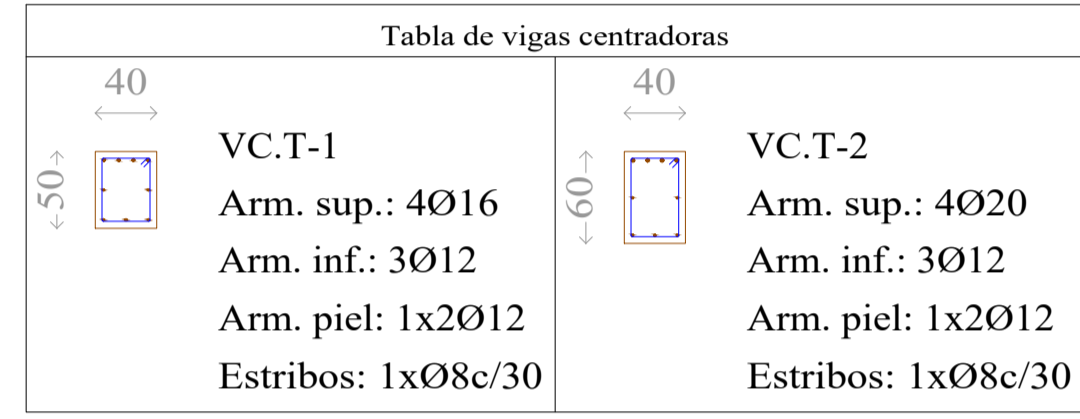
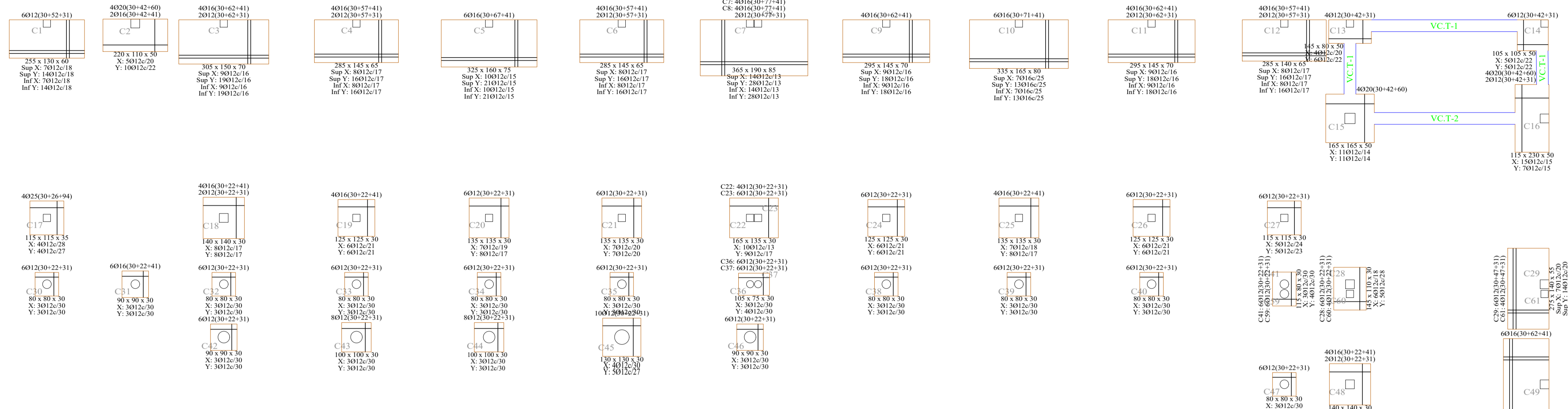
<p>VC.T-1</p> <p>Arm. sup.: 4Ø16</p> <p>Arm. inf.: 3Ø12</p> <p>Arm. piel: 1x2Ø12</p> <p>Estribos: 1xØ8c/30</p>	<p>VC.T-2</p> <p>Arm. sup.: 4Ø20</p> <p>Arm. inf.: 3Ø12</p> <p>Arm. piel: 1x2Ø12</p> <p>Estribos: 1xØ8c/30</p>
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CUADRO DE ELEMENTOS DE CIMENTACIÓN

Referencias	Dimensiones (cm)	Canto (cm)	Armado inf. X	Armado inf. Y	Armado sup. X	Armado sup. Y
C1	255x110	60	7Ø12/18	14Ø12/18	7Ø12/18	14Ø12/18
C2	220x110	50	4Ø12/20	10Ø12/22		
C3	305x150	70	9Ø12/16	19Ø12/16	19Ø12/16	19Ø12/16
C4 y C6	285x145	65	8Ø12/17	16Ø12/17	8Ø12/17	16Ø12/17
C5	325x160	75	10Ø12/15	21Ø12/15	10Ø12/15	21Ø12/15
C9 y C11	295x145	70	9Ø12/16	18Ø12/16	9Ø12/16	18Ø12/16
C10	335x165	80	7Ø16/25	13Ø16/25	7Ø16/25	13Ø16/25
C12	285x140	65	8Ø12/17	16Ø12/17	8Ø12/17	16Ø12/17
C13	145x80	50	4Ø12/20	6Ø12/22		
C14	105x105	50	5Ø12/22	5Ø12/22		
C15	165x165	50	11Ø12/14	11Ø12/14		
C16	115x230	50	15Ø12/15	7Ø12/15		
C17	115x115	35	4Ø12/28	4Ø12/27		
C18	140x140	30	8Ø12/17	8Ø12/17		
C19, C24 y C26	125x125	30	6Ø12/21	6Ø12/21		
C20	135x135	30	7Ø12/19	8Ø12/17		
C21	135x135	30	7Ø12/20	7Ø12/20		
C25	135x135	30	7Ø12/18	8Ø12/17		
C27	115x115	30	5Ø12/24	5Ø12/23		
C30, C32, C33, C34, C35, C38, C39, C40, C47, C50, C53 y C56	80x80	30	3Ø12/30	3Ø12/30		
C31	90x90	30	3Ø12/30	3Ø12/30		
C42	90x90	30	3Ø12/30	3Ø12/30		
C43	100x100	30	3Ø12/30	3Ø12/30		
C44	100x100	30	3Ø12/30	3Ø12/30		
C45	130x130	30	4Ø12/30	5Ø12/27		
C46	90x90	30	3Ø12/30	3Ø12/30		
C48	140x140	30	7Ø12/19	7Ø12/19		
C49	155x310	70	19Ø12/16	9Ø12/16	19Ø12/16	9Ø12/16
C51	140x140	30	8Ø12/17	8Ø12/17		
C52	165x330	75	22Ø12/15	11Ø12/15	22Ø12/15	11Ø12/15
C54	140x140	30	8Ø12/17	7Ø12/19		
C55	150x300	70	18Ø12/16	9Ø12/16	18Ø12/16	9Ø12/16
C57	105x105	30	4Ø12/27	4Ø12/27		
C58	140x270	60	15Ø12/18	8Ø12/18	15Ø12/18	8Ø12/18
(C7-C8)	365x190	85	14Ø12/13	28Ø12/13	14Ø12/13	28Ø12/13
(C22-C23)	165x135	30	10Ø12/13	9Ø12/17		
(C28-C40)	145x110	30	6Ø12/18	5Ø12/28		
(C29-C31)	275x140	55	7Ø12/19	14Ø12/20	7Ø12/20	14Ø12/20
(C36-C37)	105x75	30	3Ø12/30	4Ø12/30		
(C41-C59)	115x80	30	3Ø12/30	4Ø12/30		

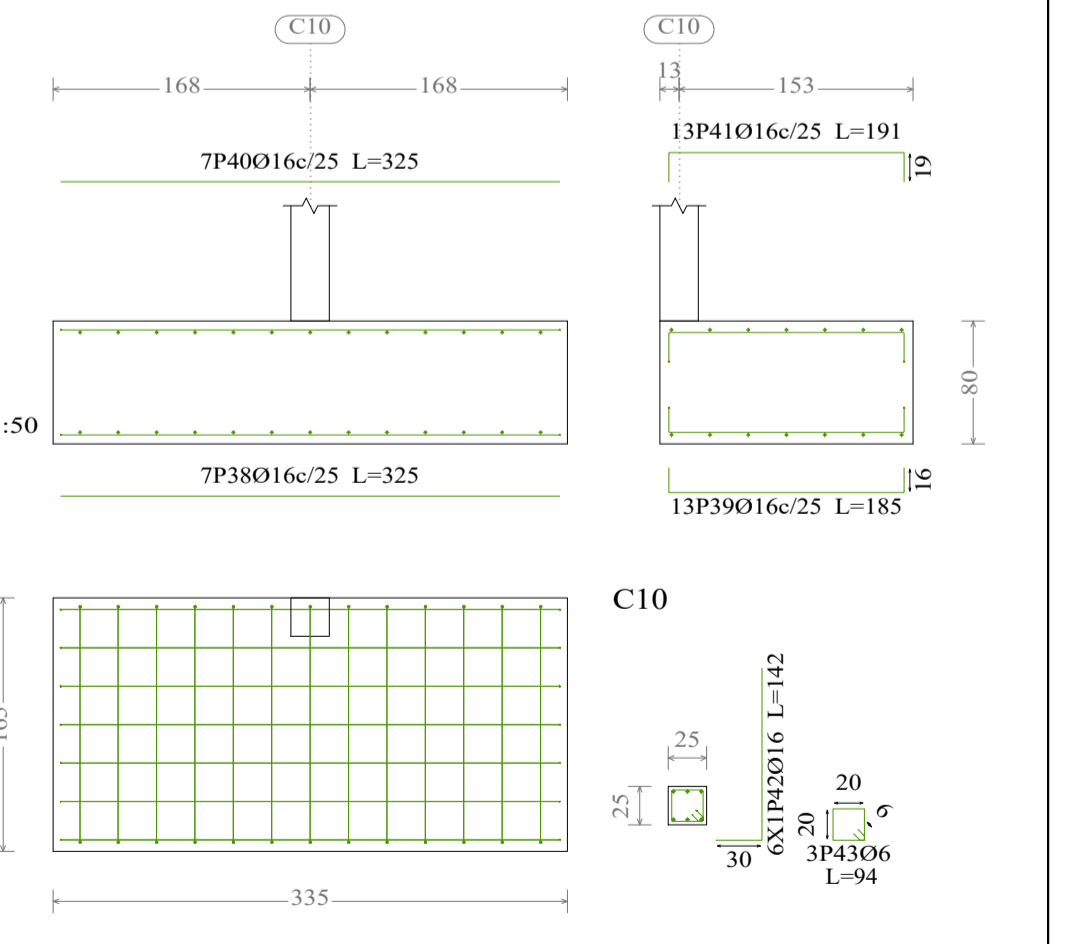
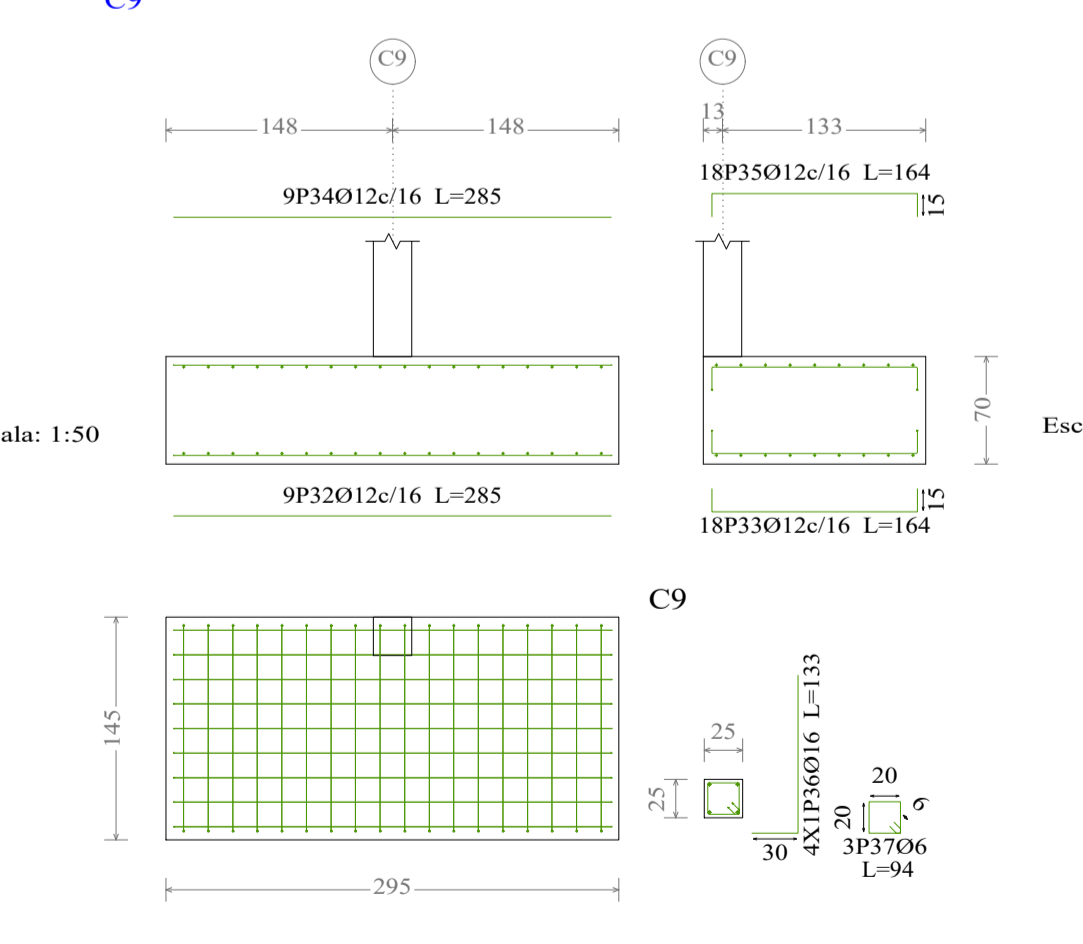
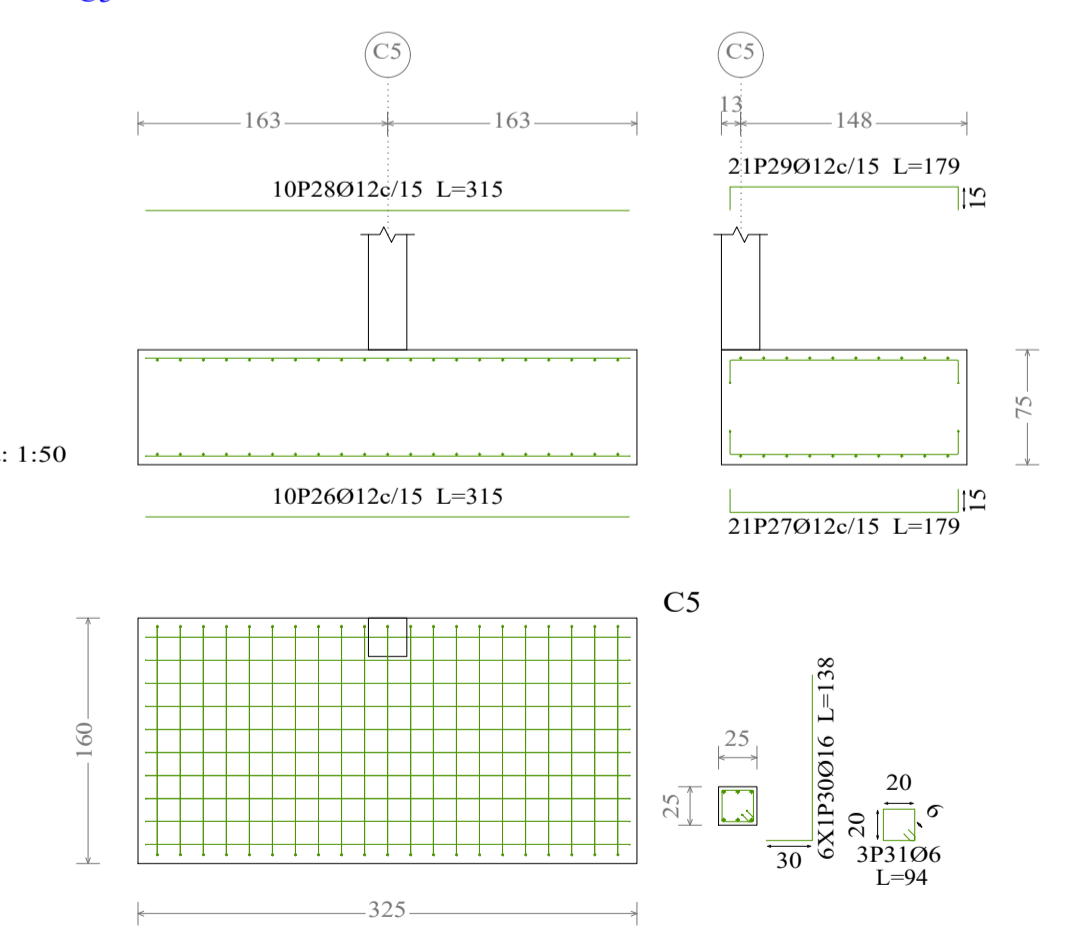
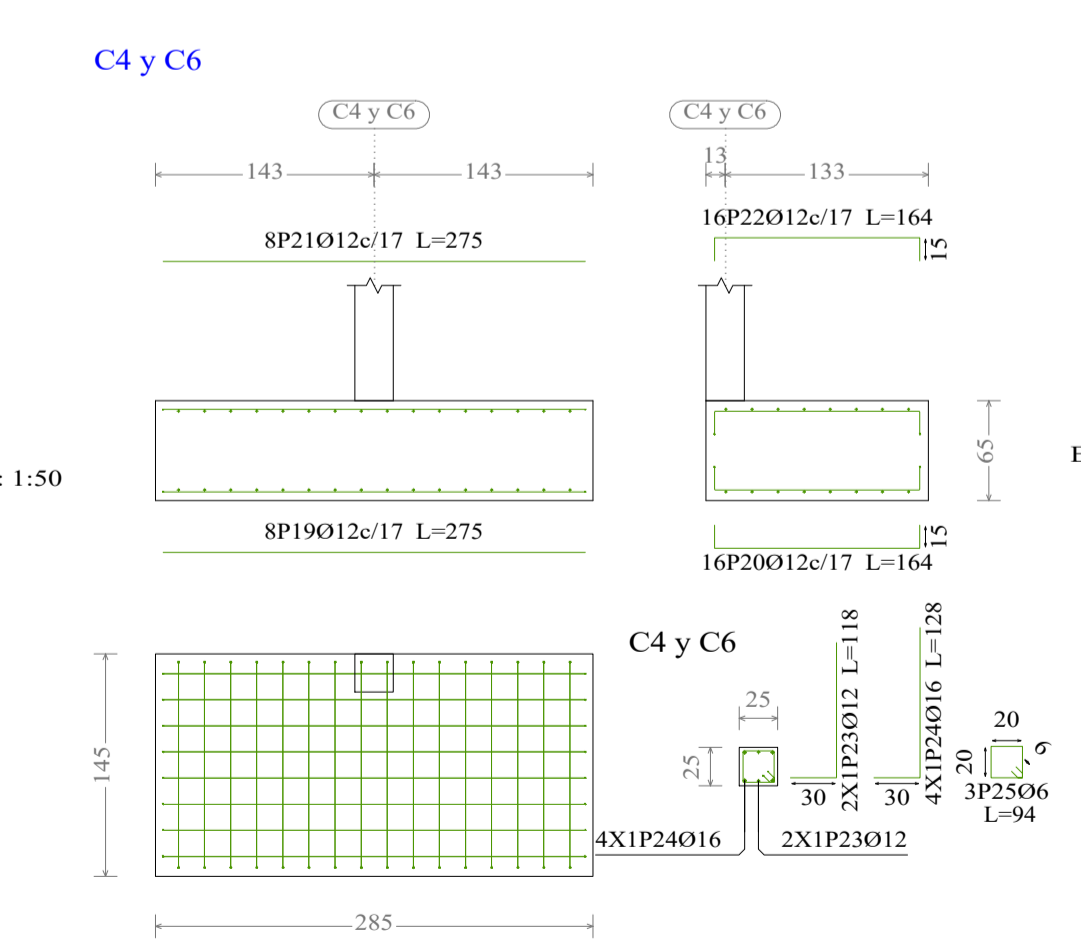
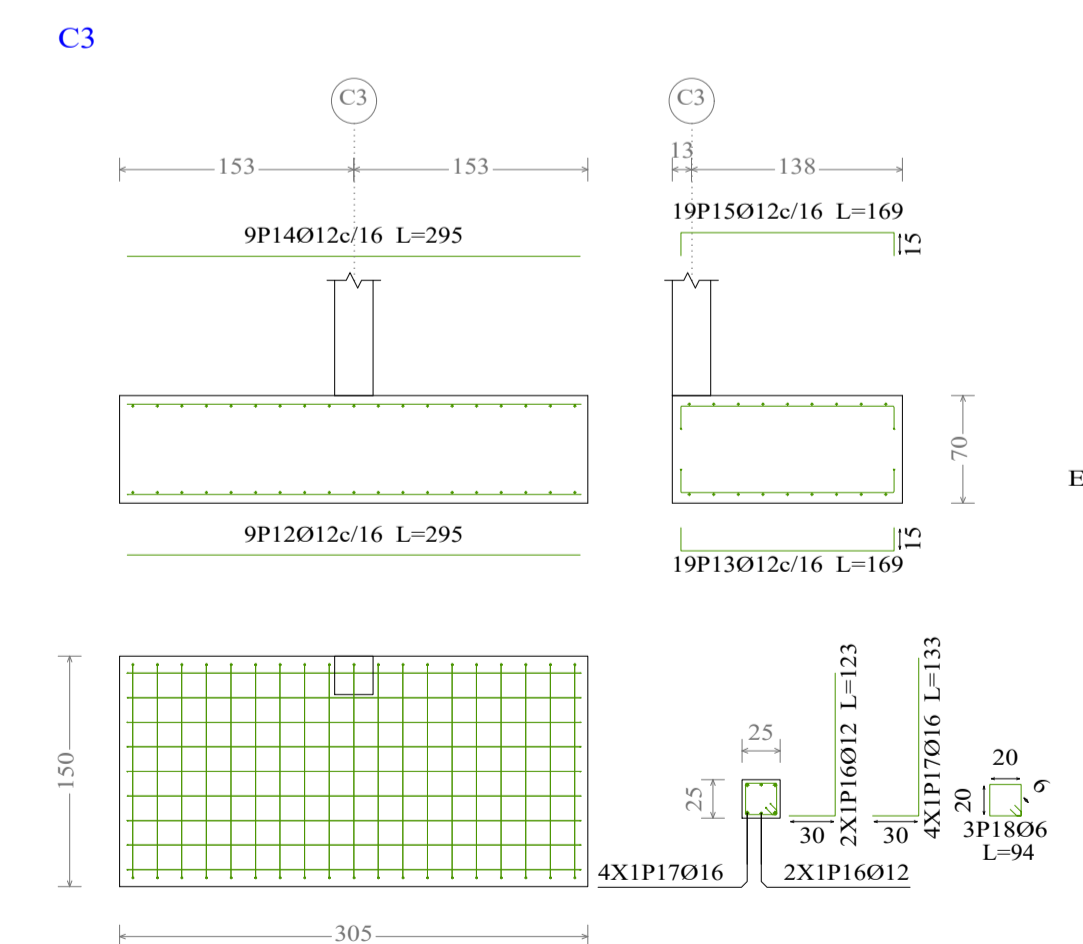
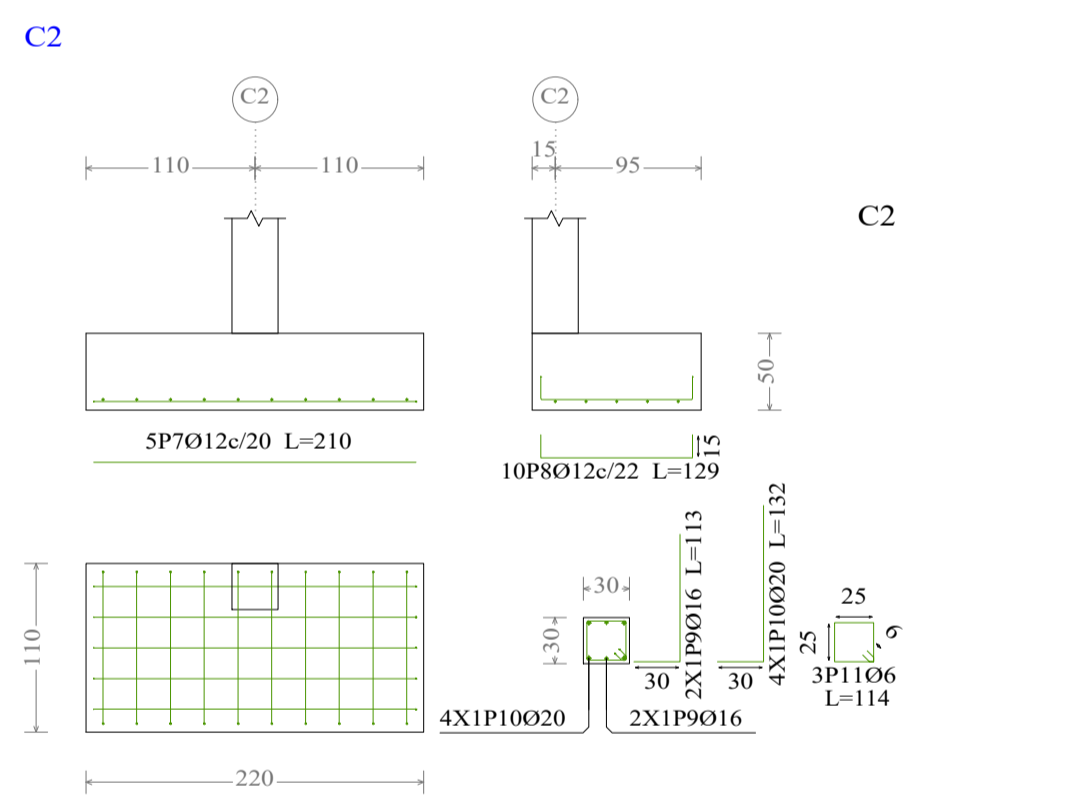
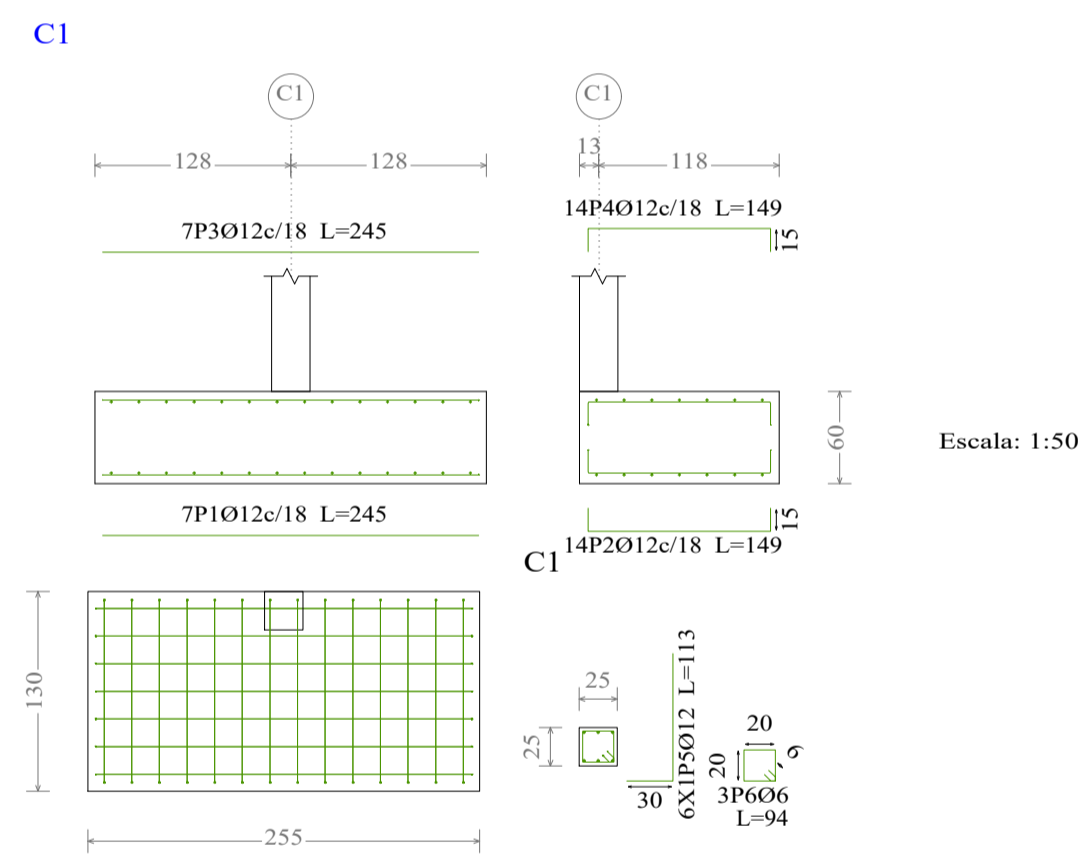


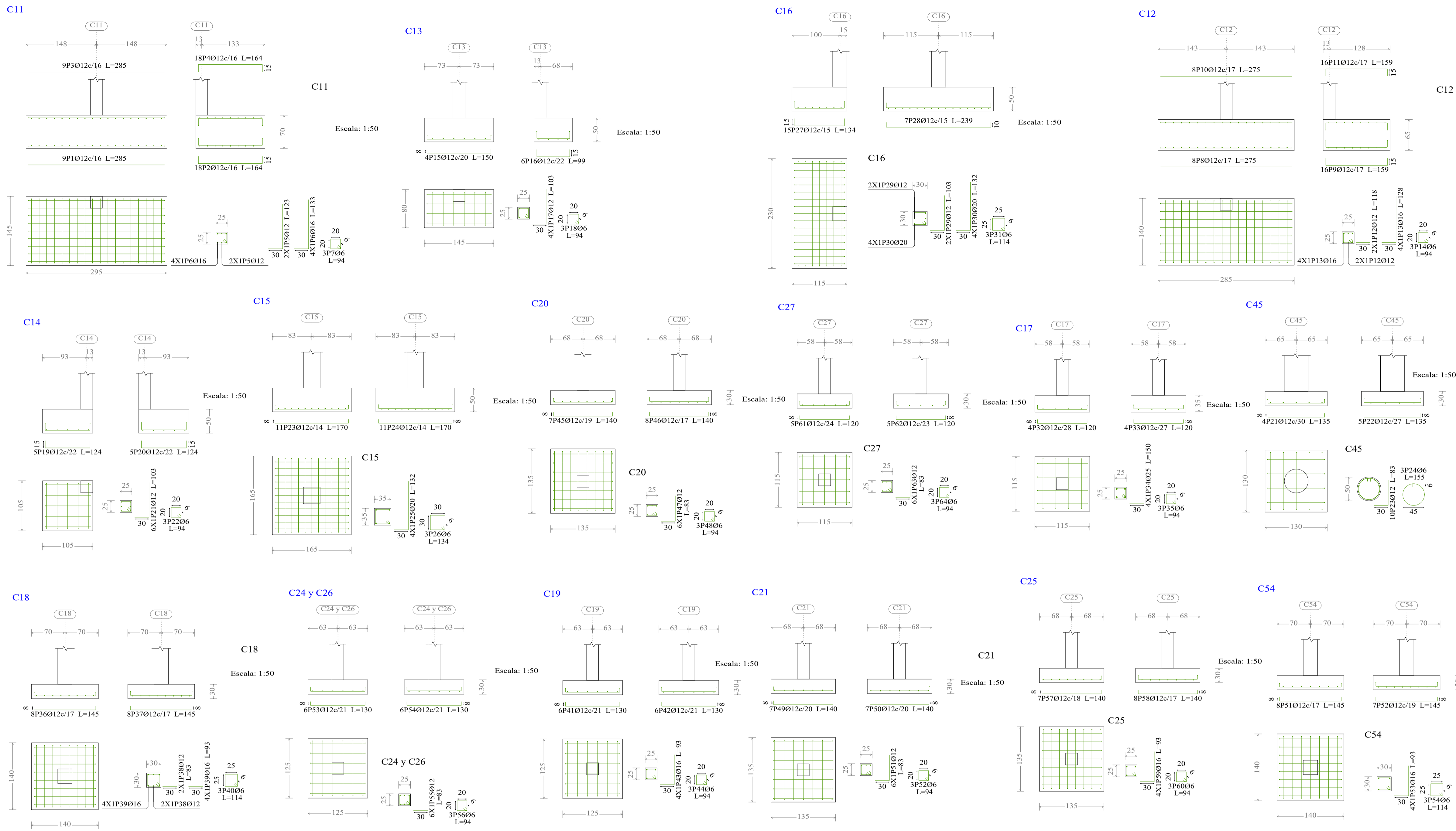
Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
C1	1	Ø12	7	245	245	1715	15.2	Total+10%: 81.4	
	2	Ø12	14	15	119	149	2086		
	3	Ø12	7	245	245	1715	15.2		
	4	Ø12	14	15	119	149	2086		
	5	Ø12	6	30	83	113	6.0		
	6	Ø6	3	94	94	282	0.6		
C2	7	Ø12	5	210	210	1050	9.3	Total+10%: 42.0	
	8	Ø12	10	15	99	129	1290		
	9	Ø16	2	30	83	113	226		
	10	Ø20	4	30	102	132	528		
	11	Ø6	3	114	114	342	0.8		
	C3	12	Ø12	9	295	295	2655		
13		Ø12	19	15	139	169	3211		
14		Ø12	9	295	295	2655	23.6		
15		Ø12	19	15	139	169	3211		
16		Ø12	2	30	93	123	246		
17		Ø16	4	30	103	133	532		
C4=C6	18	Ø6	3	94	94	282	0.6	Total+10%: 106.0 (62)	
	19	Ø12	8	275	275	2200	19.5		
	20	Ø12	16	15	134	164	2624		
	21	Ø12	8	275	275	2200	19.5		
	22	Ø12	16	15	134	164	2624		
	23	Ø12	2	30	88	118	236		
C5	24	Ø16	4	30	98	128	512	Total+10%: 150.2	
	25	Ø6	3	94	94	282	0.6		
	26	Ø12	10	315	315	3150	28.0		
	27	Ø12	21	15	149	179	3759		
	28	Ø12	10	315	315	3150	28.0		
	29	Ø12	21	15	149	179	3759		
C9	30	Ø16	6	30	108	138	828	Total+10%: 117.7	
	31	Ø6	3	94	94	282	0.6		
	32	Ø12	9	285	285	2565	22.8		
	33	Ø12	18	15	134	164	2952		
	34	Ø12	9	285	285	2565	22.8		
	35	Ø12	18	15	134	164	2952		
C10	36	Ø16	4	30	103	133	532	Total+10%: 179.3	
	37	Ø6	3	94	94	282	0.6		
	38	Ø16	7	325	325	2775	35.9		
	39	Ø16	13	16	153	185	2405		
	40	Ø16	7	325	325	2775	35.9		
	41	Ø16	13	16	153	185	2405		
Ø6: 5.5	42	Ø16	6	30	112	142	852	Total: 909.5	
	43	Ø6	3	94	94	282	0.6		
	Ø6:						5.5		
	Ø12:						656.5		
	Ø16:						233.2		
	Ø20:						14.3		



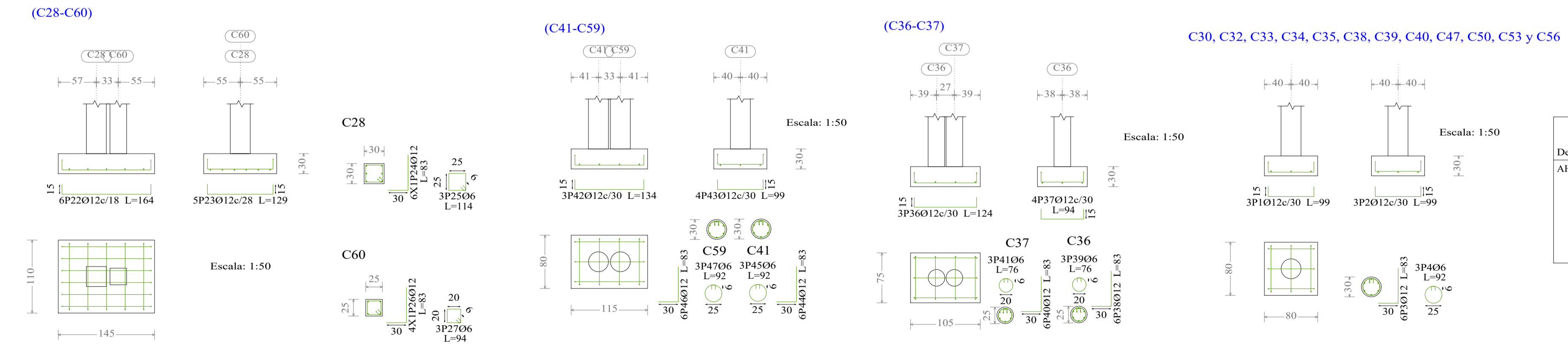
Cimentación
Hormigón: H-25, Control Normal
Escala: 1:100

Referencias	Dimensiones (cm)	Canto (cm)	Armad. inf. X	Armad. inf. Y	Armad. sup. X	Armad. sup. Y
C1	255x110	60	7Ø12/18	14Ø12/18	7Ø12/18	14Ø12/18
C2	220x110	50	4Ø12/20	10Ø12/22		
C3	305x150	70	9Ø12/16	19Ø12/16	9Ø12/16	19Ø12/16
C4 y C6	285x145	65	8Ø12/17	16Ø12/17	8Ø12/17	16Ø12/17
C5	325x160	75	10Ø12/15	21Ø12/15	10Ø12/15	21Ø12/15
C9 y C11	295x145	70	9Ø12/16	18Ø12/16	9Ø12/16	18Ø12/16
C10	335x165	80	7Ø16/25	13Ø16/25	7Ø16/25	13Ø16/25
C12	285x140	65	8Ø12/17	16Ø12/17	8Ø12/17	16Ø12/17
C13	145x80	50	4Ø12/20	6Ø12/22		
C14	105x105	50	5Ø12/22	5Ø12/22		
C15	165x165	50	11Ø12/14	11Ø12/14		
C16	115x230	50	15Ø12/15	7Ø12/15		
C17	115x115	35	4Ø12/28	4Ø12/27		
C18	140x140	30	8Ø12/17	8Ø12/17		
C19, C24 y C26	125x125	30	6Ø12/21	6Ø12/21		
C20	135x135	30	7Ø12/19	8Ø12/17		
C21	135x135	30	7Ø12/20	7Ø12/20		
C25	135x135	30	7Ø12/18	8Ø12/17		
C27	115x115	30	5Ø12/24	5Ø12/23		
C30, C32, C33, C34, C35, C38, C39, C40, C47, C50, C53 y C56	80x80	30	3Ø12/30	3Ø12/30		
C31	90x90	30	3Ø12/30	3Ø12/30		
C42	90x90	30	3Ø12/30	3Ø12/30		
C43	100x100	30	3Ø12/30	3Ø12/30		
C44	100x100	30	3Ø12/30	3Ø12/30		
C45	130x130	30	4Ø12/30	5Ø12/27		
C46	90x90	30	3Ø12/30	3Ø12/30		
C48	140x140	30	7Ø12/19	7Ø12/19		
C49	155x310	70	19Ø12/16	9Ø12/16	19Ø12/16	9Ø12/16
C51	140x140	30	8Ø12/17	8Ø12/17		
C52	165x330	75	22Ø12/15	11Ø12/15	22Ø12/15	11Ø12/15
C54	140x140	30	8Ø12/17	7Ø12/19		
C55	150x300	70	18Ø12/16	9Ø12/16	18Ø12/16	9Ø12/16
C57	105x105	30	4Ø12/27	4Ø12/27		
C58	140x270	60	15Ø12/18	8Ø12/18	15Ø12/18	8Ø12/18
(C7-C8)	365x190	85	14Ø12/13	28Ø12/13	14Ø12/13	28Ø12/13
(C22-C23)	165x135	30	10Ø12/13	9Ø12/17		
(C28-C40)	145x110	30	6Ø12/18	5Ø12/28		
(C29-C31)	275x140	55	7Ø12/19	14Ø12/20	7Ø12/20	14Ø12/20
(C36-C37)	105x75	30	3Ø12/30	4Ø12/30		
(C41-C59)	115x80	30	3Ø12/30	4Ø12/30		

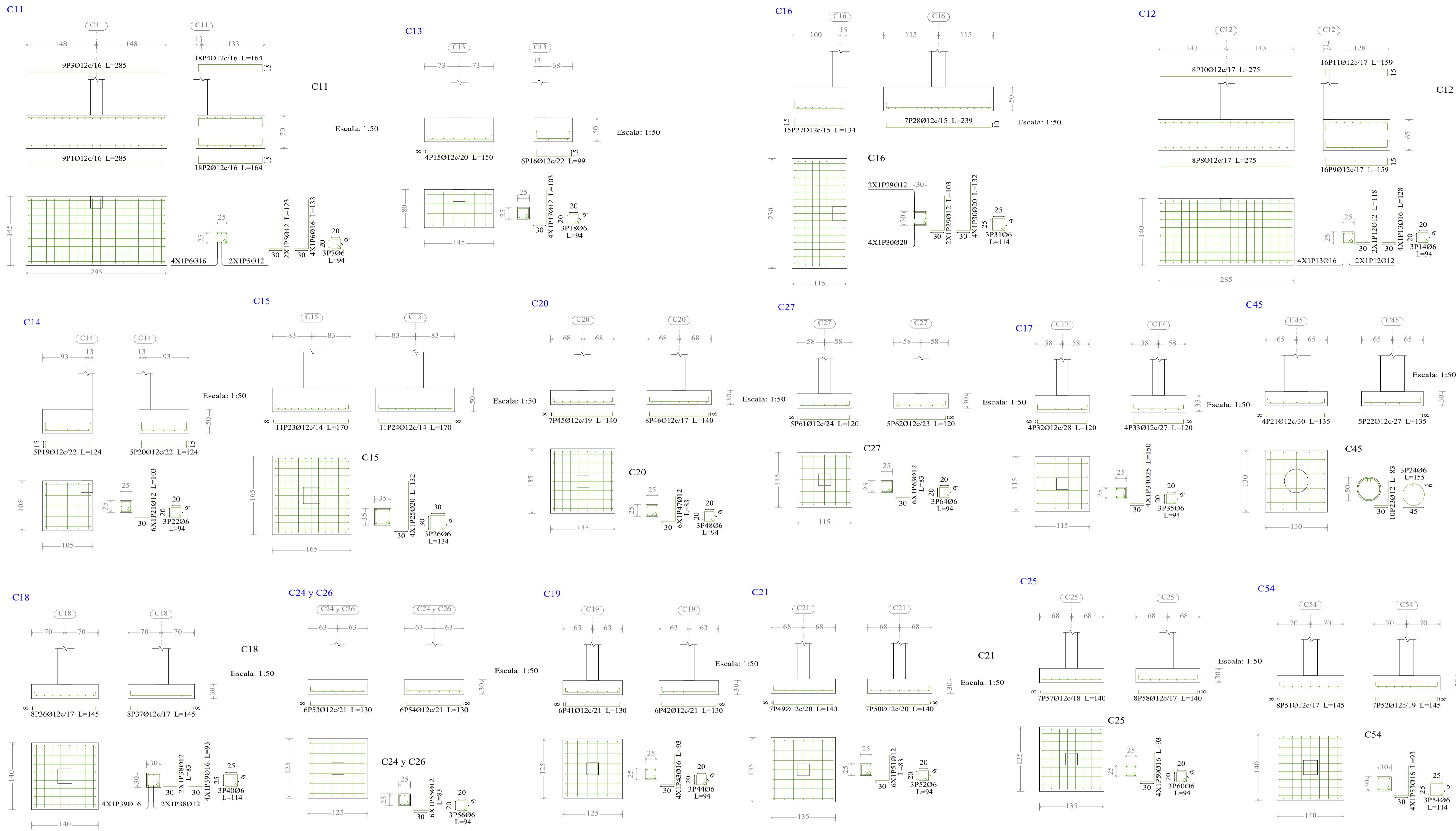




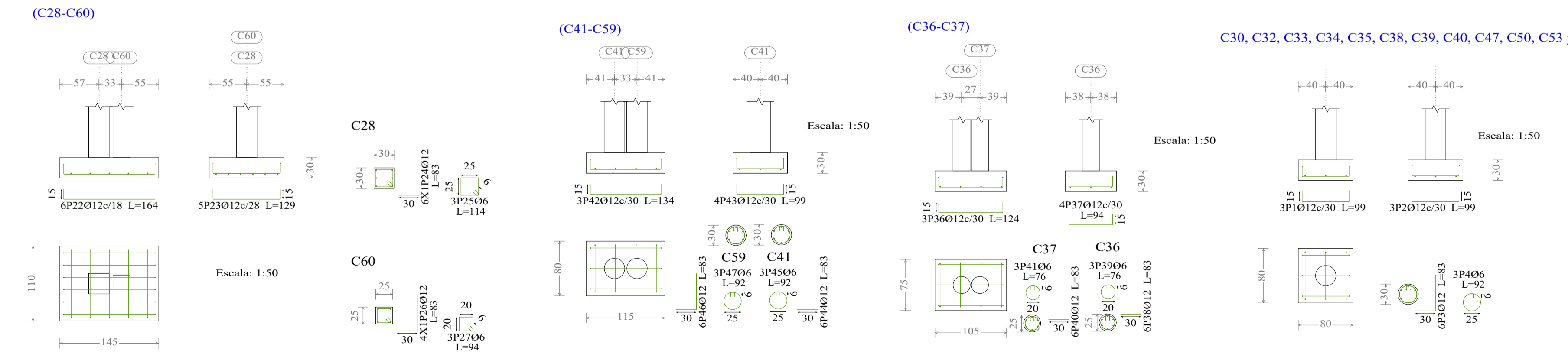
Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)																											
C11	1	Ø12	9	285	15	134	285	2565	22.8																											
	2	Ø12	18	15	134	15	164	2952	26.2																											
	3	Ø12	9	285	15	134	285	2565	22.8																											
	4	Ø12	18	15	134	15	164	2952	26.2																											
	5	Ø12	2	30	93	123	246	2.2	0.6																											
	6	Ø16	4	30	103	133	532	8.4	2.2																											
	7	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									120.1																											
C12	8	Ø12	8	15	275	15	275	2200	19.5																											
	9	Ø12	16	15	129	15	159	2544	22.6																											
	10	Ø12	8	15	275	15	275	2200	19.5																											
	11	Ø12	16	15	129	15	159	2544	22.6																											
	12	Ø12	2	30	88	118	236	2.1	0.6																											
	13	Ø16	4	30	98	128	512	8.1	2.1																											
	14	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									104.5																										
	C13	15	Ø12	4	8	134	8	150	600	5.3																										
		16	Ø12	6	15	69	15	99	594	5.3																										
		17	Ø12	4	30	73	103	412	3.7	0.6																										
		18	Ø6	3	30	94	94	282	0.6	0.6																										
	Total+10%:									16.4																										
	C14	19	Ø12	5	15	94	15	124	620	5.5																										
20		Ø12	5	15	94	15	124	620	5.5																											
21		Ø12	6	30	73	103	618	5.5	0.6																											
22		Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									18.8																											
C15	23	Ø12	11	8	154	8	170	1870	16.6																											
	24	Ø12	11	8	154	8	170	1870	16.6																											
	25	Ø20	4	30	102	132	528	13.0	0.9																											
	26	Ø6	3	30	134	134	402	0.9	0.9																											
	Total+10%:									51.8																										
C16	27	Ø12	15	15	104	15	134	2010	17.8																											
	28	Ø12	7	10	219	10	239	1673	14.9																											
	29	Ø12	2	30	73	103	206	1.8	0.6																											
	30	Ø20	4	30	102	132	528	13.0	0.9																											
	31	Ø6	3	30	114	114	342	0.8	0.8																											
	Total+10%:									53.1																										
C17	32	Ø12	4	8	104	8	120	480	4.3																											
	33	Ø12	4	8	104	8	120	480	4.3																											
	34	Ø25	4	30	120	150	600	23.1	0.6																											
	35	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									35.5																										
C18	36	Ø12	8	8	129	8	145	1160	10.3																											
	37	Ø12	8	8	129	8	145	1160	10.3																											
	38	Ø12	2	30	53	83	166	1.5	0.6																											
	39	Ø16	4	30	63	93	372	5.9	0.6																											
	40	Ø6	3	30	114	114	342	0.8	0.8																											
Total+10%:									31.7																											
C19	41	Ø12	6	8	114	8	130	780	6.9																											
	42	Ø12	6	8	114	8	130	780	6.9																											
	43	Ø16	4	30	63	93	372	5.9	0.6																											
	44	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									22.3																										
C20	45	Ø12	7	8	124	8	140	980	8.7																											
	46	Ø12	8	8	124	8	140	1120	9.9																											
	47	Ø12	6	30	53	83	498	4.4	0.6																											
	48	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									26.0																										
C21	49	Ø12	7	8	124	8	140	980	8.7																											
	50	Ø12	7	8	124	8	140	980	8.7																											
	51	Ø12	6	30	53	83	498	4.4	0.6																											
	52	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									24.6																										
C24-C26	53	Ø12	6	8	114	8	130	780	6.9																											
	54	Ø12	6	8	114	8	130	780	6.9																											
	55	Ø12	6	30	53	83	498	4.4	0.6																											
	56	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									20.7																										
C25	57	Ø12	7	8	124	8	140	980	8.7																											
	58	Ø12	8	8	124	8	140	1120	9.9																											
	59	Ø16	4	30	63	93	372	5.9	0.6																											
	60	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									27.6																										
C27	61	Ø12	5	8	104	8	120	600	5.3																											
	62	Ø12	5	8	104	8	120	600	5.3																											
	63	Ø12	6	30	53	83	498	4.4	0.6																											
	64	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									17.2																											
<table border="1"> <thead> <tr> <th>Resumen Acero Cimentación</th> <th>Long. total (m)</th> <th>Peso+10% (kg)</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>AH-500CN Ø6</td> <td>183.8</td> <td>45</td> <td></td> </tr> <tr> <td>Ø8</td> <td>79.1</td> <td>34</td> <td></td> </tr> <tr> <td>Ø12</td> <td>2459.4</td> <td>2402</td> <td></td> </tr> <tr> <td>Ø16</td> <td>277.6</td> <td>482</td> <td></td> </tr> <tr> <td>Ø20</td> <td>45.4</td> <td>123</td> <td></td> </tr> <tr> <td>Ø25</td> <td>6.0</td> <td>25</td> <td>3111</td> </tr> </tbody> </table>									Resumen Acero Cimentación	Long. total (m)	Peso+10% (kg)	Total	AH-500CN Ø6	183.8	45		Ø8	79.1	34		Ø12	2459.4	2402		Ø16	277.6	482		Ø20	45.4	123		Ø25	6.0	25	3111
Resumen Acero Cimentación	Long. total (m)	Peso+10% (kg)	Total																																	
AH-500CN Ø6	183.8	45																																		
Ø8	79.1	34																																		
Ø12	2459.4	2402																																		
Ø16	277.6	482																																		
Ø20	45.4	123																																		
Ø25	6.0	25	3111																																	



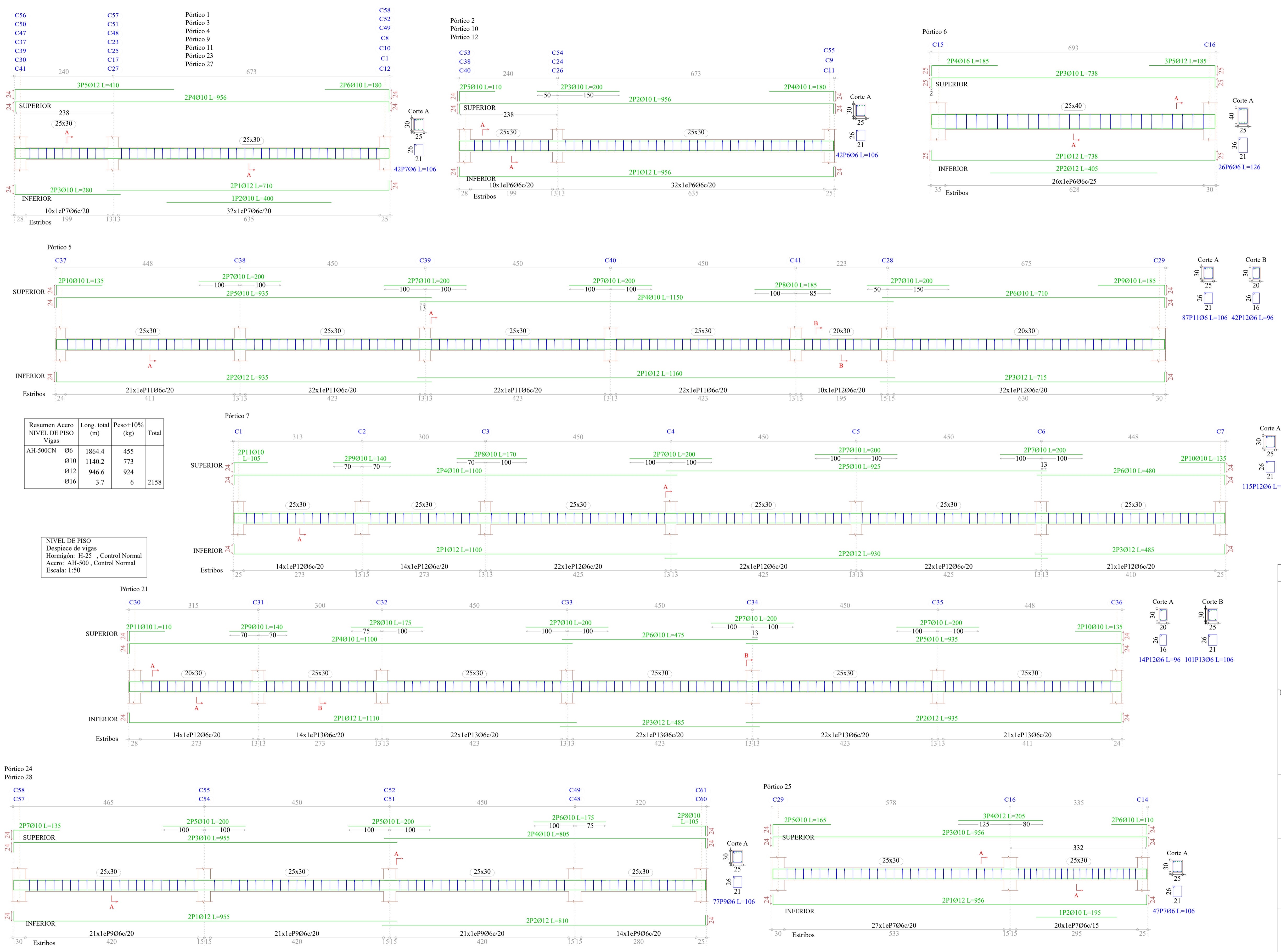
Resumen Acero Cimentación	Long. total (m)	Peso+10% (kg)	Total
AH-500CN Ø6	183.8	45	
Ø8	79.1	34	
Ø12	2459.4	2402	
Ø16	277.6	482	
Ø20	45.4	123	
Ø25	6.0	25	3111



Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)																											
C11	1	Ø12	9	285	15	134	285	2565	22.8																											
	2	Ø12	18	15	134	15	164	2952	26.2																											
	3	Ø12	9	285	15	134	285	2565	22.8																											
	4	Ø12	18	15	134	15	164	2952	26.2																											
	5	Ø12	2	30	93	123	246	2.2	0.6																											
	6	Ø16	4	30	103	133	532	8.4	2.2																											
	7	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									120.1																											
C12	8	Ø12	8	15	275	15	275	2200	19.5																											
	9	Ø12	16	15	129	15	159	2544	22.6																											
	10	Ø12	8	15	275	15	275	2200	19.5																											
	11	Ø12	16	15	129	15	159	2544	22.6																											
	12	Ø12	2	30	88	118	236	2.1	0.6																											
	13	Ø16	4	30	98	128	512	8.1	2.1																											
	14	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									104.5																										
	C13	15	Ø12	4	8	134	8	150	600	5.3																										
		16	Ø12	6	15	69	15	99	594	5.3																										
		17	Ø12	4	30	73	103	412	3.7	0.6																										
		18	Ø6	3	30	94	94	282	0.6	0.6																										
	Total+10%:									16.4																										
	C14	19	Ø12	5	15	94	15	124	620	5.5																										
20		Ø12	5	15	94	15	124	620	5.5																											
21		Ø12	6	30	73	103	618	5.5	0.6																											
22		Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									18.8																											
C15	23	Ø12	11	8	154	8	170	1870	16.6																											
	24	Ø12	11	8	154	8	170	1870	16.6																											
	25	Ø20	4	30	102	132	528	13.0	0.9																											
	26	Ø6	3	30	134	134	402	0.9	0.9																											
Total+10%:									51.8																											
C16	27	Ø12	15	15	104	15	134	2010	17.8																											
	28	Ø12	7	10	219	10	239	1673	14.9																											
	29	Ø12	2	30	73	103	206	1.8	0.6																											
	30	Ø20	4	30	102	132	528	13.0	0.9																											
	31	Ø6	3	30	114	114	342	0.8	0.8																											
	Total+10%:									53.1																										
C17	32	Ø12	4	8	104	8	120	480	4.3																											
	33	Ø12	4	8	104	8	120	480	4.3																											
	34	Ø25	4	30	120	150	600	23.1	0.6																											
	35	Ø6	3	30	94	94	282	0.6	0.6																											
	Total+10%:									35.5																										
C18	36	Ø12	8	8	129	8	145	1160	10.3																											
	37	Ø12	8	8	129	8	145	1160	10.3																											
	38	Ø12	2	30	53	83	166	1.5	0.6																											
	39	Ø16	4	30	63	93	372	5.9	0.6																											
	40	Ø6	3	30	114	114	342	0.8	0.8																											
Total+10%:									31.7																											
C19	41	Ø12	6	8	114	8	130	780	6.9																											
	42	Ø12	6	8	114	8	130	780	6.9																											
	43	Ø16	4	30	63	93	372	5.9	0.6																											
	44	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									22.3																											
C20	45	Ø12	7	8	124	8	140	980	8.7																											
	46	Ø12	8	8	124	8	140	1120	9.9																											
	47	Ø12	6	30	53	83	498	4.4	0.6																											
	48	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									26.0																											
C21	49	Ø12	7	8	124	8	140	980	8.7																											
	50	Ø12	7	8	124	8	140	980	8.7																											
	51	Ø12	6	30	53	83	498	4.4	0.6																											
	52	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									24.6																											
C24-C26	53	Ø12	6	8	114	8	130	780	6.9																											
	54	Ø12	6	8	114	8	130	780	6.9																											
	55	Ø12	6	30	53	83	498	4.4	0.6																											
	56	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									20.7																											
C25	57	Ø12	7	8	124	8	140	980	8.7																											
	58	Ø12	8	8	124	8	140	1120	9.9																											
	59	Ø16	4	30	63	93	372	5.9	0.6																											
	60	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									27.6																											
C27	61	Ø12	5	8	104	8	120	600	5.3																											
	62	Ø12	5	8	104	8	120	600	5.3																											
	63	Ø12	6	30	53	83	498	4.4	0.6																											
	64	Ø6	3	30	94	94	282	0.6	0.6																											
Total+10%:									17.2																											
<table border="1"> <thead> <tr> <th>Resumen Acero Cimentación</th> <th>Long. total (m)</th> <th>Peso+10% (kg)</th> <th>Total</th> </tr> </thead> <tbody> <tr> <td>AH-500CN Ø6</td> <td>183.8</td> <td>45</td> <td></td> </tr> <tr> <td>Ø8</td> <td>79.1</td> <td>34</td> <td></td> </tr> <tr> <td>Ø12</td> <td>2459.4</td> <td>2402</td> <td></td> </tr> <tr> <td>Ø16</td> <td>277.6</td> <td>482</td> <td></td> </tr> <tr> <td>Ø20</td> <td>45.4</td> <td>123</td> <td></td> </tr> <tr> <td>Ø25</td> <td>6.0</td> <td>25</td> <td>3111</td> </tr> </tbody> </table>									Resumen Acero Cimentación	Long. total (m)	Peso+10% (kg)	Total	AH-500CN Ø6	183.8	45		Ø8	79.1	34		Ø12	2459.4	2402		Ø16	277.6	482		Ø20	45.4	123		Ø25	6.0	25	3111
Resumen Acero Cimentación	Long. total (m)	Peso+10% (kg)	Total																																	
AH-500CN Ø6	183.8	45																																		
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Resumen Acero Cimentación	Long. total (m)	Peso+10% (kg)	Total
AH-500CN Ø6	183.8	45	
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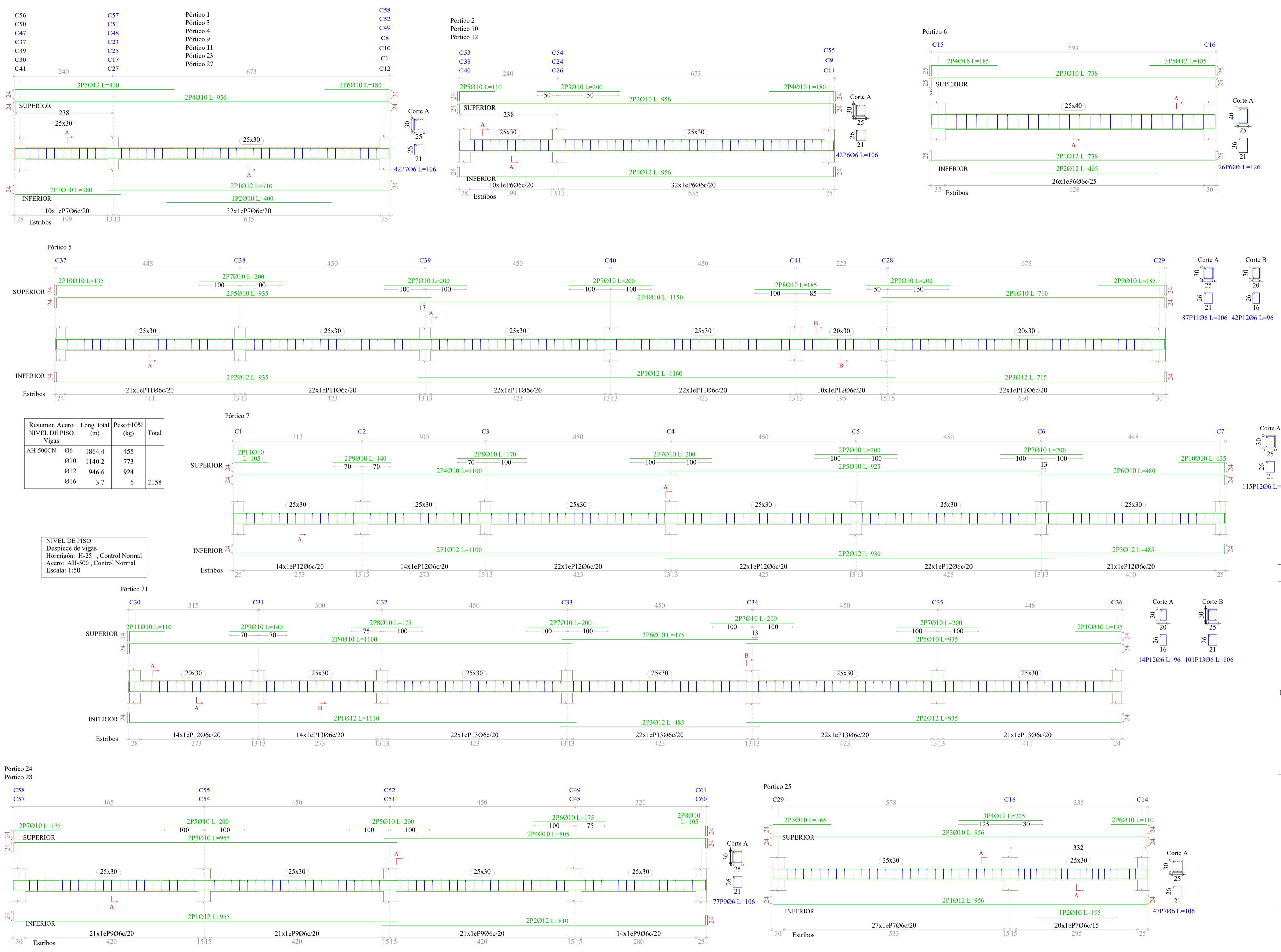


Resumen Acero NIVEL DE PISO Vigas	Long. total (m)	Peso+10% (kg)	Total
AH-500CN	1864.4	455	
Ø10	1140.2	773	
Ø12	946.6	924	
Ø16	3.7	6	2158

NIVEL DE PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50

Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1=Pórtico 3 Pórtico 4=Pórtico 9 Pórtico 11=Pórtico 23 Pórtico 27	1	Ø12	2	24	686	24	710	1420	12.6
	2	Ø10	1	400	400	400	400	2.5	
	3	Ø10	2	24	256	280	560	3.5	
	4	Ø10	2	24	908	24	956	1912	11.8
	5	Ø12	3	24	386	410	1230	10.9	
	6	Ø10	2	24	156	180	360	2.2	
	7	Ø6	42	106	4452	9.9			
Total+10%:									58.7
(x7):									410.9
Pórtico 2=Pórtico 10 Pórtico 12	1	Ø12	2	24	908	24	956	1912	17.0
	2	Ø10	2	24	908	24	956	1912	11.8
	3	Ø10	2	24	200	280	480	2.5	
	4	Ø10	2	24	156	24	180	360	2.2
	5	Ø10	2	24	86	110	220	1.4	
	6	Ø6	42	106	4452	9.9			
Total+10%:									49.3
(x3):									147.9
Pórtico 5	1	Ø12	2	24	1160	2320	20.6		
	2	Ø12	2	24	911	935	1870	16.6	
	3	Ø12	2	24	691	715	1430	12.7	
	4	Ø10	2	24	1150	1150	2300	14.2	
	5	Ø10	2	24	911	935	1870	11.5	
	6	Ø10	2	24	710	710	1420	8.8	
	7	Ø10	8	200	200	1600	9.9		
	8	Ø10	2	185	185	370	2.3		
	9	Ø10	2	161	161	322	2.3		
	10	Ø10	2	24	111	135	270	1.7	
	11	Ø6	87	106	9222	20.5			
	12	Ø6	42	96	4032	8.9			
Total+10%:									143.0
Pórtico 6	1	Ø12	2	25	688	25	738	1476	13.1
	2	Ø12	2	25	405	405	810	7.2	
	3	Ø10	2	25	688	25	738	1476	9.1
	4	Ø16	2	25	160	185	370	5.8	
	5	Ø12	3	126	555	4.9			
	6	Ø6	26	126	3276	7.3			
Total+10%:									52.1
Pórtico 7	1	Ø12	2	24	1076	1100	2200	19.5	
	2	Ø12	2	24	930	930	1860	16.5	
	3	Ø12	2	24	461	24	485	970	8.6
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	925	925	1850	11.4		
	6	Ø10	2	456	480	960	5.9		
	7	Ø10	6	200	200	1200	7.4		
	8	Ø10	2	170	170	340	2.1		
	9	Ø10	2	140	140	280	1.7		
	10	Ø10	2	111	135	270	1.7		
	11	Ø10	2	24	81	105	210	1.3	
	12	Ø6	115	106	12190	27.1			
Total+10%:									128.5
(x6):									178.4
(x10):									328.5
(x12):									369.1
(x16):									6.4
Total:									882.4

Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 21	1	Ø12	2	24	1086	1110	2220	19.7	
	2	Ø12	2	24	911	24	935	1870	16.6
	3	Ø12	2	485	485	970	8.6		
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	475	475	950	5.9		
	7	Ø10	6	200	200	1200	7.4		
	8	Ø10	2	175	175	350	2.2		
	9	Ø10	2	140	140	280	1.7		
	10	Ø10	2	111	135	270	1.7		
	11	Ø10	2	24	86	110	220	1.4	
	12	Ø6	14	96	1344	3.0			
	13	Ø6	101	106	10706	23.8			
Total+10%:									128.8
Pórtico 24=Pórtico 28	1	Ø12	2	24	931	955	1910	17.0	
	2	Ø12	2	24	786	24	810	1620	14.4
	3	Ø10	2	24	931	955	1910	11.8	
	4	Ø10	2	781	24	805	1610	9.9	
	5	Ø10	4	200	200	800	4.9		
	6	Ø10	2	175	175	350	2.2		
	7	Ø10	2	111	135	270	1.7		
	8	Ø10	2	81	24	105	210	1.3	
	9	Ø6	77	106	8162	18.1			
Total+10%:									89.4
(x2):									178.8
Pórtico 25	1	Ø12	2	24	908	24	956	1912	17.0
	2	Ø10	1	195	195	390	1.2		
	3	Ø10	2	24	908	24	956	1912	11.8
	4	Ø12	3	205	205	615	5.5		
	5	Ø10	2	24	141	165	330	2.0	
	6	Ø10	2	86	24	110	220	1.4	
7	Ø6	47	106	4982	11.1				
Total+10%:									55.0
Pórtico 26	1	Ø12	2	24	931	955	1910	17.0	
	2	Ø12	2	24	786	24	810	1620	14.4
	3	Ø10	2	24	926	950	1900	11.7	
	4	Ø12	2	786	24	810	1620	14.4	
	5	Ø10	4	200	200	800	4.9		
	6	Ø10	2	175	175	350	2.2		
	7	Ø10	2	140	140	280	1.7		
	8	Ø6	80	106	8480	18.8			
Total+10%:									93.6
Pórtico 29	1	Ø12	2	24	908	24	956	1912	17.0
	2	Ø10	2	24	908	24	956	1912	11.8
	3	Ø10	2	270	270	540	4.8		
	4	Ø10	2	24	141	165	330	2.0	
	5	Ø6	42	106	4452	9.9			
Total+10%:									50.1
(x6):									113.1
(x10):									175.6
(x12):									217.6
Total:									506.3

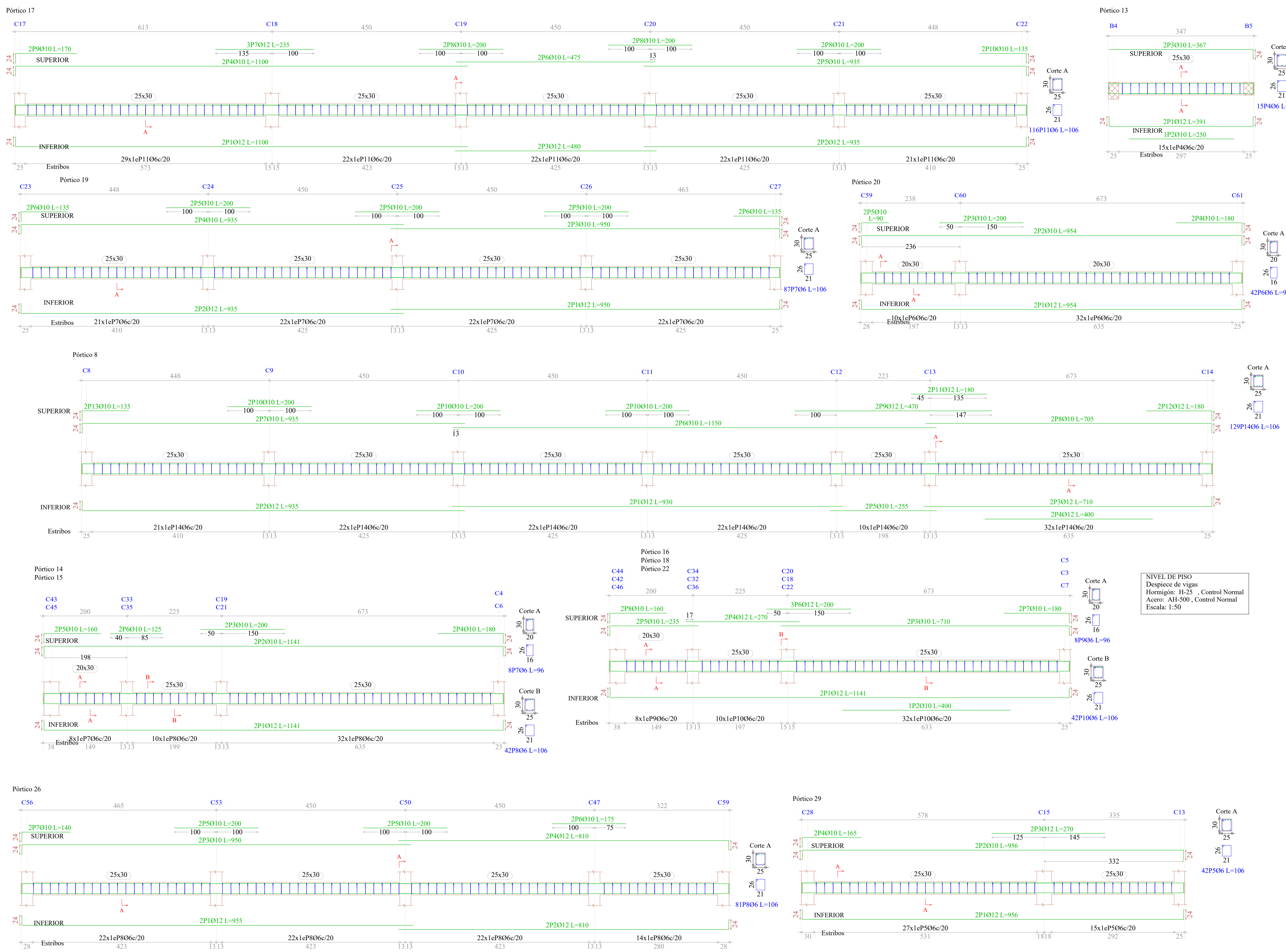


Resumen Acero NIVEL DE PISO Vigas	Long. total (m)	Peso+10% (kg)	Total
AH-500CN	1864.4	455	
Ø10	1140.2	773	
Ø12	946.6	924	
Ø16	3.7	6	2158

NIVEL DE PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50

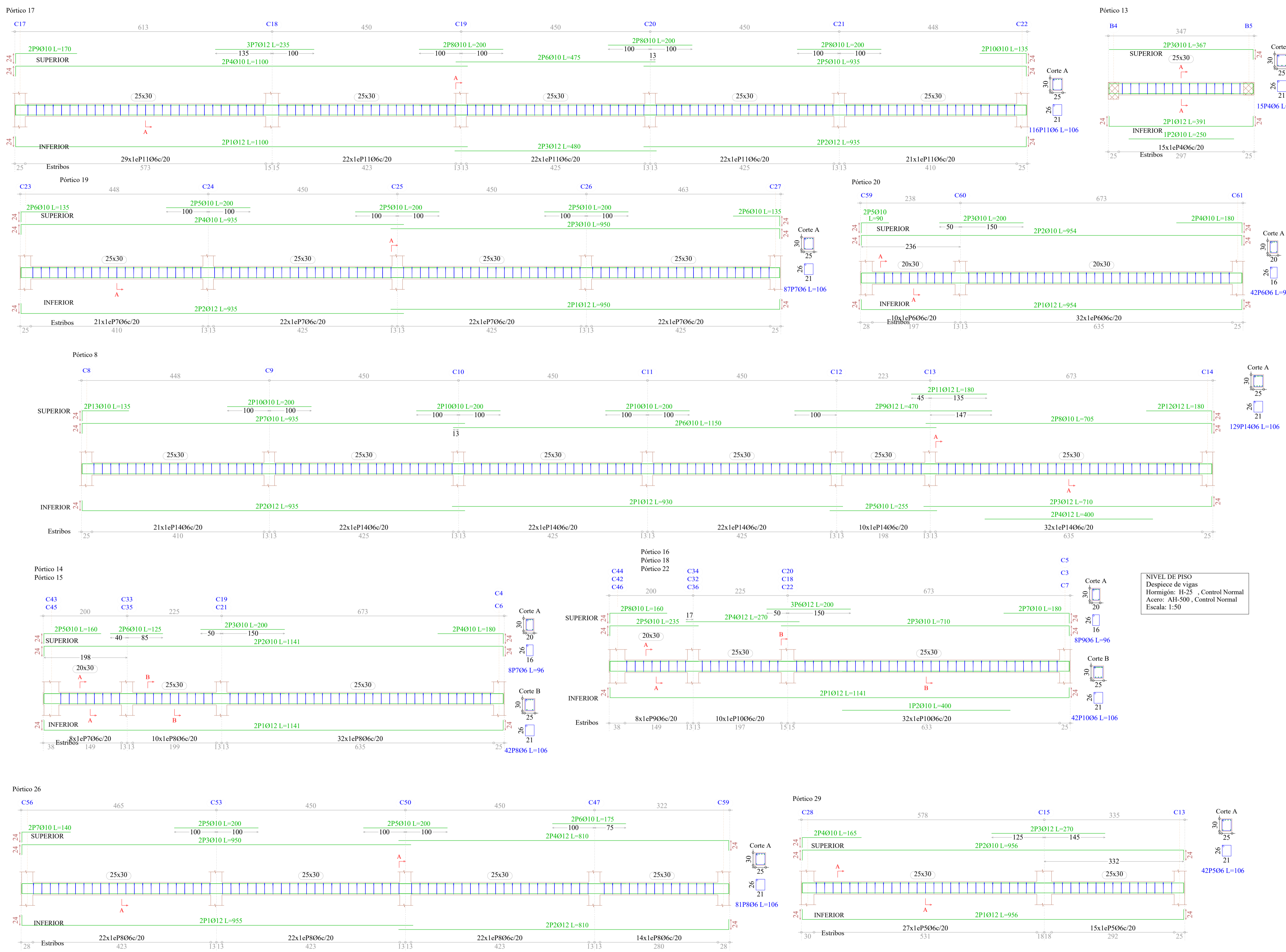
Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1=Pórtico 3 Pórtico 4=Pórtico 9 Pórtico 11=Pórtico 23 Pórtico 27	1	Ø12	2	24	686	24	710	1420	12.6
	2	Ø10	1	400	400	400	400	2.5	
	3	Ø10	2	24	256	280	560	3.5	
	4	Ø10	2	24	908	24	956	1912	11.8
	5	Ø12	3	24	386	410	1230	10.9	
	6	Ø10	2	24	156	180	360	2.2	
	7	Ø6	42	106	4452	9.9			
Total+10%:									58.7
(x7):									410.9
Pórtico 2=Pórtico 10 Pórtico 12	1	Ø12	2	24	908	24	956	1912	17.0
	2	Ø10	2	24	908	24	956	1912	11.8
	3	Ø10	2	24	200	280	480	2.5	
	4	Ø10	2	24	156	24	180	360	2.2
	5	Ø10	2	24	86	110	220	1.4	
	6	Ø6	42	106	4452	9.9			
Total+10%:									49.3
(x3):									147.9
Pórtico 5	1	Ø12	2	24	1160	2320	20.6		
	2	Ø12	2	24	911	935	1870	16.6	
	3	Ø12	2	24	691	715	1430	12.7	
	4	Ø10	2	24	1150	1150	2300	14.2	
	5	Ø10	2	24	911	935	1870	11.5	
	6	Ø10	2	24	710	710	1420	8.8	
	7	Ø10	8	200	200	1600	9.9		
	8	Ø10	2	185	185	370	2.3		
	9	Ø10	2	161	161	322	2.3		
	10	Ø10	2	24	111	135	270	1.7	
	11	Ø6	87	106	9222	20.5			
	12	Ø6	42	96	4032	8.9			
Total+10%:									143.0
Pórtico 6	1	Ø12	2	25	688	25	738	1476	13.1
	2	Ø12	2	25	405	405	810	7.2	
	3	Ø10	2	25	688	25	738	1476	9.1
	4	Ø16	2	25	160	185	370	5.8	
	5	Ø12	3	185	555	4.9			
	6	Ø6	26	126	3276	7.3			
Total+10%:									52.1
Pórtico 7	1	Ø12	2	24	1076	1100	2200	19.5	
	2	Ø12	2	24	930	930	1860	16.5	
	3	Ø12	2	24	461	24	485	970	8.6
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	925	925	1850	11.4		
	6	Ø10	2	456	24	480	960	5.9	
	7	Ø10	6	200	200	1200	7.4		
	8	Ø10	2	170	170	340	2.1		
	9	Ø10	2	140	140	280	1.7		
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø10	2	81	105	210	1.3		
	12	Ø6	115	106	12190	27.1			
Total+10%:									128.5
(x6):									178.4
(x10):									328.5
(x12):									369.1
(x16):									6.4
Total:									882.4

Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 21	1	Ø12	2	24	1086	1110	2220	19.7	
	2	Ø12	2	24	911	24	935	1870	16.6
	3	Ø12	2	24	485	485	970	8.6	
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	475	475	950	5.9		
	7	Ø10	6	200	200	1200	7.4		
	8	Ø10	2	175	175	350	2.2		
	9	Ø10	2	140	140	280	1.7		
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø10	2	86	110	220	1.4		
	12	Ø6	14	96	1344	3.0			
	13	Ø6	101	106	10706	23.8			
Total+10%:									128.8
Pórtico 24=Pórtico 28	1	Ø12	2	24	931	955	1910	17.0	
	2	Ø12	2	24	786	24	810	1620	14.4
	3	Ø10	2	24	931	955	1910	11.8	
	4	Ø10	2	781	24	805	1610	9.9	
	5	Ø10	4	200	200	800	4.9		
	6	Ø10	2	175	175	350	2.2		
	7	Ø10	2	111	135	270	1.7		
	8	Ø10	2	81	24	105	210	1.3	
	9	Ø6	77	106	8162	18.1			
Total+10%:									89.4
(x2):									178.8
Pórtico 25	1	Ø12	2	24	908	24	956	1912	17.0
	2	Ø10	1	195	195	390	1.2		
	3	Ø10	2	24	908	24	956	1912	11.8
	4	Ø12	3	205	205	615	5.5		
	5	Ø10	2	141	165	330	2.0		
	6	Ø10	2	86	24	110	220	1.4	
7	Ø6	47	106	4982	11.1				
Total+10%:									55.0
Pórtico 26	1	Ø12	2	24	931	955	1910	17.0	
	2	Ø12	2	24	786	24	810	1620	14.4
	3	Ø10	2	24	926	950	1900	11.7	
	4	Ø12	2	786	24	810	1620	14.4	
	5	Ø10	4	200	200	800	4.9		
	6	Ø10	2	175	175	350	2.2		
	7	Ø10	2	140	140	280	1.7		
	8	Ø6	80	106	8480	18.8			
Total+10%:									93.6
Pórtico 29	1	Ø12	2	24	908	24	956	1912	17.0
	2	Ø10	2	24	908	24	956	1912	11.8
	3	Ø10	2	270	270	540	4.8		
	4	Ø10	2	141	165	330	2.0		
	5	Ø6	42	106	4452	9.9			
Total+10%:									50.1
(x6):									113.1
(x10):									175.6
(x12):									217.6
Total:									506.3



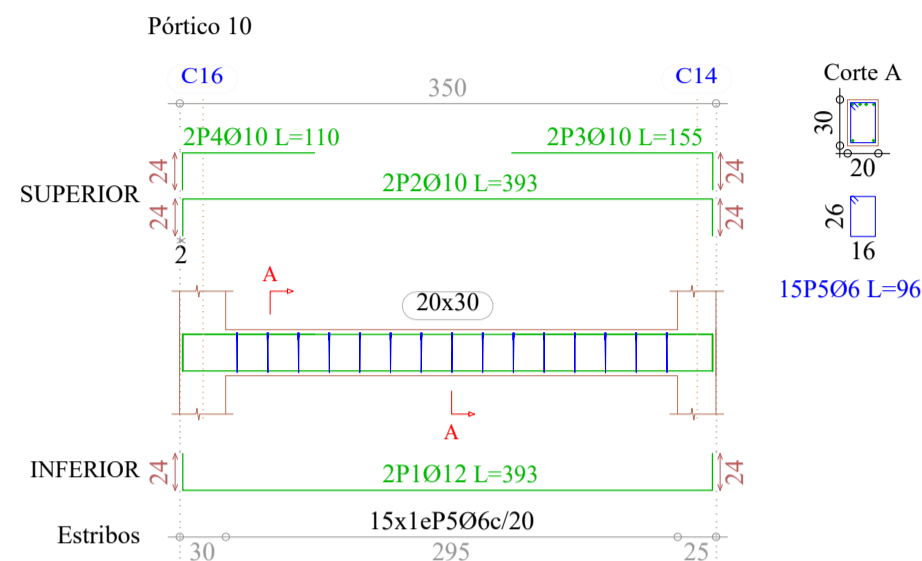
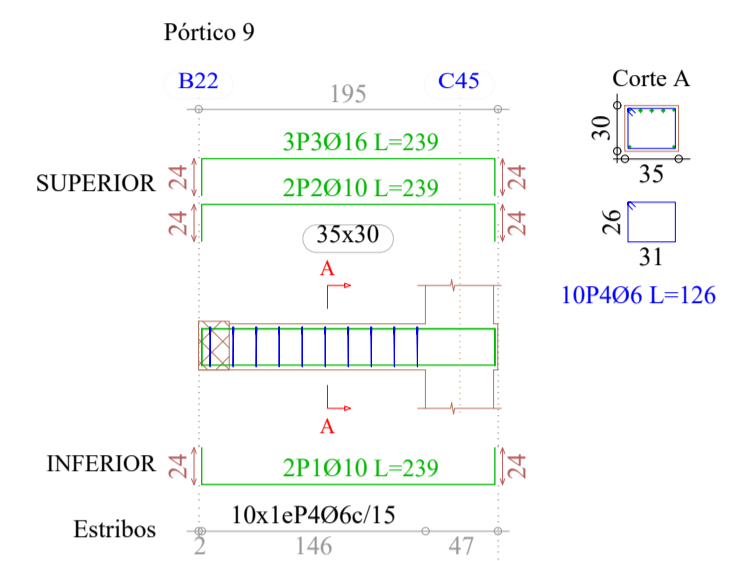
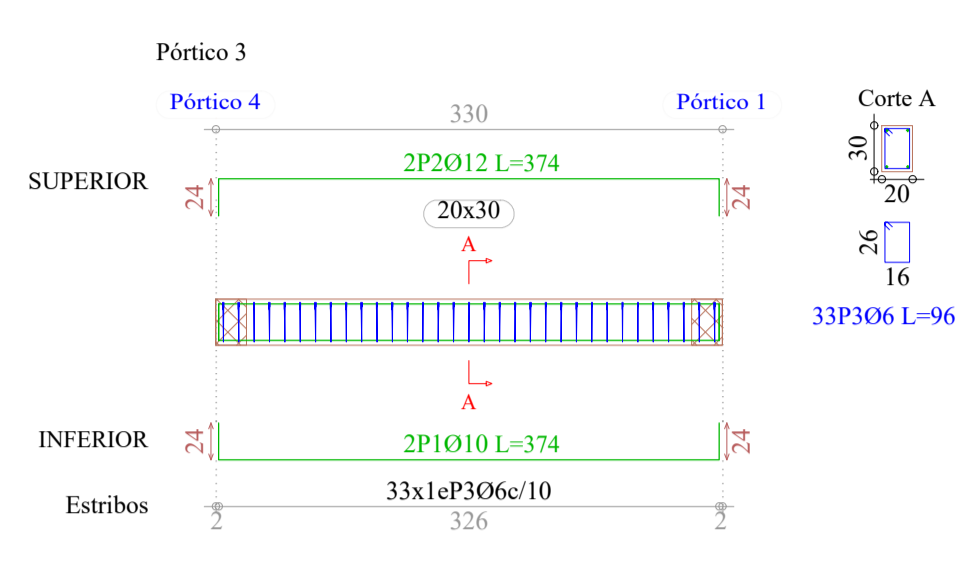
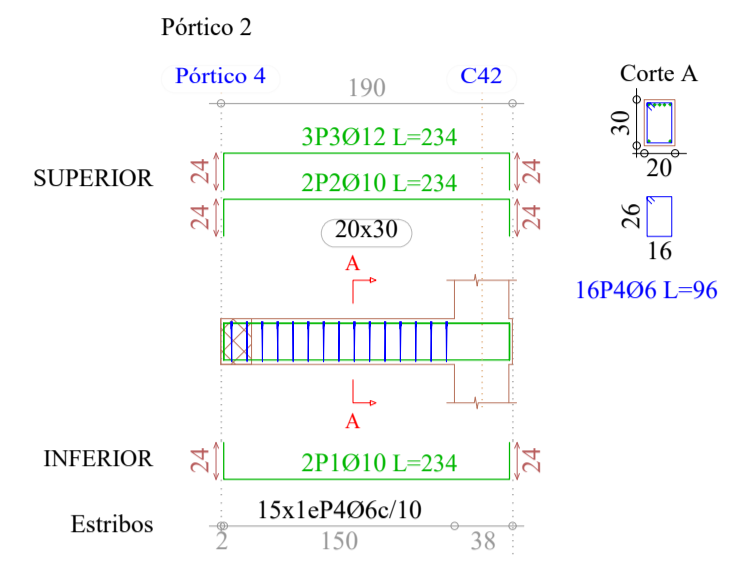
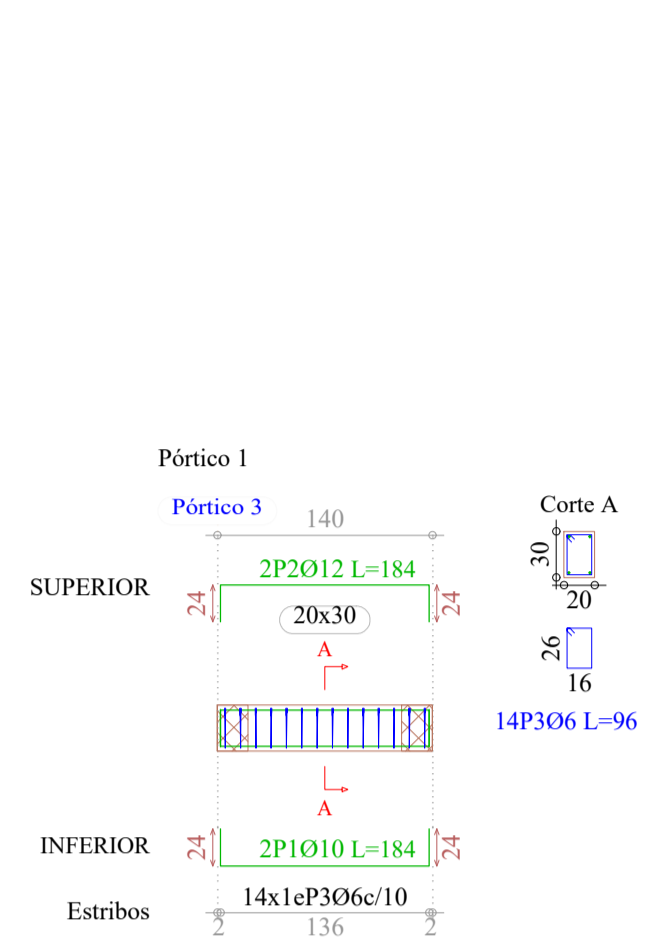
Elemento	Pos.	Diam.	No.	Pat.	Recta	Pat.	Long.	Total	AH-500CN
		(cm)		(cm)	(cm)		(cm)	(kg)	
Pórtico 8	1	Ø12	2	24	930		930	1860	16.5
	2	Ø12	2	24	911		935	1870	16.6
	3	Ø12	2	24	686	24	710	1420	12.6
	4	Ø12	2	24	400		400	800	7.1
	5	Ø10	2	24	255		255	510	3.1
	6	Ø10	2	24	1150		1150	2300	14.2
	7	Ø10	2	24	911		935	1870	11.5
	8	Ø10	2	24	686	24	705	1410	8.7
	9	Ø12	2	24	470		470	940	8.3
	10	Ø10	6	200		200	1200	7.4	
	11	Ø12	2	24	180		180	360	3.2
	12	Ø12	2	24	156	24	180	360	3.2
	13	Ø10	2	24	135		135	270	1.7
	14	Ø6	129				106	13674	30.3
Total+10%:									158.8
Pórtico 13	1	Ø12	2	24	343	24	391	782	6.9
	2	Ø10	2	24	250		250	500	4.5
	3	Ø10	2	24	343	24	367	734	1.5
	4	Ø6	15				106	1590	3.5
Total+10%:									18.0
Pórtico 14=Pórtico 15	1	Ø12	2	24	1093	24	1141	2282	20.3
	2	Ø10	2	24	1093	24	1141	2282	14.1
	3	Ø10	2	24	200		200	400	2.5
	4	Ø10	2	24	156	24	180	360	2.2
	5	Ø10	2	24	136		160	320	2.0
	6	Ø10	2	24	125		125	250	1.5
	7	Ø6	8				96	768	1.7
	8	Ø6	42				106	4452	9.9
Total+10%:									59.6
Pórtico 16=Pórtico 18	1	Ø12	2	24	1093	24	1141	2282	20.3
	2	Ø10	1	400		400	400	2.5	
	3	Ø10	2	24	686	24	710	1420	8.8
	4	Ø12	2	24	270		270	540	4.8
	5	Ø10	2	24	211		235	470	5.9
	6	Ø12	3	200		200	600	2.3	
	7	Ø10	2	24	156	24	180	360	2.2
	8	Ø10	2	24	136		160	320	2.0
	9	Ø6	8				96	768	1.7
	10	Ø6	42				106	4452	9.9
Total+10%:									66.4
Pórtico 17	1	Ø12	2	24	1076		1100	2200	19.5
	2	Ø12	2	24	911		935	1870	16.6
	3	Ø12	2	24	480		480	960	8.5
	4	Ø10	2	24	1076		1100	2200	13.6
	5	Ø10	2	24	911		935	1870	11.5
	6	Ø10	2	24	475		475	950	5.9
	7	Ø12	3	235		235	705	6.3	
	8	Ø10	6	200		200	1200	7.4	
	9	Ø10	2	24	146		146	292	2.1
	10	Ø10	2	24	111		111	222	1.7
	11	Ø6	116				106	12296	27.3
Total+10%:									132.4
Pórtico 19	1	Ø12	2	24	926	24	950	1900	16.9
	2	Ø10	2	24	911		935	1870	16.6
	3	Ø10	2	24	926	24	950	1900	11.7
	4	Ø10	2	24	911		935	1870	11.5
	5	Ø10	6	200		200	1200	7.4	
	6	Ø10	4	24	111		135	540	3.3
	7	Ø6	87				106	9222	20.5
Total+10%:									96.7
Pórtico 20	1	Ø12	2	24	906	24	954	1908	16.9
	2	Ø10	2	24	906	24	954	1908	11.8
	3	Ø10	2	24	200		200	400	2.5
	4	Ø10	2	24	156	24	180	360	2.2
	5	Ø10	2	24	66		90	180	1.1
	6	Ø6	42				96	4032	8.9
Total+10%:									47.7

NIVEL DE PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50



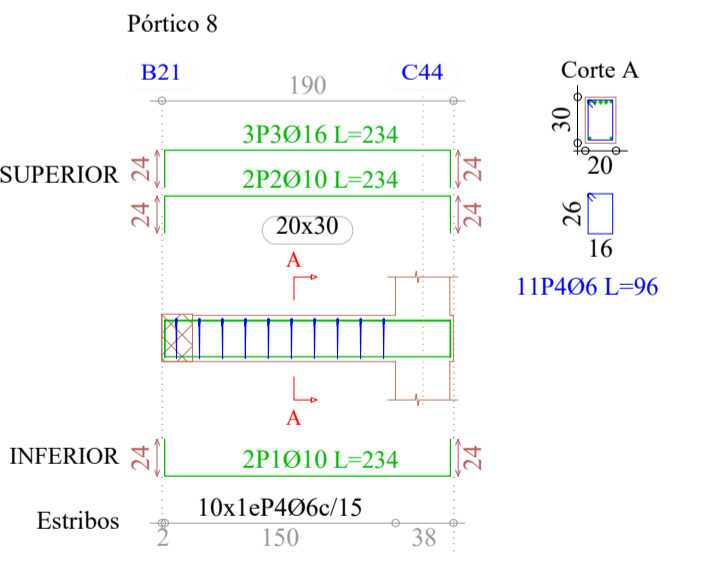
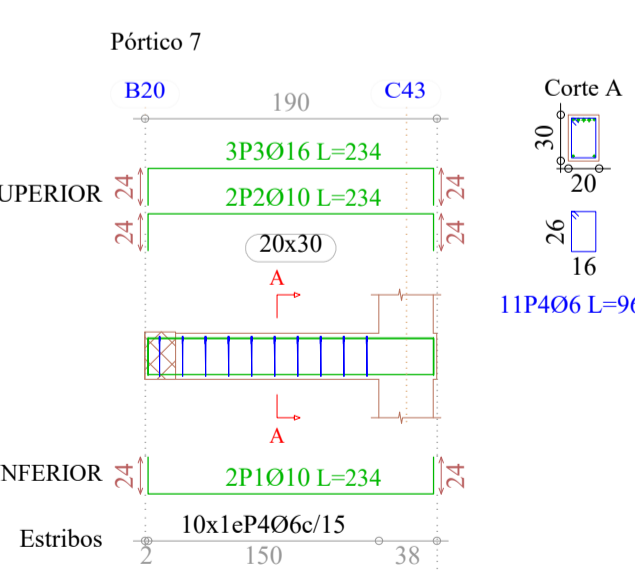
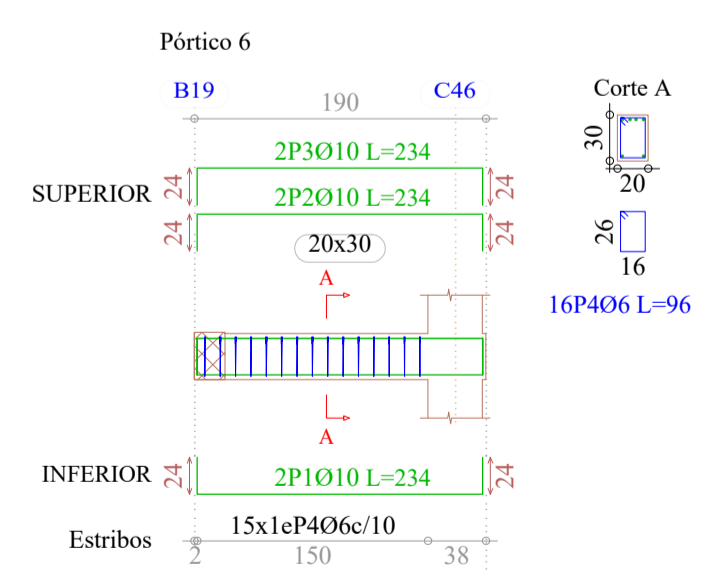
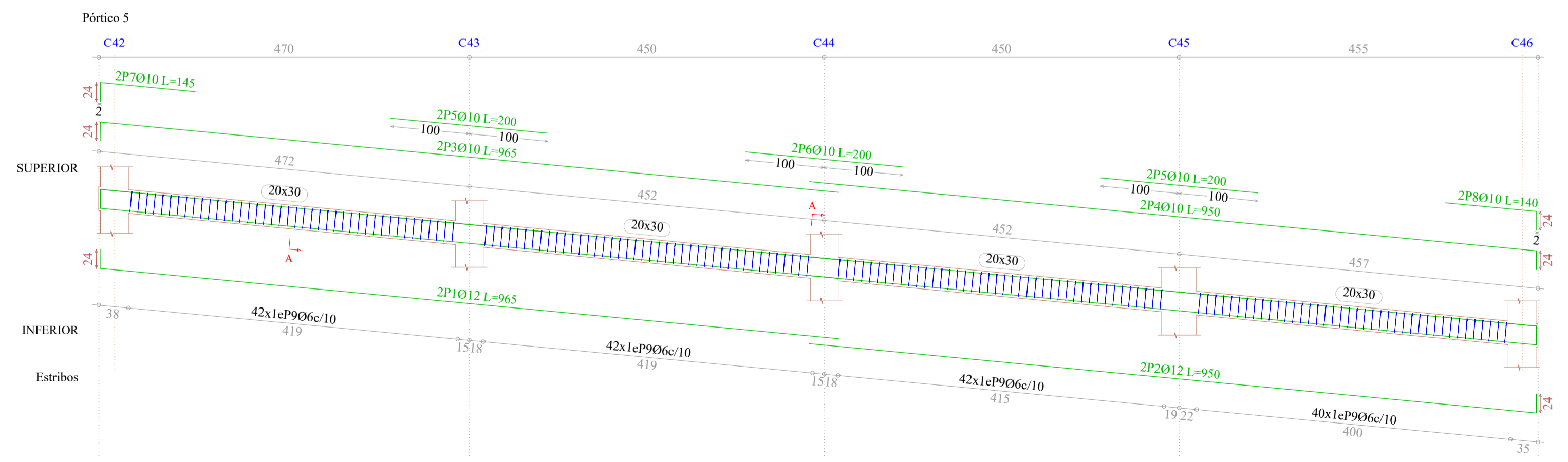
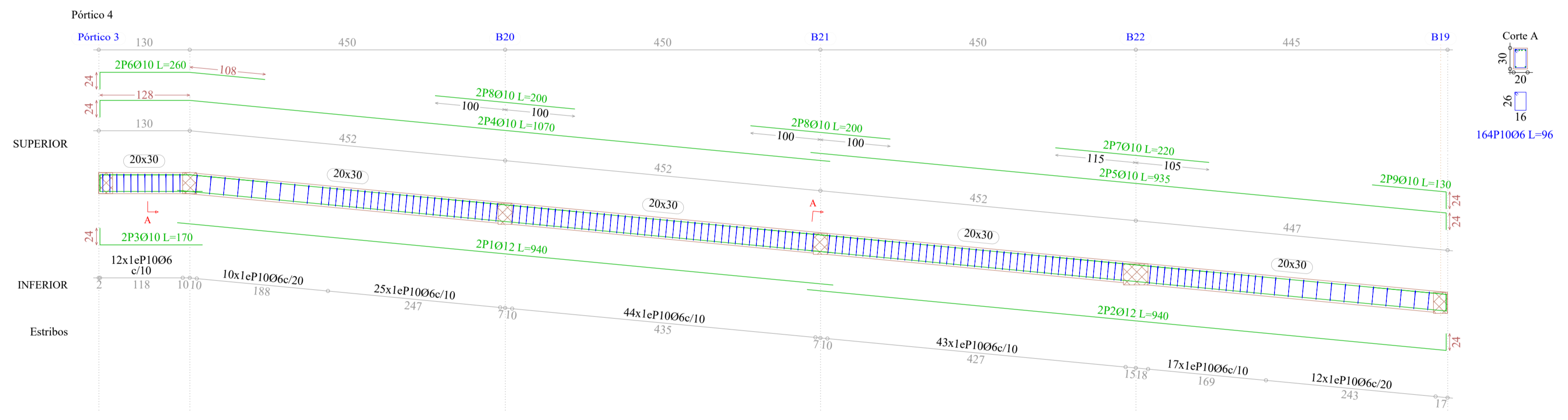
Elemento	Pos.	Diam.	No.	Pat.	Recta	Pat.	Long.	Total	AH-500CN
		(cm)		(cm)	(cm)		(cm)	(kg)	
Pórtico 8	1	Ø12	2	24	930		930	1860	16.5
	2	Ø12	2	24	911		935	1870	16.6
	3	Ø12	2	24	686	24	710	1420	12.6
	4	Ø12	2	24	400		400	800	7.1
	5	Ø10	2	24	255		255	510	3.1
	6	Ø10	2	24	1150		1150	2300	14.2
	7	Ø10	2	24	911		935	1870	11.5
	8	Ø10	2	24	686	24	705	1410	8.7
	9	Ø12	2	24	470		470	940	8.3
	10	Ø10	6	200		200	1200	7.4	
	11	Ø12	2	24	180		180	360	3.2
	12	Ø12	2	24	156	24	180	360	3.2
	13	Ø10	2	24	135		135	270	1.7
	14	Ø6	129				106	13674	30.3
Total+10%:									158.8
Pórtico 13	1	Ø12	2	24	343	24	391	782	6.9
	2	Ø10	2	24	250		250	500	4.5
	3	Ø10	2	24	343	24	367	734	1.5
	4	Ø6	15				106	1590	3.5
Total+10%:									18.0
Pórtico 14=Pórtico 15	1	Ø12	2	24	1093	24	1141	2282	20.3
	2	Ø10	2	24	1093	24	1141	2282	14.1
	3	Ø10	2	24	200		200	400	2.5
	4	Ø10	2	24	156	24	180	360	2.2
	5	Ø10	2	24	136		160	320	2.0
	6	Ø10	2	24	125		125	250	1.5
	7	Ø6	8				96	768	1.7
	8	Ø6	42				106	4452	9.9
Total+10%:									59.6
Pórtico 16=Pórtico 18	1	Ø12	2	24	1093	24	1141	2282	20.3
	2	Ø10	1	400		400	400	2.5	
	3	Ø10	2	24	686	24	710	1420	8.8
	4	Ø12	2	24	270		270	540	4.8
	5	Ø10	2	24	211		235	470	5.9
	6	Ø12	3	200		200	600	2.3	
	7	Ø10	2	24	156	24	180	360	2.2
	8	Ø10	2	24	136		160	320	2.0
	9	Ø6	8				96	768	1.7
	10	Ø6	42				106	4452	9.9
Total+10%:									66.4
Pórtico 17	1	Ø12	2	24	1076	24	1100	2200	19.5
	2	Ø12	2	24	911	24	935	1870	16.6
	3	Ø12	2	24	480		480	960	8.5
	4	Ø10	2	24	1076	24	1100	2200	13.6
	5	Ø10	2	24	911	24	935	1870	11.5
	6	Ø10	2	24	475		475	950	5.9
	7	Ø12	3	235		235	705	6.3	
	8	Ø10	6	200		200	1200	7.4	
	9	Ø10	2	24	146		146	292	2.1
	10	Ø10	2	24	111		111	222	1.7
	11	Ø6	116				106	12296	27.3
Total+10%:									132.4
Pórtico 19	1	Ø12	2	24	926	24	950	1900	16.9
	2	Ø10	2	24	911		935	1870	16.6
	3	Ø10	2	24	926	24	950	1900	11.7
	4	Ø10	2	24	911		935	1870	11.5
	5	Ø10	6	200		200	1200	7.4	
	6	Ø10	4	24	111		135	540	3.3
	7	Ø6	87				106	9222	20.5
Total+10%:									96.7
Pórtico 20	1	Ø12	2	24	906	24	954	1908	16.9
	2	Ø10	2	24	906	24	954	1908	11.8
	3	Ø10	2	24	200		200	400	2.5
	4	Ø10	2	24	156	24	180	360	2.2
	5	Ø10	2	24	66		90	180	1.1
	6	Ø6	42				96	4032	8.9
Total+10%:									47.7

NIVEL DE PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50

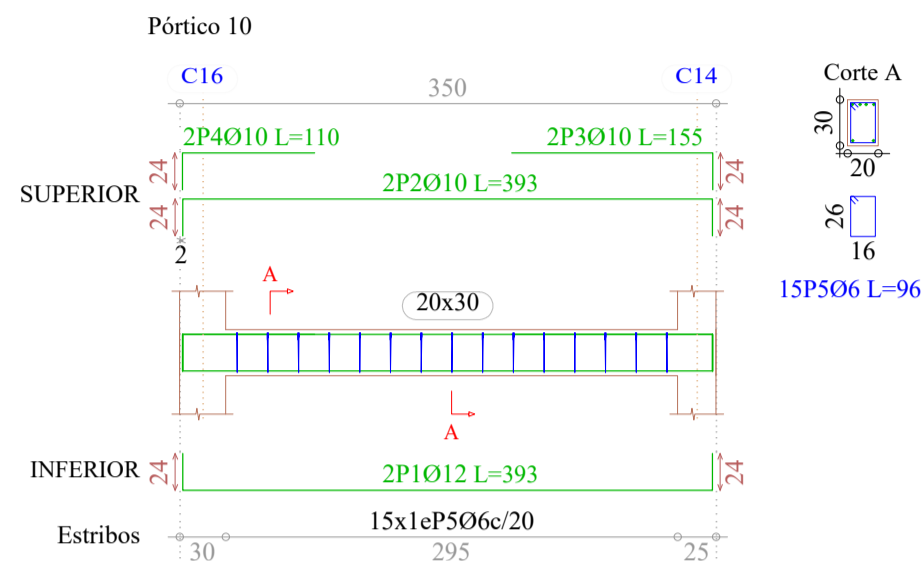
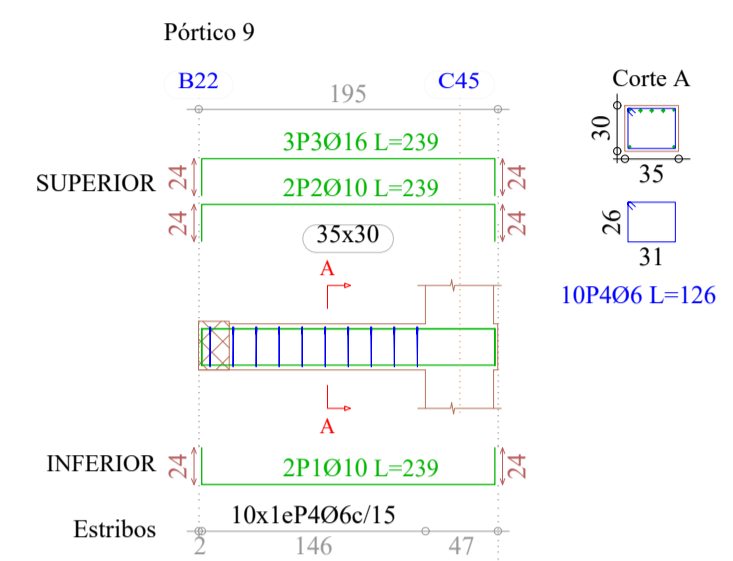
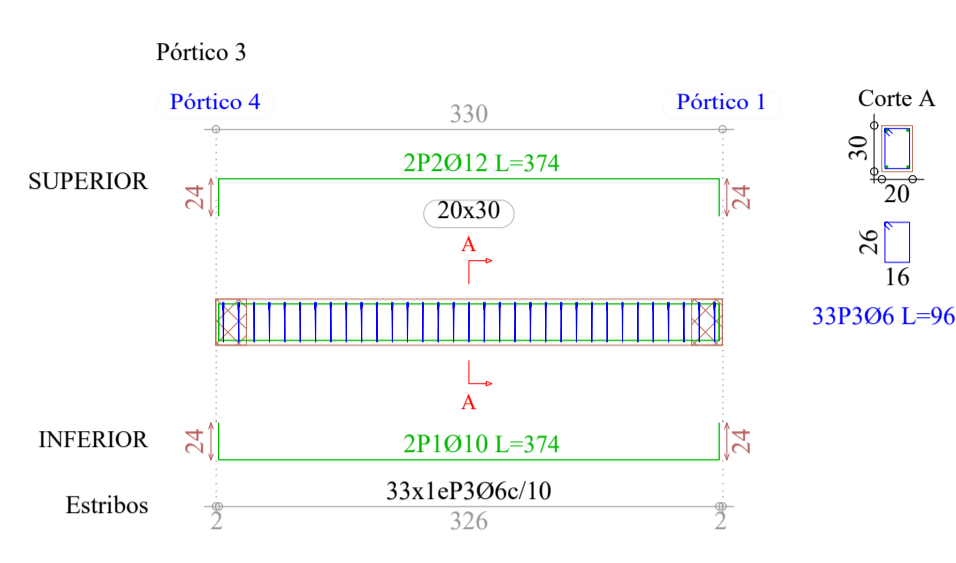
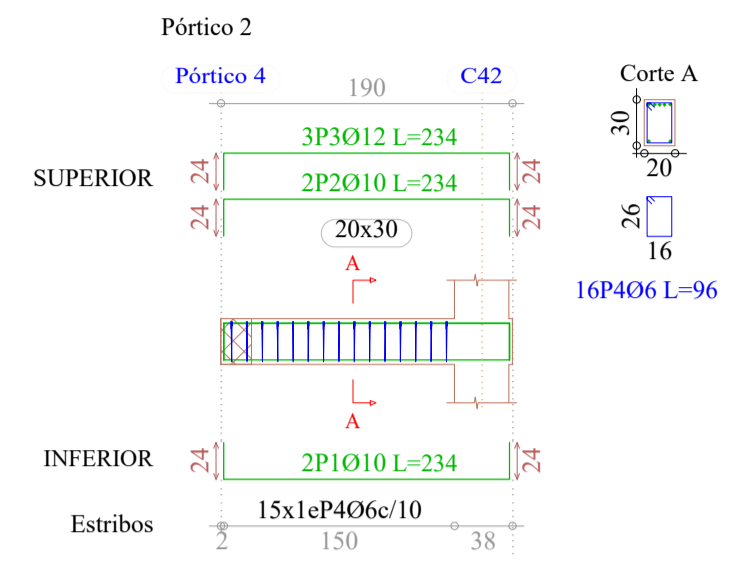
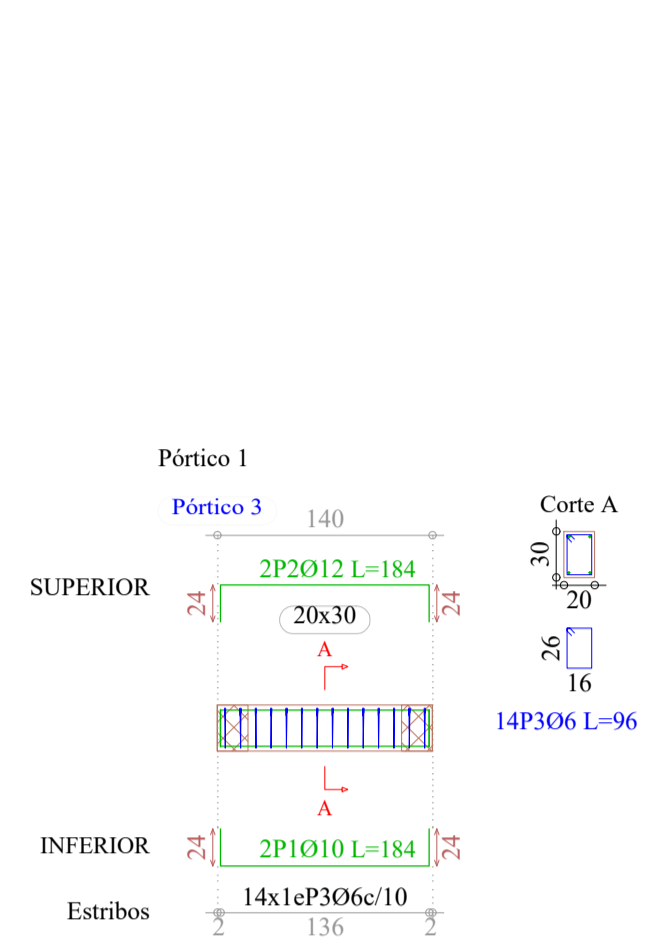


Resumen Acero DESCANSO Vigas	Long. total (m)	Peso+10% (kg)	Total
AH-500CN Ø6	436.0	106	
Ø10	195.7	133	
Ø12	101.9	100	
Ø16	21.2	37	376

DESCANSO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50

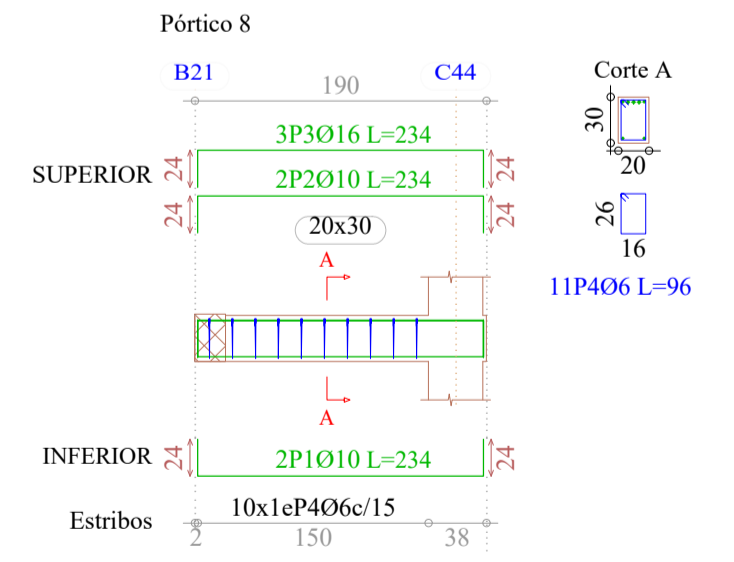
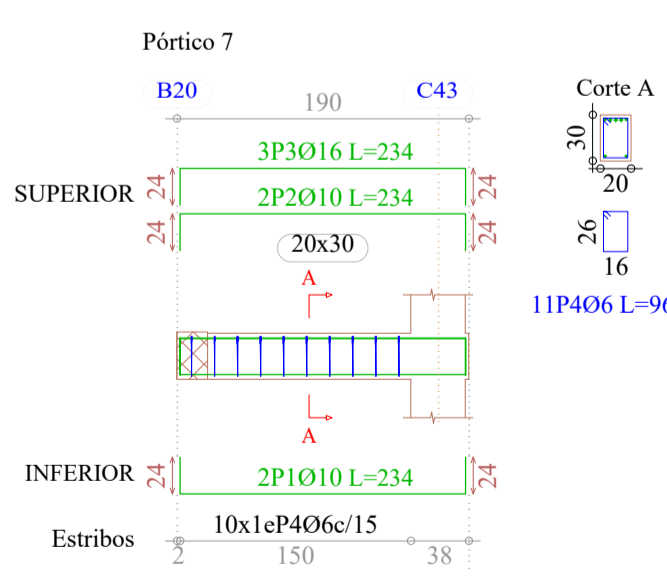
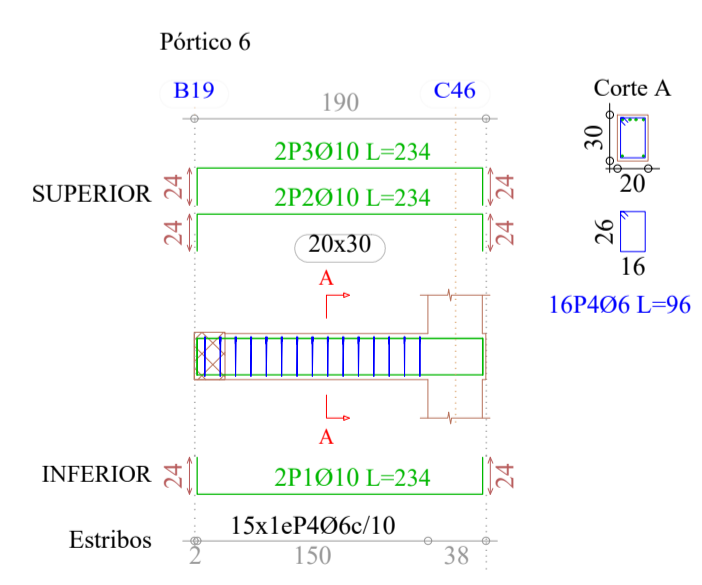
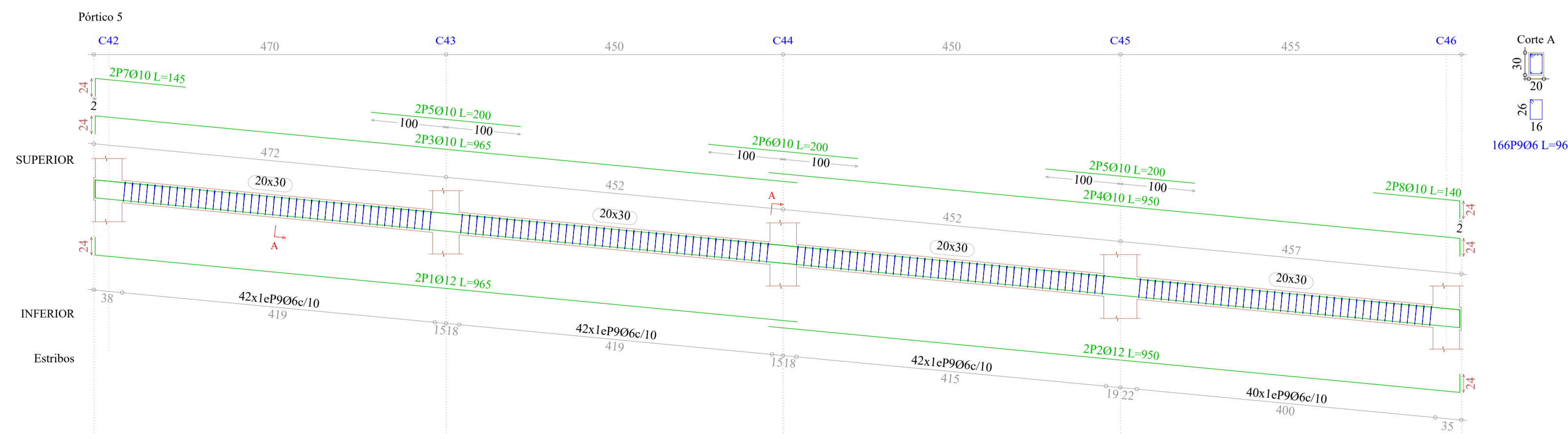
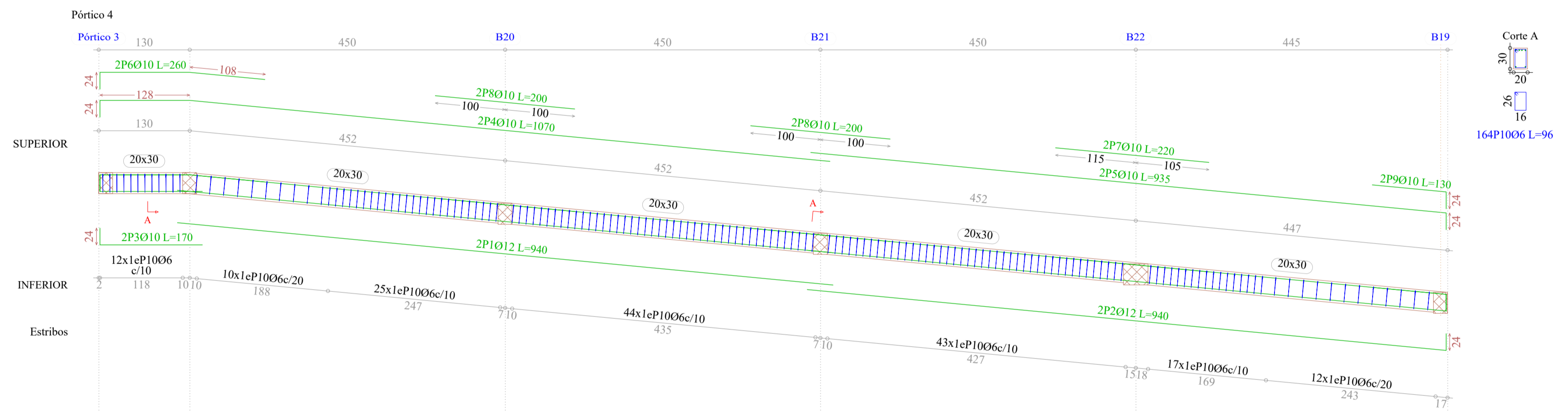


Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1	1	Ø10	2	24	136	24	184	368	2.3
	2	Ø12	2	24	136	24	184	368	3.3
	3	Ø6	14				96	1344	3.0
Total+10%:									9.5
Pórtico 2	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø12	3	24	186	24	234	702	6.2
	4	Ø6	15				96	1440	3.2
Total+10%:									16.7
Pórtico 3	1	Ø10	2	24	326	24	374	748	4.6
	2	Ø12	2	24	326	24	374	748	6.6
	3	Ø6	33				96	3168	7.0
Total+10%:									20.0
Pórtico 4	1	Ø12	2		940		940	1880	16.7
	2	Ø12	2		916	24	940	1880	16.7
	3	Ø10	2	24	146		170	340	2.1
	4	Ø10	2	24	1046		1070	2140	13.2
	5	Ø10	2		911	24	935	1870	11.5
	6	Ø10	2	24	236		260	520	3.2
	7	Ø10	2		220		220	440	2.7
	8	Ø10	2		200		200	400	2.7
	9	Ø10	2		106	24	130	260	1.6
	10	Ø6	163				96	15648	34.7
Total+10%:									118.0
Pórtico 5	1	Ø12	2	24	941		965	1930	17.1
	2	Ø12	2	24	926	24	950	1900	16.9
	3	Ø10	2	24	941		965	1930	11.9
	4	Ø10	2	24	926	24	950	1900	11.7
	5	Ø10	4		200		200	800	4.9
	6	Ø10	2		200		200	400	2.5
	7	Ø10	2	24	121		145	290	1.8
	8	Ø10	2		116	24	140	280	1.7
	9	Ø6	166				96	15936	35.4
Total+10%:									114.3
Pórtico 6	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø10	2	24	186	24	234	468	2.9
	4	Ø6	15				96	1440	3.2
Total+10%:									13.1
Pórtico 7	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø16	3	24	186	24	234	702	11.1
	4	Ø6	10				96	960	2.1
Total+10%:									20.9
Pórtico 8	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø16	3	24	186	24	234	702	11.1
	4	Ø6	10				96	960	2.1
Total+10%:									20.9
Pórtico 9	1	Ø10	2	24	191	24	239	478	2.9
	2	Ø10	2	24	191	24	239	478	2.9
	3	Ø16	3	24	191	24	239	717	11.3
	4	Ø6	10				126	1260	2.8
	Total+10%:								
Pórtico 10	1	Ø12	2	24	345	24	393	786	7.0
	2	Ø10	2	24	345	24	393	786	4.8
	3	Ø10	2	24	131	24	155	310	1.9
	4	Ø10	2	24	86		110	220	1.4
	5	Ø6	15				96	1440	3.2
Total+10%:									20.1
Total+10%:									06: 106.2
									Ø10: 132.9
									Ø12: 99.5
									Ø16: 36.8
									Total: 375.4



Resumen Acero DESCANSO Vigas	Long. total (m)	Peso+10% (kg)	Total
AH-500CN Ø6	436.0	106	
Ø10	195.7	133	
Ø12	101.9	100	
Ø16	21.2	37	376

DESCANSO
Despiece de vigas
Hormigón: H-25 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:50



Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1	1	Ø10	2	24	136	24	184	368	2.3
	2	Ø12	2	24	136	24	184	368	3.3
	3	Ø6	14				96	1344	3.0
Total+10%:									9.5
Pórtico 2	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø12	3	24	186	24	234	702	6.2
	4	Ø6	15				96	1440	3.2
Total+10%:									16.7
Pórtico 3	1	Ø10	2	24	326	24	374	748	4.6
	2	Ø12	2	24	326	24	374	748	6.6
	3	Ø6	33				96	3168	7.0
Total+10%:									20.0
Pórtico 4	1	Ø12	2	24	916	24	940	1880	16.7
	2	Ø12	2	24	916	24	940	1880	16.7
	3	Ø10	2	24	1046	24	1070	2140	13.2
	4	Ø10	2	24	1046	24	1070	2140	13.2
	5	Ø10	2	24	911	24	935	1870	11.5
	6	Ø10	2	24	236	24	260	520	3.2
	7	Ø10	2	24	220	24	220	440	2.7
	8	Ø10	2	24	200	24	200	400	2.7
	9	Ø10	2	24	106	24	130	260	1.6
	10	Ø6	163				96	15648	34.7
Total+10%:									118.0
Pórtico 5	1	Ø12	2	24	941	24	965	1930	17.1
	2	Ø12	2	24	926	24	950	1900	16.9
	3	Ø10	2	24	941	24	965	1930	11.9
	4	Ø10	2	24	926	24	950	1900	11.7
	5	Ø10	4				200	800	4.9
	6	Ø10	2	24	200	24	200	400	2.5
	7	Ø10	2	24	121	24	145	290	1.8
	8	Ø10	2	24	116	24	140	280	1.7
	9	Ø6	166				96	15936	35.4
Total+10%:									114.3
Pórtico 6	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø10	2	24	186	24	234	468	2.9
	4	Ø6	15				96	1440	3.2
Total+10%:									13.1
Pórtico 7	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø16	3	24	186	24	234	702	11.1
	4	Ø6	10				96	960	2.1
Total+10%:									20.9
Pórtico 8	1	Ø10	2	24	186	24	234	468	2.9
	2	Ø10	2	24	186	24	234	468	2.9
	3	Ø16	3	24	186	24	234	702	11.1
	4	Ø6	10				96	960	2.1
Total+10%:									20.9
Pórtico 9	1	Ø10	2	24	191	24	239	478	2.9
	2	Ø10	2	24	191	24	239	478	2.9
	3	Ø16	3	24	191	24	239	717	11.3
	4	Ø6	10				126	1260	2.8
	Total+10%:								
Pórtico 10	1	Ø12	2	24	345	24	393	786	7.0
	2	Ø10	2	24	345	24	393	786	4.8
	3	Ø10	2	24	131	24	155	310	1.9
	4	Ø10	2	24	86	24	110	220	1.4
	5	Ø6	15				96	1440	3.2
Total+10%:									20.1
Total+10%:									375.4



UNIVERSIDAD AUTÓNOMA JUAN MISAEL SARACHO
FACULTAD DE CIENCIAS Y TECNOLOGÍA
CARRERA INGENIERÍA CIVIL



PROYECTO:
DISEÑO ESTRUCTURAL UNIDAD EDUCATIVA
ANICETO ARCE

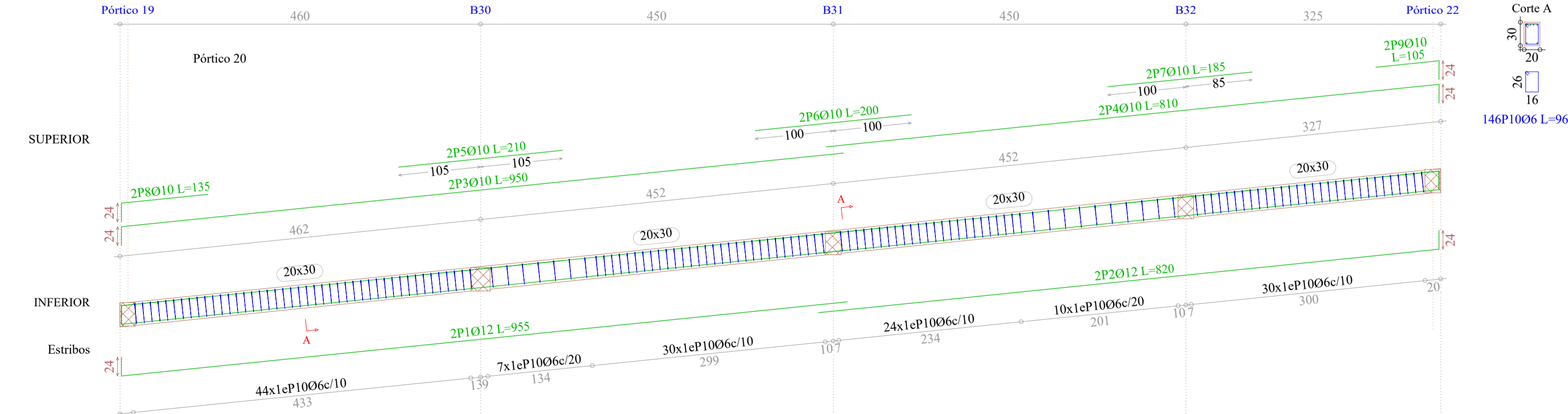
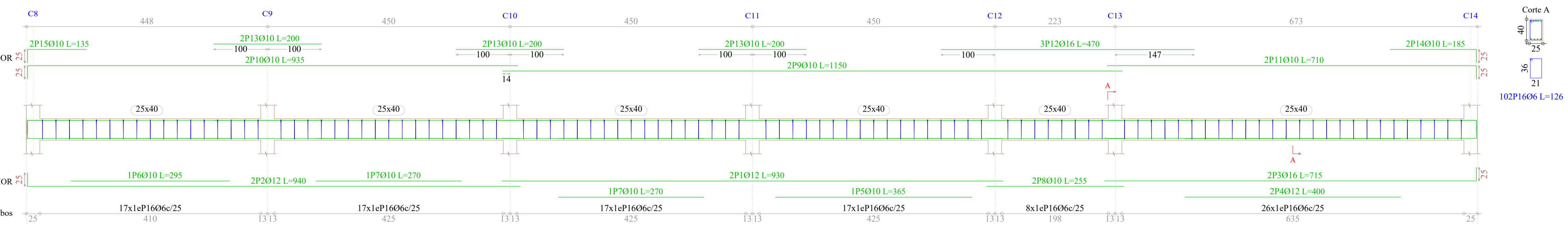
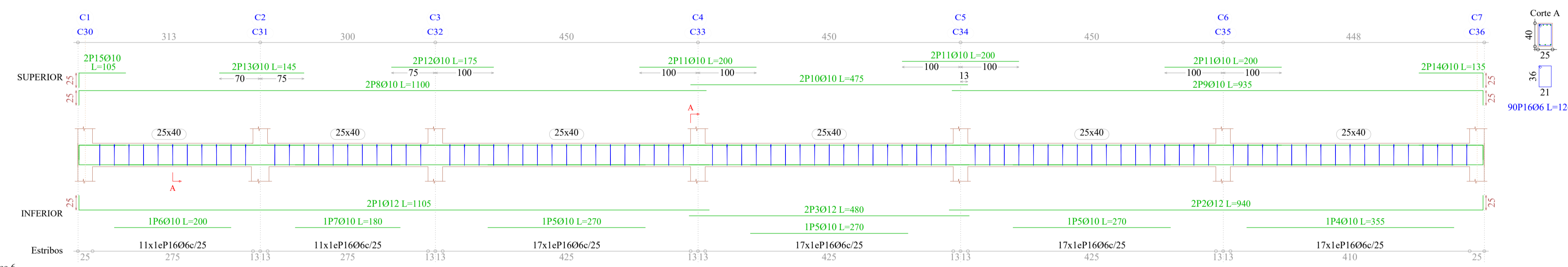
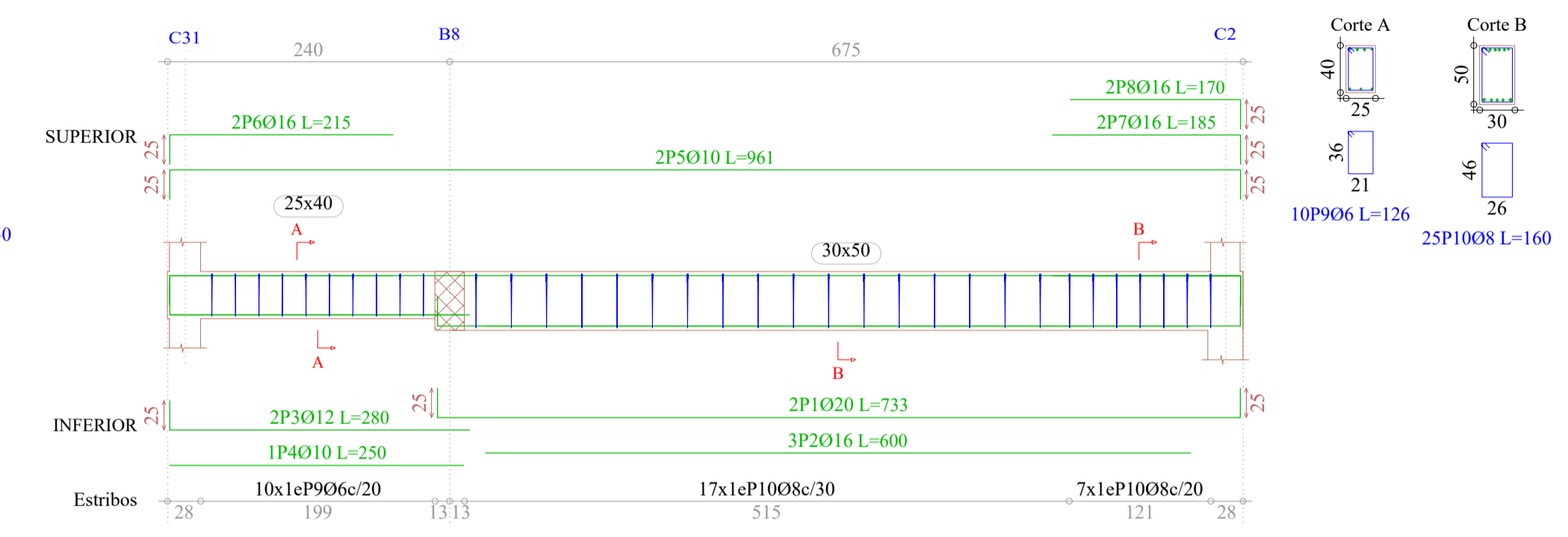
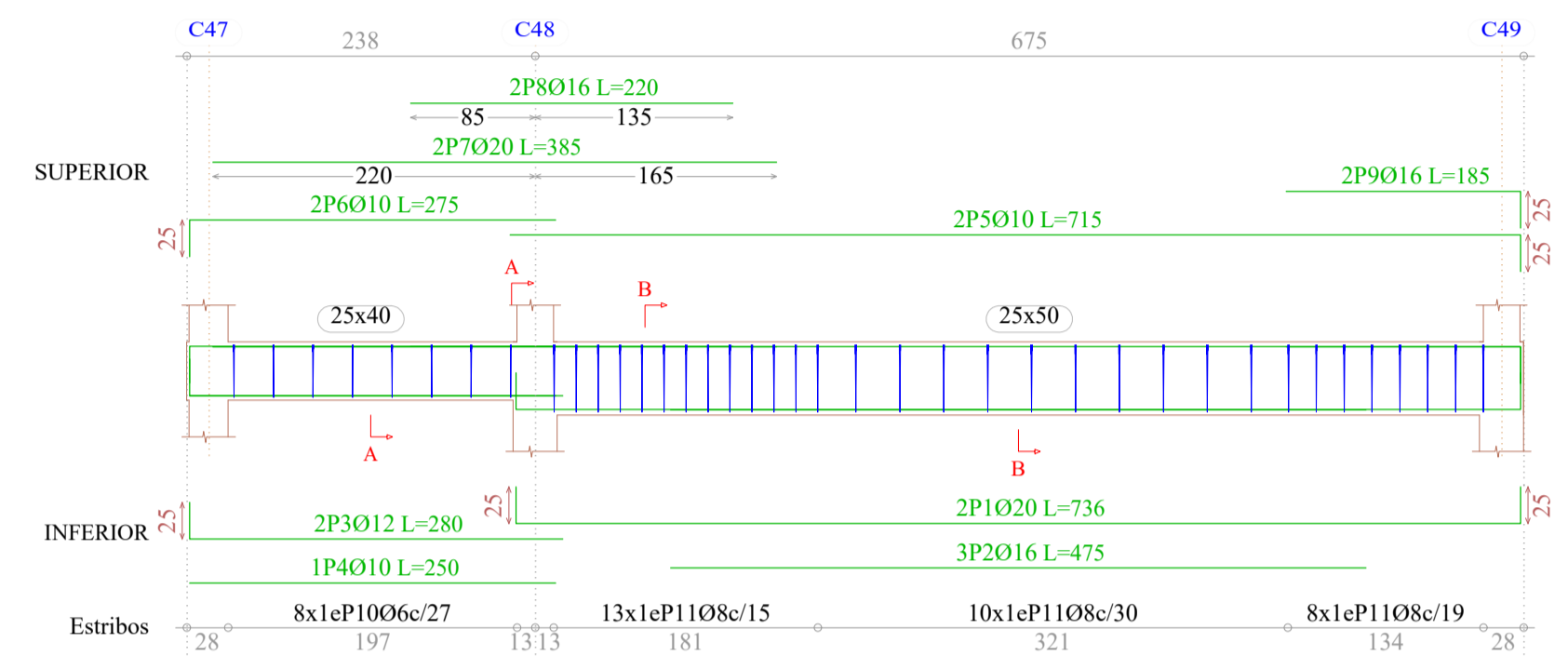
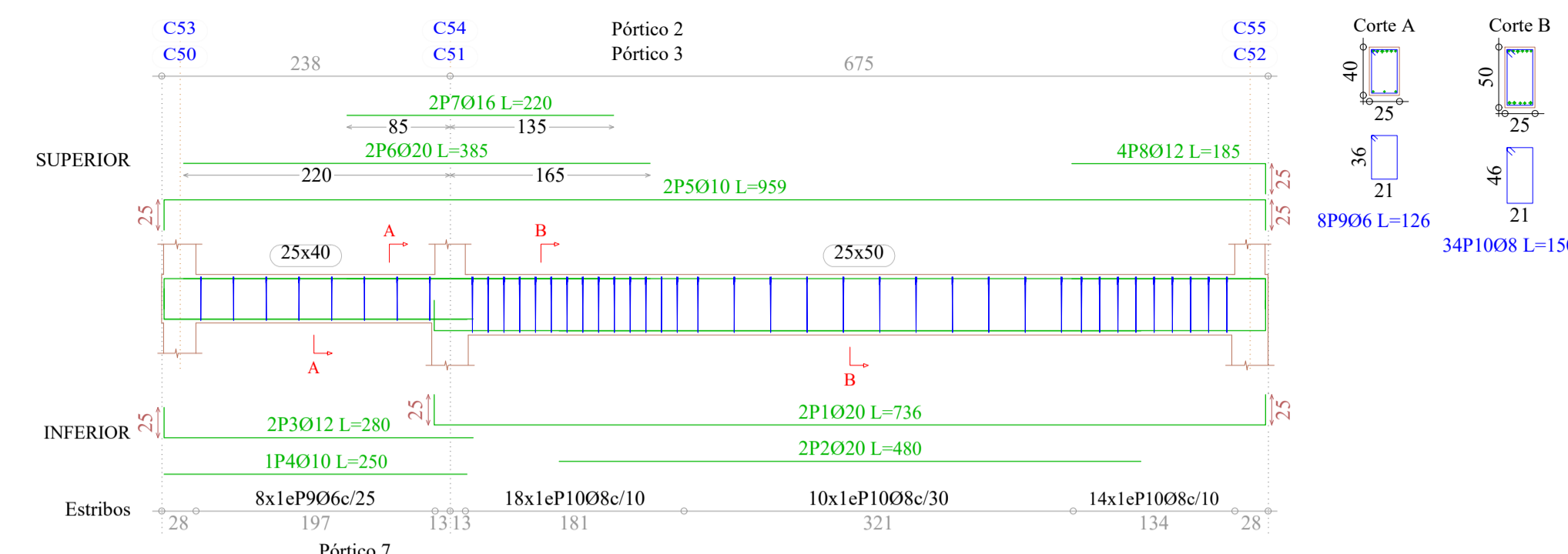
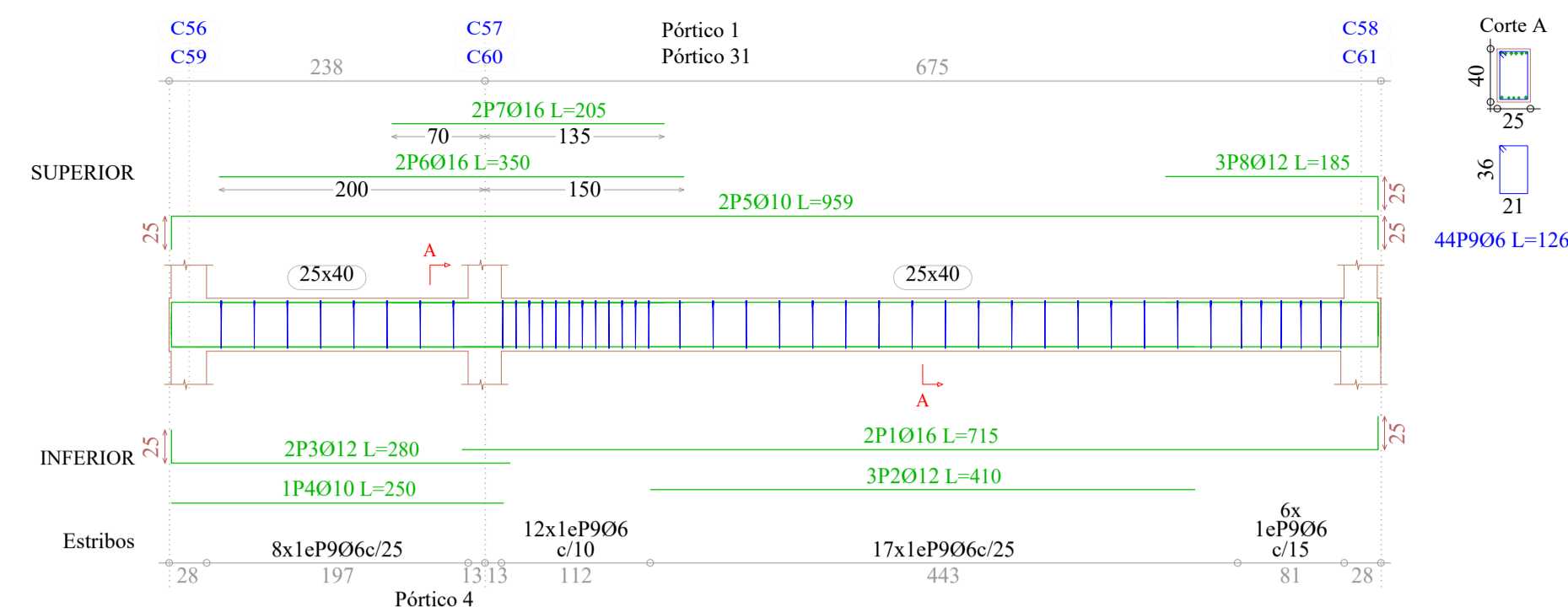
CARACTER:
DISPOSICIÓN DE ARMADURA
EN VIGAS 3/8

ASIGNATURA:
CIV - 502 PROYECTO DE
INGENIERIA CIVIL II

ELABORADO POR:
UNIV. ELIZABETH CORIA MAMANI

ESCALA:
INDICADA
FECHA:
JUNIO DE 2023

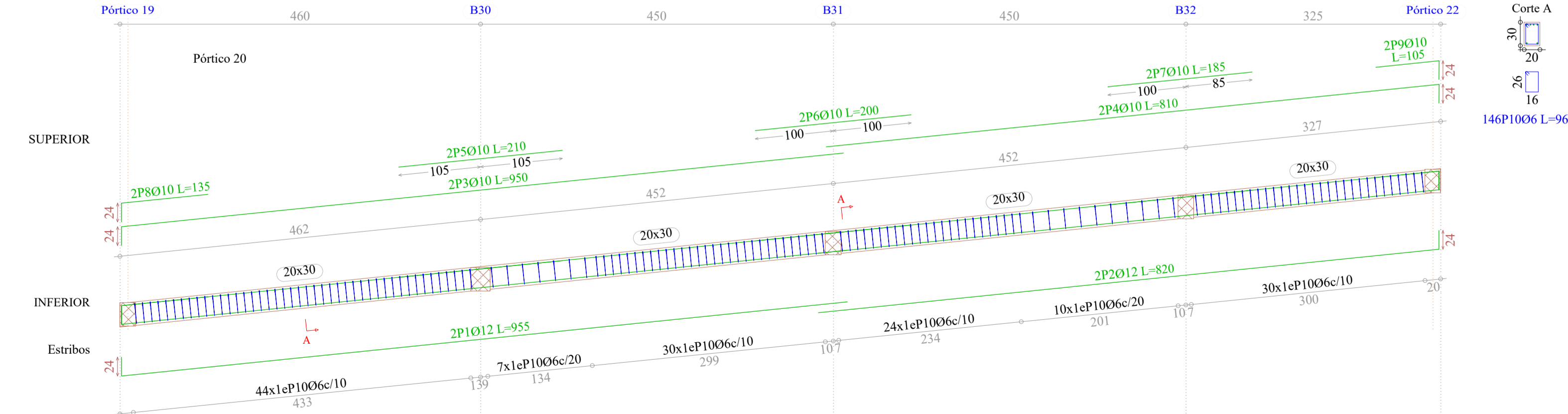
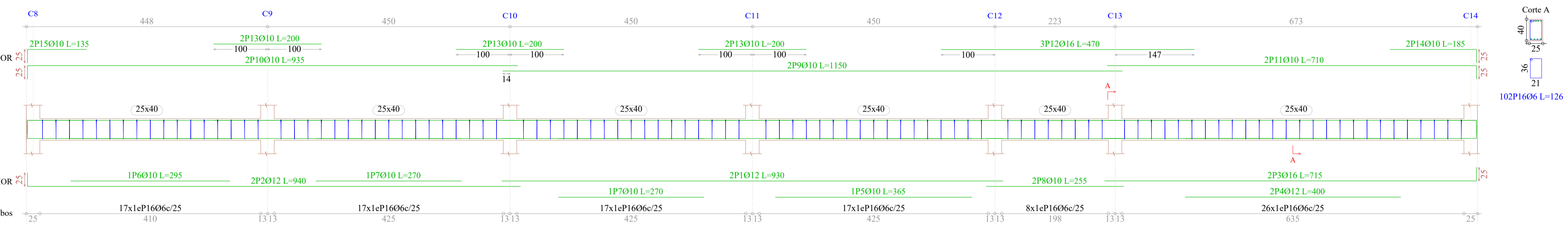
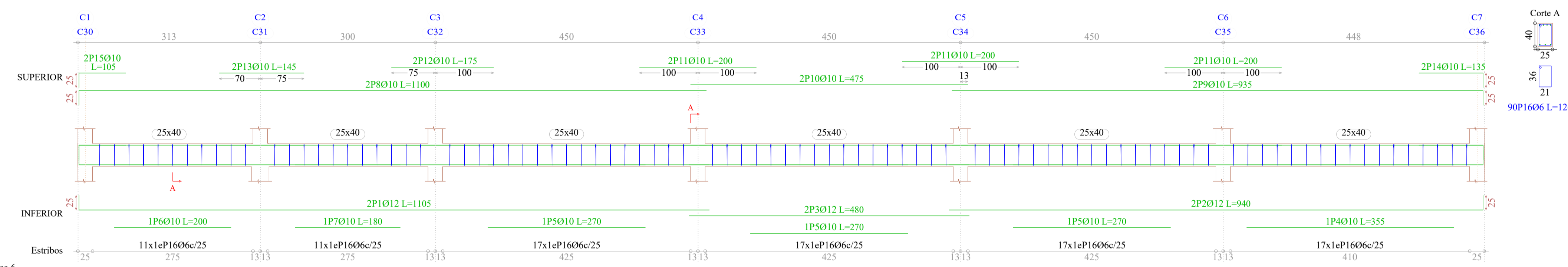
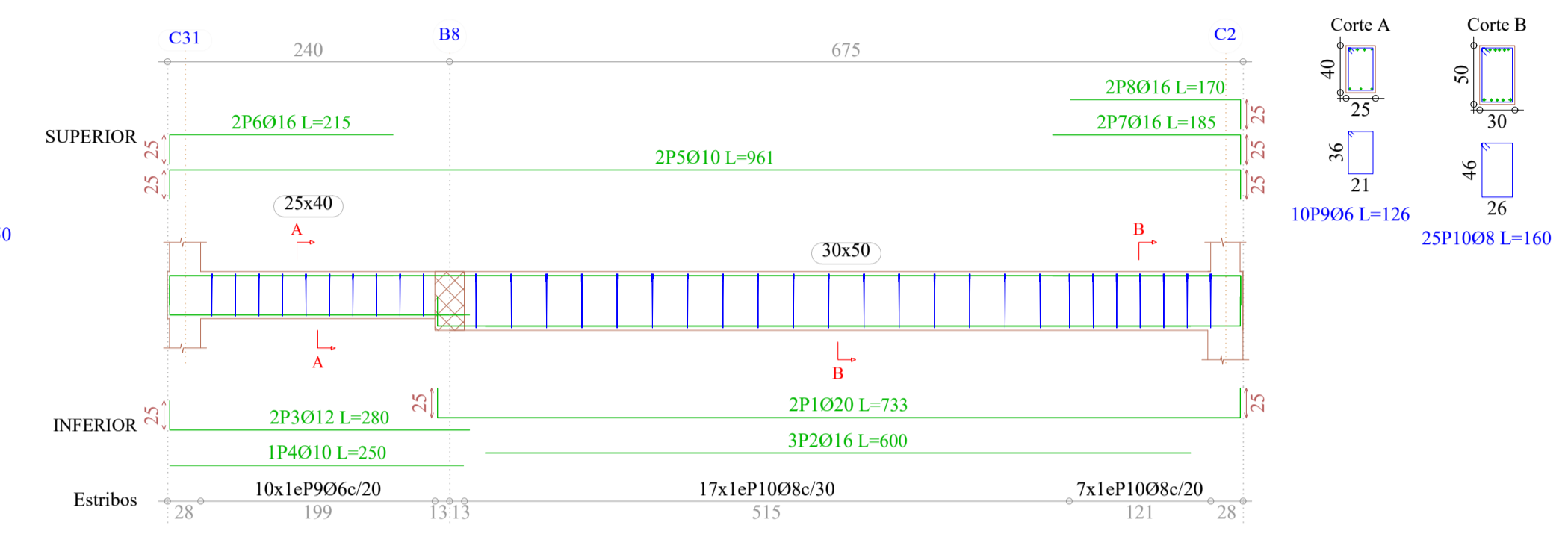
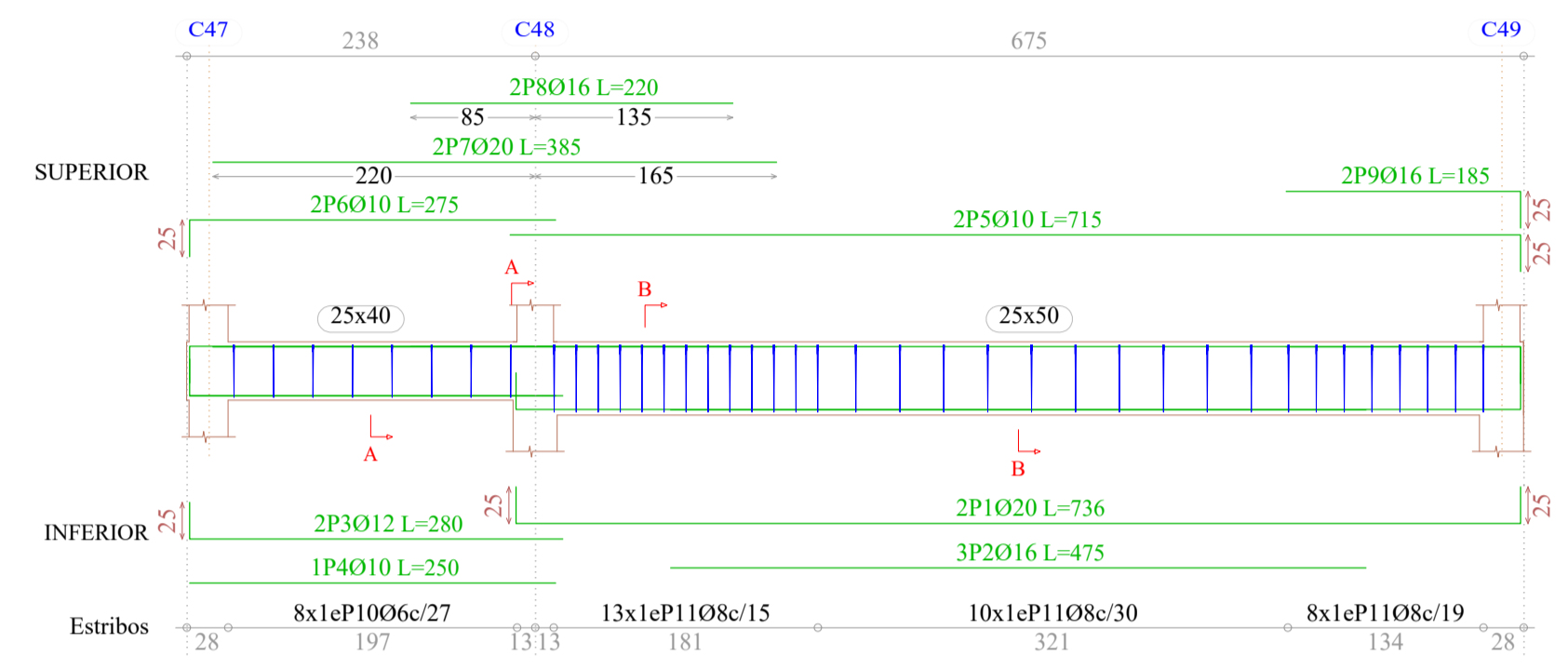
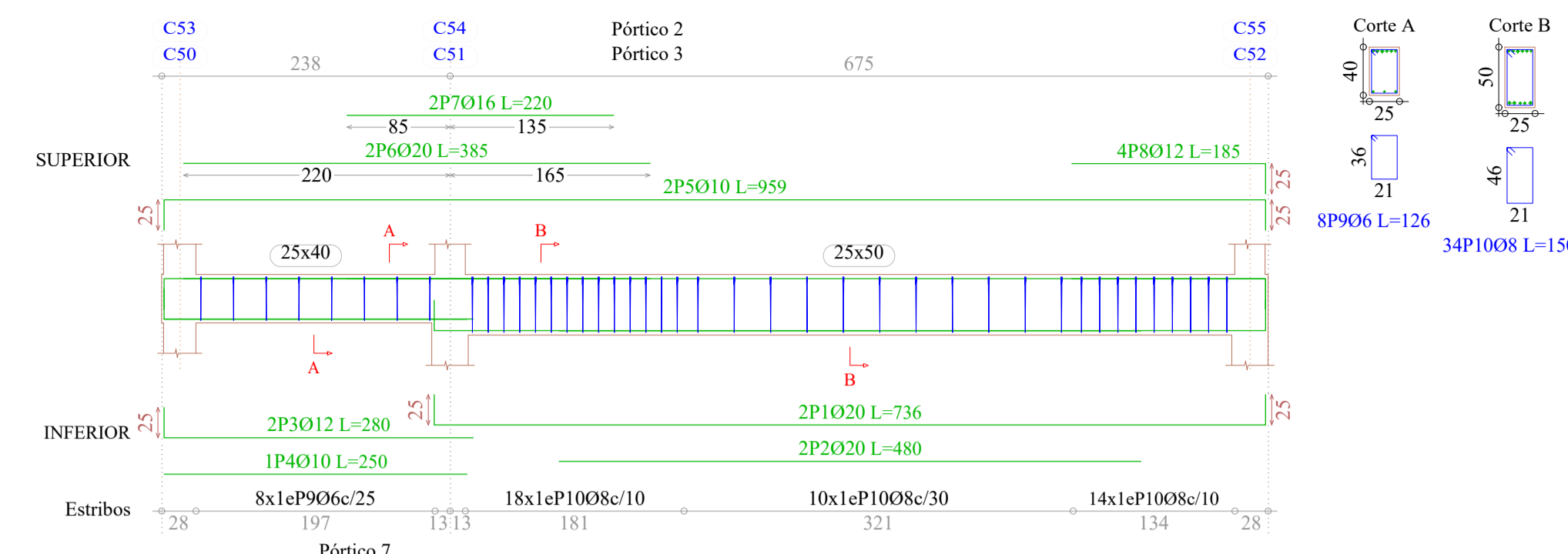
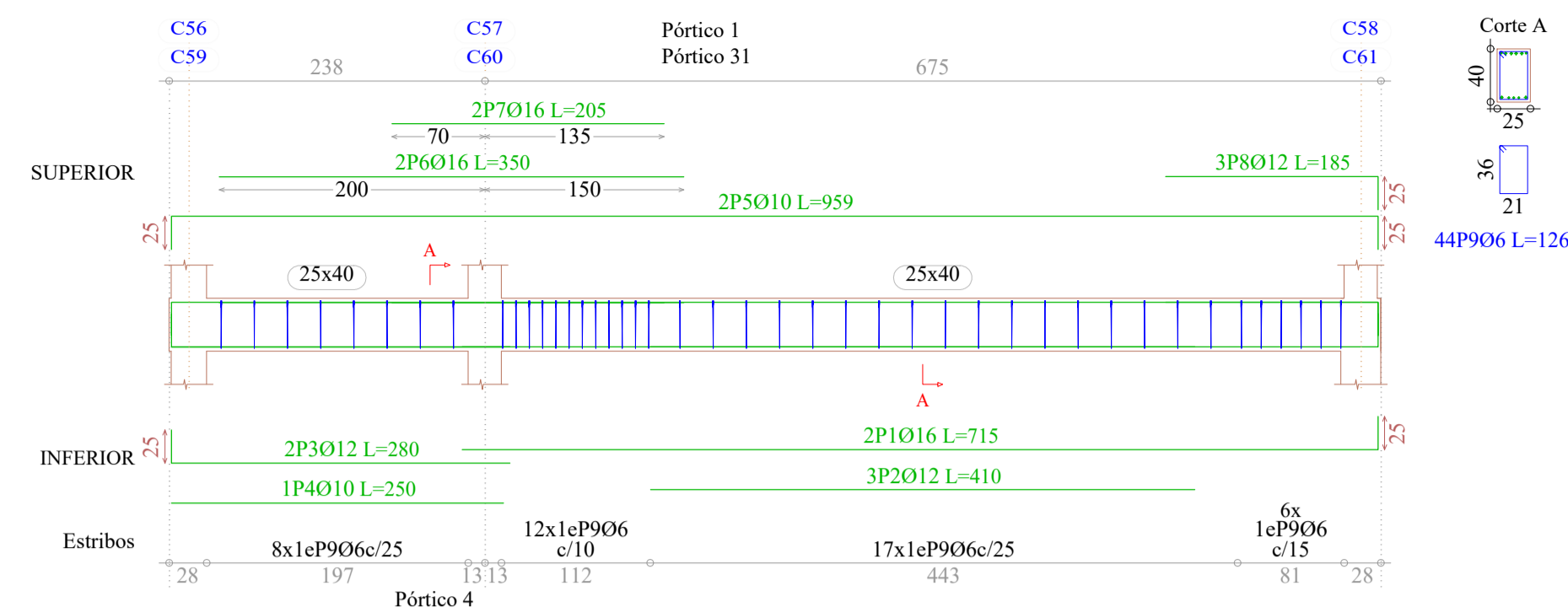
LAMINA:
6/18



PLANTA BAJA
Despiece de vigas
Hormigón: H-25 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:50

Resumen Acero PLANTA BAJA Vigas		Long. total (m)	Peso+10% (kg)	Total
AH-500CN	O6	1685.3	411	
	O8	626.1	272	
	O10	1232.7	836	
	O12	793.9	775	
	O16	605.2	1051	
	O20	115.4	313	
	O25	45.3	192	3850

Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1=Pórtico 31	1	O16	2	25	690	25	715	1430	22.6
	2	O12	3	25	410	25	410	1230	10.9
	3	O12	2	25	280	25	280	560	5.0
	4	O10	1	25	250	25	250	250	1.5
	5	O10	2	25	909	25	959	1918	11.8
	6	O16	2	25	350	25	350	700	11.0
	7	O16	2	25	205	25	205	410	6.5
	8	O12	3	25	385	25	385	1155	4.9
	9	O6	43	160	25	126	5418	12.0	
								Total+10%:	94.8
							(x2):	189.6	
Pórtico 2=Pórtico 3	1	O20	3	25	686	25	736	2208	54.5
	2	O16	2	25	480	25	480	960	15.2
	3	O12	2	25	255	25	280	560	5.0
	4	O10	1	25	250	25	250	250	1.5
	5	O12	2	25	909	25	959	1918	17.0
	6	O16	3	25	385	25	385	1155	18.2
	7	O20	1	220	220	220	220	220	5.4
	8	O16	2	160	25	185	370	5.8	
	9	O6	8	126	1008	2.2	150	5100	20.1
								Total+10%:	159.4
							(x2):	318.8	
Pórtico 4	1	O20	2	25	686	25	736	1472	36.3
	2	O16	2	25	475	25	475	950	22.5
	3	O12	3	25	280	25	280	840	7.5
	4	O10	1	25	250	25	250	250	1.5
	5	O10	2	25	690	25	715	1430	8.8
	6	O10	2	25	250	25	275	550	3.4
	7	O20	2	220	220	220	220	220	19.0
	8	O16	2	160	25	185	370	6.9	
	9	O16	2	160	25	185	370	6.9	
	10	O6	8	126	1008	2.2	150	5100	18.3
								Total+10%:	142.7
Pórtico 5=Pórtico 17	1	O12	2	25	1080	25	1105	2210	19.6
	2	O12	2	25	915	25	940	1880	16.7
	3	O12	2	25	480	25	480	960	8.5
	4	O10	1	25	355	25	355	355	2.2
	5	O10	3	270	270	270	270	810	5.0
	6	O10	1	200	200	200	200	200	1.2
	7	O10	1	180	180	180	180	180	1.1
	8	O10	2	25	1075	25	1100	2200	13.6
	9	O10	2	910	25	935	1870	11.5	
	10	O10	2	475	25	475	950	5.9	
	11	O10	6	200	200	200	1200	7.4	
	12	O10	2	175	175	175	350	2.2	
	13	O10	2	145	145	145	290	1.8	
	14	O10	2	110	25	135	270	1.7	
	15	O10	2	25	80	105	210	1.3	
	16	O6	90	126	11340	25.2			
							Total+10%:	137.4	
							(x2):	274.8	
Pórtico 6	1	O12	2	25	930	25	930	1860	16.5
	2	O12	2	25	915	25	915	1830	16.7
	3	O16	2	25	690	25	715	1430	22.6
	4	O12	2	400	400	400	800	7.1	
	5	O10	1	365	365	365	2.3		
	6	O10	1	295	295	295	1.8		
	7	O10	2	270	270	270	540	3.3	
	8	O10	2	255	255	255	510	3.1	
	9	O10	2	1150	1150	1150	2300	14.2	
	10	O10	2	910	935	1870	11.5		
	11	O10	2	685	25	710	1420	8.8	
	12	O16	3	470	470	1410	22.3		
	13	O10	6	200	200	1200	7.4		
	14	O10	2	185	370	2.3			
	15	O10	2	110	25	135	270	1.7	
	16	O6	102	126	12852	28.5			
							Total+10%:	187.1	
Pórtico 7	1	O20	2	25	683	25	733	1466	36.2
	2	O16	3	25	600	25	600	1800	28.4
	3	O12	2	25	255	25	280	560	5.0
	4	O10	1	250	250	250	1.5		
	5	O10	2	25	911	25	961	1922	11.8
	6	O16	2	25	190	215	430	6.8	
	7	O16	2	160	25	185	370	5.8	
	8	O16	2	145	25	170	340	5.4	
	9	O6	10	126	1260	2.8			
	10	O8	24	160	3840	15.2			
							Total+10%:	130.8	
Pórtico 20	1	O12	2	24	931	24	955	1910	17.0
	2	O12	2	24	796	24	820	1640	14.6
	3	O10	2	24	926	24	950	1900	11.7
	4	O10	2	786	810	1620	10.0		
	5	O10	2	210	210	420	2.6		
	6	O10	2	200	200	400	2.5		
	7	O10	2	185	185	370	2.3		
	8	O10	2	111	135	270	1.7		
	9	O10	2	81	24	105	210	1.3	
	10	O6	145	96	13920	30.9			
							Total+10%:	104.1	
							O6:	157.4	
							O8:	81.1	
							O10:	280.4	
							O12:	282.9	
							O16:	313.7	
							O20:	232.4	
							Total:	1347.9	



PLANTA BAJA
Despiece de vigas
Hormigón: H-25 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:50

Resumen Acero PLANTA BAJA Vigas	Long. total (m)	Peso+10% (kg)	Total
AH-500CN O6	1685.3	411	
O8	626.1	272	
O10	1232.7	836	
O12	793.9	775	
O16	605.2	1051	
O20	115.4	313	
O25	45.3	192	3850

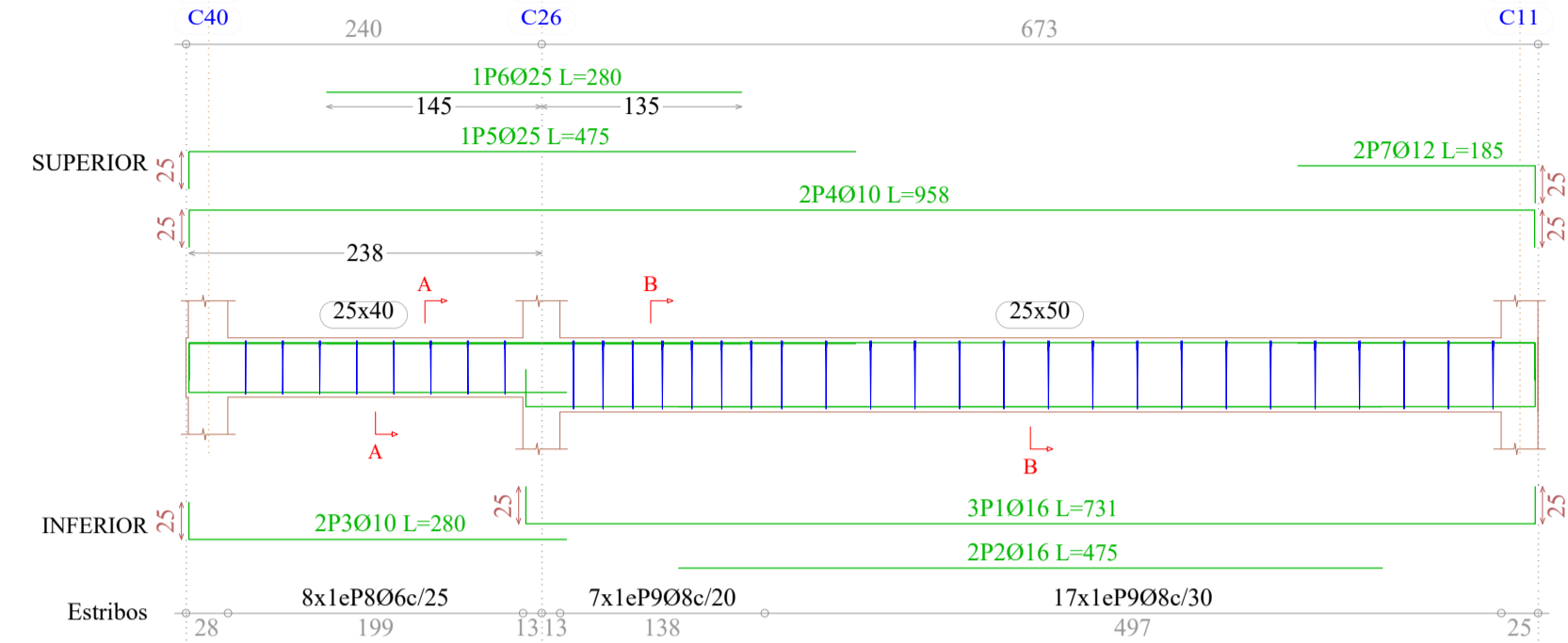
Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1=Pórtico 31	1	O16	2	25	690	25	715	1430	22.6
	2	O12	3	25	410	25	410	1230	10.9
	3	O12	3	25	280	25	280	560	5.0
	4	O10	1	25	250	25	250	250	1.5
	5	O10	2	25	909	25	959	1918	11.8
	6	O16	2	25	350	25	350	700	11.0
	7	O16	2	25	205	25	205	410	6.5
	8	O12	3	25	385	25	385	555	4.9
	9	O6	43	160	25	126	5418	12.0	
								Total+10%:	94.8
							(x2):	189.6	
Pórtico 2=Pórtico 3	1	O20	3	25	686	25	736	2208	54.5
	2	O16	2	25	480	25	480	960	15.2
	3	O12	2	25	255	25	280	560	5.0
	4	O10	1	25	250	25	250	250	1.5
	5	O12	2	25	909	25	959	1918	17.0
	6	O16	3	25	385	25	385	1155	18.2
	7	O20	1	220	220	220	220	220	5.4
	8	O16	2	160	25	185	370	5.8	
	9	O6	8	126	1008	2.2	150	5100	20.1
								Total+10%:	159.4
							(x2):	318.8	
Pórtico 4	1	O20	2	25	686	25	736	1472	36.3
	2	O16	2	25	475	25	475	950	22.5
	3	O12	3	25	280	25	280	560	5.0
	4	O10	1	25	250	25	250	250	1.5
	5	O10	2	25	690	25	715	1430	8.8
	6	O10	2	25	250	25	275	550	3.4
	7	O20	2	220	220	220	220	220	19.0
	8	O16	2	160	25	185	370	6.9	
	9	O16	2	160	25	185	370	6.9	
	10	O6	8	126	1008	2.2	150	5100	20.1
	11	O8	31	150	4650	18.3			
							Total+10%:	142.7	
Pórtico 5=Pórtico 17	1	O12	2	25	1080	25	1105	2210	19.6
	2	O12	2	25	915	25	940	1880	16.7
	3	O12	2	25	480	25	480	960	8.5
	4	O10	1	25	355	25	355	355	2.2
	5	O10	3	270	270	270	810	5.0	
	6	O10	1	200	200	200	200	1.2	
	7	O10	1	180	180	180	180	1.1	
	8	O10	2	25	1075	1100	2200	13.6	
	9	O10	2	910	935	1870	11.5		
	10	O10	2	475	475	950	5.9		
	11	O10	6	200	200	1200	7.4		
	12	O10	2	175	175	350	2.2		
	13	O10	2	145	145	290	1.8		
	14	O10	2	110	110	220	1.7		
	15	O10	2	25	80	105	210	1.3	
	16	O6	90	126	11340	25.2			
							Total+10%:	137.4	
							(x2):	274.8	
Pórtico 6	1	O12	2	25	930	25	930	1860	16.5
	2	O12	2	25	915	25	915	1830	16.7
	3	O16	2	25	690	25	715	1430	22.6
	4	O12	2	400	400	800	7.1		
	5	O10	1	365	365	365	2.3		
	6	O10	1	295	295	295	1.8		
	7	O10	2	270	270	540	3.3		
	8	O10	2	255	255	510	3.1		
	9	O10	2	1150	1150	2300	14.2		
	10	O10	2	910	935	1870	11.5		
	11	O10	2	685	710	1420	8.8		
	12	O16	3	470	470	940	22.3		
	13	O10	6	200	200	1200	7.4		
	14	O10	2	160	160	320	2.3		
	15	O10	2	110	110	220	1.7		
	16	O6	102	126	12852	28.5			
							Total+10%:	187.1	
Pórtico 7	1	O20	2	25	683	25	733	1466	36.2
	2	O16	3	25	600	25	600	1800	28.4
	3	O12	2	25	255	25	280	560	5.0
	4	O10	1	250	250	250	1.5		
	5	O10	2	25	911	25	961	1922	11.8
	6	O16	2	25	190	215	430	6.8	
	7	O16	2	160	25	185	370	5.8	
	8	O16	2	145	25	170	340	5.4	
	9	O6	10	126	1260	2.8			
	10	O8	24	160	3840	15.2			
							Total+10%:	130.8	
Pórtico 20	1	O12	2	24	931	24	955	1910	17.0
	2	O12	2	24	796	24	820	1640	14.6
	3	O10	2	24	926	24	950	1900	11.7
	4	O10	2	786	810	1620	10.0		
	5	O10	2	210	210	420	2.6		
	6	O10	2	200	200	400	2.5		
	7	O10	2	185	185	370	2.3		
	8	O10	2	111	111	222	1.7		
	9	O10	2	81	81	162	1.3		
	10	O6	145	96	13920	30.9			
							Total+10%:	104.1	
							O6:	157.4	
							O8:	81.1	
							O10:	280.4	
							O12:	282.9	
							O16:	313.7	
							O20:	232.4	
							Total:	1347.9	

Pórtico 8
Pórtico 9
Pórtico 10
Pórtico 12
Pórtico 13
Pórtico 14

C33
C34
C35
C38
C39
C40

C19
C20
C21
C24
C25
C26

C4
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C11



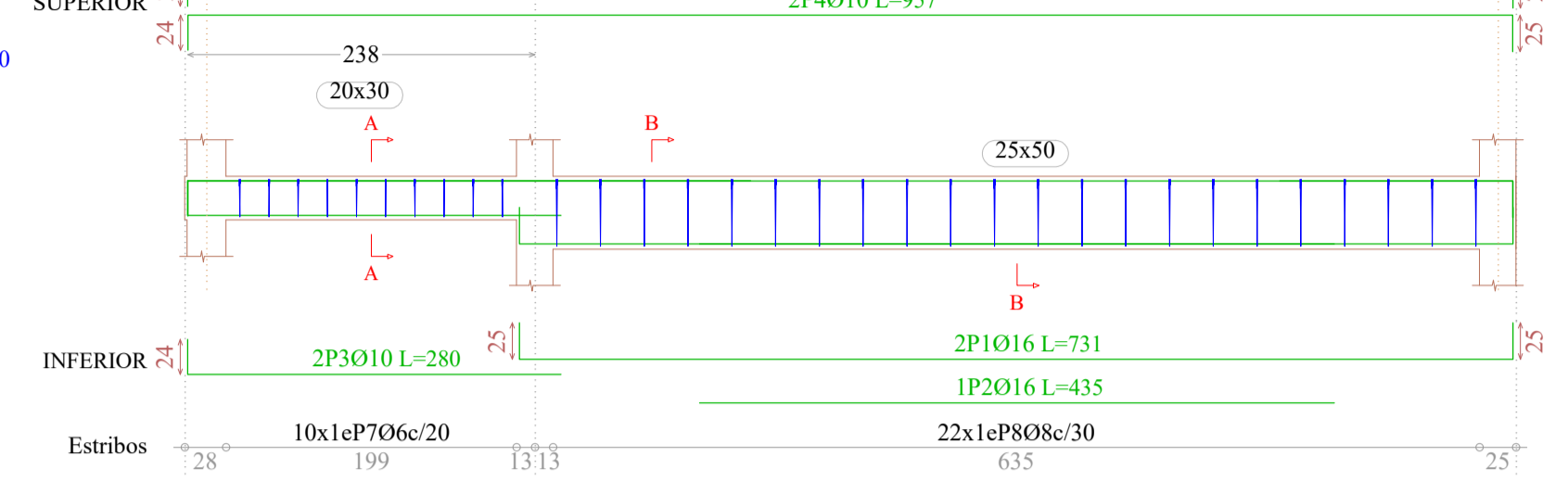
PLANTA BAJA
Despiece de vigas
Hormigón: H-25 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:50

Pórtico 11
Pórtico 32

C37
C30

C23
C17

C8
C1



Pórtico 24

C44

B31

SUPERIOR

INFERIOR

Estribos

Corte A

Corte B

10P406 L=96

10P706 L=96

22P808 L=150

10P406 L=96

14P406 L=96

14P406 L=96

14P406 L=96

14P406 L=96

14P406 L=96

14P406 L=96

14P406 L=96

14P406 L=96

Pórtico 15

C32

C18

C3

Corte A

Corte B

8P806 L=126

22P908 L=150

8P806 L=126

22P908 L=150

8P806 L=126

22P908 L=150

8P806 L=126

22P908 L=150

8P806 L=126

Pórtico 21

C46

C36

C22

C7

Corte A

Corte B

16P906 L=96

37P1006 L=126

16P906 L=96

37P1006 L=126

16P906 L=96

37P1006 L=126

16P906 L=96

37P1006 L=126

Pórtico 16

C17

C18

C22

C21

Corte A

Corte B

106P1606 L=126

106P1606 L=126

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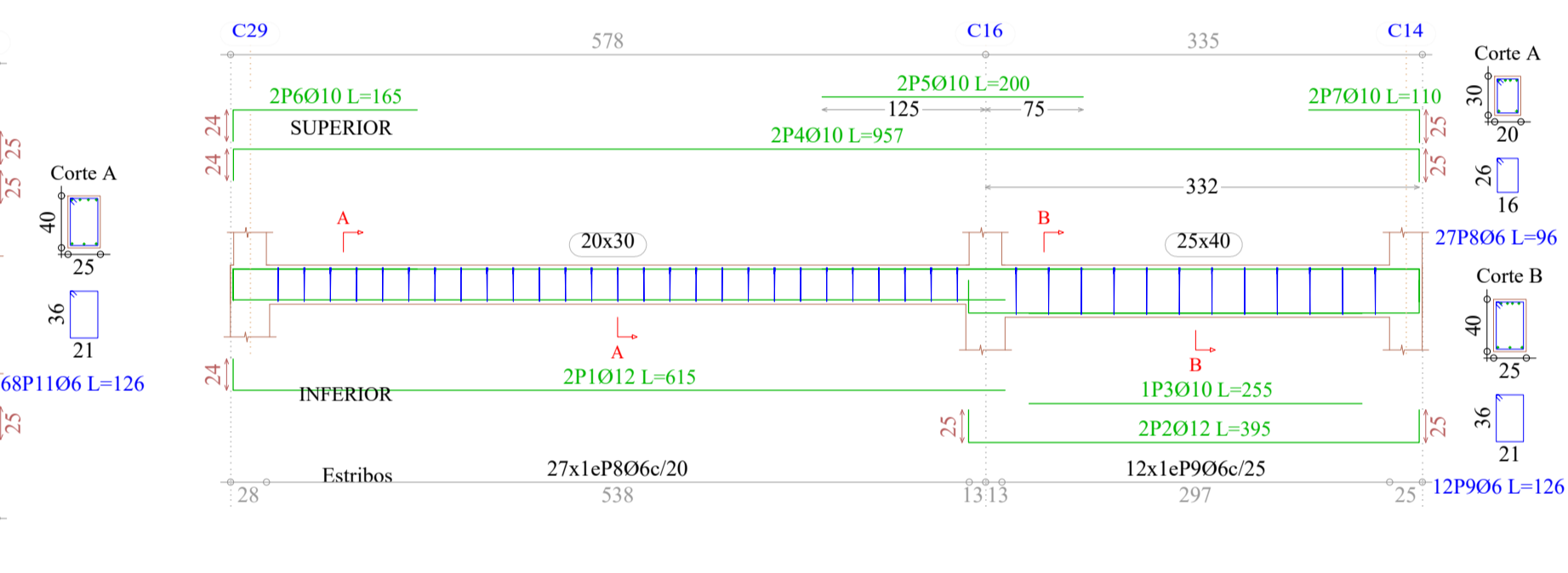
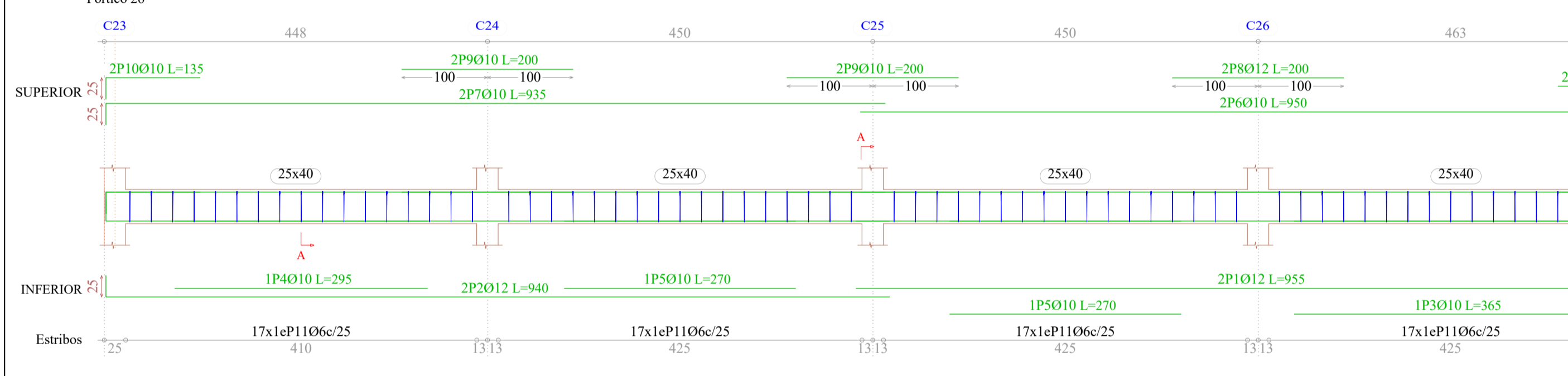
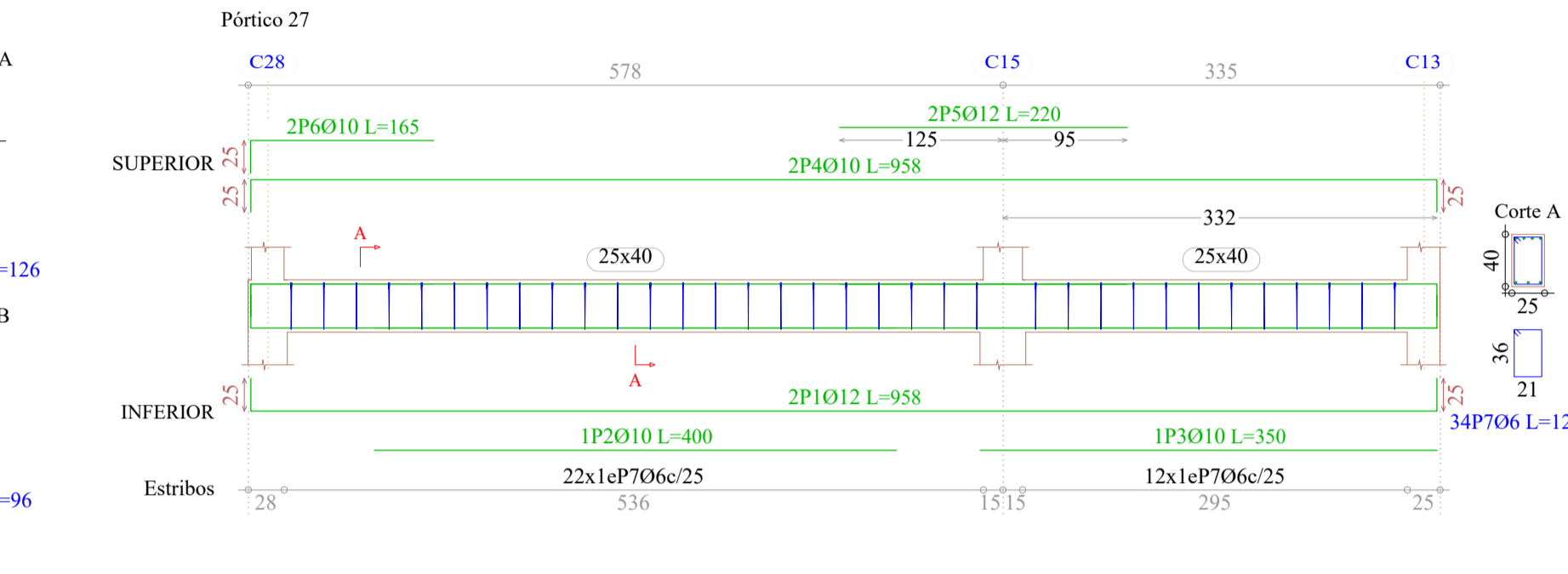
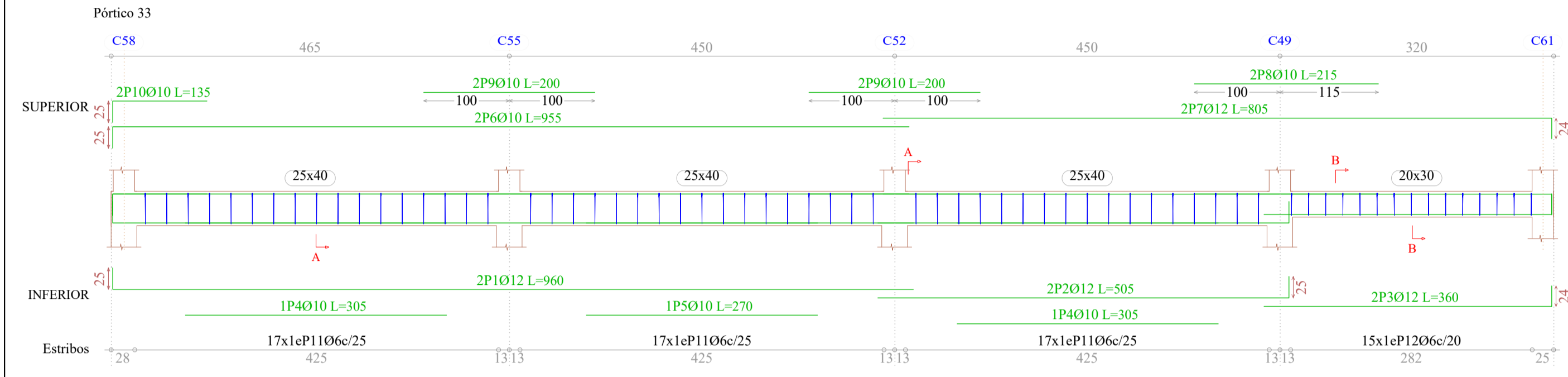
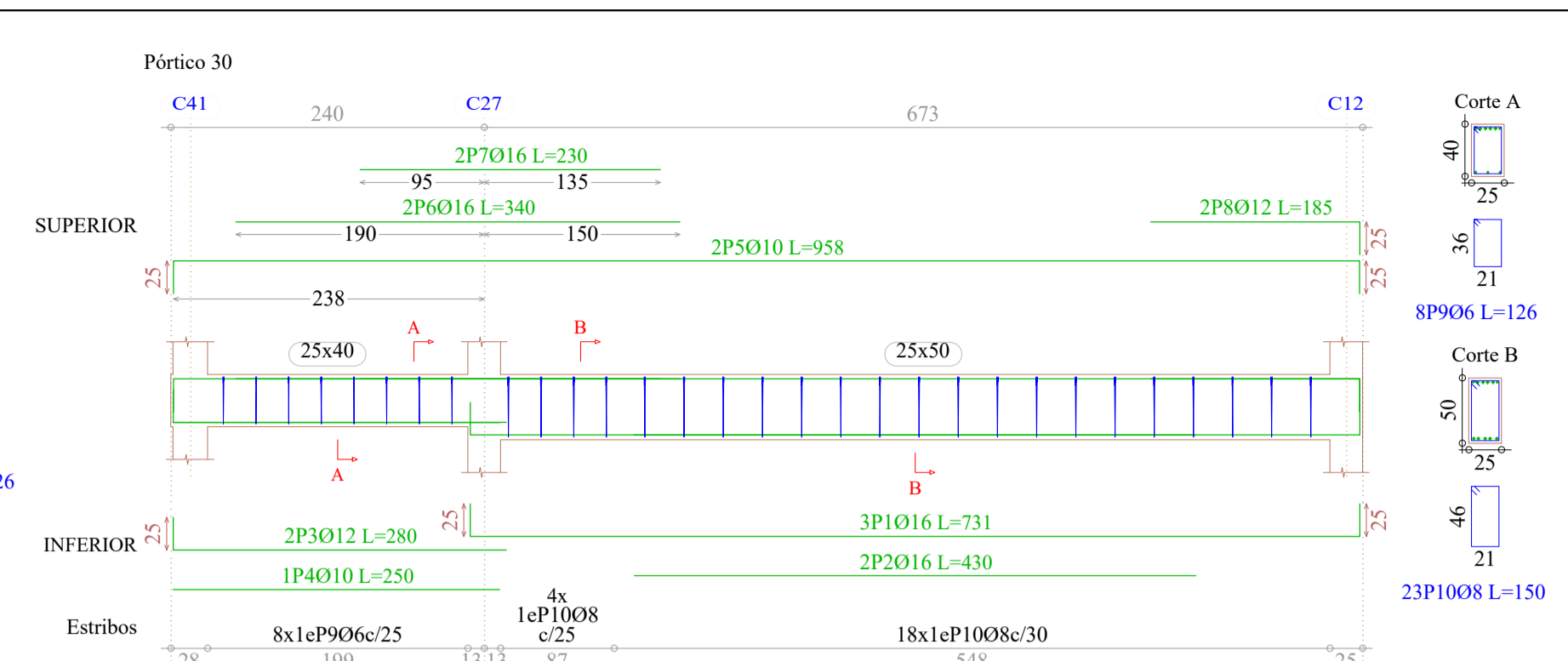
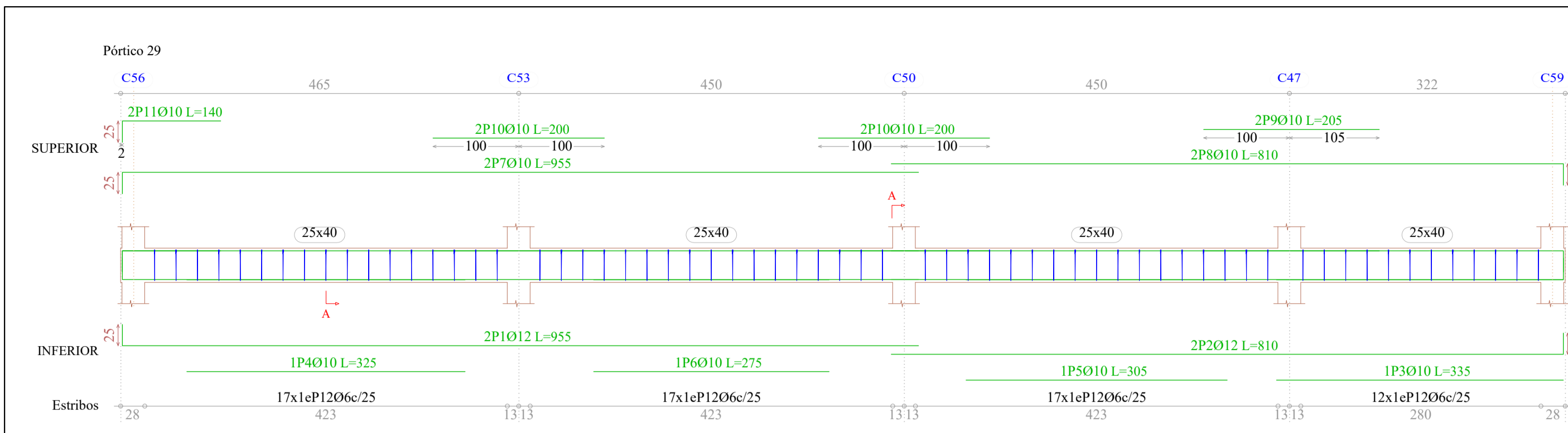
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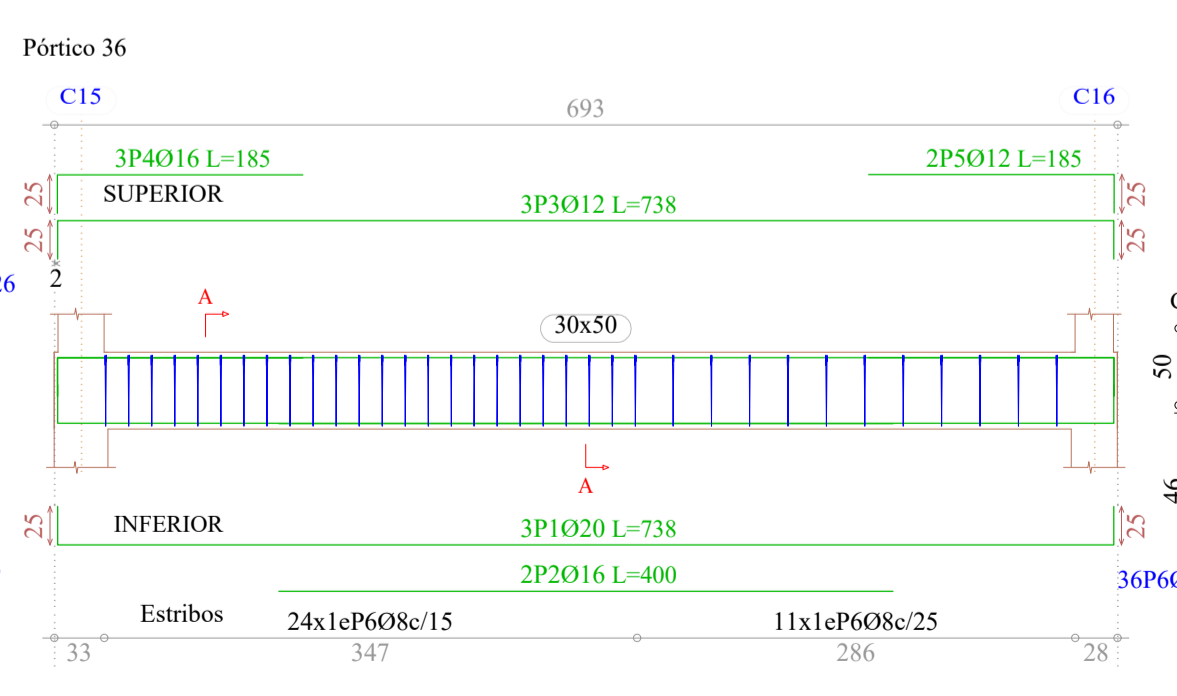
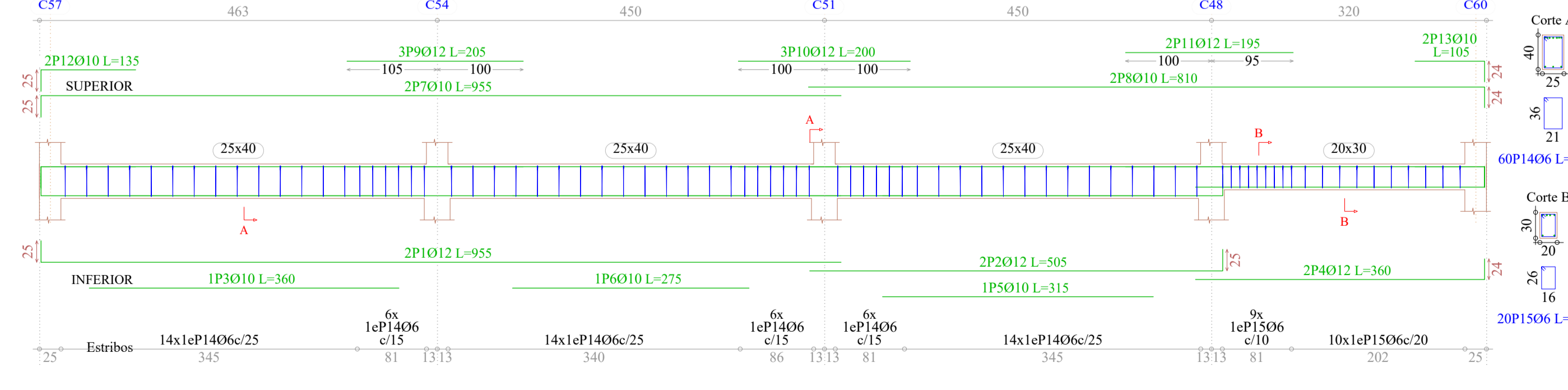
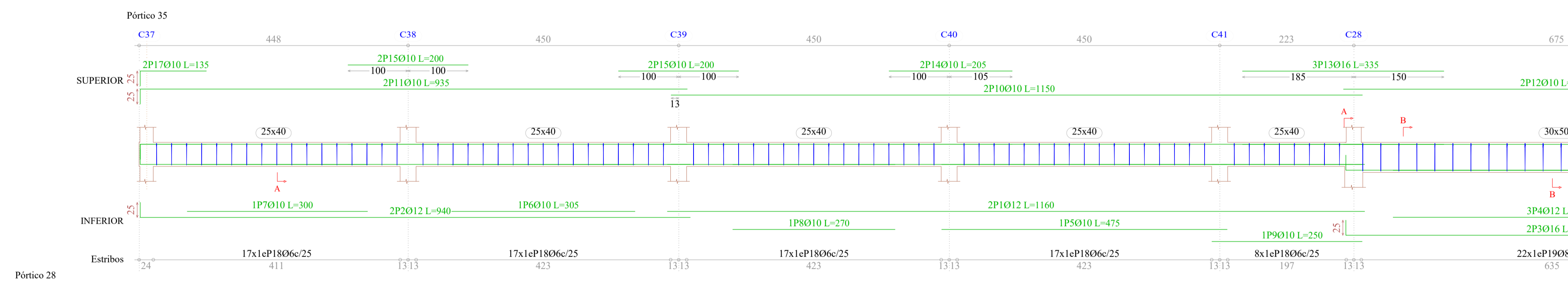
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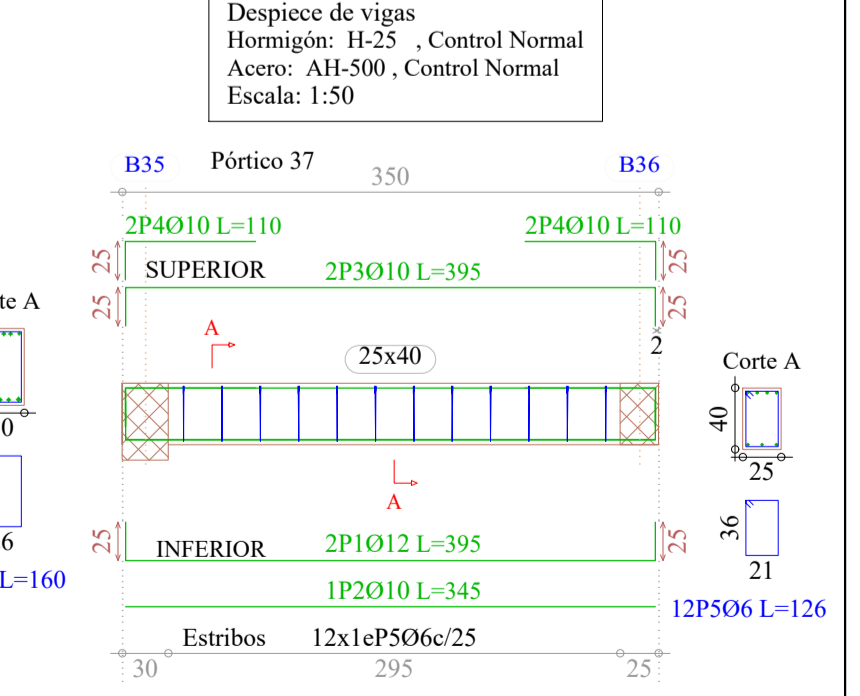
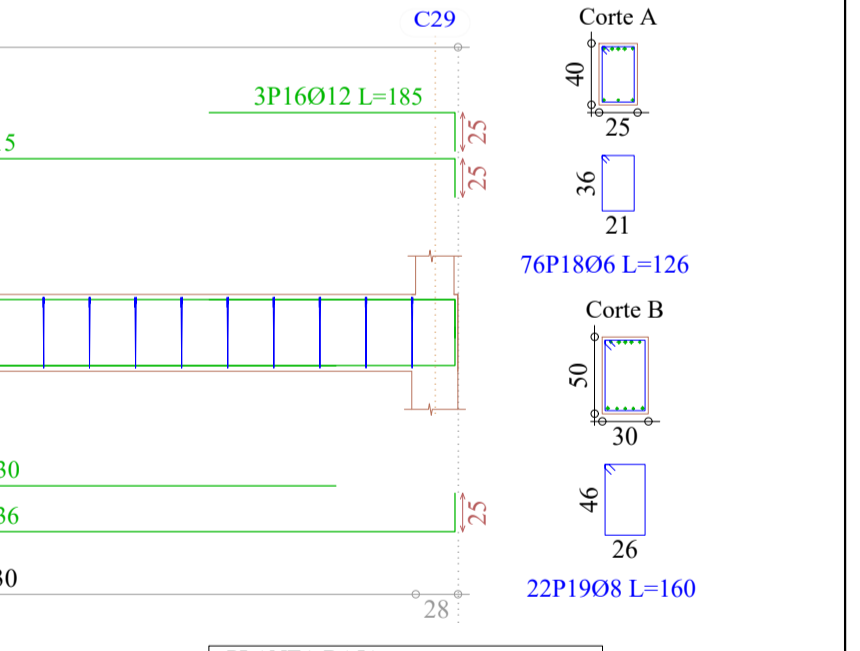
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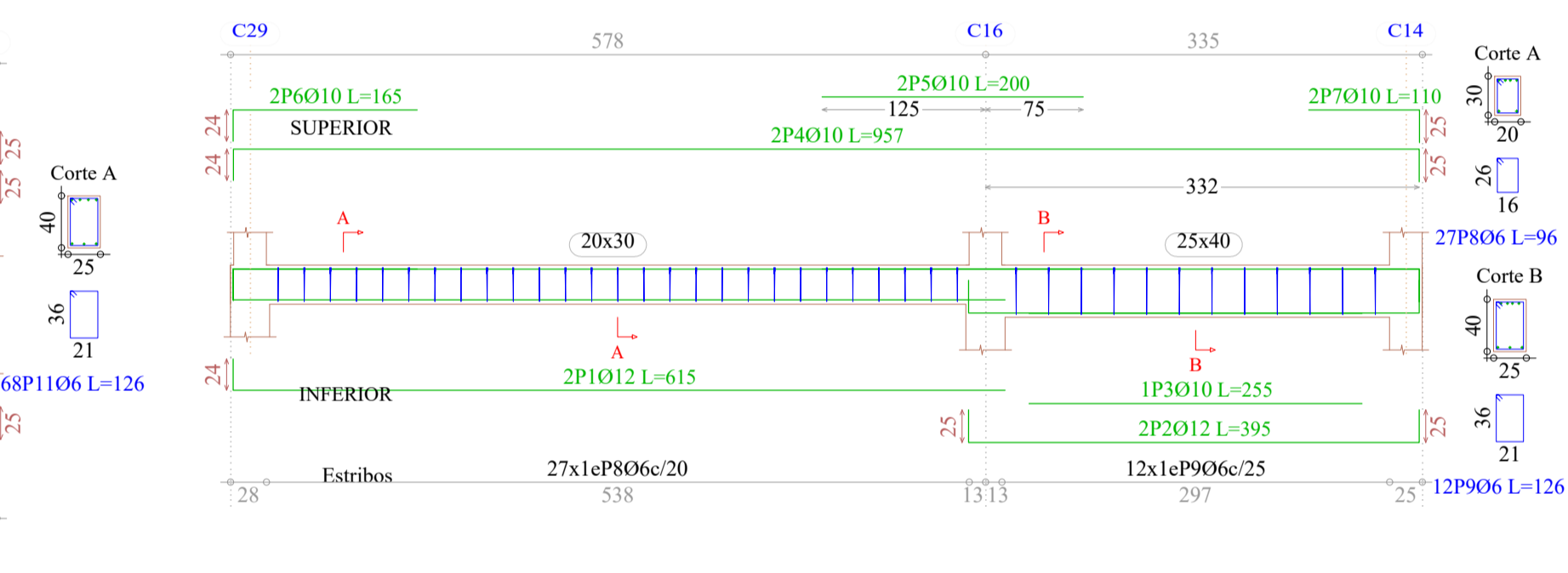
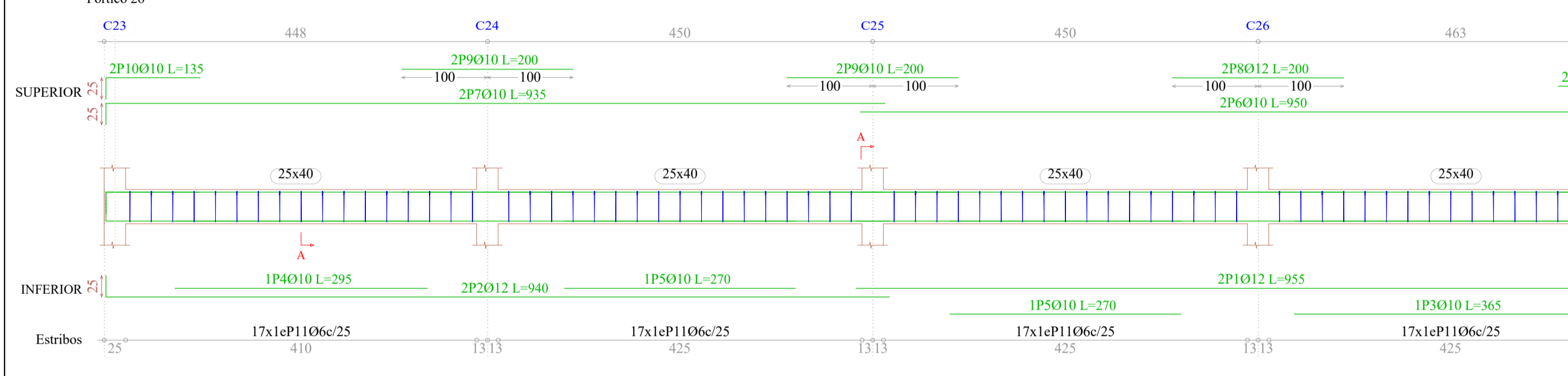
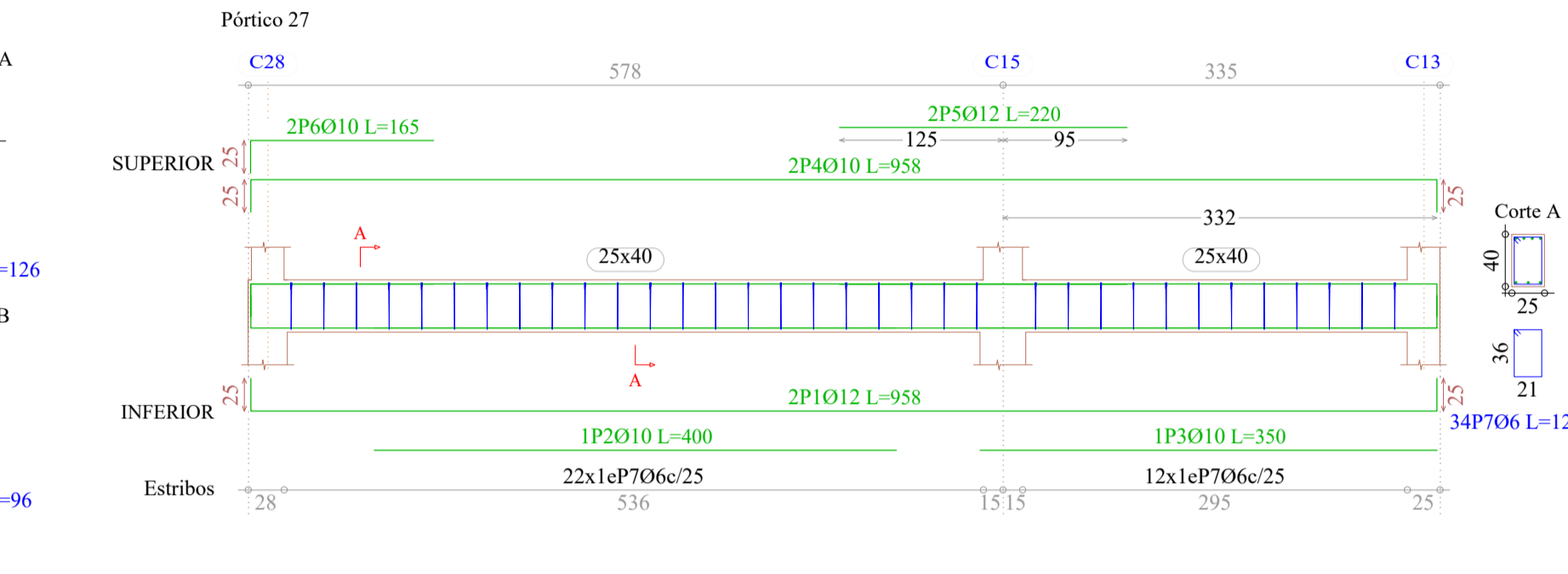
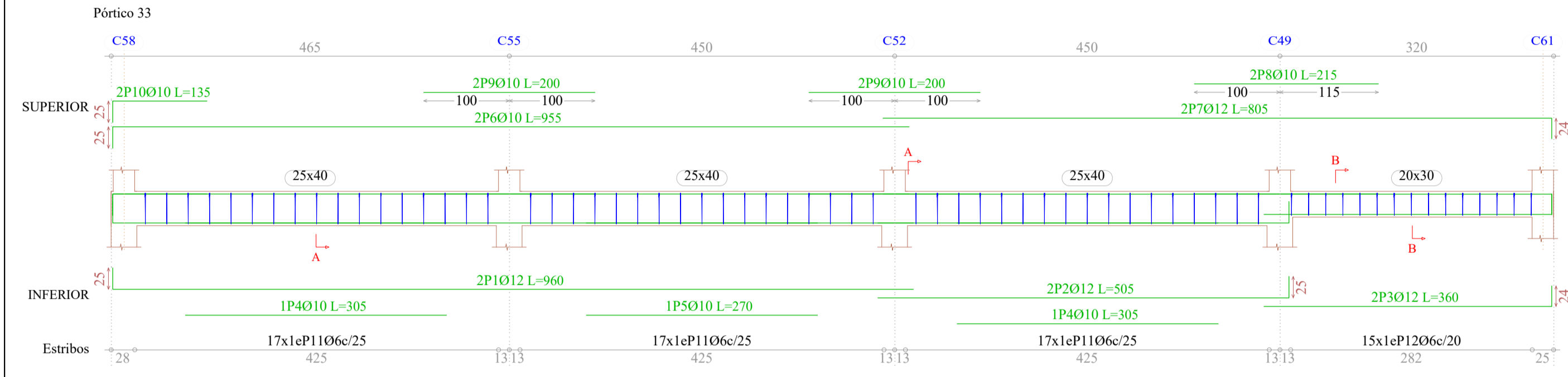
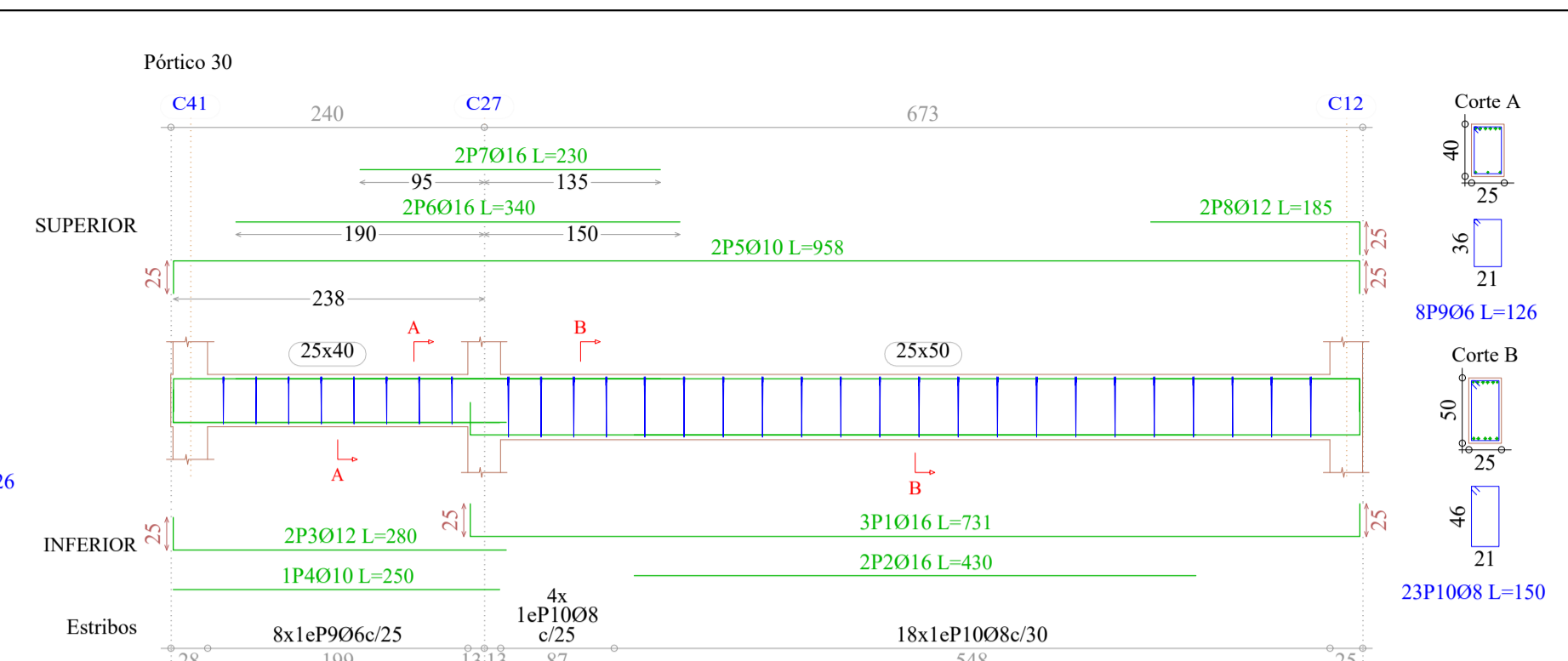
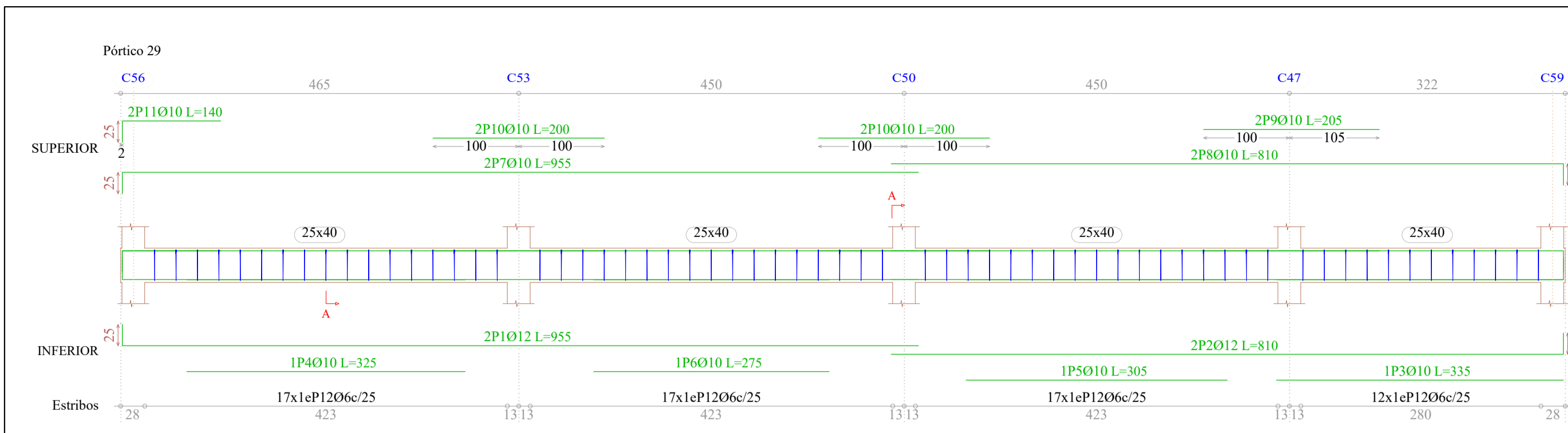


Elemento	Pos.	Diám.	No.	Pat.	Recta	Pat.	Long.	Total	AH-500CN
		(cm)		(cm)	(cm)	(cm)	(cm)	(kg)	(kg)
Pórtico 34	1	Ø12	2	24	591	25	615	1230	10.9
	2	Ø12	2	25	345	25	395	790	7.0
	3	Ø10	1	255	255	1.6			
	4	Ø10	2	24	908	25	957	1914	11.8
	5	Ø10	2	200	200	4.0	2.5		
	6	Ø10	2	24	141	165	330	2.0	
	7	Ø10	2	85	110	220	1.4		
	8	Ø6	27	96	2592	5.8			
	9	Ø6	12	126	1512	3.4			
Total+10%:									51.0
Pórtico 35	1	Ø12	2	1160	1160	2320	20.6		
	2	Ø12	2	25	915	940	1880	16.7	
	3	Ø16	2	25	686	25	736	1472	23.2
	4	Ø12	3	530	530	1590	14.1		
	5	Ø10	1	475	475	475	2.9		
	6	Ø10	1	305	305	305	1.9		
	7	Ø10	1	300	300	300	1.8		
	8	Ø10	1	270	270	270	1.7		
	9	Ø10	1	250	250	250	1.5		
	10	Ø10	2	1150	1150	2300	14.2		
	11	Ø10	2	910	935	1870	11.5		
	12	Ø10	2	690	715	1430	8.8		
	13	Ø16	3	335	335	1005	15.9		
	14	Ø10	2	205	205	410	2.5		
	15	Ø10	4	200	200	800	4.9		
	16	Ø12	3	160	25	185	5.55		
	17	Ø10	2	110	135	270	1.7		
	18	Ø6	76	126	9576	21.3			
	19	Ø8	22	160	3520	13.9			
Total+10%:									202.4
Pórtico 36	1	Ø20	3	688	25	738	2214	54.6	
	2	Ø16	2	400	400	800	12.6		
	3	Ø12	3	688	25	738	2214	19.7	
	4	Ø16	3	160	185	555	8.8		
	5	Ø12	2	160	25	185	370	3.3	
	6	Ø8	35	160	5600	22.1			
Total+10%:									133.2
Pórtico 37	1	Ø12	2	345	25	395	790	7.0	
	2	Ø10	1	345	345	345	2.1		
	3	Ø10	2	345	25	395	790	4.9	
	4	Ø10	4	85	110	440	2.7		
	5	Ø6	12	126	1512	3.4			
Total+10%:									22.1
06:									37.2
08:									39.6
Ø10:									90.7
Ø12:									114.6
Ø16:									66.5
Ø20:									60.1
Total:									408.7



Elemento	Pos.	Diám.	No.	Pat.	Recta	Pat.	Long.	Total	AH-500CN
		(cm)		(cm)	(cm)	(cm)	(cm)	(kg)	(kg)
Pórtico 26	1	Ø12	2	25	930	25	955	1910	17.0
	2	Ø12	2	25	915	25	940	1880	16.7
	3	Ø10	1	365	365	365	2.3		
	4	Ø10	1	295	295	295	1.8		
	5	Ø10	2	270	270	540	3.3		
	6	Ø10	2	925	25	950	1900	11.7	
	7	Ø10	2	25	910	935	1870	11.5	
	8	Ø12	2	200	200	400	3.6		
	9	Ø10	4	200	200	800	4.9		
	10	Ø10	4	25	110	135	540	3.3	
	11	Ø6	68	126	8568	19.0			
Total+10%:									104.6
Pórtico 27	1	Ø12	2	25	908	25	958	1916	17.0
	2	Ø10	1	350	350	350	2.2		
	3	Ø10	1	350	350	350	2.2		
	4	Ø10	2	25	908	25	958	1916	11.8
	5	Ø12	2	220	220	440	3.9		
	6	Ø10	2	25	140	165	330	2.0	
Total+10%:									53.8
Pórtico 28	1	Ø12	2	25	930	25	955	1910	17.0
	2	Ø12	2	25	480	25	505	1010	9.0
	3	Ø10	1	360	360	360	2.2		
	4	Ø12	2	336	24	360	720	6.4	
	5	Ø10	1	315	315	315	1.9		
	6	Ø10	1	275	275	275	1.7		
	7	Ø10	2	25	930	955	1910	11.8	
	8	Ø10	2	786	24	810	1620	10.0	
	9	Ø12	3	205	205	615	5.5		
	10	Ø12	3	200	200	600	5.3		
	11	Ø12	2	195	195	390	3.5		
	12	Ø10	2	25	110	135	270	1.7	
	13	Ø10	2	25	110	105	210	1.3	
	14	Ø6	60	126	7560	16.8			
	15	Ø6	19	96	1824	4.0			
Total+10%:									107.9
Pórtico 29	1	Ø12	2	25	930	25	955	1910	17.0
	2	Ø12	2	25	785	25	810	1620	14.4
	3	Ø10	1	335	335	335	2.1		
	4	Ø10	1	325	325	325	2.0		
	5	Ø10	1	305	305	305	1.9		
	6	Ø10	1	275	275	275	1.7		
	7	Ø10	2	25	930	955	1910	11.8	
	8	Ø10	2	205	205	410	2.5		
	9	Ø10	4	200	200	800	4.9		
	10	Ø10	4	25	115	140	280	1.7	
	11	Ø10	2	25	115	126	252	1.7	
	12	Ø6	63	126	7938	17.6			
Total+10%:									96.4
Pórtico 30	1	Ø16	3	25	681	25	731	2193	34.6
	2	Ø16	2	430	430	860	13.6		
	3	Ø12	2	255	255	280	5.0		
	4	Ø10	1	250	250	250	1.5		
	5	Ø10	2	25	908	25	958	1916	11.8
	6	Ø16	2	340	340	680	10.7		
	7	Ø16	2	230	230	460	7.3		
	8	Ø12	2	160	25	185	370	3.3	
	9	Ø6	8	126	1008	2.2			
	10	Ø8	22	150	3300	13.0			
Total+10%:									113.3
Pórtico 33	1	Ø12	2	25	935	25	960	1920	17.0
	2	Ø12	2	480	25	505	1010	9.0	
	3	Ø12	2	336	24	360	720	6.4	
	4	Ø10	2	305	305	610	3.8		
	5	Ø10	1	270	270	270	1.7		
	6	Ø10	2	25	930	955	1910	11.8	
	7	Ø12	2	781	24	805	1610	14.3	
	8	Ø10	2	215	215	430	2.7		
	9	Ø10	4	200	200	800	4.9		
	10	Ø10	2	25	110	135	270	1.7	
	11	Ø6	51	126	6426	14.3			
	12	Ø6	15	96	1440	3.2			
Total+10%:									99.9
06:									95.4
08:									14.3
Ø10:									182.9
Ø12:									210.5
Ø16:									72.8
Total:									575.9





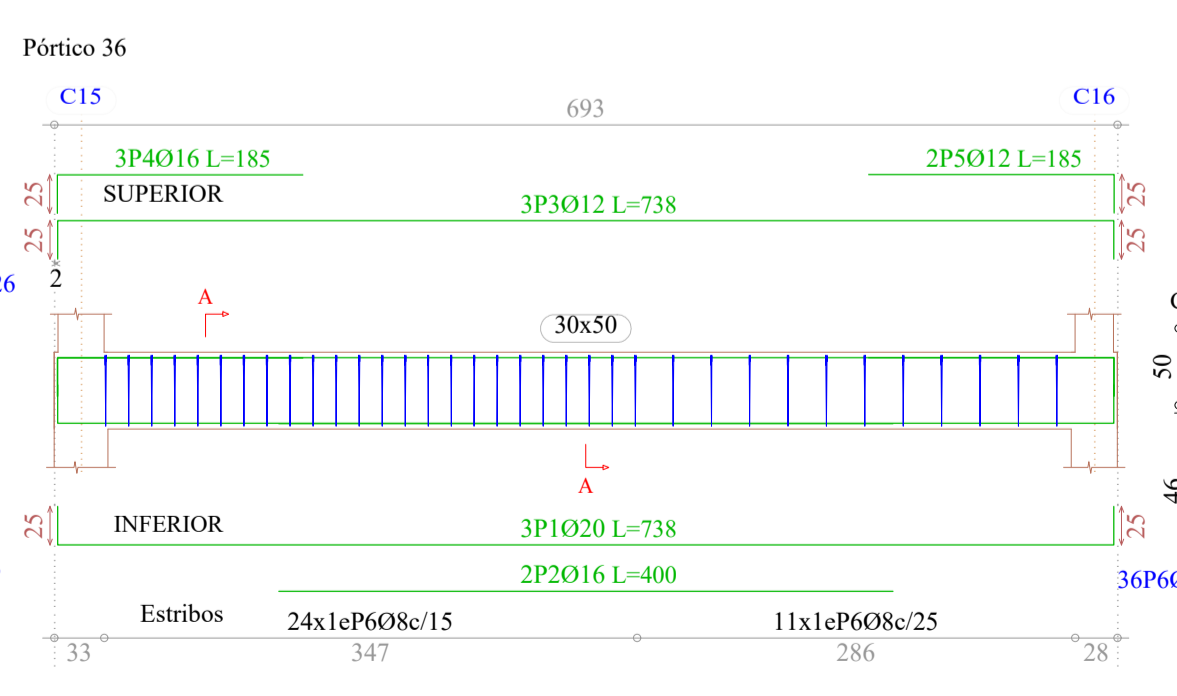
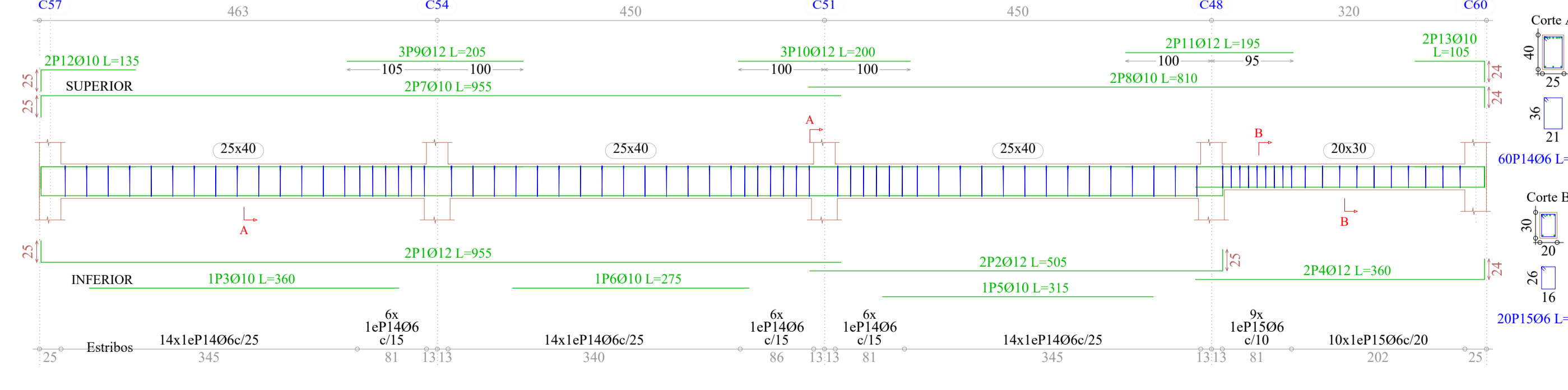
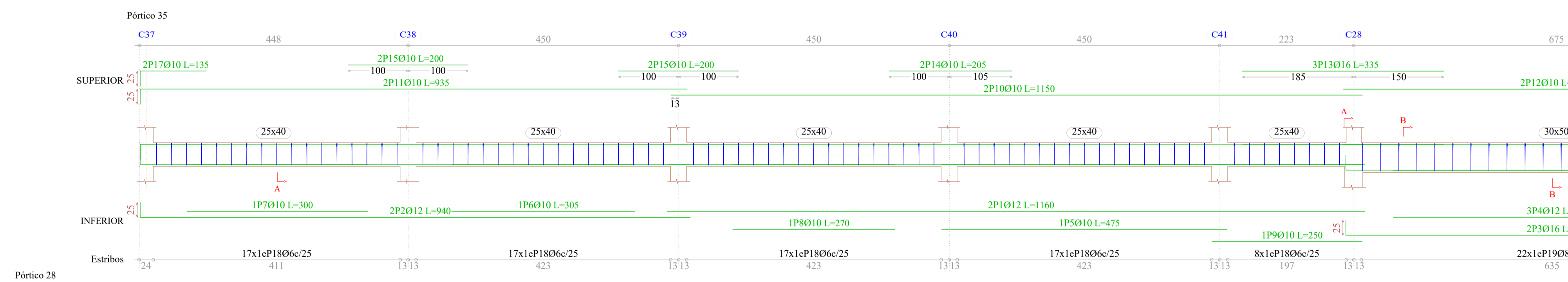
Elemento	Pos.	Diám.	No.	Pat.	Recta	Pat.	Long.	Total	AH-500CN
		(cm)		(cm)	(cm)	(cm)	(cm)	(kg)	(kg)
Pórtico 34	1	Ø12	2	24	591	25	615	1230	10.9
	2	Ø12	2	25	345	25	395	790	7.0
	3	Ø10	1	255	255	255	1.6		
	4	Ø10	2	24	908	25	957	1914	11.8
	5	Ø10	2	200	200	200	400	2.5	
	6	Ø10	2	24	141	165	330	2.0	
	7	Ø10	2	85	110	220	1.4		
	8	Ø6	27	96	2592	5.8			
	9	Ø6	12	126	1512	3.4			
Total+10%:									51.0

Pórtico 35	1	Ø12	2	1160	1160	2320	20.6		
	2	Ø12	2	915	940	1880	16.7		
	3	Ø16	2	686	736	1472	23.2		
	4	Ø12	3	530	530	1590	14.1		
	5	Ø10	1	475	475	475	2.9		
	6	Ø10	1	305	305	305	1.9		
	7	Ø10	1	300	300	300	1.8		
	8	Ø10	1	270	270	270	1.7		
	9	Ø10	1	250	250	250	1.5		
	10	Ø10	2	1150	1150	2300	14.2		
	11	Ø10	2	910	935	1870	11.5		
	12	Ø10	2	690	715	1430	8.8		
	13	Ø16	3	335	335	1005	15.9		
	14	Ø10	2	205	205	410	2.5		
	15	Ø10	4	200	200	800	4.9		
	16	Ø12	3	160	185	555	4.9		
	17	Ø10	2	110	135	270	1.7		
	18	Ø6	76	126	9576	21.3			
	19	Ø8	22	160	3520	13.9			
Total+10%:									202.4

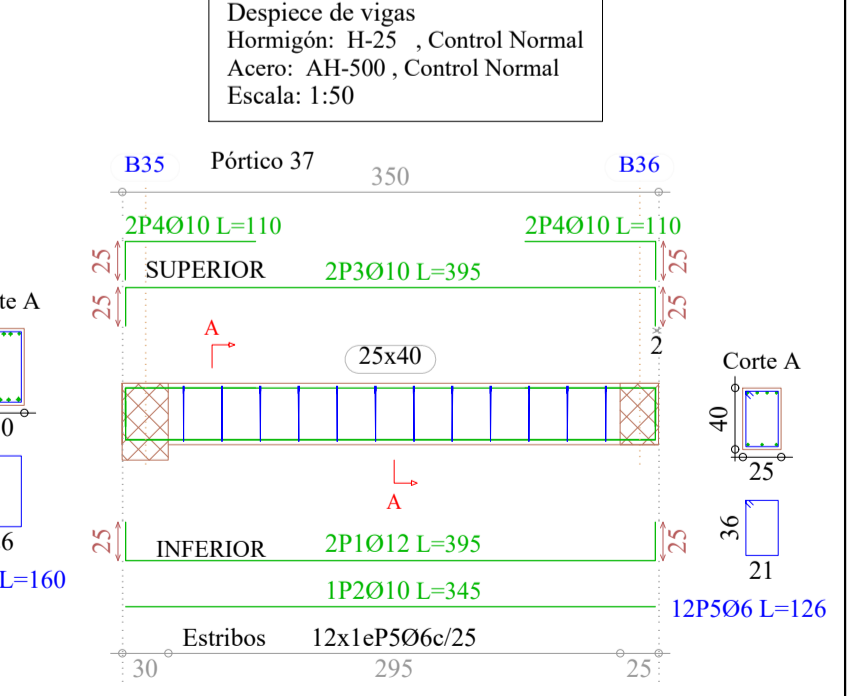
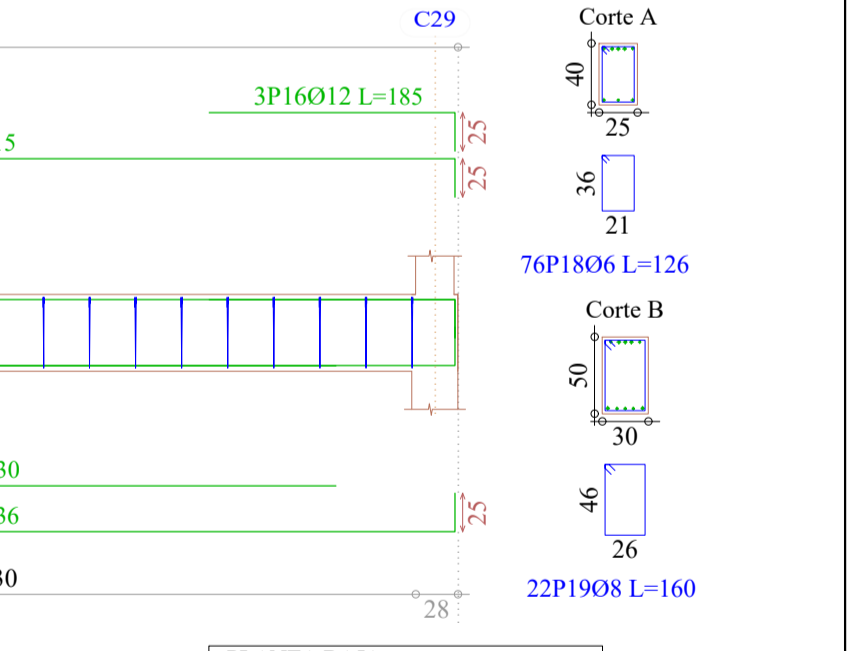
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	2	Ø16	2	400	400	800	12.6		
	3	Ø12	3	688	25	738	2214	19.7	
	4	Ø16	3	160	185	555	8.8		
	5	Ø12	2	160	25	185	370	3.3	
	6	Ø8	35	160	5600	22.1			
Total+10%:									133.2

Pórtico 37	1	Ø12	2	345	25	395	790	7.0	
	2	Ø10	1	345	345	345	2.1		
	3	Ø10	2	345	25	395	790	4.9	
	4	Ø10	4	85	110	440	2.7		
	5	Ø6	12	126	1512	3.4			
Total+10%:									22.1

Ø6:	37.2
Ø8:	39.6
Ø10:	90.7
Ø12:	114.6
Ø16:	66.5
Ø20:	60.1
Total:	408.7

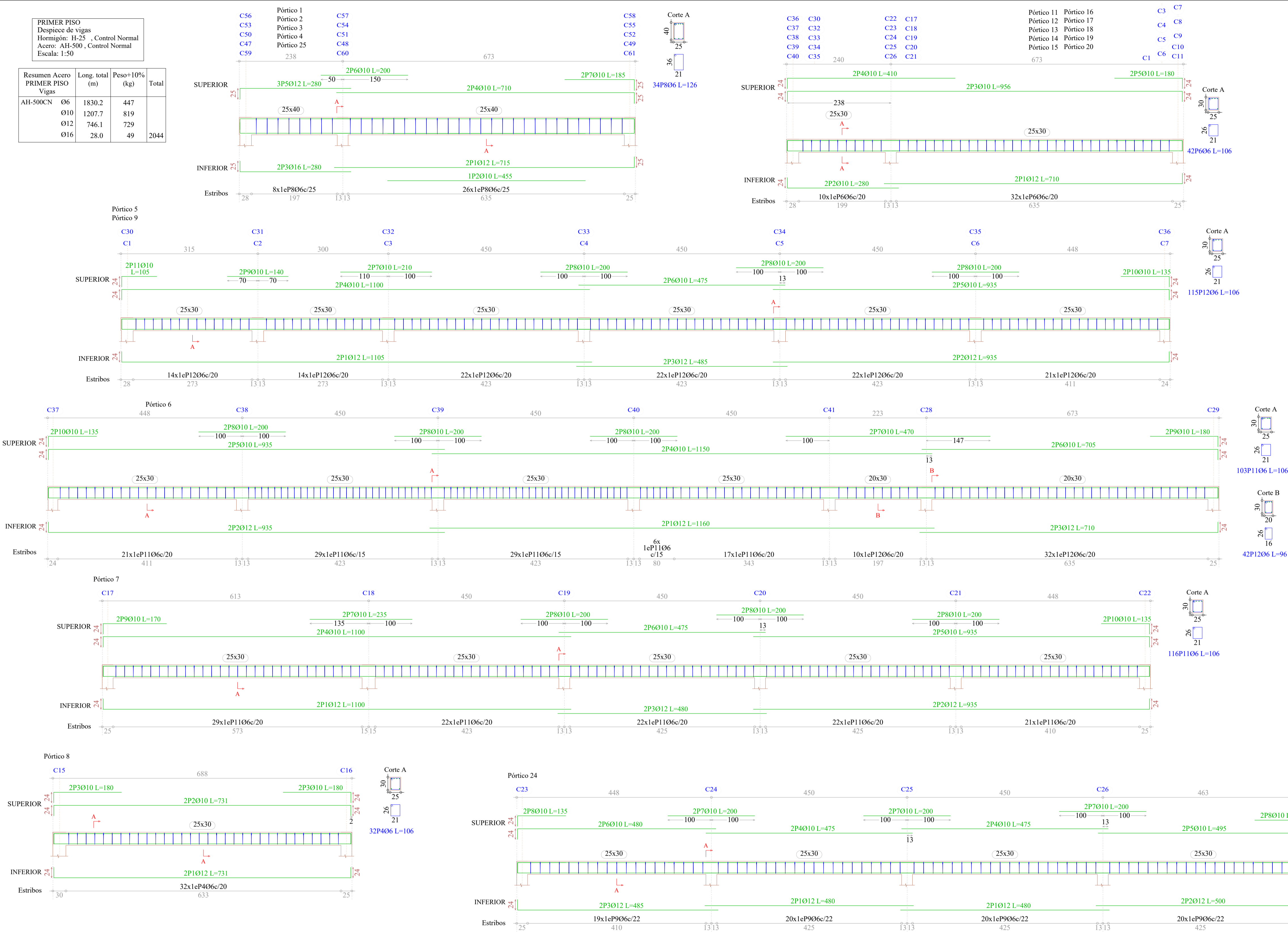


Elemento	Pos.	Diám.	No.	Pat.	Recta	Pat.	Long.	Total	AH-500CN
		(cm)		(cm)	(cm)	(cm)	(cm)	(kg)	(kg)
Pórtico 26	1	Ø12	2	930	25	955	1910	17.0	
	2	Ø12	2	915	25	940	1880	16.7	
	3	Ø10	1	365	365	365	2.3		
	4	Ø10	1	295	295	295	1.8		
	5	Ø10	2	270	270	270	3.3		
	6	Ø10	2	925	25	950	1900	11.7	
	7	Ø10	2	910	25	935	1870	11.5	
	8	Ø12	2	200	200	400	3.6		
	9	Ø10	4	200	200	800	4.9		
	10	Ø10	4	25	110	135	540	3.3	
	11	Ø6	68	126	8568	19.0			
Total+10%:									104.6
Pórtico 27	1	Ø12	2	908	25	958	1916	17.0	
	2	Ø10	1	350	350	350	2.2		
	3	Ø10	1	335	335	335	2.1		
	4	Ø10	2	220	220	440	3.9		
	5	Ø12	2	220	220	440	3.9		
	6	Ø10	2	140	165	330	2.0		
Total+10%:									53.8
Pórtico 28	1	Ø12	2	930	25	955	1910	17.0	
	2	Ø12	2	480	25	505	1010	9.0	
	3	Ø10	1	360	360	360	2.2		
	4	Ø12	2	336	24	360	720	6.4	
	5	Ø10	1	315	315	315	1.9		
	6	Ø10	1	275	275	275	1.7		
	7	Ø10	2	930	25	955	1910	11.8	
	8	Ø10	2	786	24	810	1620	10.0	
	9	Ø12	3	205	205	615	5.5		
	10	Ø12	3	200	200	600	5.3		
	11	Ø12	2	195	195	390	3.5		
	12	Ø10	2	110	135	270	1.7		
	13	Ø10	2	81	24	105	210	1.3	
	14	Ø6	60	126	7560	16.8			
	15	Ø6	19	96	1824	4.0			
Total+10%:									107.9
Pórtico 29	1	Ø12	2	930	25	955	1910	17.0	
	2	Ø12	2	785	25	810	1620	14.4	
	3	Ø10	1	335	335	335	2.1		
	4	Ø10	1	325	325	325	2.0		
	5	Ø10	1	305	305	305	1.9		
	6	Ø10	1	275	275	275	1.7		
	7	Ø10	2	930	25	955	1910	11.8	
	8	Ø10	2	786	24	810	1620	10.0	
	9	Ø12	3	205	205	615	5.5		
	10	Ø12	3	200	200	600	5.3		
	11	Ø12	2	195	195	390	3.5		
	12	Ø10	2	110	135	270	1.7		
13	Ø10	2	81	24	105	210	1.3		
14	Ø6	60	126	7560	16.8				
15	Ø6	19	96	1824	4.0				
Total+10%:									96.4
Pórtico 30	1	Ø16	3	681	25	731	2193	34.6	
	2	Ø16	2	430	430	860	13.6		
	3	Ø12	2	255	255	280	5.0		
	4	Ø10	1	250	250	250	1.5		
	5	Ø10	2	908	25	958	1916	11.8	
	6	Ø16	2	340	340	680	10.7		
	7	Ø16	2	230	230	460	7.3		
	8	Ø12	2	160	25	185	370	3.3	
	9	Ø6	8	126	1008	2.2			
	10	Ø8	22	150	3300	13.0			
Total+10%:									113.3
Pórtico 33	1	Ø12	2	935	25	960	1920	17.0	
	2	Ø12	2	480	25	505	1010	9.0	
	3	Ø12	2	336	24	360	720	6.4	
	4	Ø10	2	305	305	610	3.8		
	5	Ø10	1	270	270	270	1.7		
	6	Ø10	2	930	25	955	1910	11.8	
	7	Ø12	2	781	24	805	1610	14.3	
	8	Ø10	2	215	215	430	2.7		
	9	Ø10	4	200	200	800	4.9		
	10	Ø10	2	110	135	270	1.7		
	11	Ø6	51	126	6426	14.3			
	12	Ø6	15	96	1440	3.2			
Total+10%:									99.9
Ø6:									95.4
Ø8:									14.3
Ø10:									182.9
Ø12:									210.5
Ø16:									72.8
Total:									575.9



PRIMER PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50

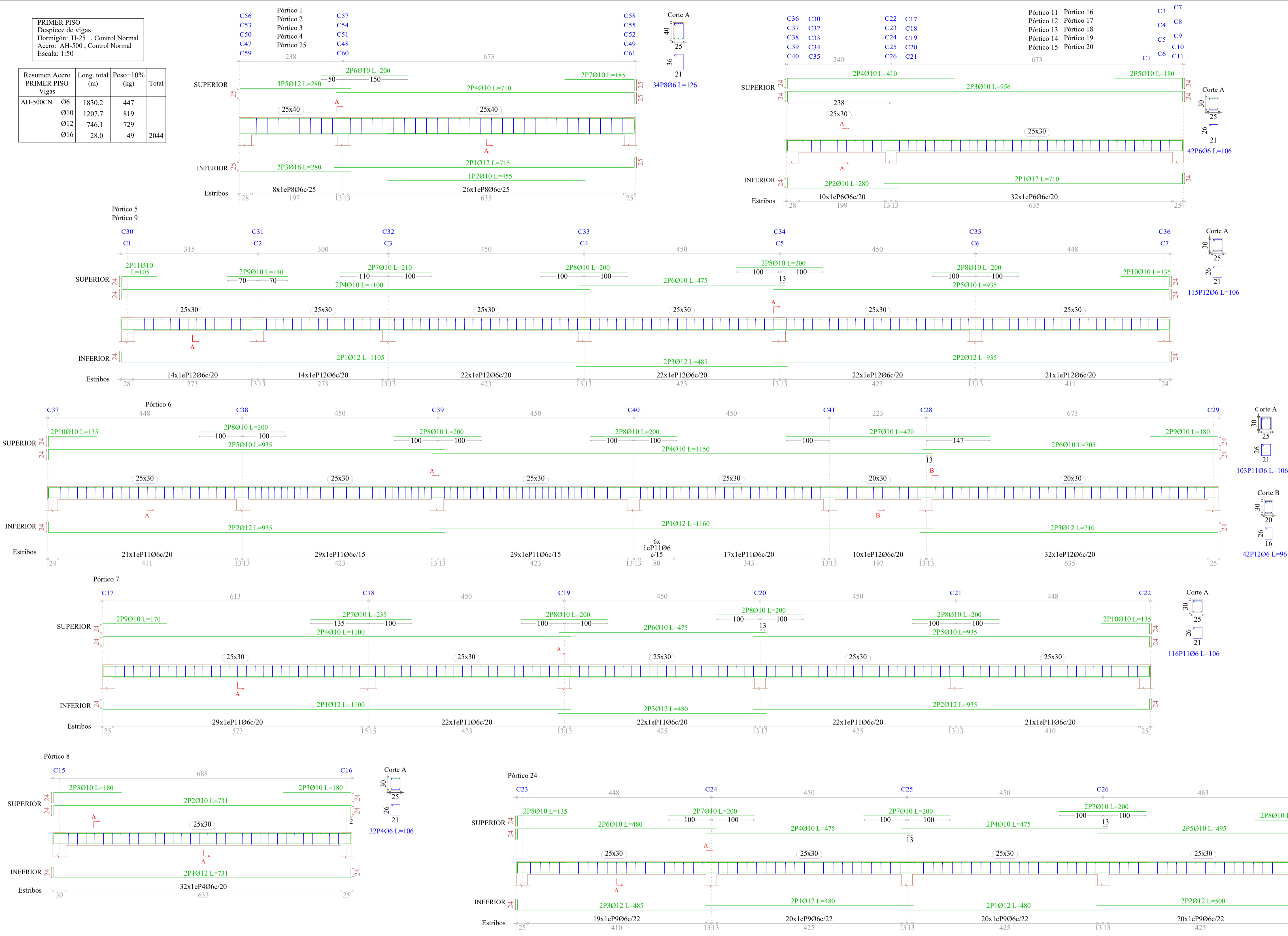
Resumen Acero PRIMER PISO Vigas				
AH-500CN	Ø	Long. total (m)	Peso+10% (kg)	Total
	Ø6	1830.2	447	
	Ø10	1207.7	819	
	Ø12	746.1	729	
	Ø16	28.0	49	2044



Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1=Pórtico 2 Pórtico 3=Pórtico 4 Pórtico 25	1	Ø12	2	690	25	715	1430	12.7	
	2	Ø10	1	455	25	455	455	2.8	
	3	Ø16	2	25	255	280	560	8.8	
	4	Ø10	2	25	685	25	710	1420	8.8
	5	Ø12	3	255	280	840	7.5		
	6	Ø10	2	200	200	400	2.5		
	7	Ø10	2	160	25	185	370	2.3	
	8	Ø6	34	126	4284	9.5			
Total+10%:									60.4
Total+5%:									302.0
Pórtico 5=Pórtico 9	1	Ø12	2	1081	1105	2210	19.6		
	2	Ø12	2	911	24	935	1870	16.6	
	3	Ø12	2	485	485	970	8.6		
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	475	475	950	5.9		
	7	Ø10	2	210	210	420	2.6		
	8	Ø10	6	200	200	1200	7.4		
	9	Ø10	2	140	140	280	1.7		
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø10	2	81	105	210	1.3		
	12	Ø6	115	106	12190	27.1			
Total+10%:									129.4
Total+5%:									258.8
Pórtico 6	1	Ø12	2	1160	1160	2320	20.6		
	2	Ø12	2	911	935	1870	16.6		
	3	Ø12	2	686	24	710	1420	12.6	
	4	Ø10	2	1150	2400	14.2			
	5	Ø10	2	911	935	1870	11.5		
	6	Ø10	2	681	24	705	1410	8.7	
	7	Ø10	2	470	470	940	5.8		
	8	Ø10	6	200	200	1200	7.4		
	9	Ø10	2	156	24	180	360	2.2	
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø6	102	106	10812	24.0			
	12	Ø6	42	96	4032	8.9			
Total+10%:									147.6
Pórtico 7	1	Ø12	2	1076	1100	2200	19.5		
	2	Ø12	2	911	935	1870	16.6		
	3	Ø12	2	480	480	960	8.5		
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	475	475	950	5.9		
	7	Ø10	2	235	235	470	2.9		
	8	Ø10	6	200	200	1200	7.4		
	9	Ø10	2	146	170	340	2.1		
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø6	116	106	12296	27.3			
Total+10%:									128.7
Pórtico 8	1	Ø12	2	24	683	24	731	1462	13.0
	2	Ø10	2	24	683	24	731	1462	9.0
	3	Ø10	4	24	156	180	720	4.4	
	4	Ø6	32	106	3392	7.5			
Total+10%:									37.3
Ø6:									186.6
Ø10:									312.0
Ø12:									327.8
Ø16:									48.0
Total:									874.4

PRIMER PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50

Resumen Acero PRIMER PISO Vigas			
Ø	Long. total (m)	Peso+10% (kg)	Total
AH-500CN Ø6	1830.2	447	
Ø10	1207.7	819	
Ø12	746.1	729	
Ø16	28.0	49	2044



Elemento	Pos.	Diám.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 1=Pórtico 2 Pórtico 3=Pórtico 4 Pórtico 25	1	Ø12	2	690	25	715	1430	12.7	
	2	Ø10	1	455	25	455	455	2.8	
	3	Ø16	2	25	255	280	560	8.8	
	4	Ø10	2	25	685	710	1420	8.8	
	5	Ø12	3	255	280	840	7.5		
	6	Ø10	2	200	200	400	2.5		
	7	Ø10	2	160	25	185	370	2.3	
	8	Ø6	34	126	126	4284	9.5		
Total+10%:									60.4
Total+5%:									302.0
Pórtico 5=Pórtico 9	1	Ø12	2	1081	24	1105	2210	19.6	
	2	Ø12	2	911	24	935	1870	16.6	
	3	Ø12	2	485	24	485	970	8.6	
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	475	24	475	950	5.9	
	7	Ø10	2	210	24	210	420	2.6	
	8	Ø10	6	200	200	1200	7.4		
	9	Ø10	2	140	24	140	280	1.7	
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø10	2	81	24	105	210	1.3	
	12	Ø6	115	106	12190	27.1			
Total+10%:									129.4
Total+5%:									258.8
Pórtico 6	1	Ø12	2	1160	24	1160	2320	20.6	
	2	Ø12	2	911	24	935	1870	16.6	
	3	Ø12	2	686	24	710	1420	12.6	
	4	Ø10	2	1150	24	1150	2300	14.2	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	681	24	705	1410	8.7	
	7	Ø10	2	470	24	470	940	5.8	
	8	Ø10	6	200	200	1200	7.4		
	9	Ø10	2	156	24	180	360	2.2	
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø6	102	106	10812	24.0			
	12	Ø6	42	96	4032	8.9			
Total+10%:									147.6
Pórtico 7	1	Ø12	2	1076	24	1100	2200	19.5	
	2	Ø12	2	911	24	935	1870	16.6	
	3	Ø12	2	480	24	480	960	8.5	
	4	Ø10	2	24	1076	1100	2200	13.6	
	5	Ø10	2	911	24	935	1870	11.5	
	6	Ø10	2	475	24	475	950	5.9	
	7	Ø10	2	235	24	235	470	2.9	
	8	Ø10	6	200	200	1200	7.4		
	9	Ø10	2	146	24	170	340	2.1	
	10	Ø10	2	111	24	135	270	1.7	
	11	Ø6	116	106	12296	27.3			
Total+10%:									128.7
Pórtico 8	1	Ø12	2	24	683	731	1462	13.0	
	2	Ø10	2	24	683	731	1462	9.0	
	3	Ø10	4	24	156	180	720	4.4	
	4	Ø6	32	106	3392	7.5			
Total+10%:									37.3
Ø6:									186.6
Ø10:									312.0
Ø12:									327.8
Ø16:									48.0
Total:									874.4



UNIVERSIDAD AUTÓNOMA JUAN MISAEL SARACHO
FACULTAD DE CIENCIAS Y TECNOLOGÍA
CARRERA INGENIERÍA CIVIL



PROYECTO:
DISEÑO ESTRUCTURAL UNIDAD EDUCATIVA
ANICETO ARCE

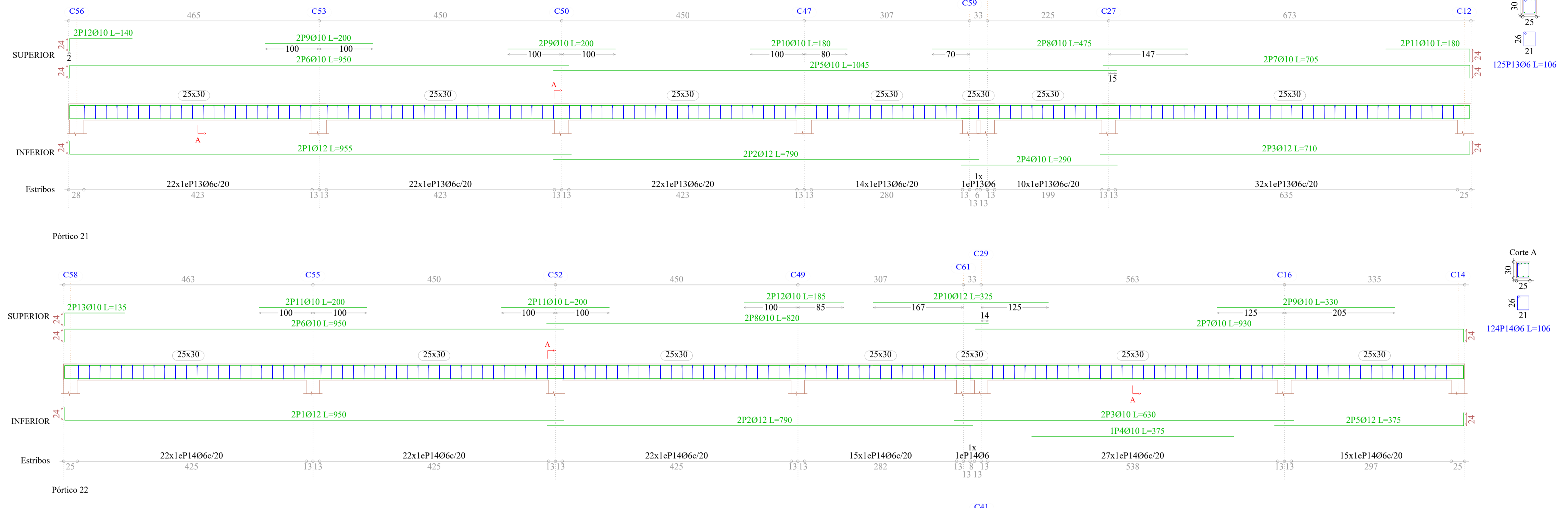
CARACTER:
DISPOSICIÓN DE ARMADURA
EN VIGAS 7/8

ASIGNATURA:
CIV - 502 PROYECTO DE
INGENIERIA CIVIL II

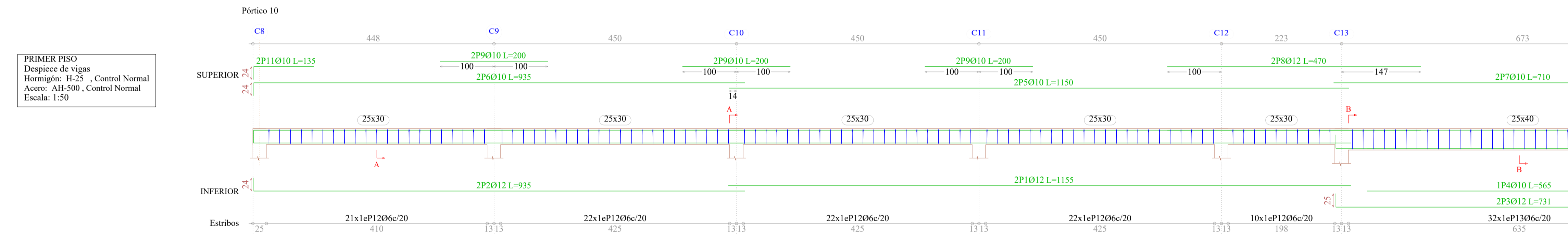
ELABORADO POR:
UNIV. ELIZABETH CORIA MAMANI

ESCALA:
INDICADA
FECHA:
JUNIO DE 2023

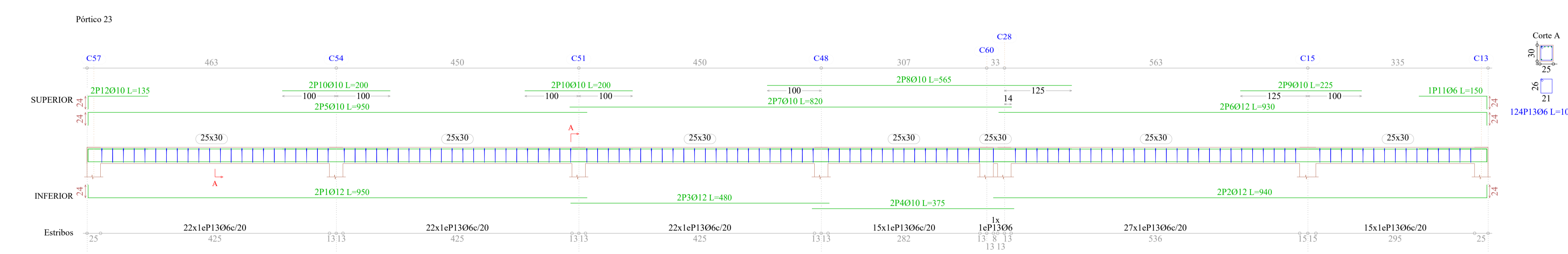
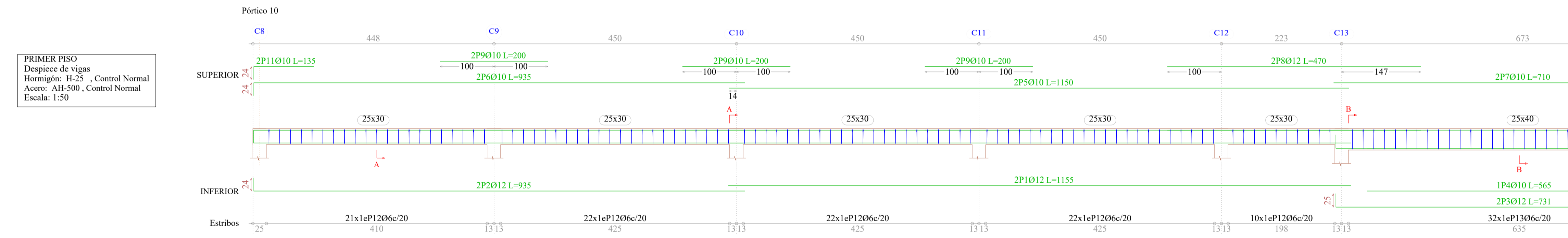
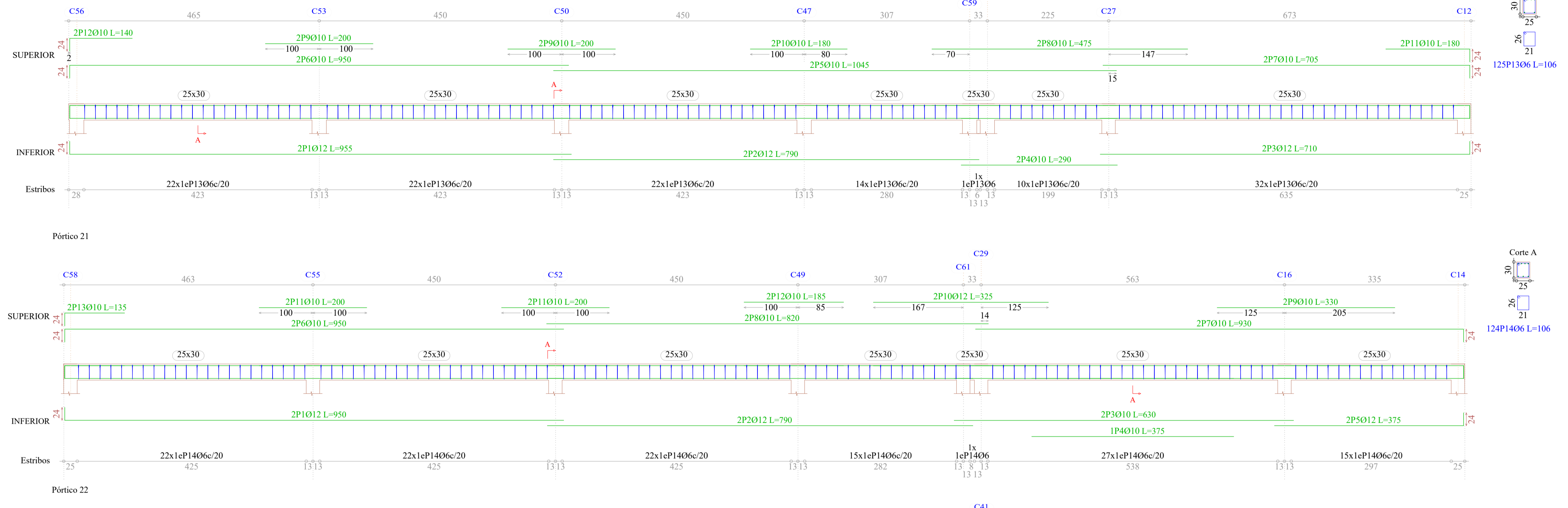
LAMINA:
10/18



Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 10	1	Ø12	2		1155		1155	2310	20.5
	2	Ø12	2	24	911	25	935	1870	16.6
	3	Ø12	2	25	681	25	706	1462	13.0
	4	Ø10	1		565		565	565	3.5
	5	Ø10	2		1150		1150	2300	14.2
	6	Ø10	2	24	911	25	935	1870	11.5
	7	Ø10	2		685	25	710	1420	8.8
	8	Ø12	2		470		470	940	8.3
	9	Ø10	6		200		200	1200	7.4
	10	Ø10	2		160	25	185	370	2.3
	11	Ø10	2	24	111		135	270	1.7
	12	Ø6	97				106	10282	22.8
	13	Ø6	32				126	4032	8.9
Total+10%:									153.5
Pórtico 11=Pórtico 12	1	Ø12	2		686	24	710	1420	12.6
Pórtico 13=Pórtico 14	2	Ø10	2	24	256		280	560	3.5
Pórtico 15=Pórtico 16	3	Ø10	2	24	908		956	1912	11.8
Pórtico 17=Pórtico 18	4	Ø10	2	24	386		410	820	5.1
Pórtico 19=Pórtico 20	5	Ø10	2		156	24	180	360	2.2
6	Ø6	42					106	4452	9.9
Total+10%:									49.6
(x10):									496.0
Pórtico 21	1	Ø12	2	24	926		950	1900	16.9
	2	Ø12	2		790		790	1580	14.0
	3	Ø10	2		630		630	1260	7.8
	4	Ø10	1		375		375	375	2.3
	5	Ø12	2	24	351	24	375	750	6.7
	6	Ø10	2	24	926		950	1900	11.7
	7	Ø10	2		906	24	930	1860	11.5
	8	Ø10	2		820		820	1640	10.1
	9	Ø10	2		330		330	660	4.1
	10	Ø12	2		325		325	650	5.8
	11	Ø10	4		200		200	800	4.9
	12	Ø10	2		185		185	370	2.3
	13	Ø10	2	24	111		135	270	1.7
	14	Ø6	124				106	13144	29.2
Total+10%:									141.9
Pórtico 22	1	Ø12	2	24	931		955	1910	17.0
	2	Ø12	2		790		790	1580	14.0
	3	Ø12	2	24	686		710	1420	12.6
	4	Ø10	2		290		290	580	3.6
	5	Ø10	2		1045		1045	2090	12.9
	6	Ø10	2	24	926		950	1900	11.7
	7	Ø10	2		681	24	705	1410	8.7
	8	Ø10	2		475		475	950	5.9
	9	Ø10	4		200		200	800	4.9
	10	Ø10	6		180		180	360	2.2
	11	Ø10	2		156	24	180	360	2.2
	12	Ø10	2	24	116		140	280	1.7
	13	Ø6	123				106	13038	28.9
Total+10%:									138.9
Ø6:									207.8
Ø10:									423.6
Ø12:									298.9
Total:									930.3



Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 23	1	Ø12	2	24	926		950	1900	16.9
	2	Ø12	2		916	24	940	1880	16.7
	3	Ø12	2		480		480	960	8.5
	4	Ø10	2		375		375	750	4.6
	5	Ø10	2	24	926		950	1900	11.7
	6	Ø12	2		906	24	930	1860	11.5
	7	Ø10	2		820		820	1640	10.1
	8	Ø10	2		565		565	1130	7.0
	9	Ø10	2		225		225	450	2.8
	10	Ø10	4		200		200	800	4.9
	11	Ø6	1	126			150	150	0.3
	12	Ø10	2	24	111		135	270	1.7
	13	Ø6	124				106	13144	29.2
Total+10%:									144.0
Pórtico 24	1	Ø12	4		480		480	1920	17.0
	2	Ø12	2		476	24	500	1000	8.9
	3	Ø12	2	24	461		485	970	8.6
	4	Ø10	4		475		475	1900	11.7
	5	Ø10	2	24	471	24	495	990	6.1
	6	Ø10	2	24	456		480	960	5.9
	7	Ø10	6		200		200	1200	7.4
	8	Ø10	4	24	111		135	540	3.3
	9	Ø6	79				106	8374	18.6
Total+10%:									96.3
Ø6:									53.0
Ø10:									84.8
Ø12:									102.5
Total:									240.3



Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 10	1	Ø12	2	24	1155	1155	2310	20.5	
	2	Ø12	2	24	911	911	1822	16.6	
	3	Ø12	2	25	681	25	706	13.0	
	4	Ø10	1	25	565	565	565	3.5	
	5	Ø10	2	24	1150	1150	2300	14.2	
	6	Ø10	2	24	911	911	1822	11.5	
	7	Ø10	2	24	685	25	710	8.8	
	8	Ø12	2	24	470	470	940	8.3	
	9	Ø10	6	200	200	200	1200	7.4	
	10	Ø10	2	24	160	25	185	2.3	
	11	Ø10	2	24	111	111	222	1.7	
	12	Ø6	97				106	22.8	
	13	Ø6	32				126	8.9	
Total+10%:									153.5
Pórtico 11=Pórtico 12	1	Ø12	2	24	686	24	710	12.6	
	2	Ø10	2	24	256	256	512	3.5	
	3	Ø10	2	24	908	24	932	11.8	
	4	Ø10	2	24	386	24	410	5.1	
	5	Ø10	2	24	156	24	180	2.2	
	6	Ø6	42				106	44.52	
Total+10%:									49.6
Pórtico 21	1	Ø12	2	24	926	926	1852	16.9	
	2	Ø12	2	24	790	790	1580	14.0	
	3	Ø10	2	24	630	630	1260	7.8	
	4	Ø10	1	24	375	375	375	2.3	
	5	Ø12	2	24	351	24	375	6.7	
	6	Ø10	2	24	926	926	1852	11.7	
	7	Ø10	2	24	906	24	930	11.5	
	8	Ø10	2	24	820	820	1640	10.1	
	9	Ø10	2	24	330	330	660	4.1	
	10	Ø12	2	24	325	325	650	5.8	
	11	Ø10	4	200	200	200	800	4.9	
	12	Ø10	2	24	185	185	370	2.3	
	13	Ø10	2	24	111	111	222	1.7	
	14	Ø6	124				106	131.44	
Total+10%:									141.9
Pórtico 22	1	Ø12	2	24	931	931	1862	17.0	
	2	Ø12	2	24	790	790	1580	14.0	
	3	Ø12	2	24	686	24	710	12.6	
	4	Ø10	2	24	290	290	580	3.6	
	5	Ø10	2	24	1045	1045	2090	12.9	
	6	Ø10	2	24	926	926	1852	11.7	
	7	Ø10	2	24	681	24	705	8.7	
	8	Ø10	2	24	475	475	950	5.9	
	9	Ø10	4	200	200	200	800	4.9	
	10	Ø10	6	180	180	180	720	2.2	
	11	Ø10	2	24	156	24	180	2.2	
	12	Ø10	2	24	116	116	232	1.7	
	13	Ø6	123				106	130.38	
Total+10%:									138.9
Ø6:									207.8
Ø10:									423.6
Ø12:									298.9
Total:									930.3

Elemento	Pos.	Diam.	No.	Pat. (cm)	Recta (cm)	Pat. (cm)	Long. (cm)	Total (cm)	AH-500CN (kg)
Pórtico 23	1	Ø12	2	24	926	926	1852	16.9	
	2	Ø12	2	24	916	24	940	16.7	
	3	Ø12	2	24	480	480	960	8.5	
	4	Ø10	2	24	375	375	750	4.6	
	5	Ø10	2	24	926	926	1852	11.7	
	6	Ø12	2	24	906	24	930	11.5	
	7	Ø10	2	24	820	820	1640	10.1	
	8	Ø10	2	24	565	565	1130	7.0	
	9	Ø10	2	24	225	225	450	2.8	
	10	Ø10	4	200	200	200	800	4.9	
	11	Ø6	1	126	126	126	378	2.3	
	12	Ø10	2	24	111	111	222	1.7	
	13	Ø6	124				106	131.44	
Total+10%:									144.0
Pórtico 24	1	Ø12	4	480	480	1920	17.0		
	2	Ø12	2	24	476	24	500	8.9	
	3	Ø12	2	24	461	24	485	8.6	
	4	Ø10	4	475	475	1900	11.7		
	5	Ø10	2	24	471	24	495	6.1	
	6	Ø10	2	24	456	456	912	5.9	
	7	Ø10	6	200	200	1200	7.4		
	8	Ø10	4	24	111	111	444	3.3	
	9	Ø6	79				106	83.74	
Total+10%:									96.3
Ø6:									53.0
Ø10:									84.8
Ø12:									102.5
Total:									240.3

PRIMER PISO
Despiece de vigas
Hormigón: H-25, Control Normal
Acero: AH-500, Control Normal
Escala: 1:50