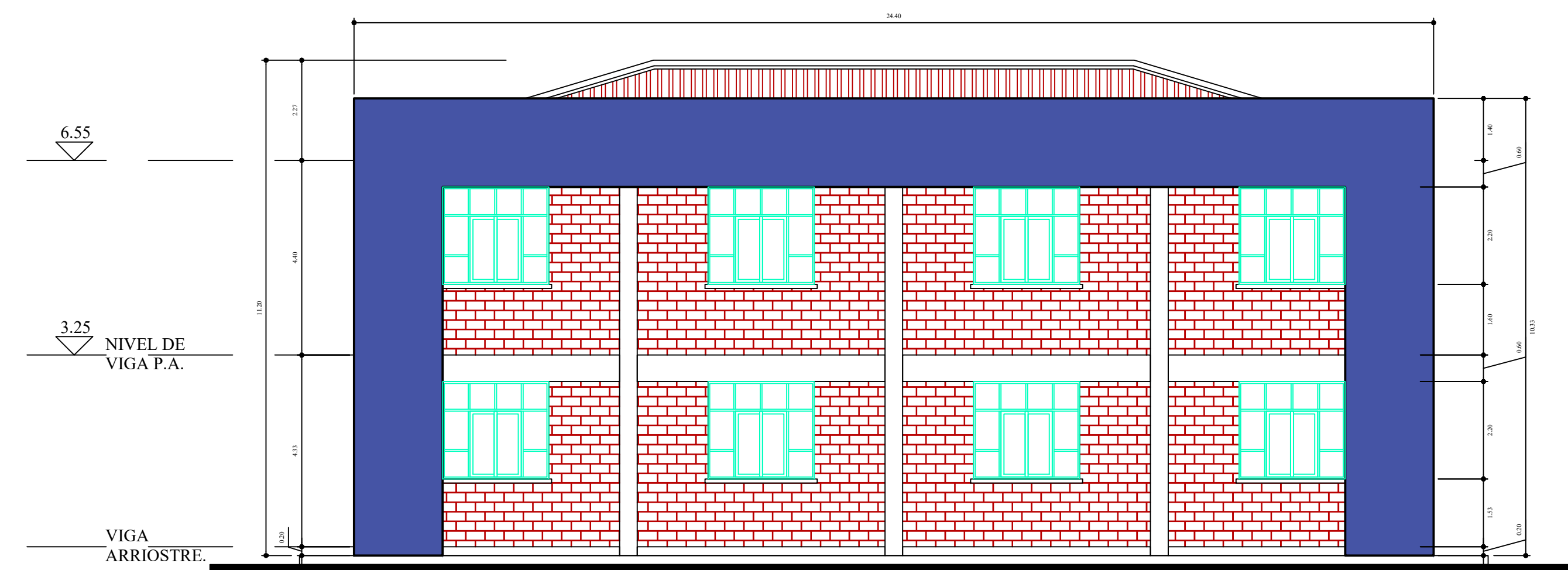
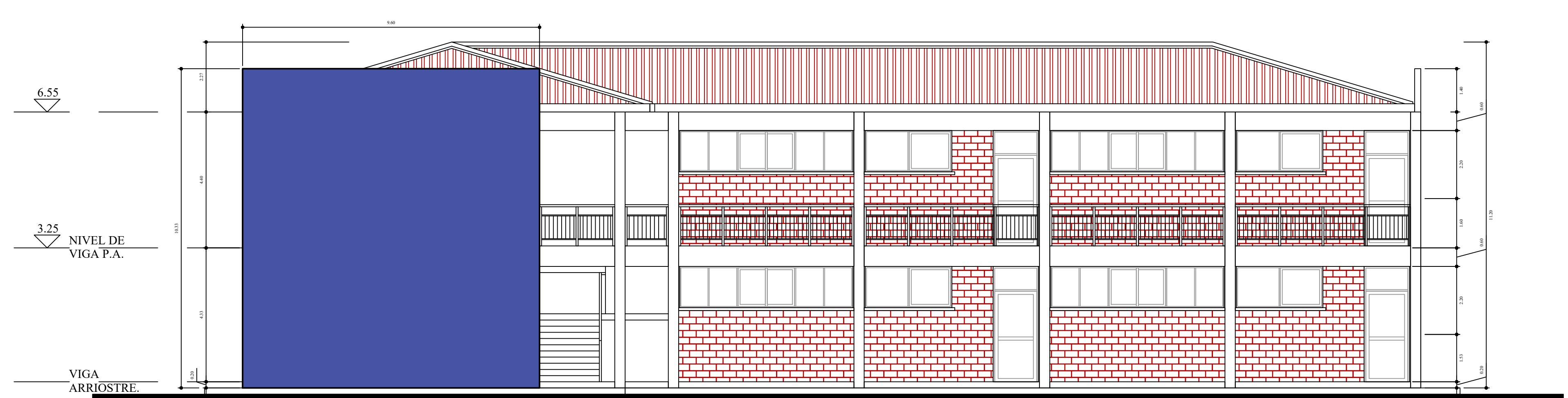


ESCALA: 1:75



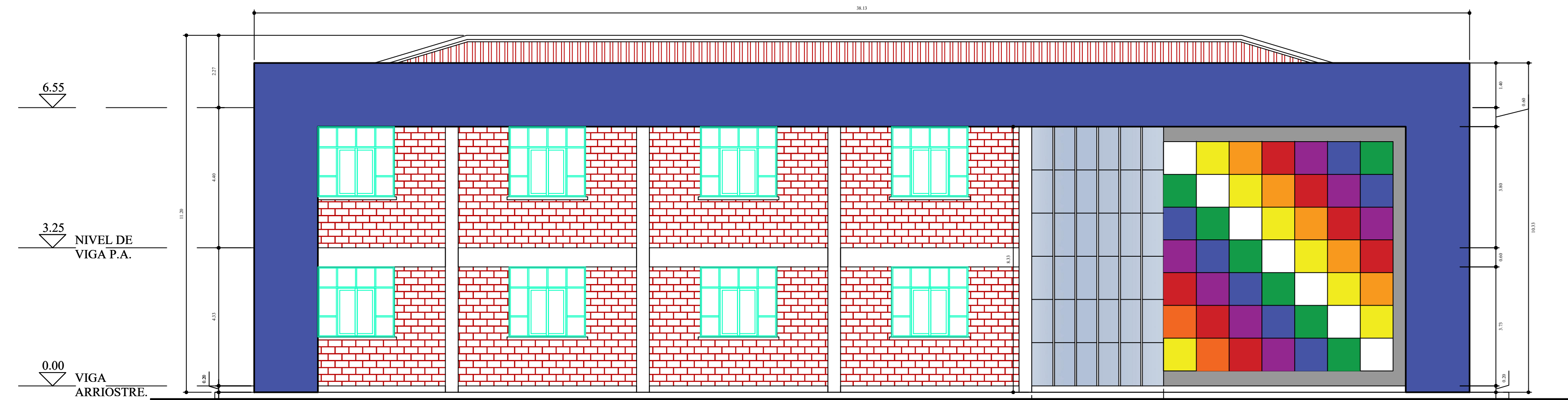
7 ELEVACIÓN LATERAL  
ESC 1/100



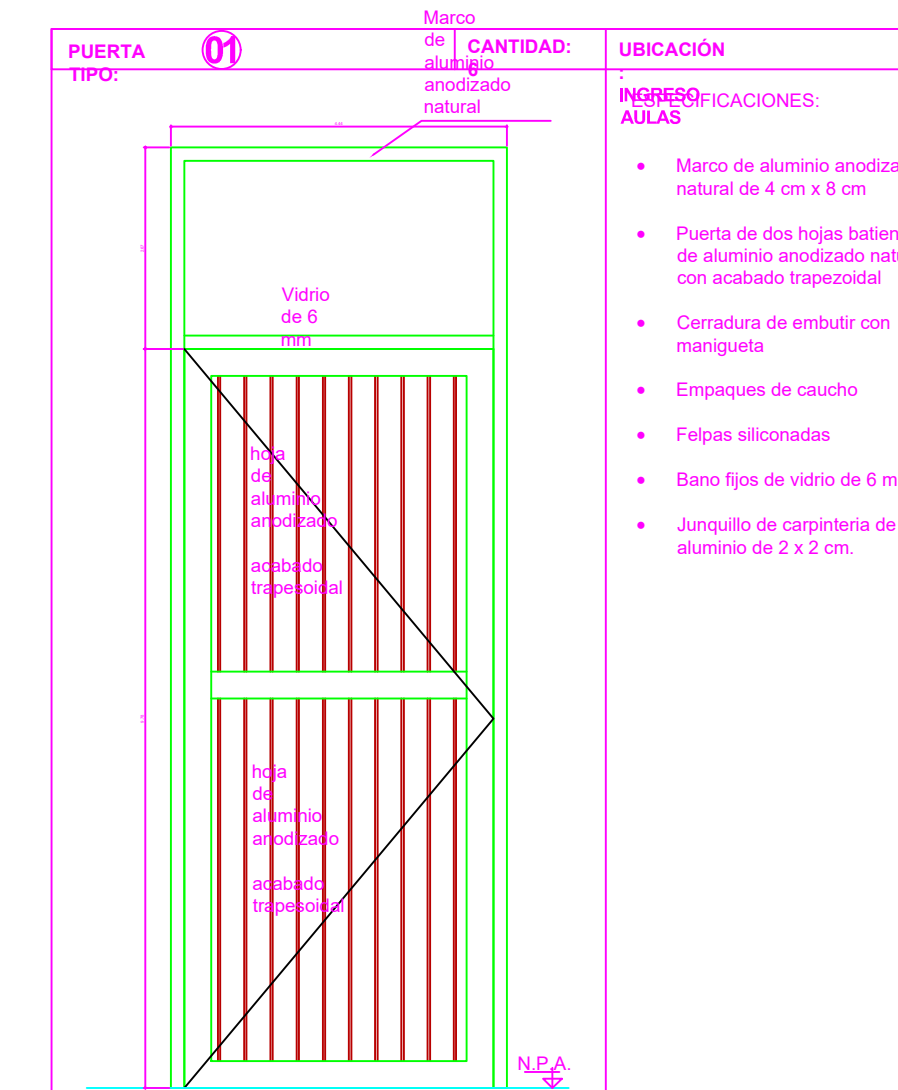
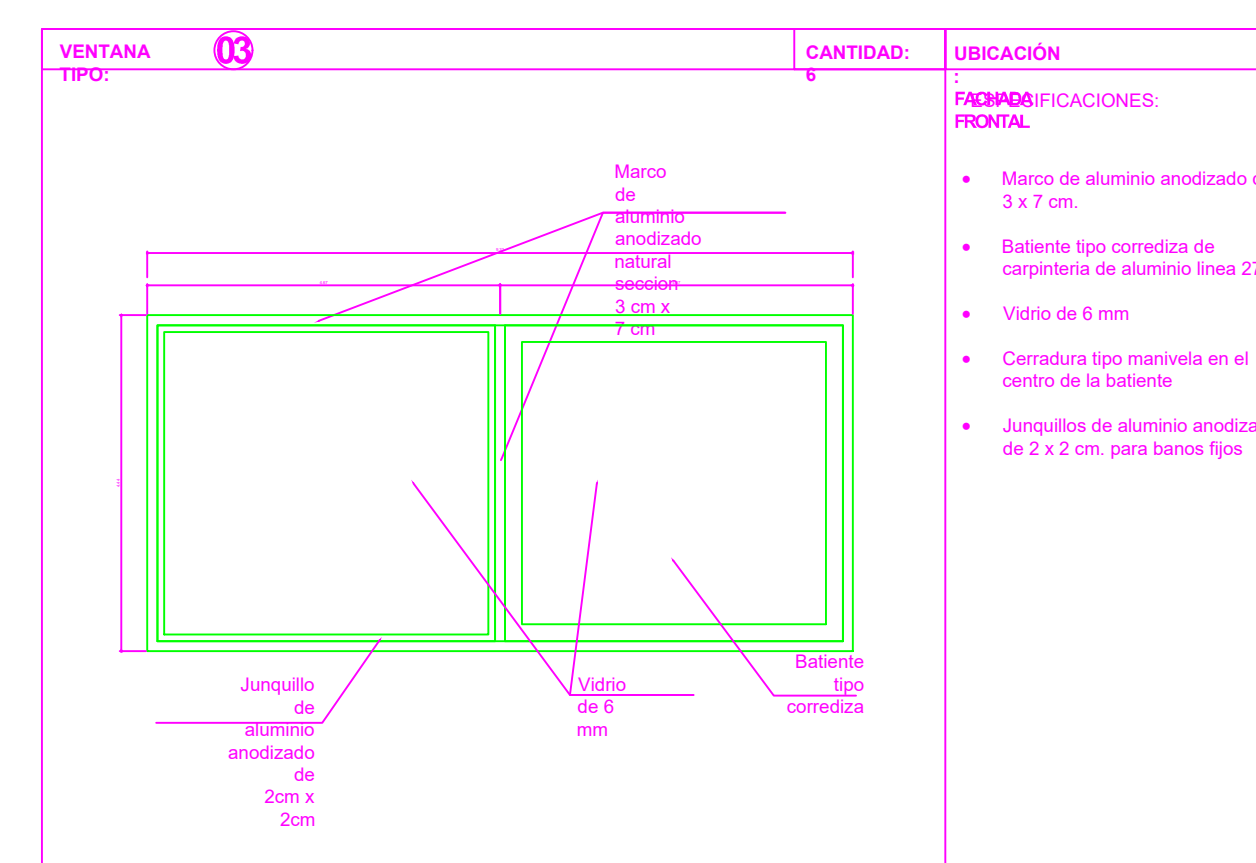
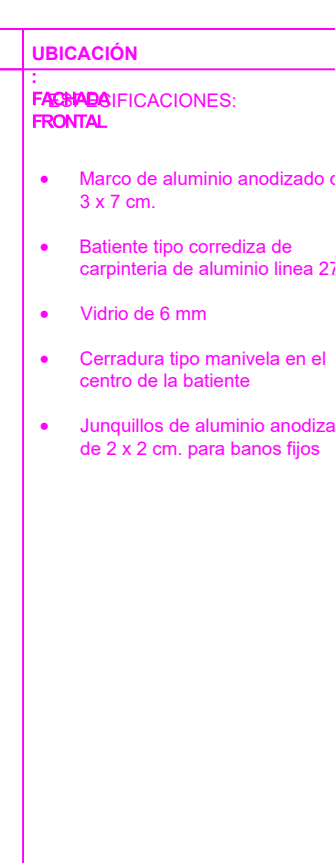
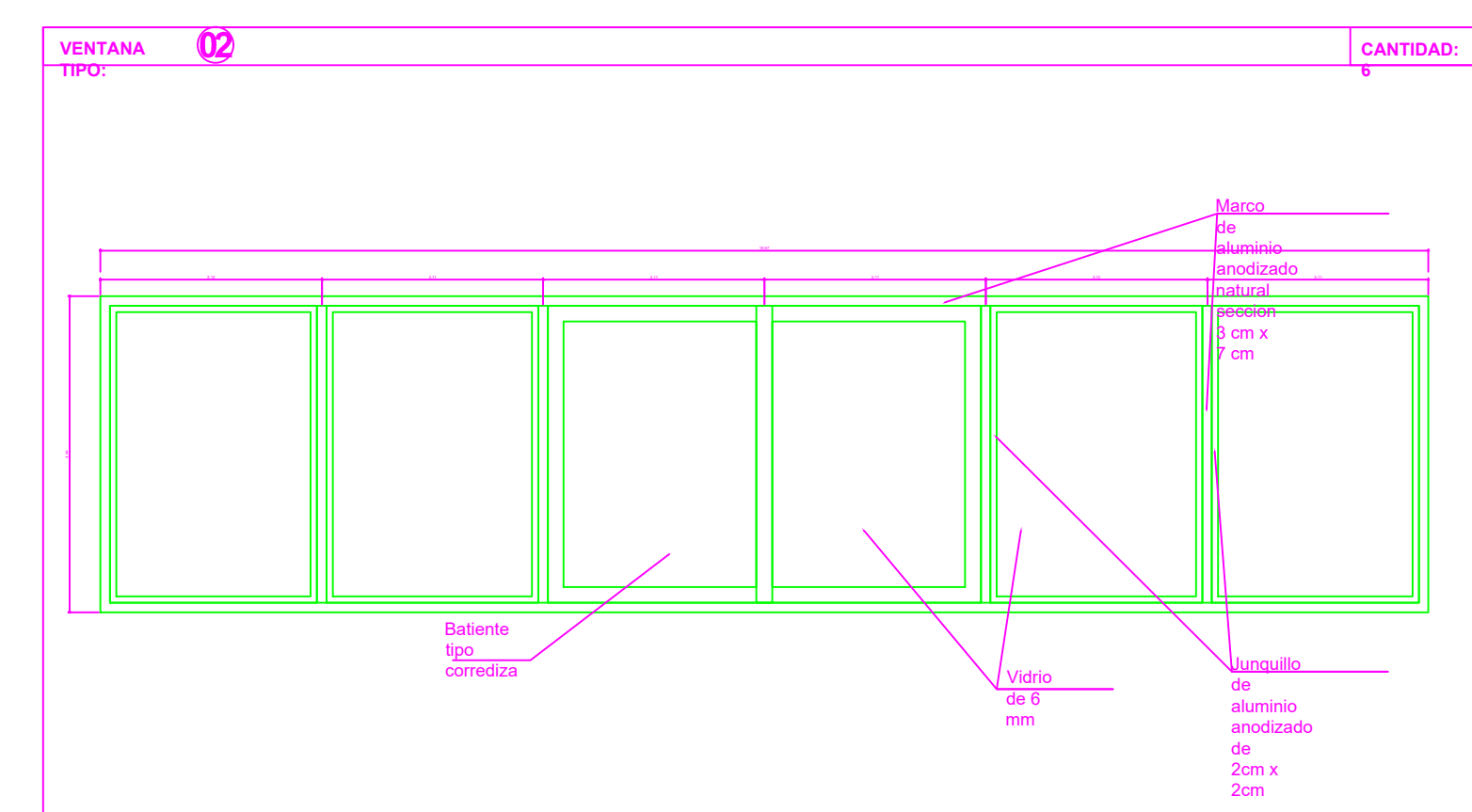
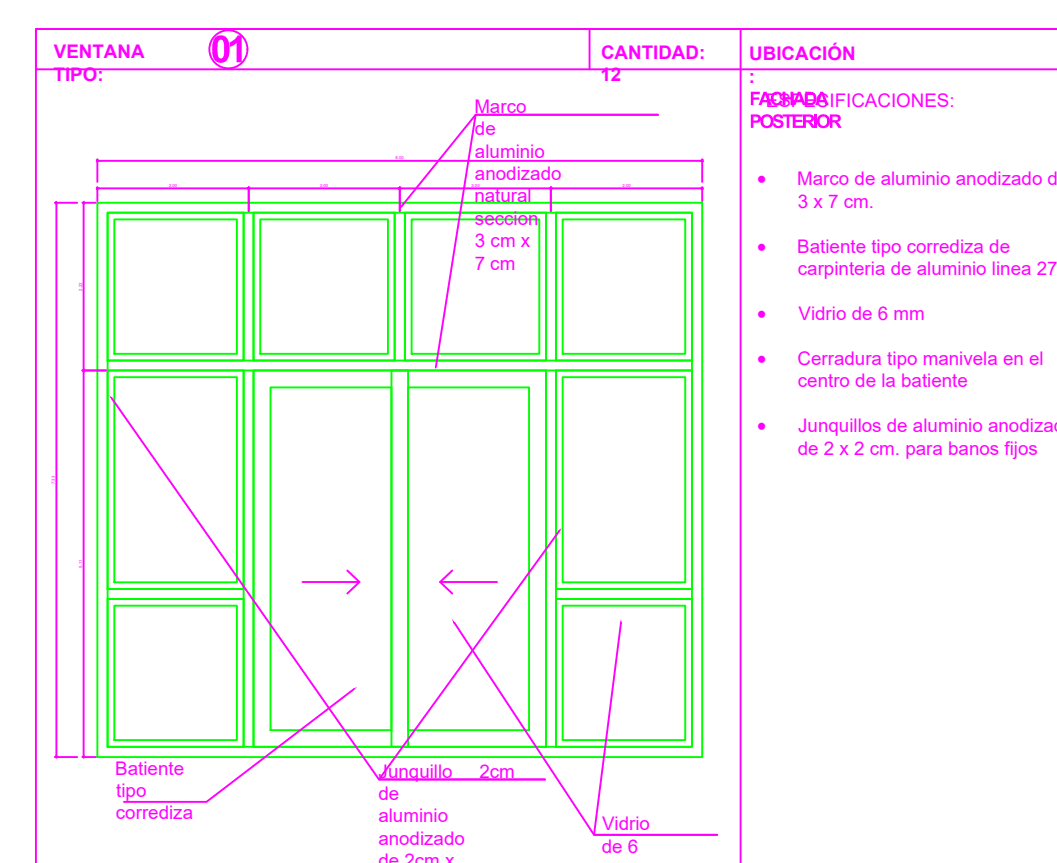
9 ELEVACIÓN FRONTAL  
ESC 1/100



8 ELEVACIÓN LATERAL  
ESC 2/100



10 ELEVACIÓN POSTERIOR  
ESC 1/100



NOTAS:  
1. TODAS LAS MEDIDAS ESTAN EXPRESADAS EN METROS A MENOS QUE INDIQUE LO CONTRARIO  
2. TODA LA CARPINTERIA SE REALIZA EN ALUMINIO ANODIZADO  
3. CUALQUIER MODIFICACION DEBERA SER APROBADA POR EL SUPERVISOR DE OBRA PREVIA REALIZACION DE PLANOS DE REFERENCIA

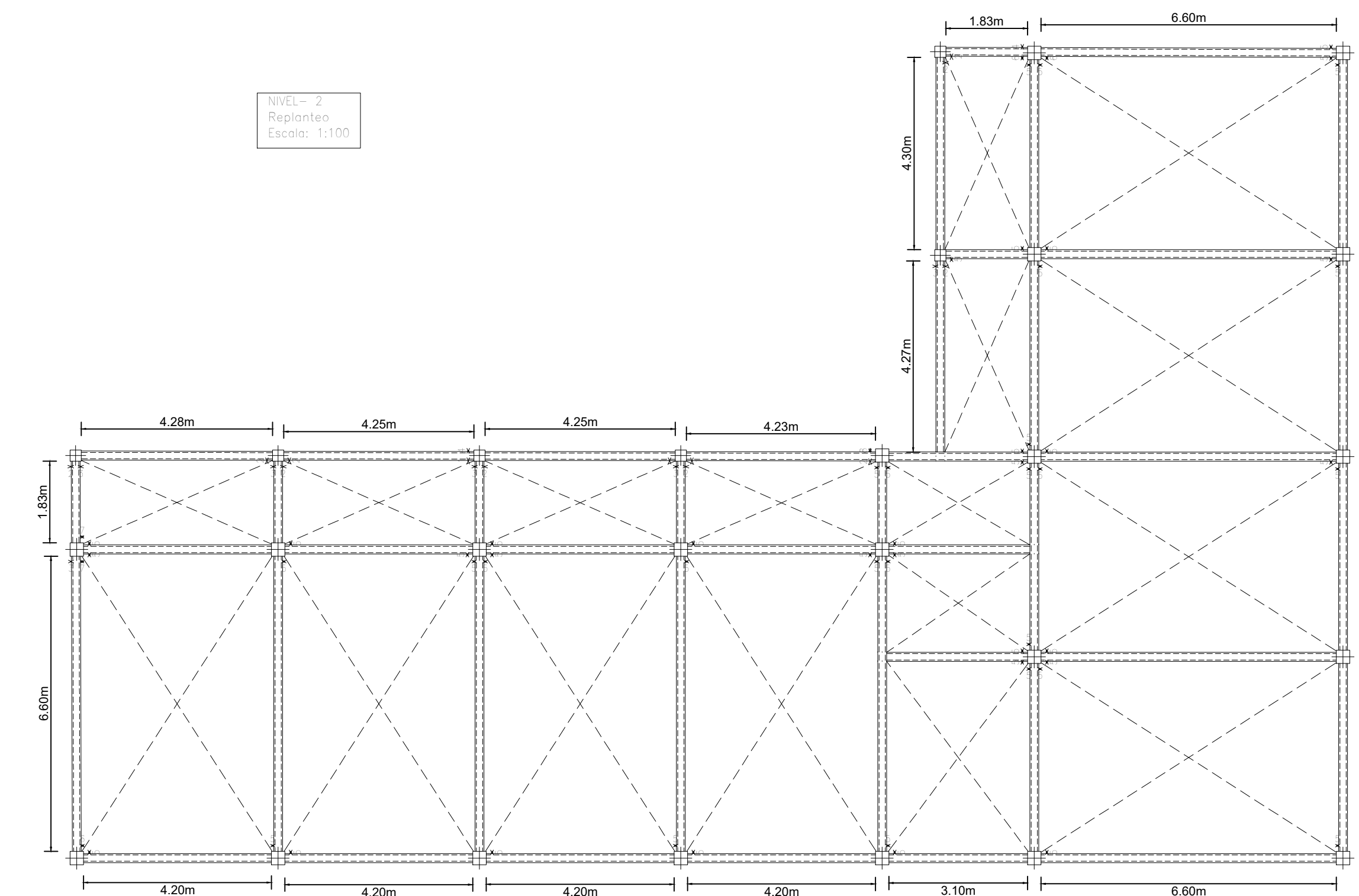
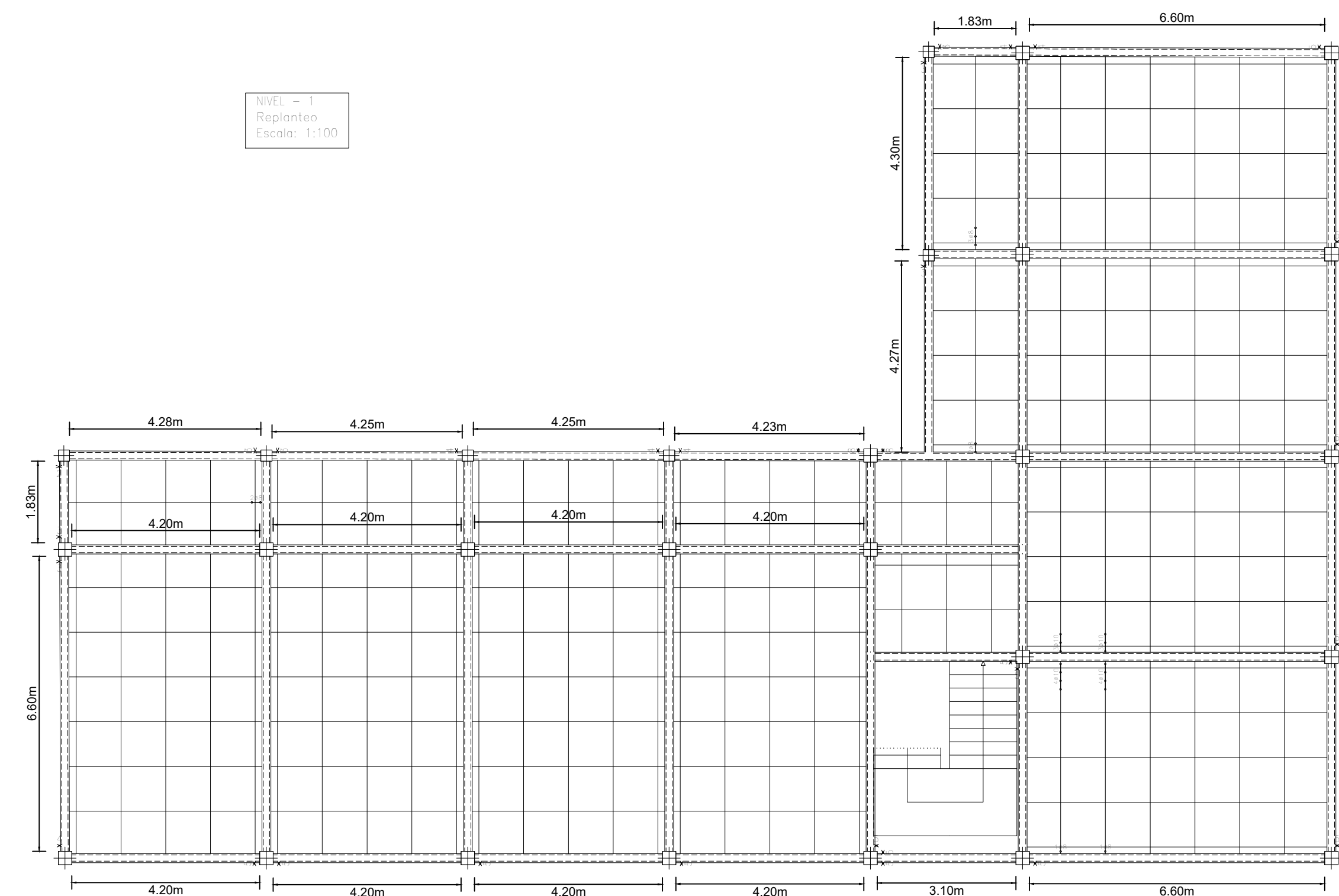
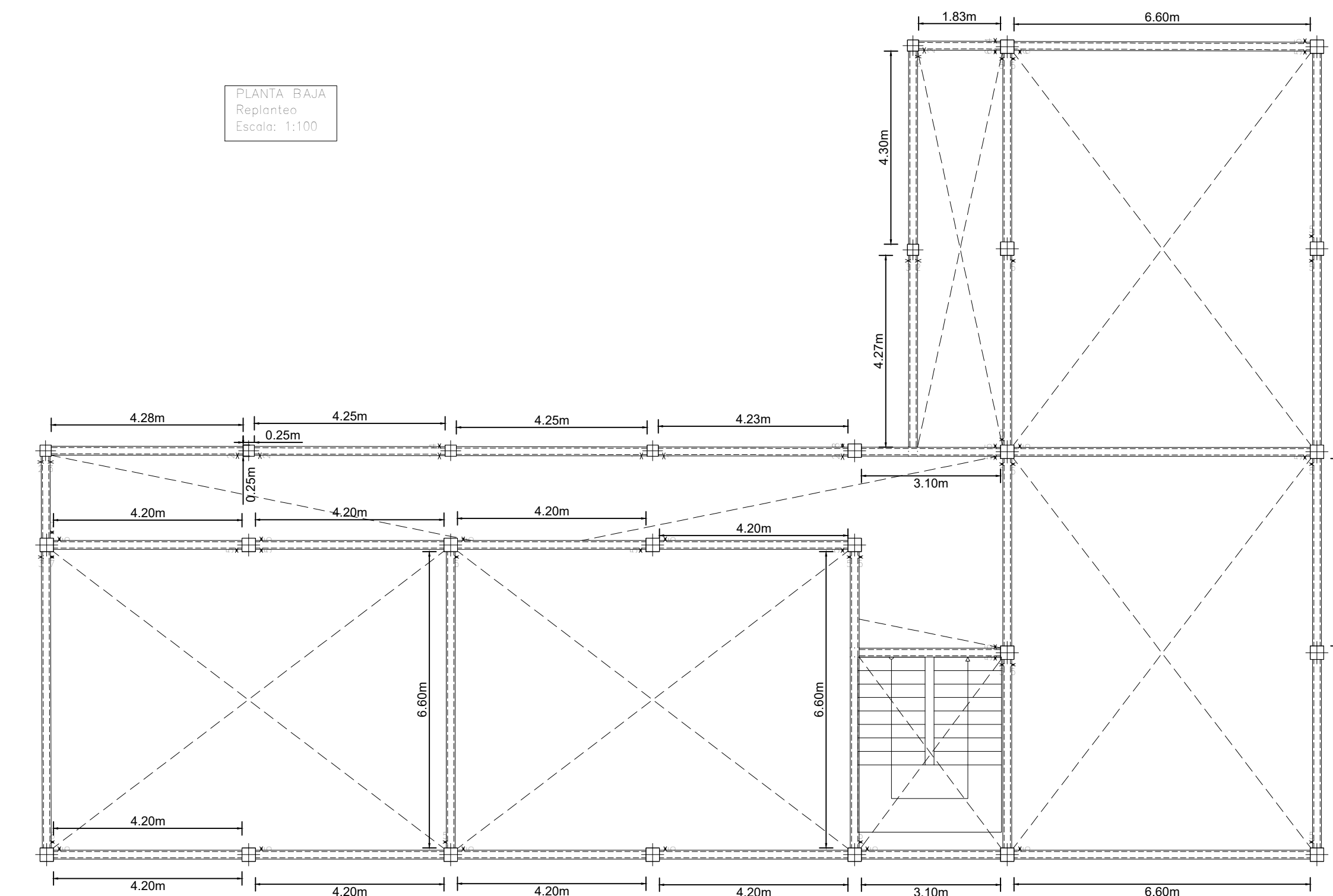
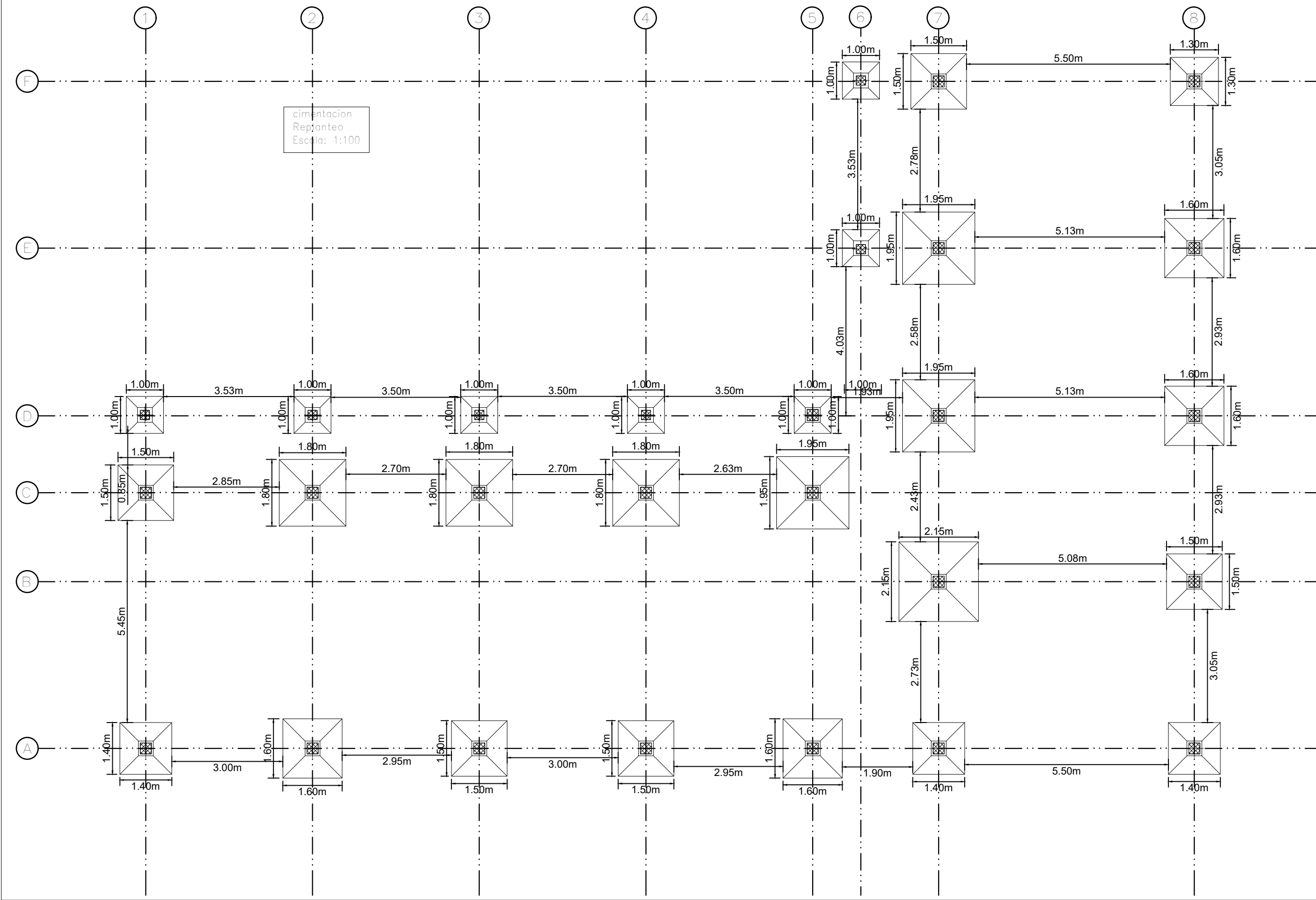
ESC 1:30

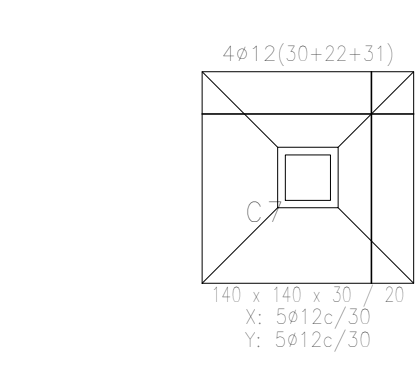
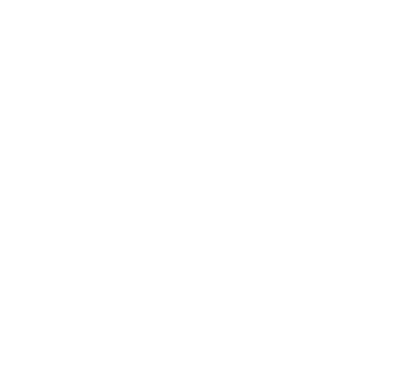
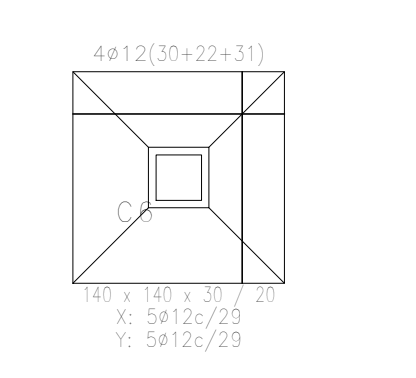
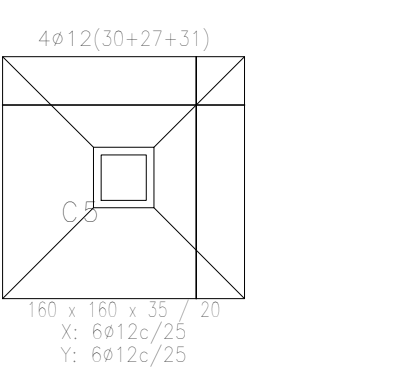
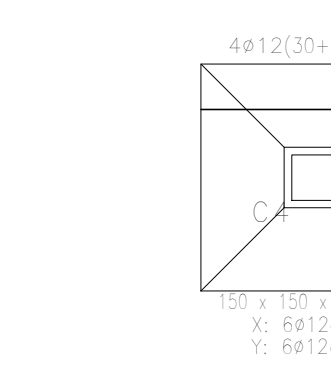
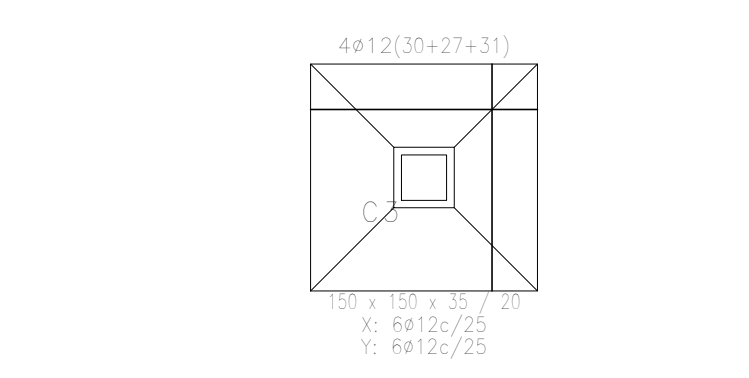
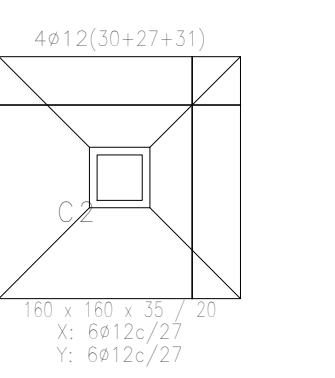
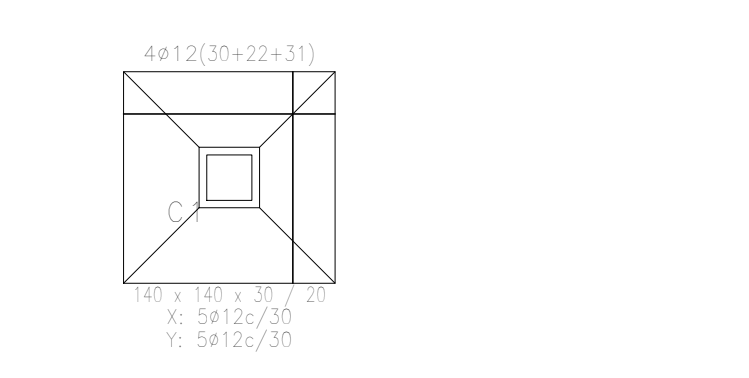
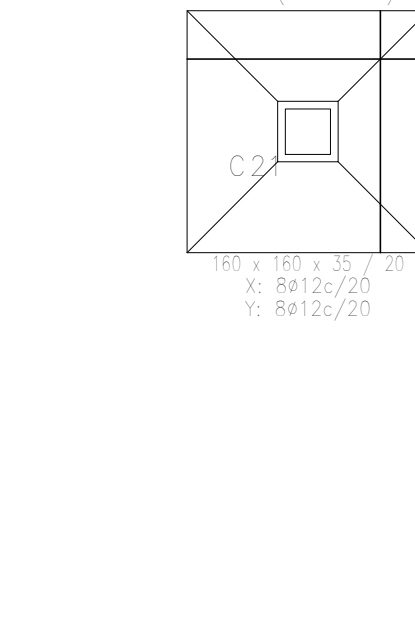
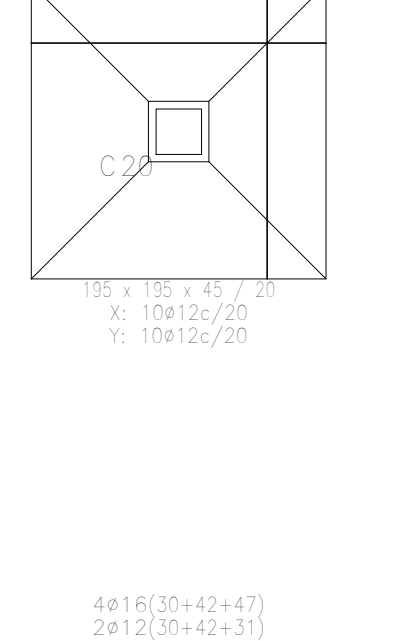
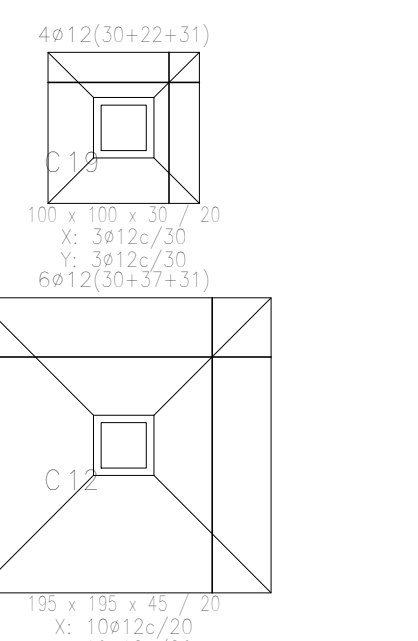
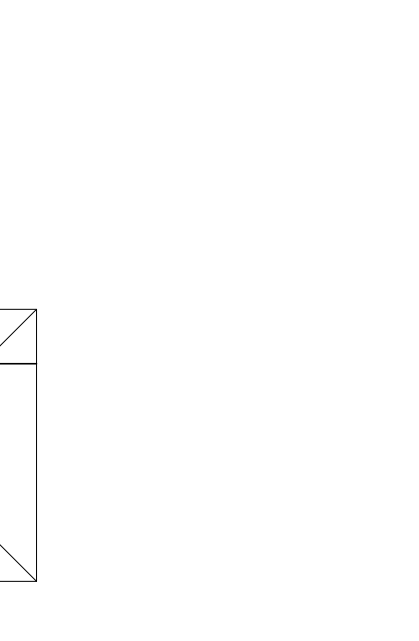
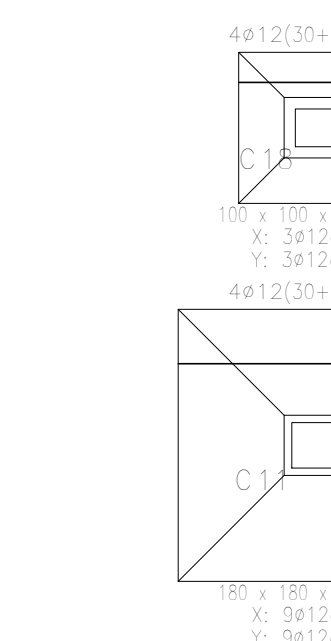
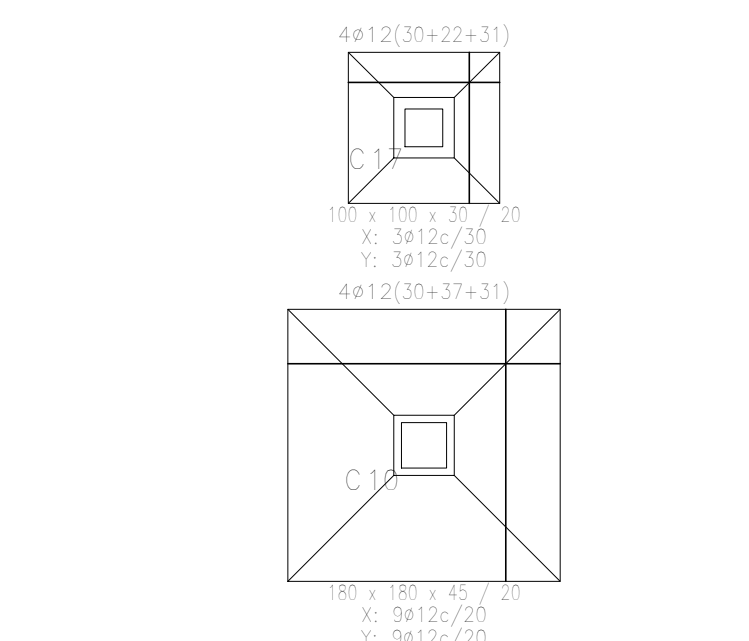
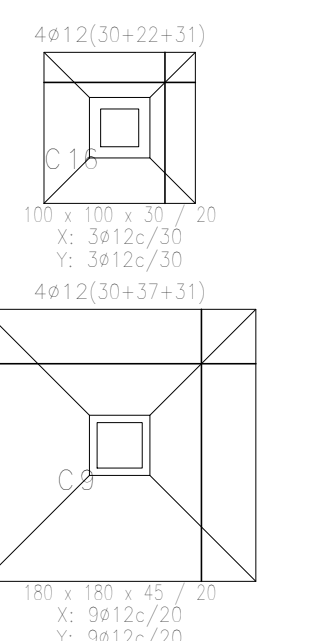
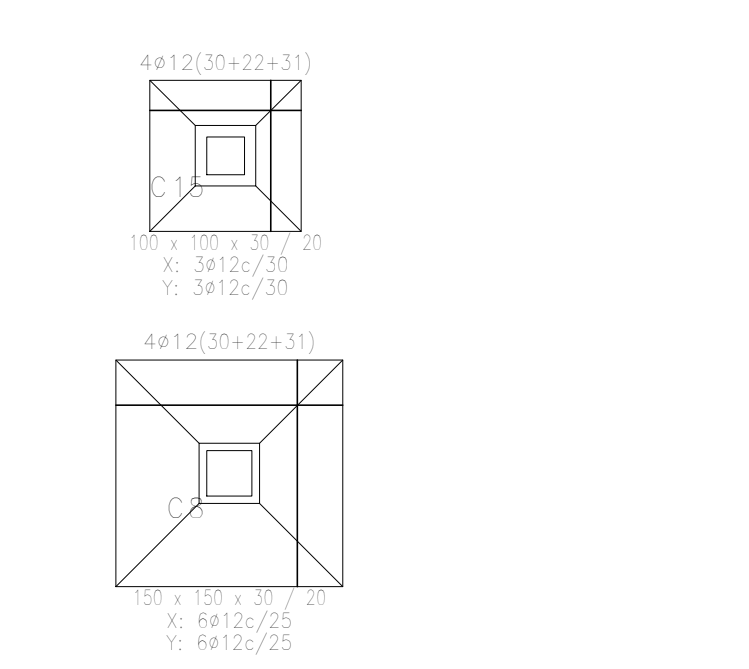
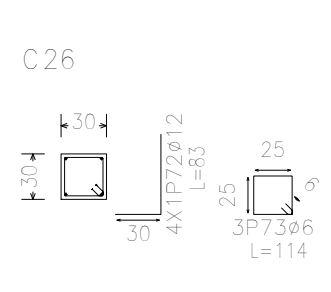
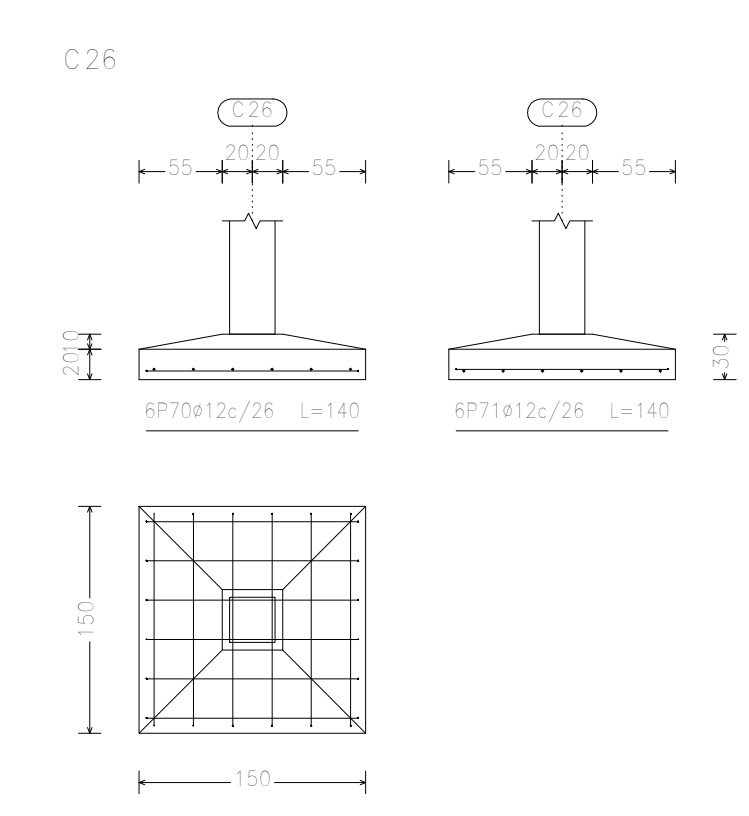
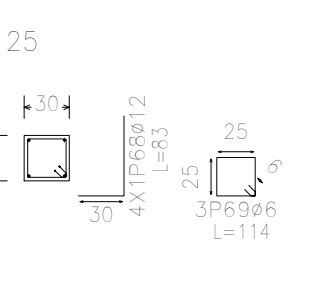
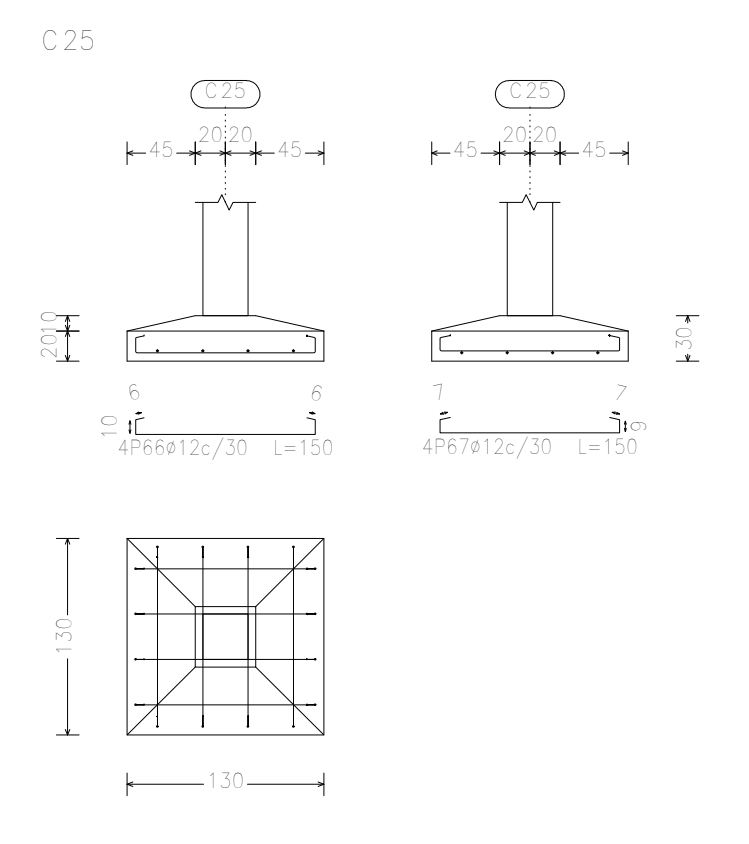
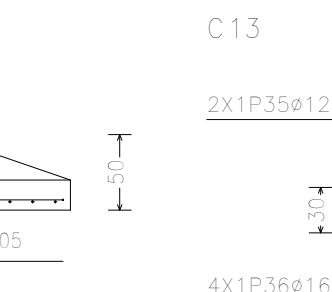
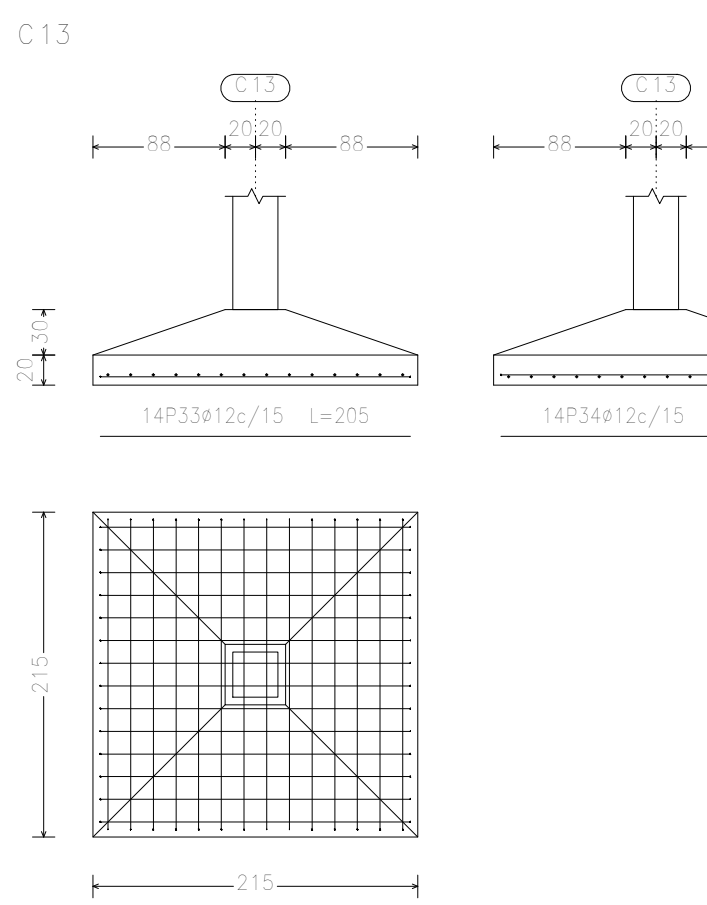
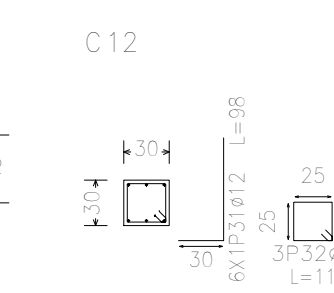
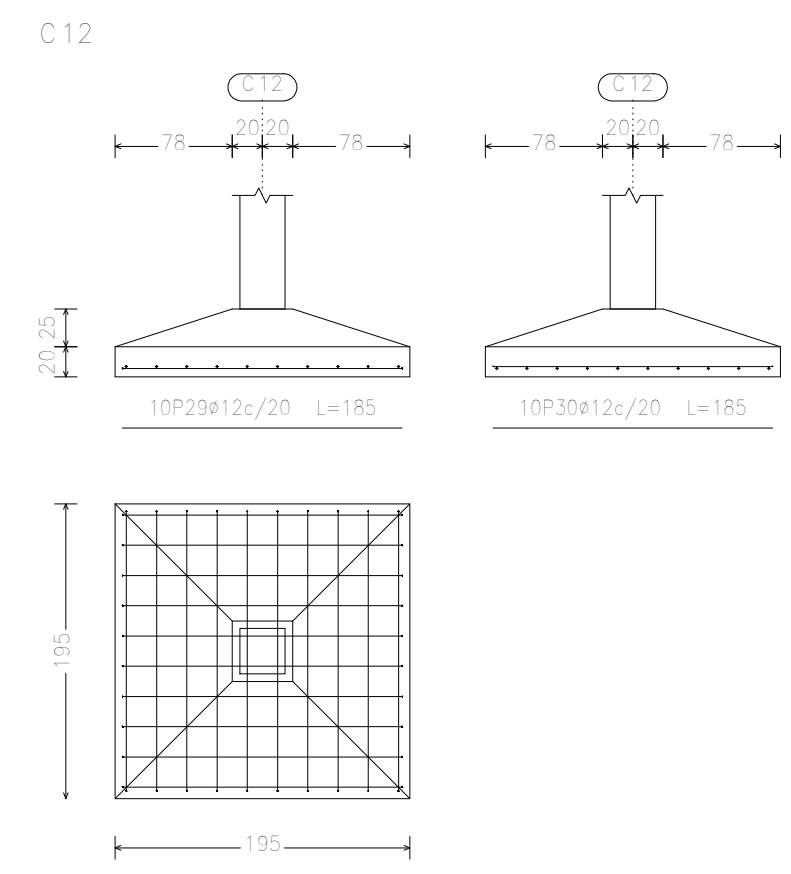
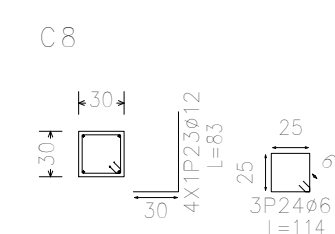
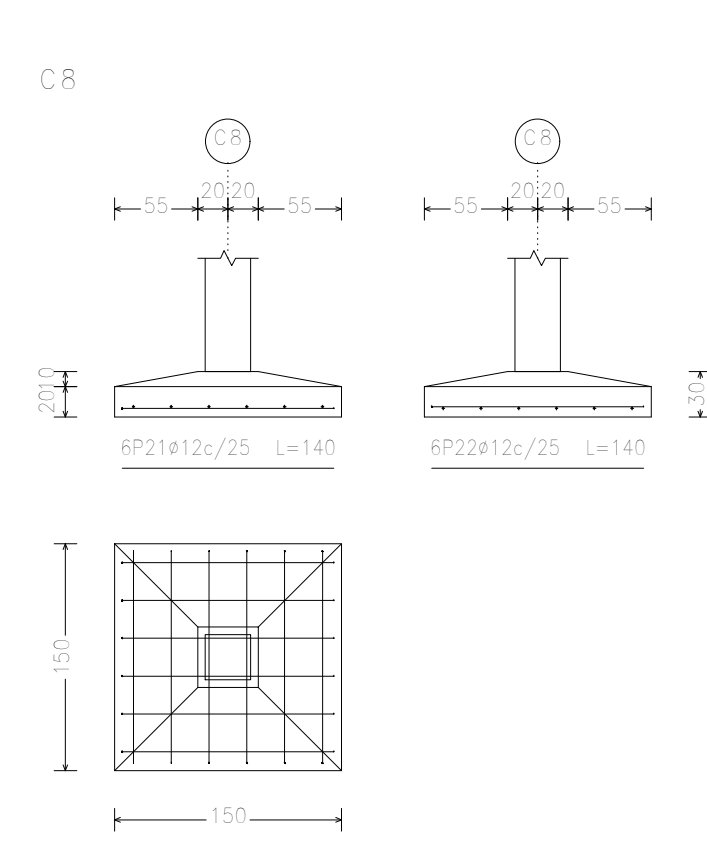
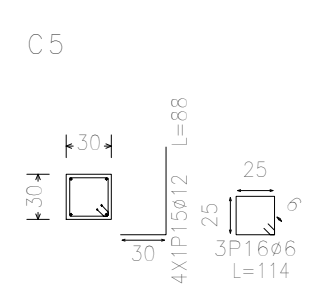
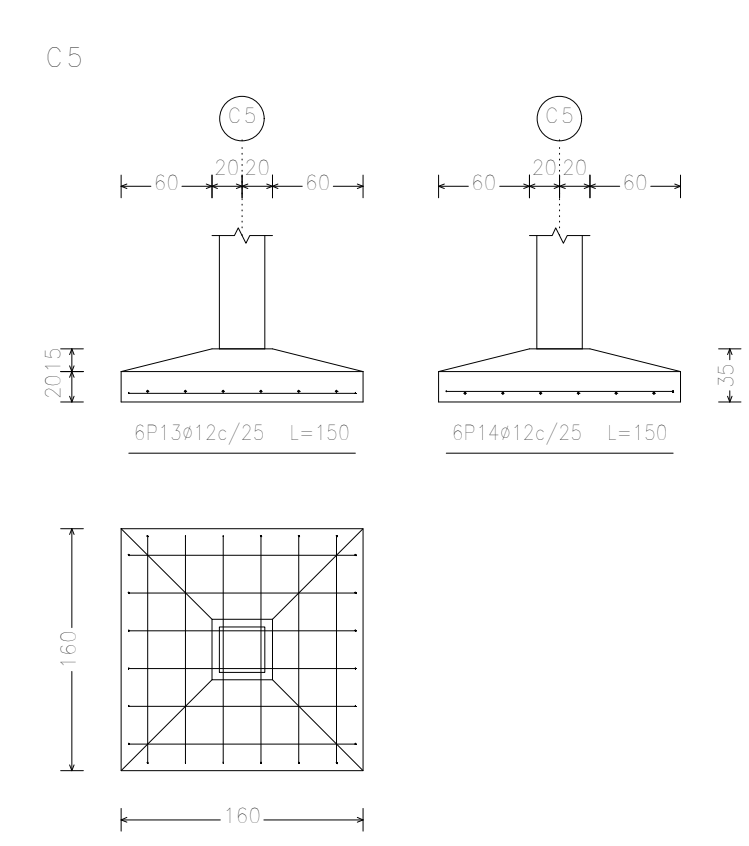
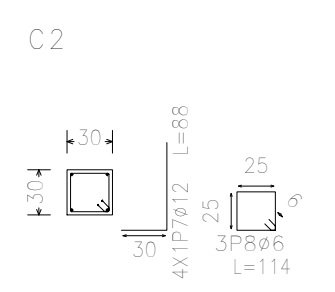
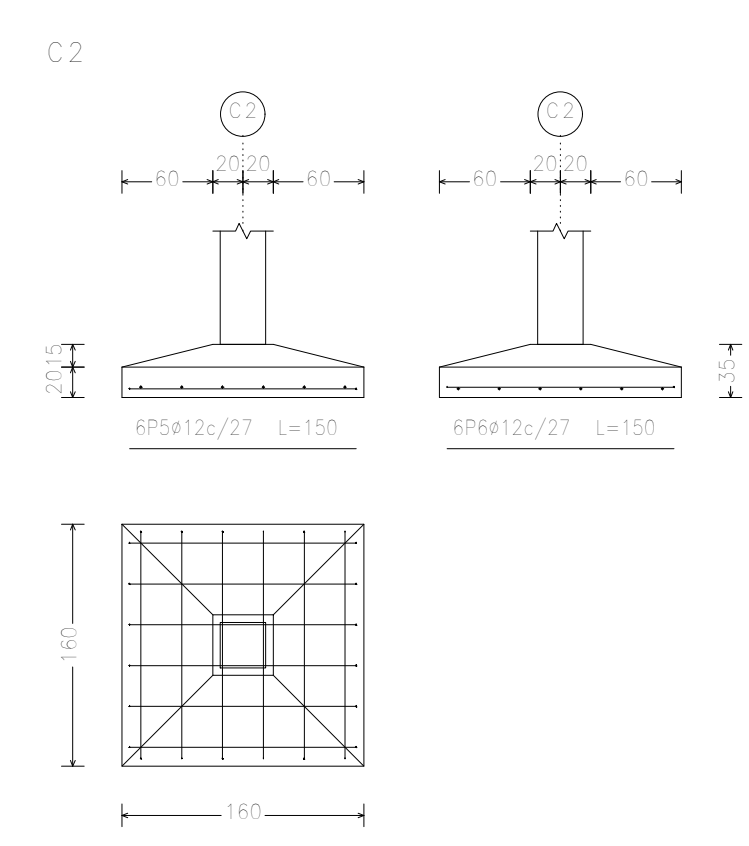
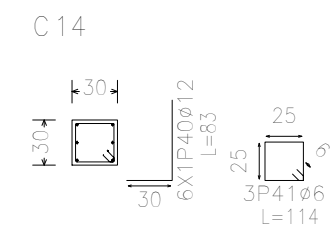
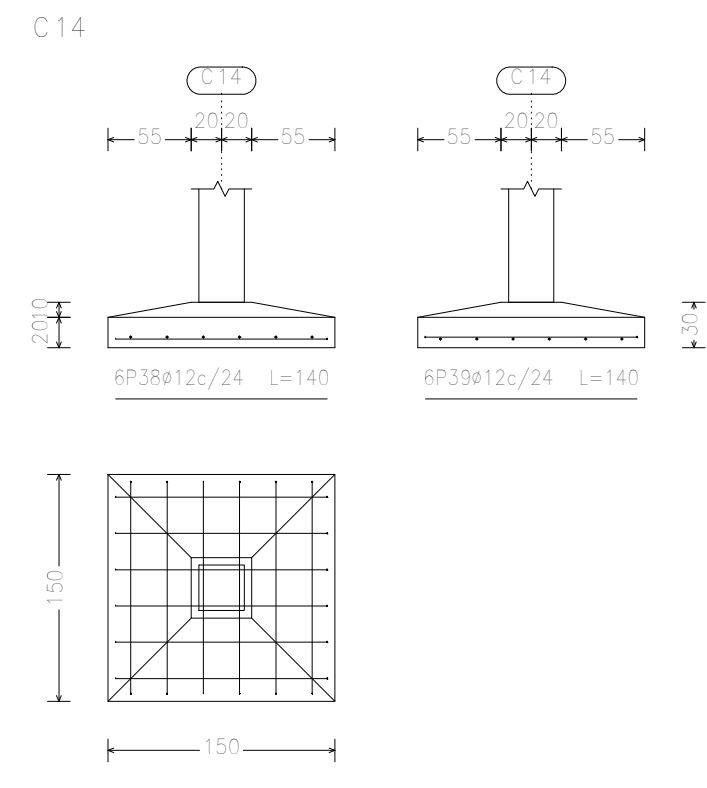
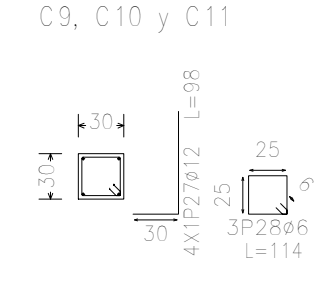
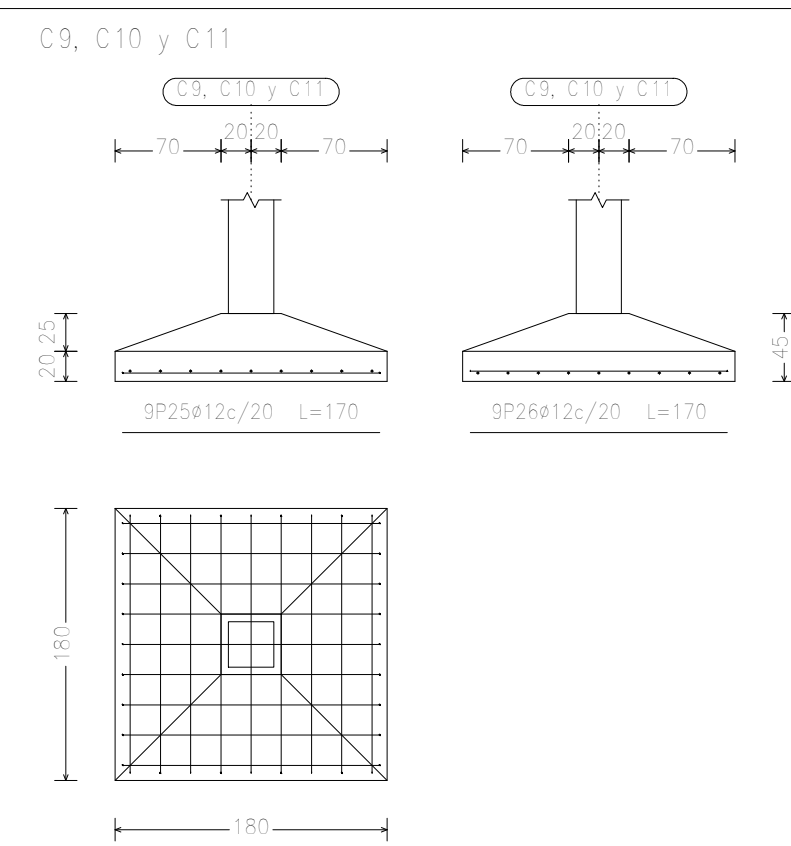
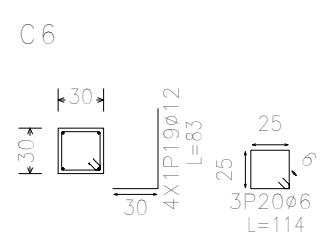
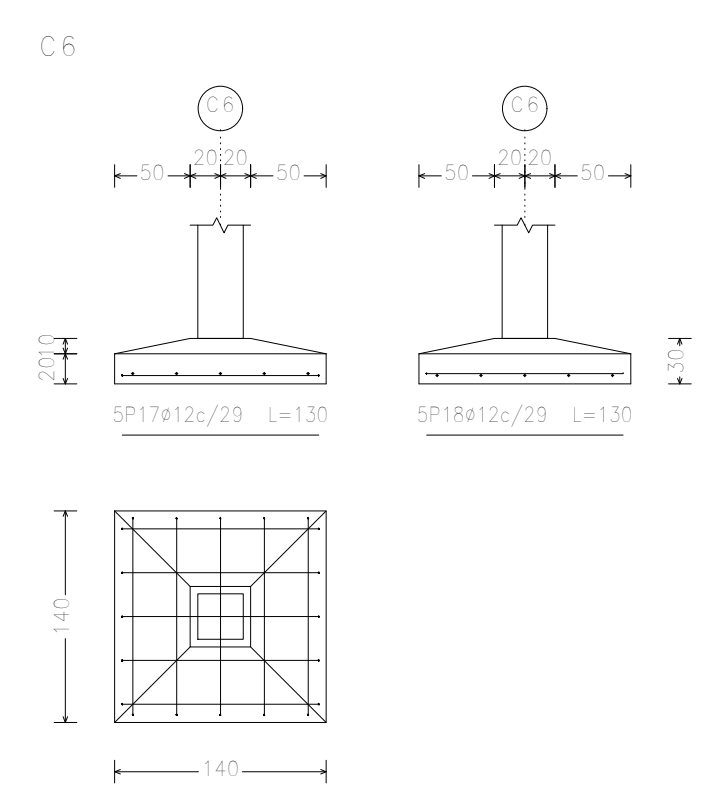
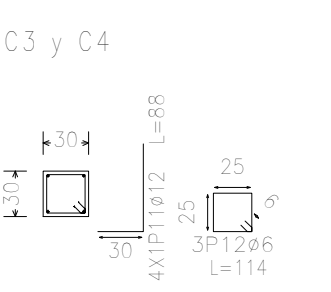
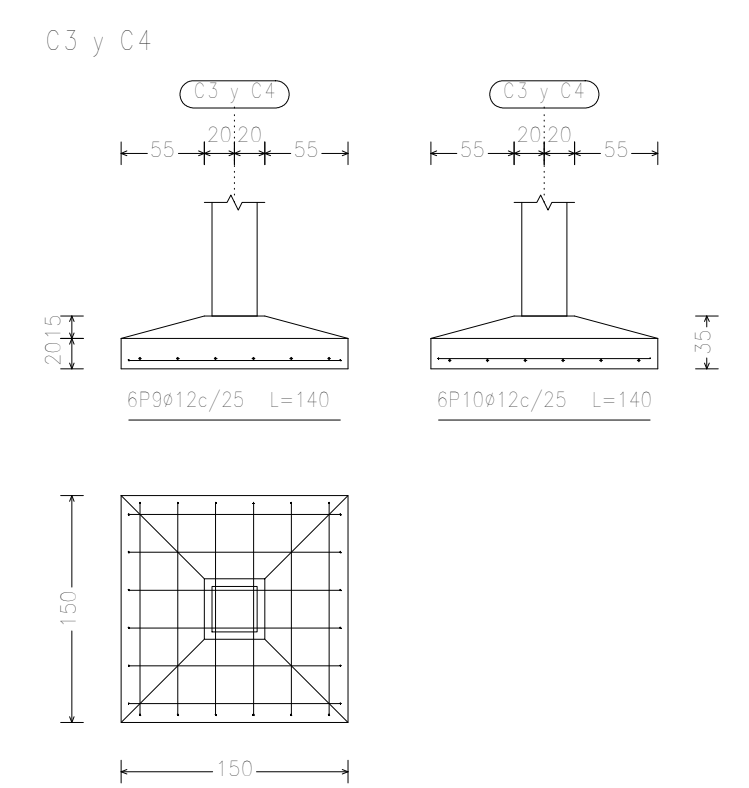
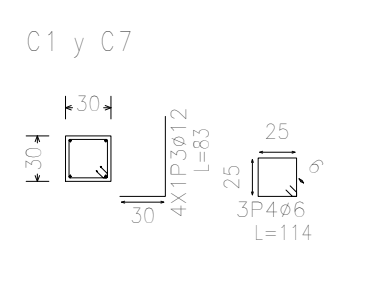
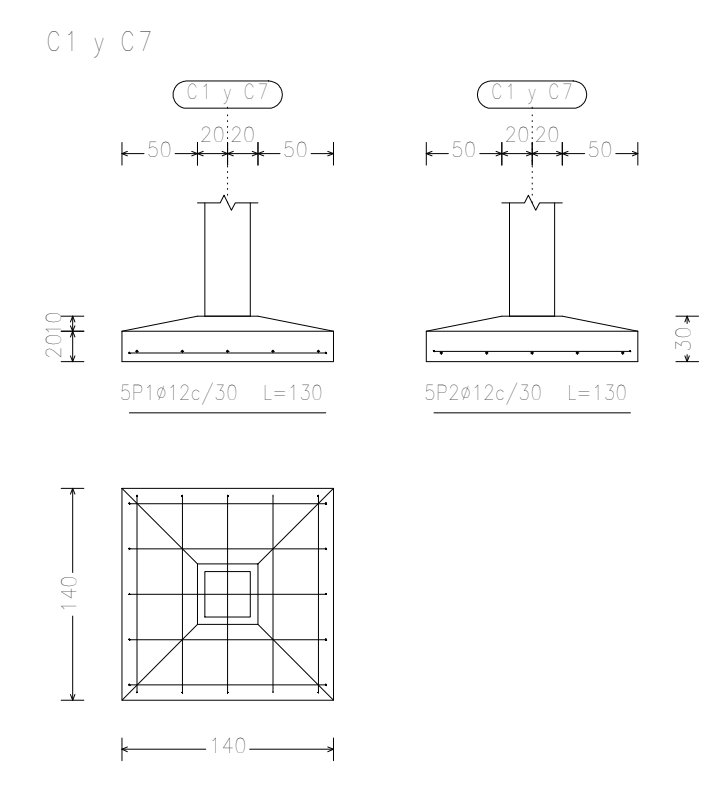


ESCALA: 1:200

 <p>UNIVERSIDAD AUTONOMA "JUAN MISAEL SARACHO" FACULTAD DE CIENCIAS Y TECNOLOGÍA INGENIERÍA CIVIL</p> 	
MODULO EDUCATIVO 12 DE AGOSTO D-6	CONTENIDO: PLANO TOPOGRAFICO
ESTUDIANTE: ROSALIA CASTRO VASQUEZ	
VoBo	ESCALA: INDICADAS 1/1
FECHA: JUNIO/2022	







Referencia	Dimensiones	Clase	Forma	Material	Superficie
C1 y C7	140x140	W 20	40x20	40x20	1.4
C3 y C4	150x150	W 20	40x20	40x20	1.5
C6	140x140	W 20	40x20	40x20	1.4
C9, C10 y C11	180x180	W 20	40x20	40x20	1.8
C14	150x150	W 20	40x20	40x20	1.5
C2	160x160	W 20	40x20	40x20	1.6
C5	160x160	W 20	40x20	40x20	1.6
C8	150x150	W 20	40x20	40x20	1.5
C12	190x190	W 20	40x20	40x20	1.9
C13	215x215	W 20	40x20	40x20	2.15
C25	130x130	W 20	40x20	40x20	1.3
C26	100x100	W 20	40x20	40x20	1.0

Elemento	Vol. (m³)	Long. (m)	Peso (kg)
C1	1.4	1.4	1.4
C3	1.5	1.5	1.5
C6	1.4	1.4	1.4
C9	1.8	1.8	1.8
C14	1.5	1.5	1.5
C2	1.6	1.6	1.6
C5	1.6	1.6	1.6
C8	1.5	1.5	1.5
C12	1.9	1.9	1.9
C13	2.15	2.15	2.15
C25	1.3	1.3	1.3
C26	1.0	1.0	1.0

Resumen Acero	Long. total (m)	Peso (kg)	Total
Acero	88.7	22	
Resque cimentación	428.2	413	
Espejo	4.8	8	643

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

MODULO EDUCATIVO  
 12 DE AGOSTO D-6

CONTENIDO:  
 ARMADO DE ZAPATAS

ESTUDIANTE: ROSALIA CASTRO VASQUEZ

ESCALA: 1/10

FECHA: JUNIO 2022

VoBo

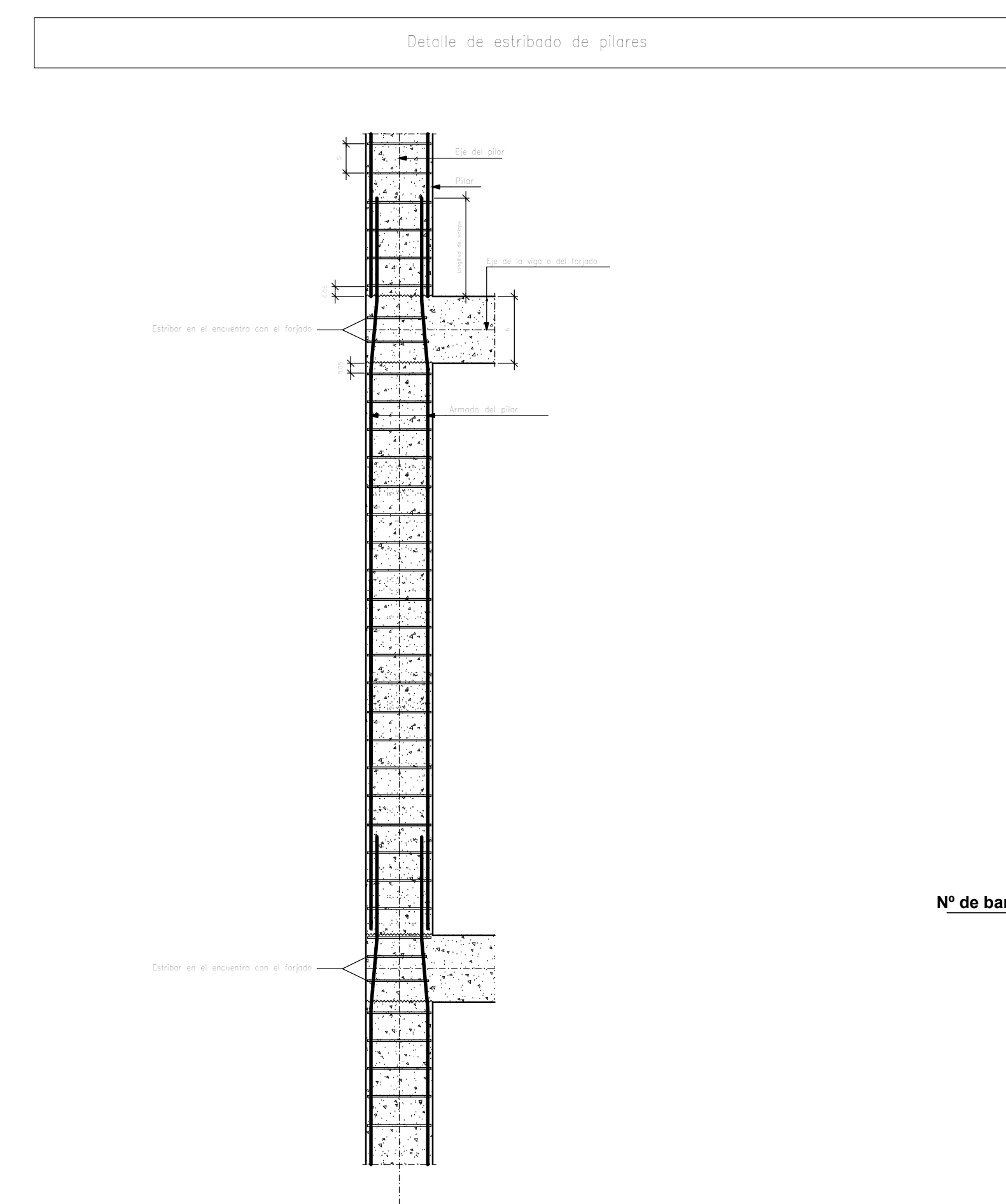
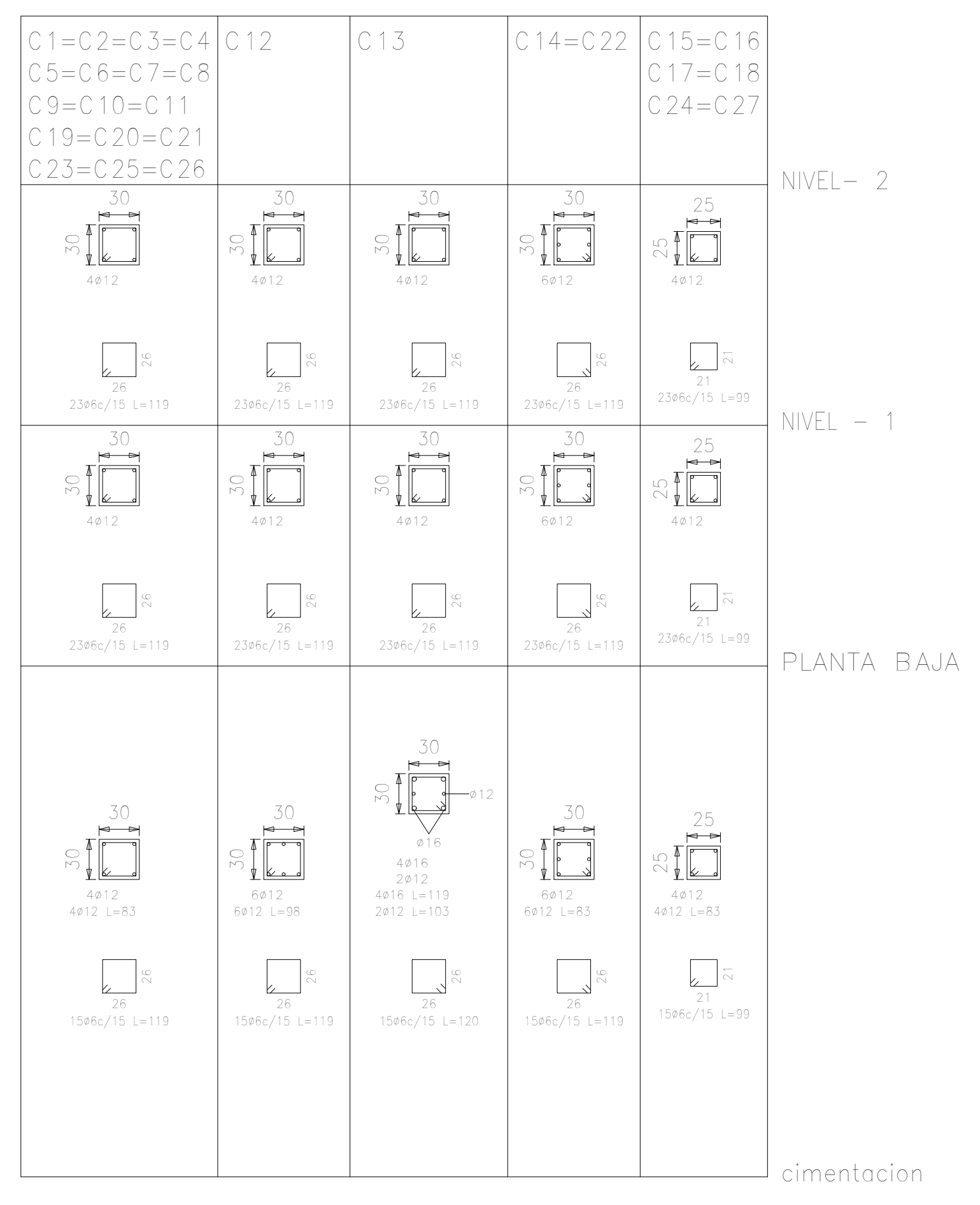
LAMINA: 2/10



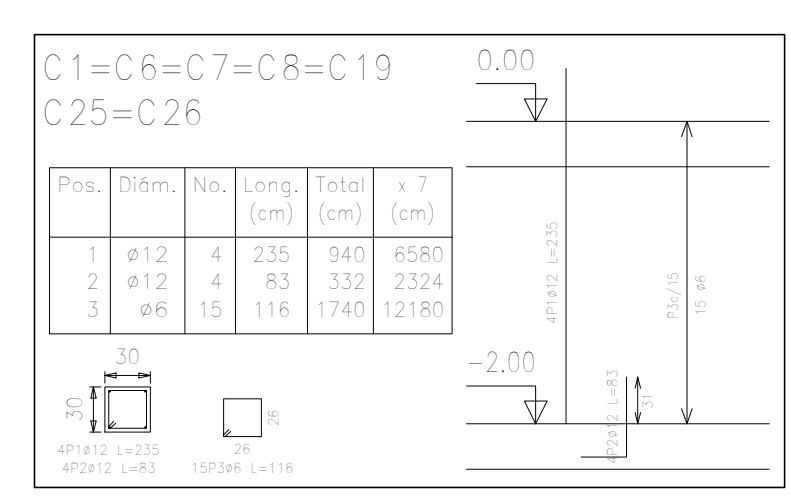
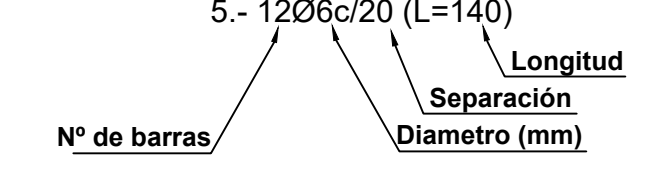
Cuadro de pilares  
 Hormigón: H-21 , Control Normal  
 Acero: AH-500 , Control Normal  
 Escala: 1:45

Resumen Acero	Long. total	Peso+10%	Total
Ferrosos 1 a 3	(m)	(kg)	
AH-500CN #6	1886,9	461	
#12	1111,2	1085	
#16	14,8	26	1572

Resumen Acero	Long. total	Peso+10%	Total
Ferrosos 1 a 3	(m)	(kg)	
AH-500CN #6	1886,9	461	
#12	1111,2	1085	
#16	14,8	26	1572



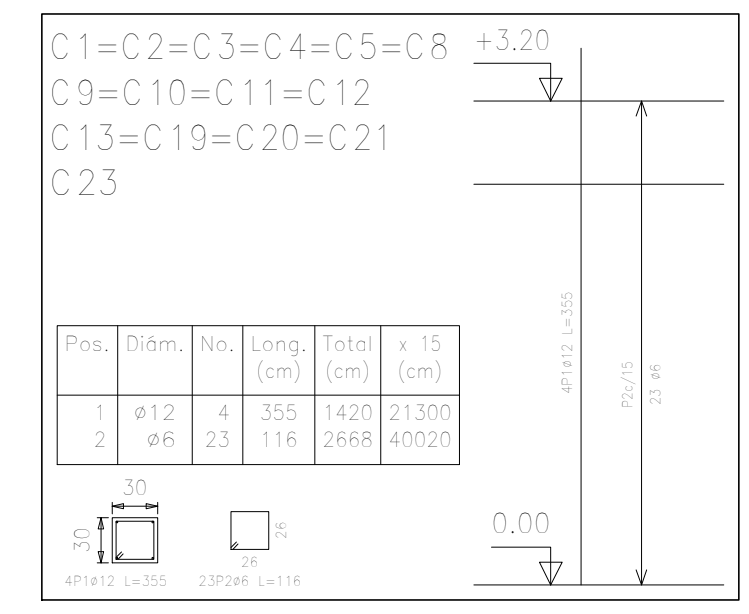
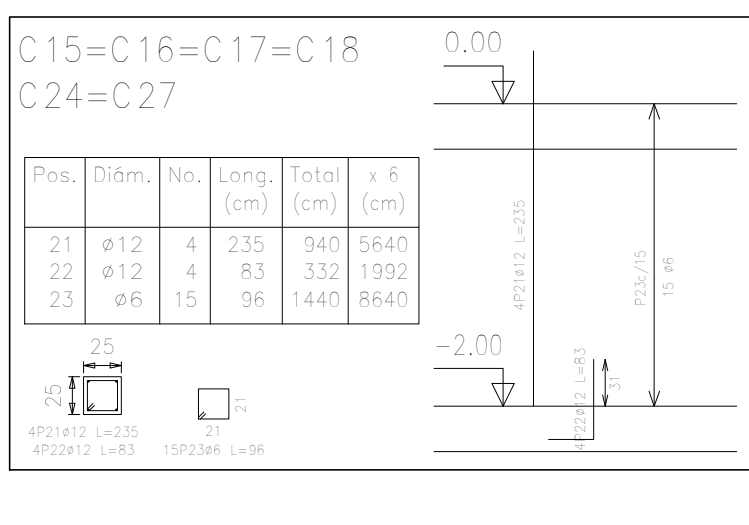
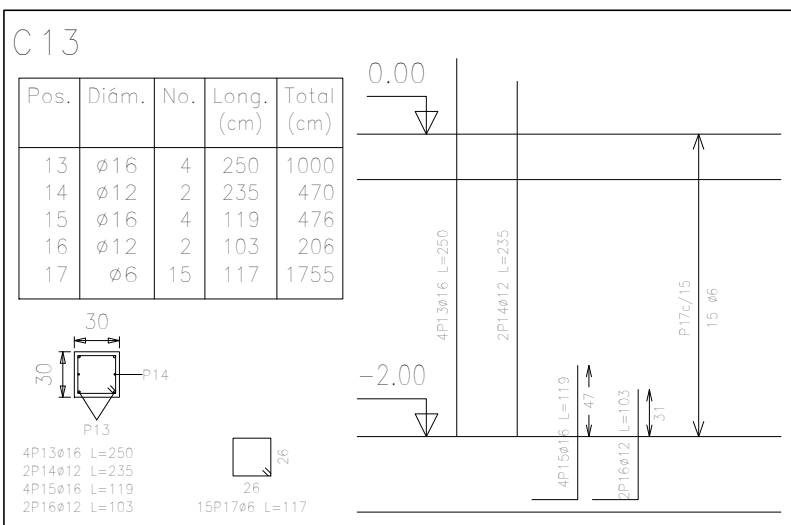
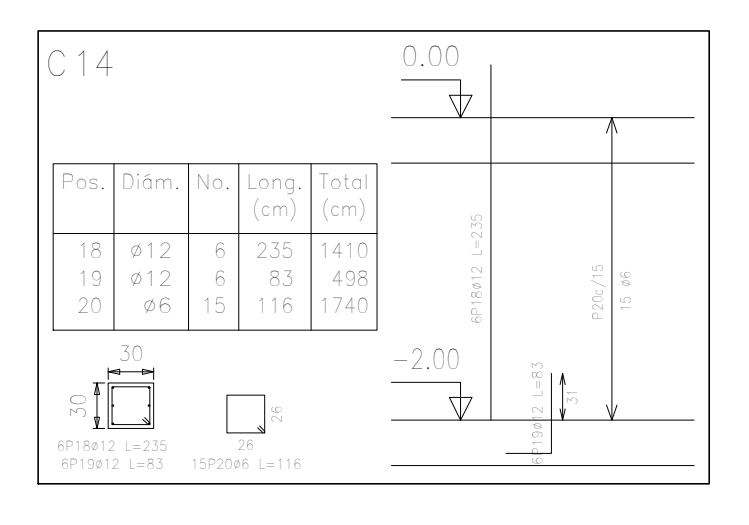
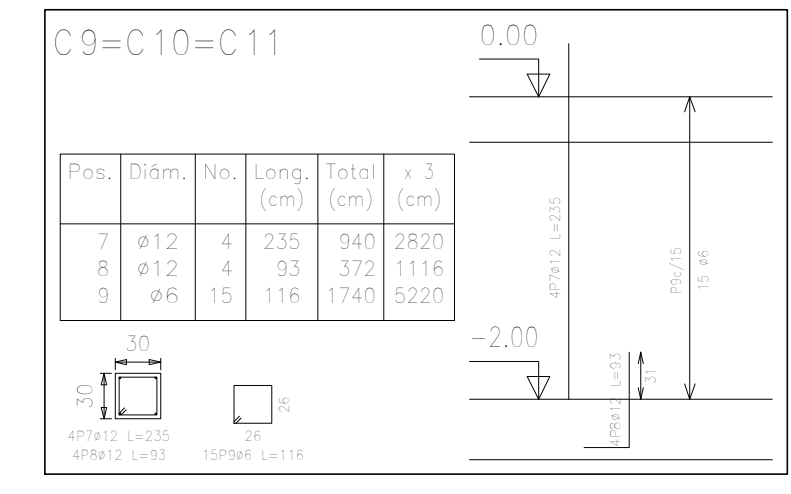
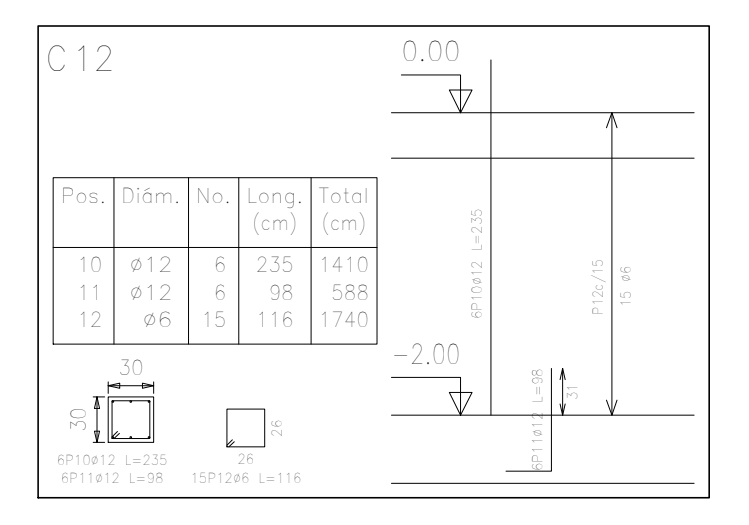
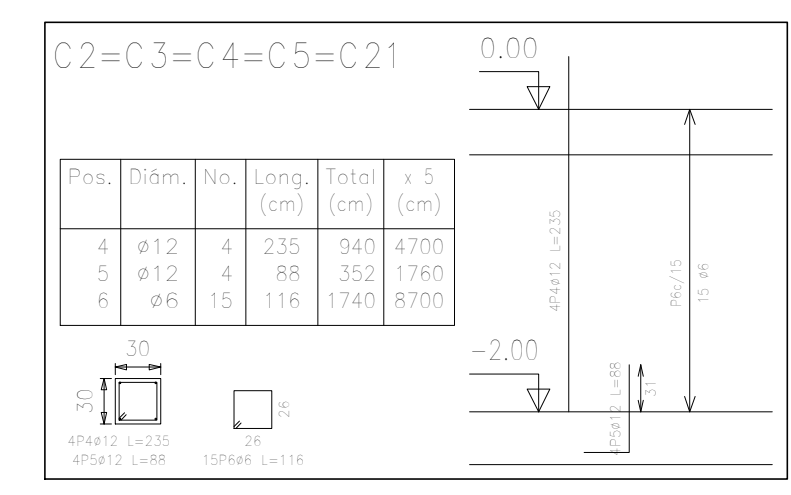
- NOTAS.**
- En todos los elementos de Hormigón armado, la resistencia del H<sup>21</sup> a la compresión a los 28 días sera de 210 Kg/cm<sup>2</sup>.
  - Límite de fluencia del acero de refuerzo es 5000 Kg/cm<sup>2</sup>.
  - El recubrimiento en los elementos estructurales son:
    - \* Cimentación : 5.00 cm
    - \* Columnas : 2.50 cm
    - \* Vigas : 2.00 cm
    - \* Losas de Viguetas : 2.00 cm
    - \* Escaleras : 3.00 cm
  - Capacidad portante del suelo: 0.99 kg/cm<sup>2</sup>.
  - 12Ø6c/20 (L=140)
    - Longitud
    - Separación
    - Dímetro (mm)



Elemento	Pos.	Dím.	No.	Long. (cm)	Total (cm)	Peso AH-500CN (kg)
C1=C6=C7=C8=C19=C25=C26	1	#12	4	235	940	8580
	2	#12	4	83	332	2254
	3	#6	15	116	1740	12180

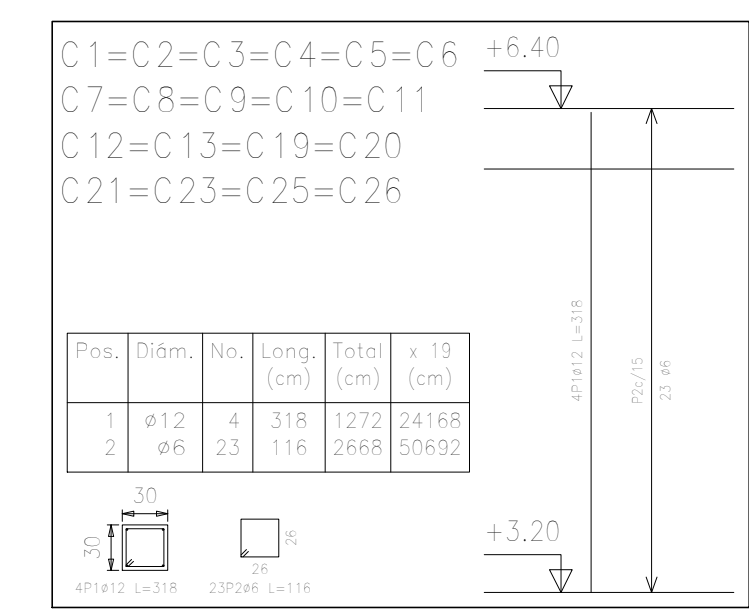
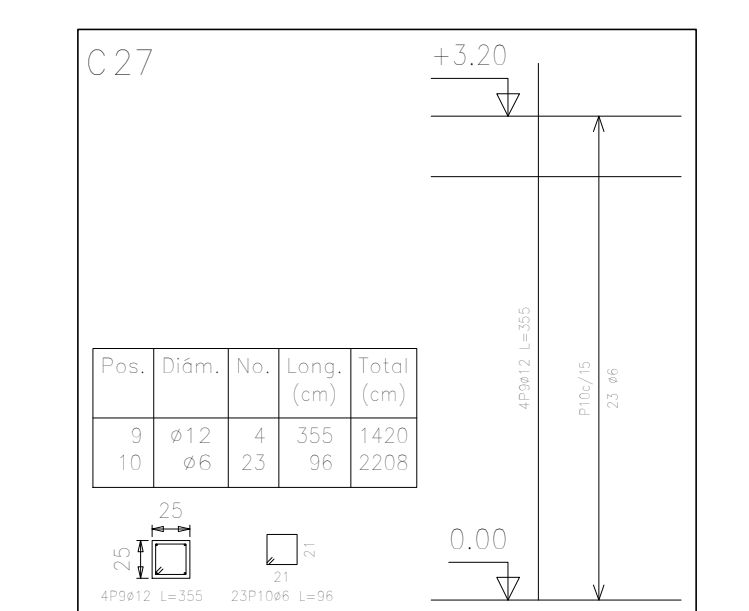
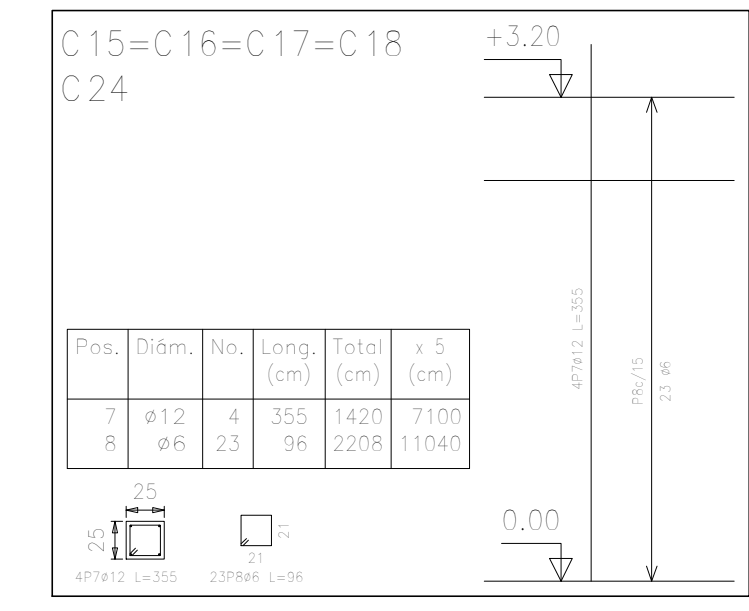
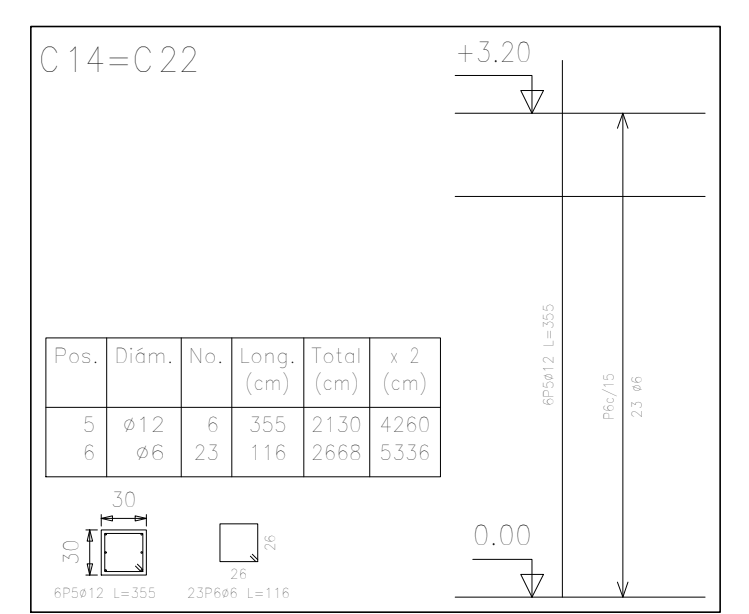
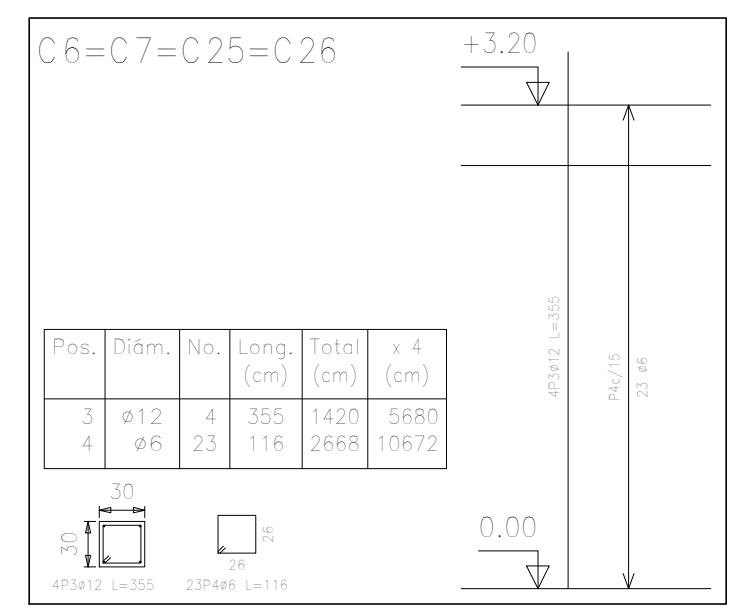
Pilares que terminan en PLANTA BAJA  
 Hormigón: H-21 , Control Normal  
 Acero: AH-500 , Control Normal  
 Escala: 1:50

Resumen Acero	Long. total	Peso+10%	Total
PLANTA BAJA Pilares	(m)	(kg)	
AH-500CN #6	452,9	119	
#12	361,2	353	
#16	14,8	26	489



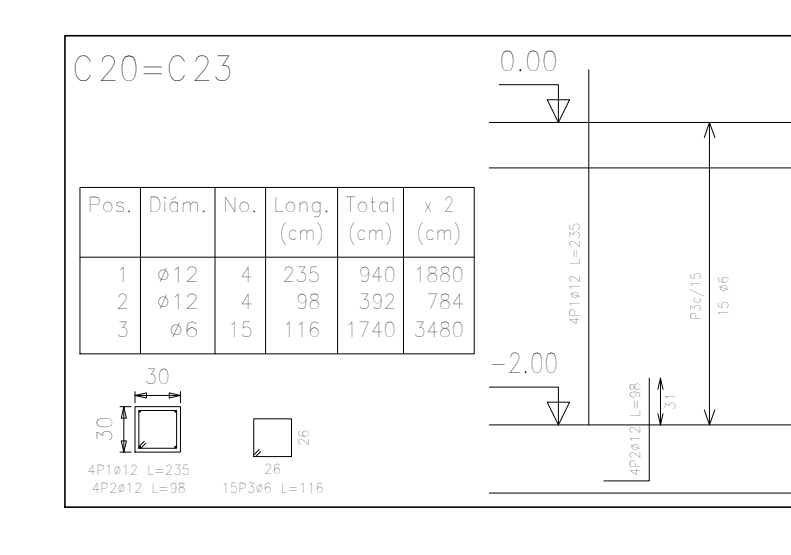
Pilares que terminan en NIVEL - 1  
 Hormigón: H-21 , Control Normal  
 Acero: AH-500 , Control Normal  
 Escala: 1:50

Resumen Acero	Long. total	Peso+10%	Total
NIVEL - 1 Pilares	(m)	(kg)	
AH-500CN #6	492,8	169	
#12	397,6	388	557

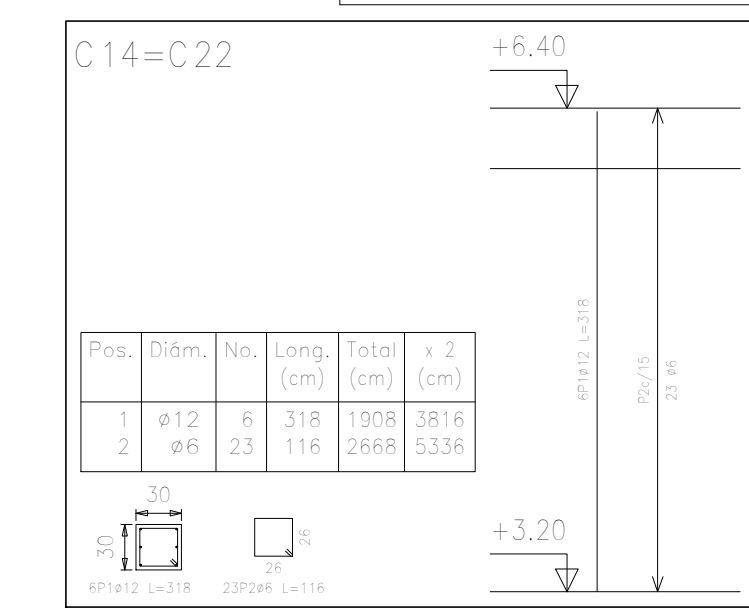
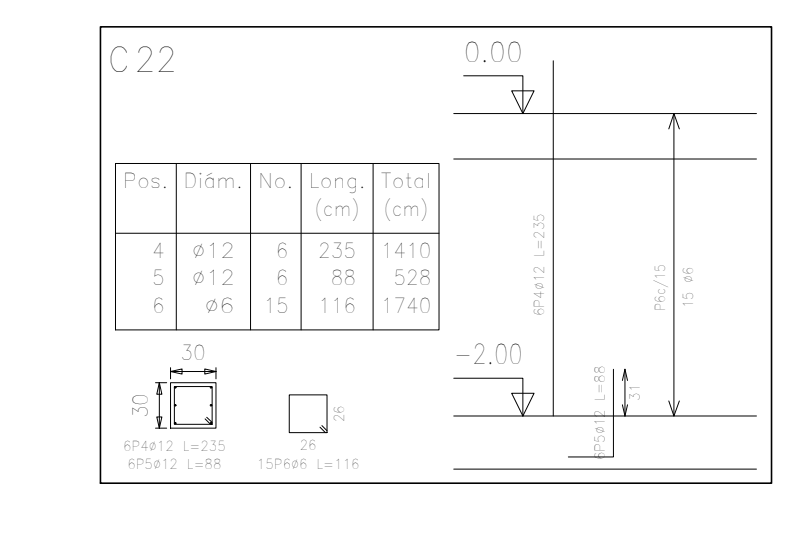


Pilares que terminan en NIVEL - 2  
 Hormigón: H-21 , Control Normal  
 Acero: AH-500 , Control Normal  
 Escala: 1:50

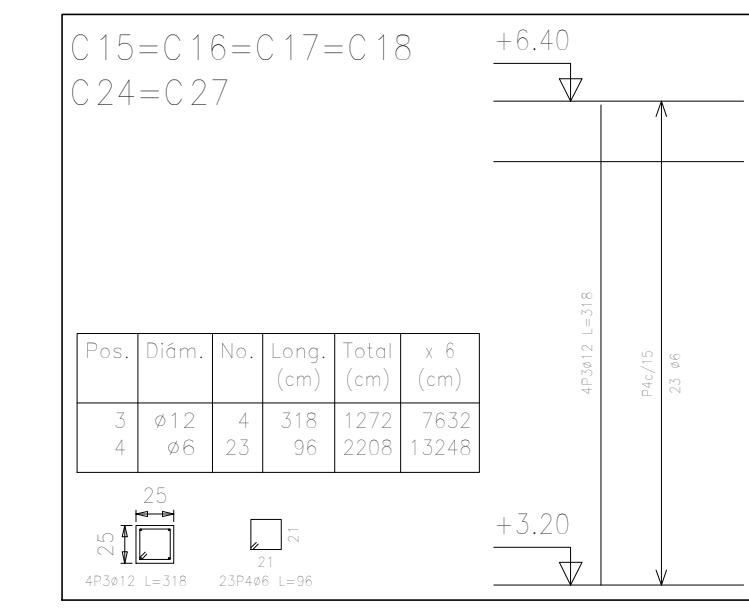
Resumen Acero	Long. total	Peso+10%	Total
NIVEL - 2 Pilares	(m)	(kg)	
AH-500CN #6	492,8	169	
#12	356,2	348	517

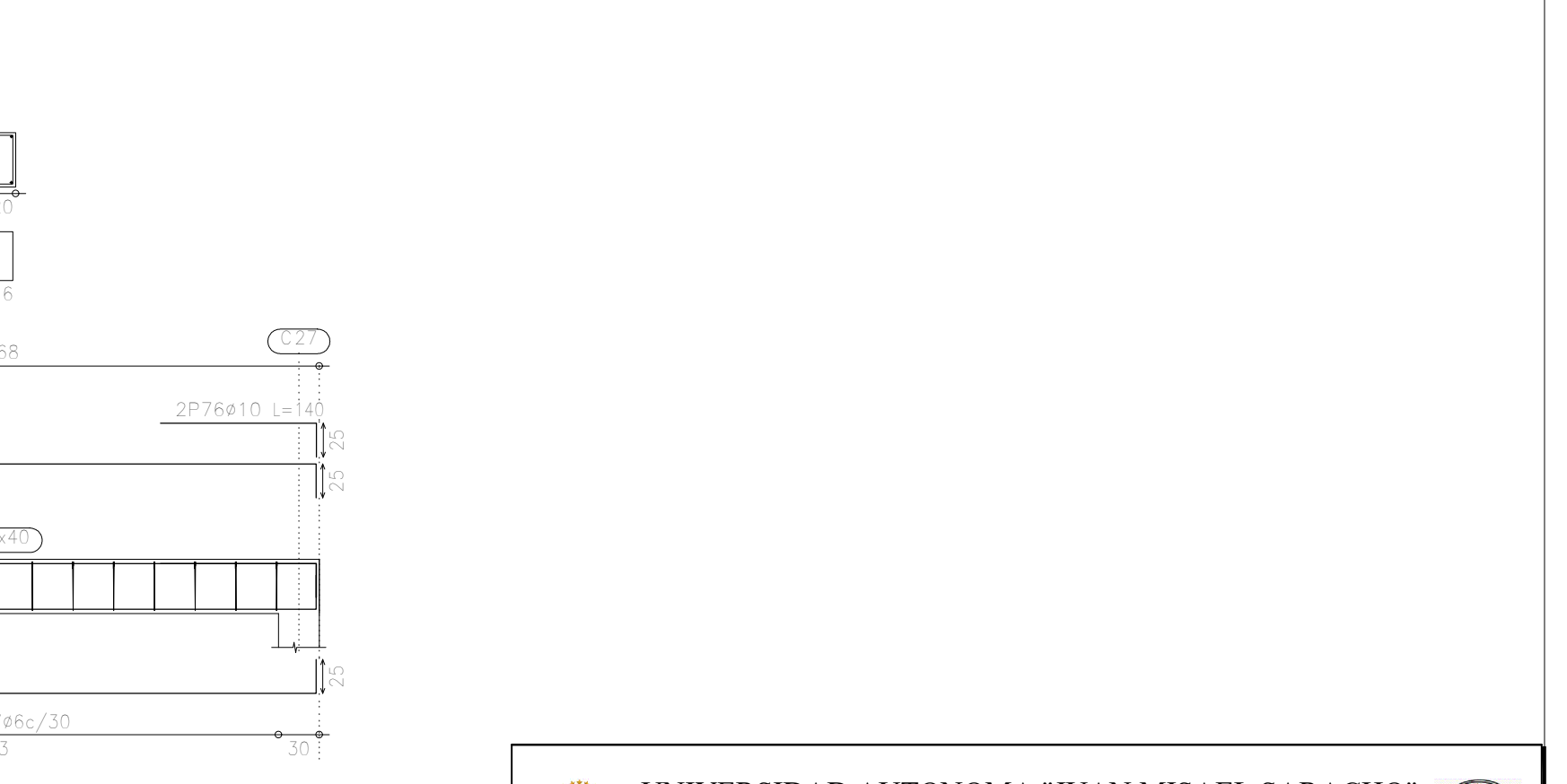
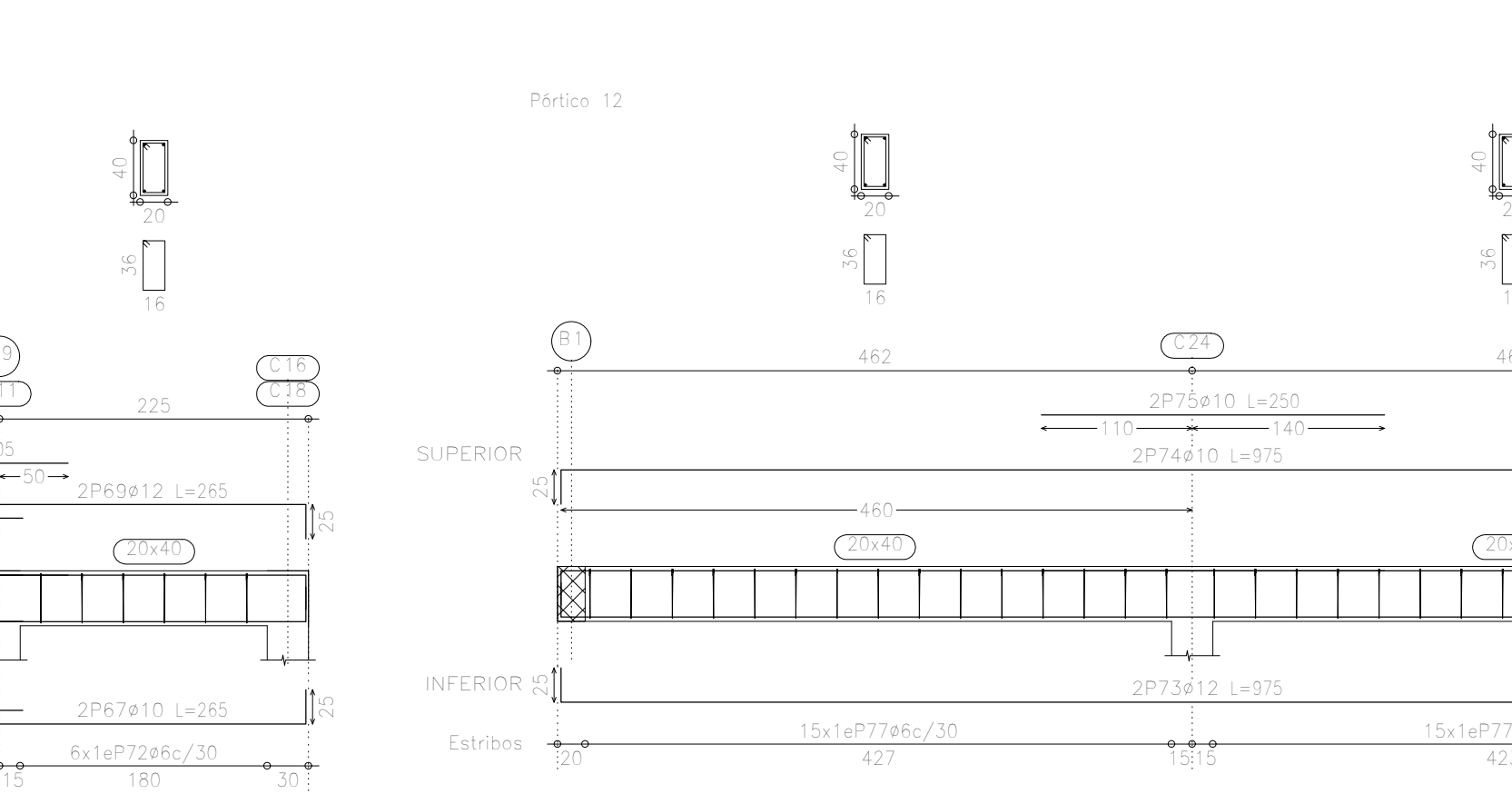
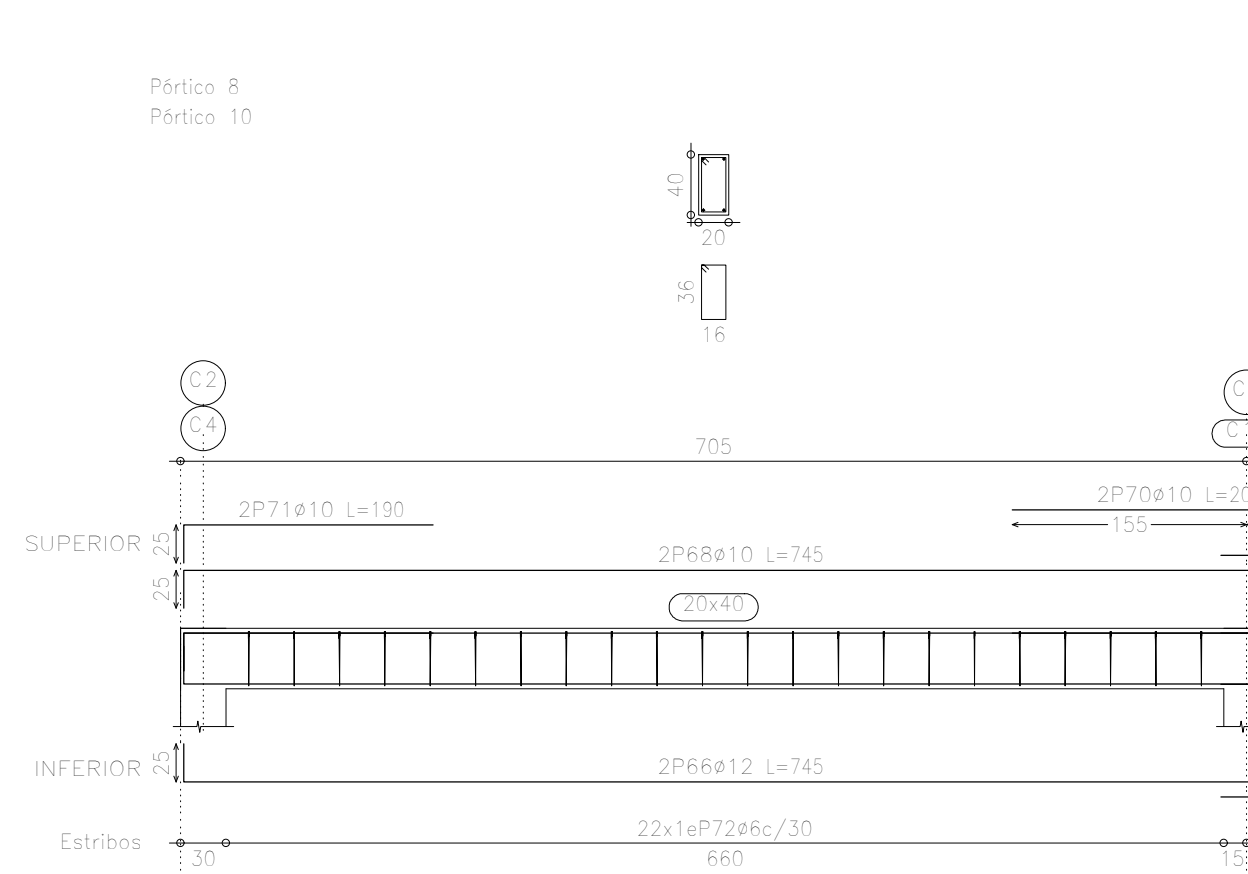
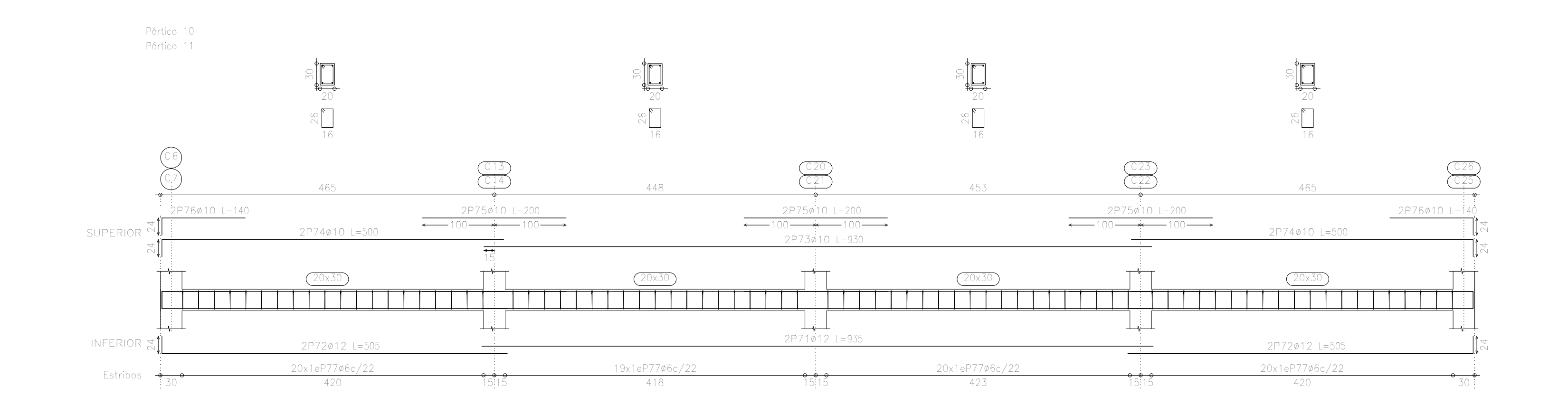
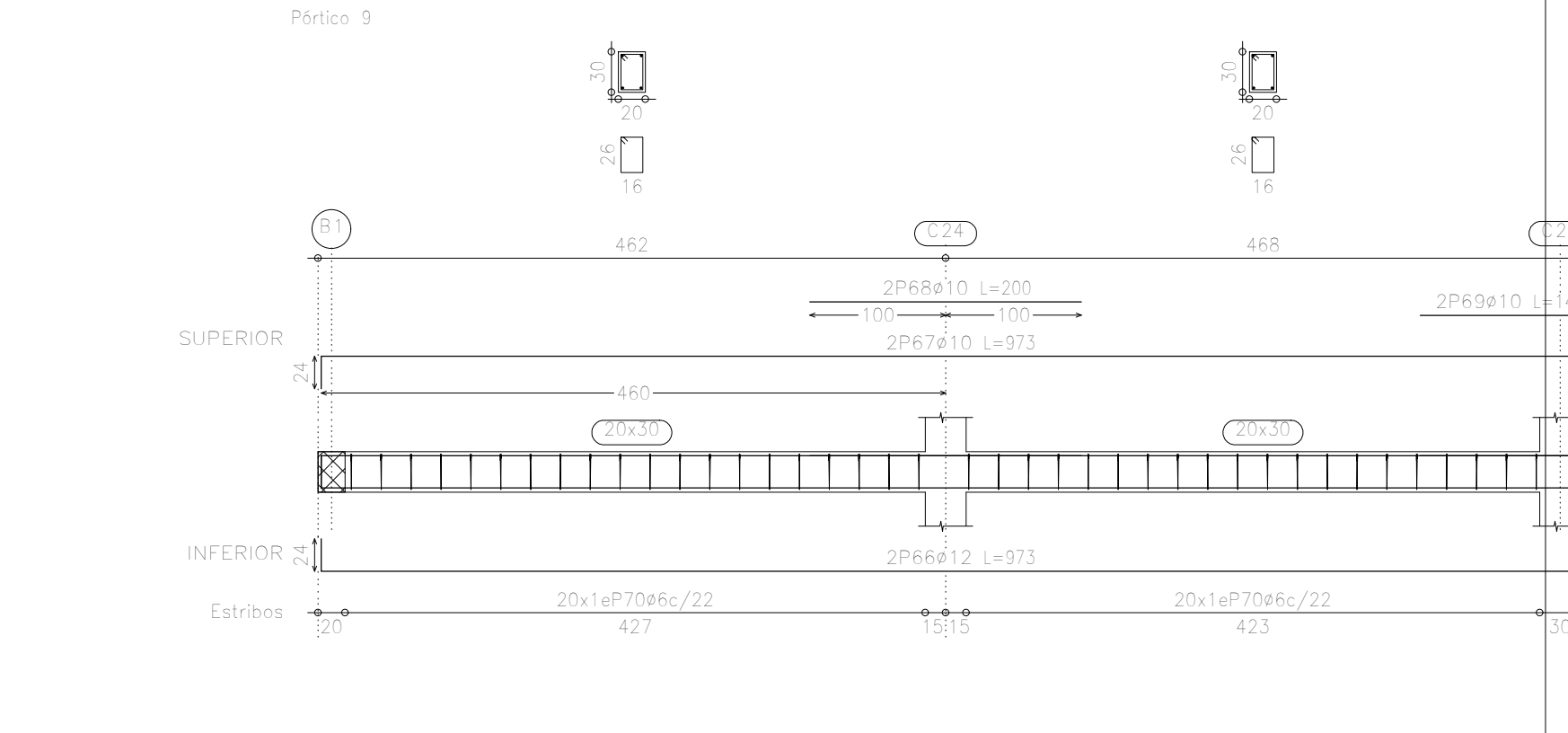
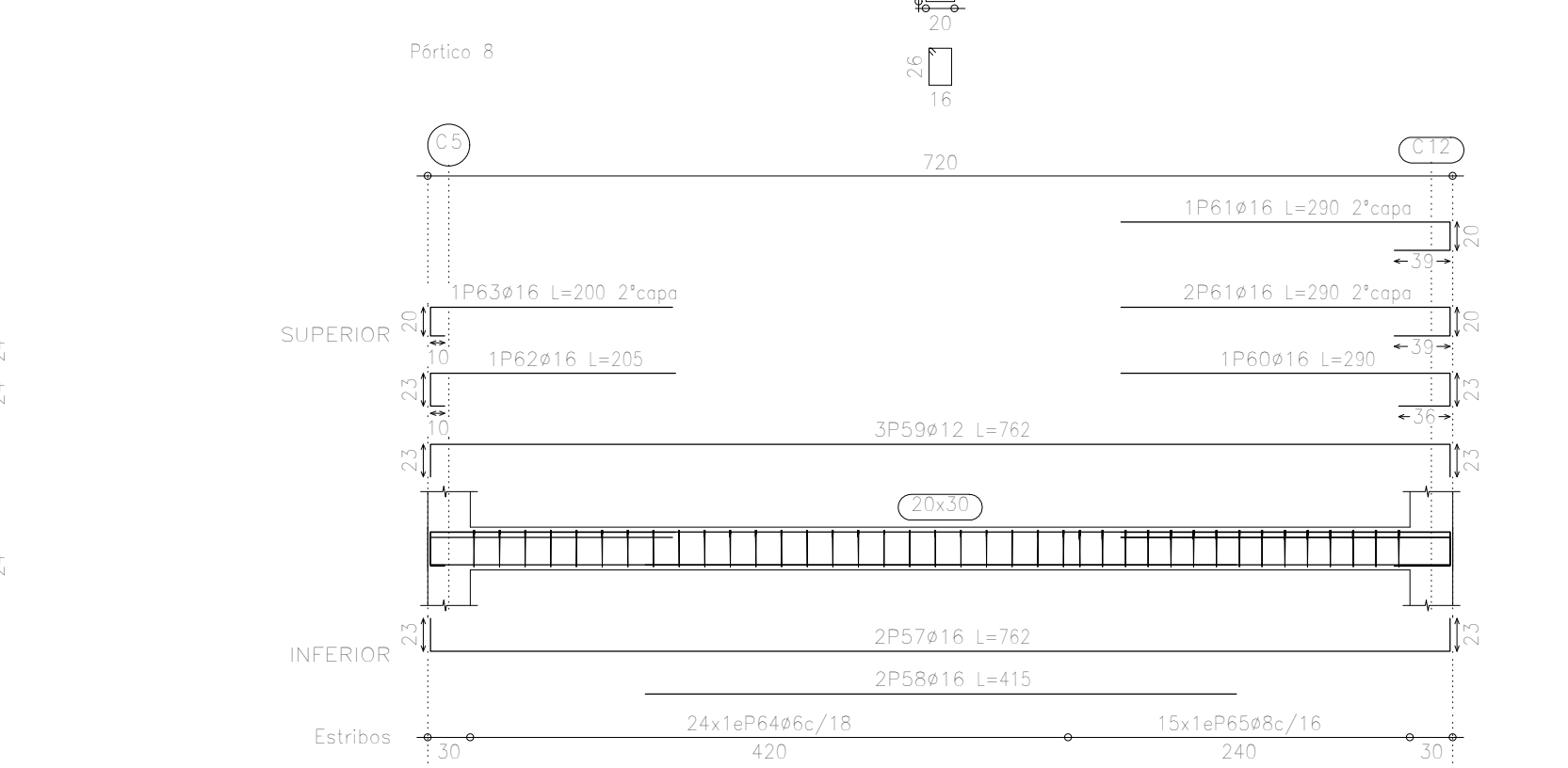
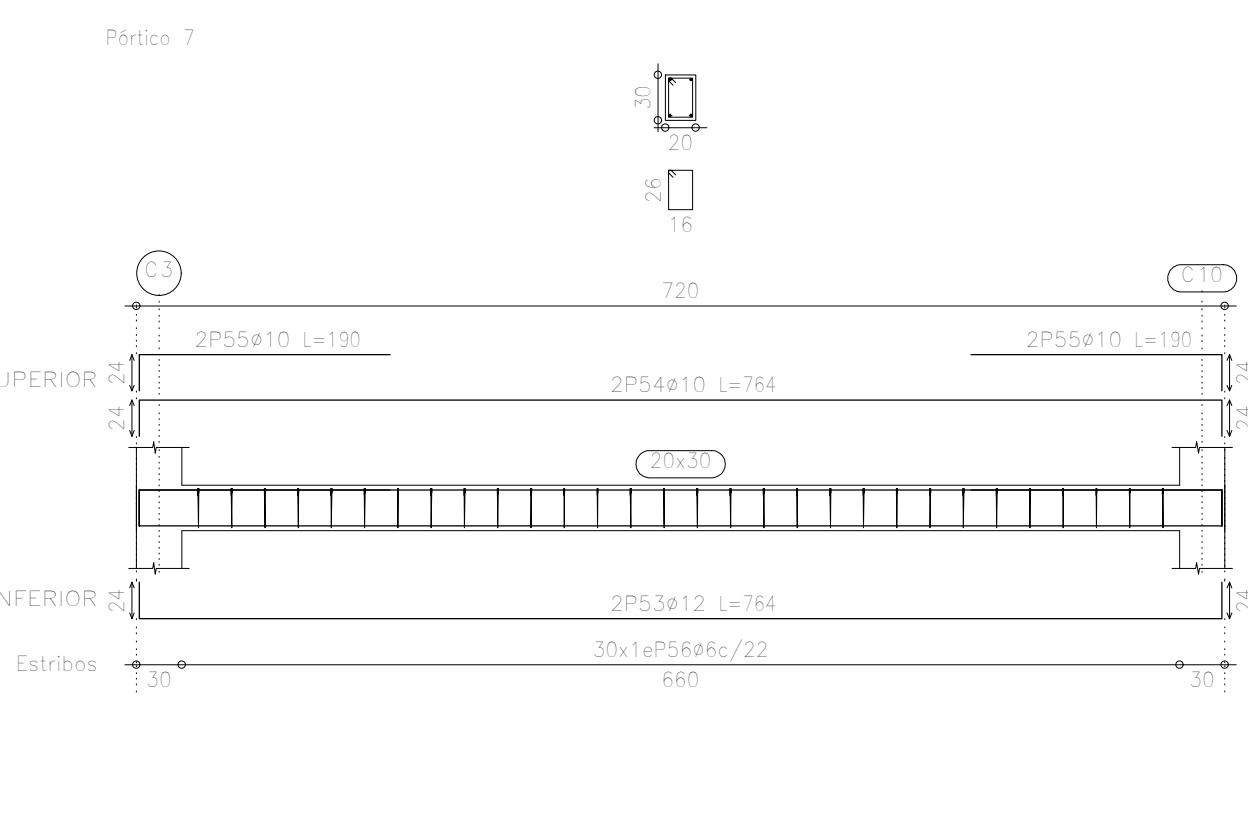
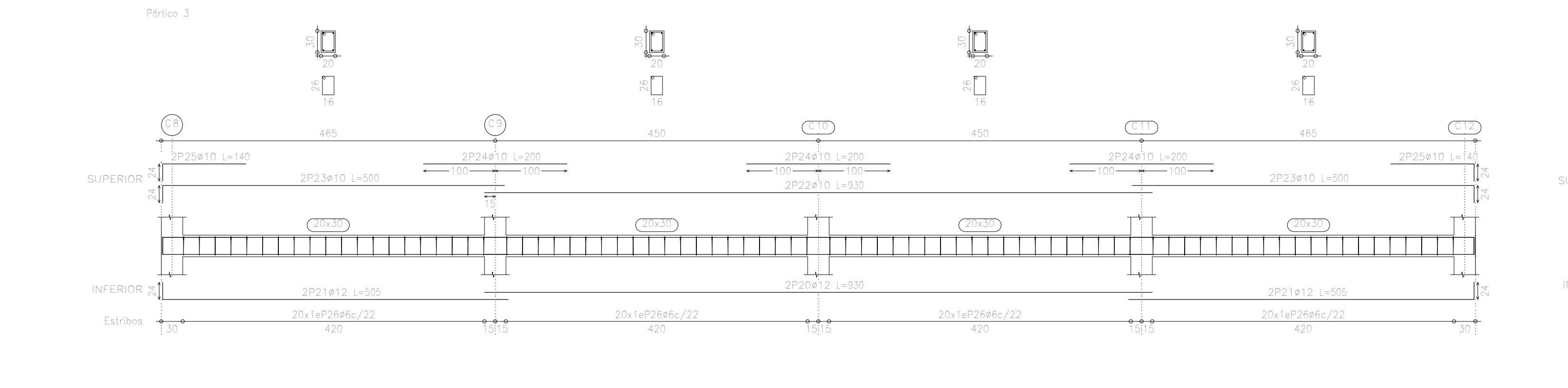
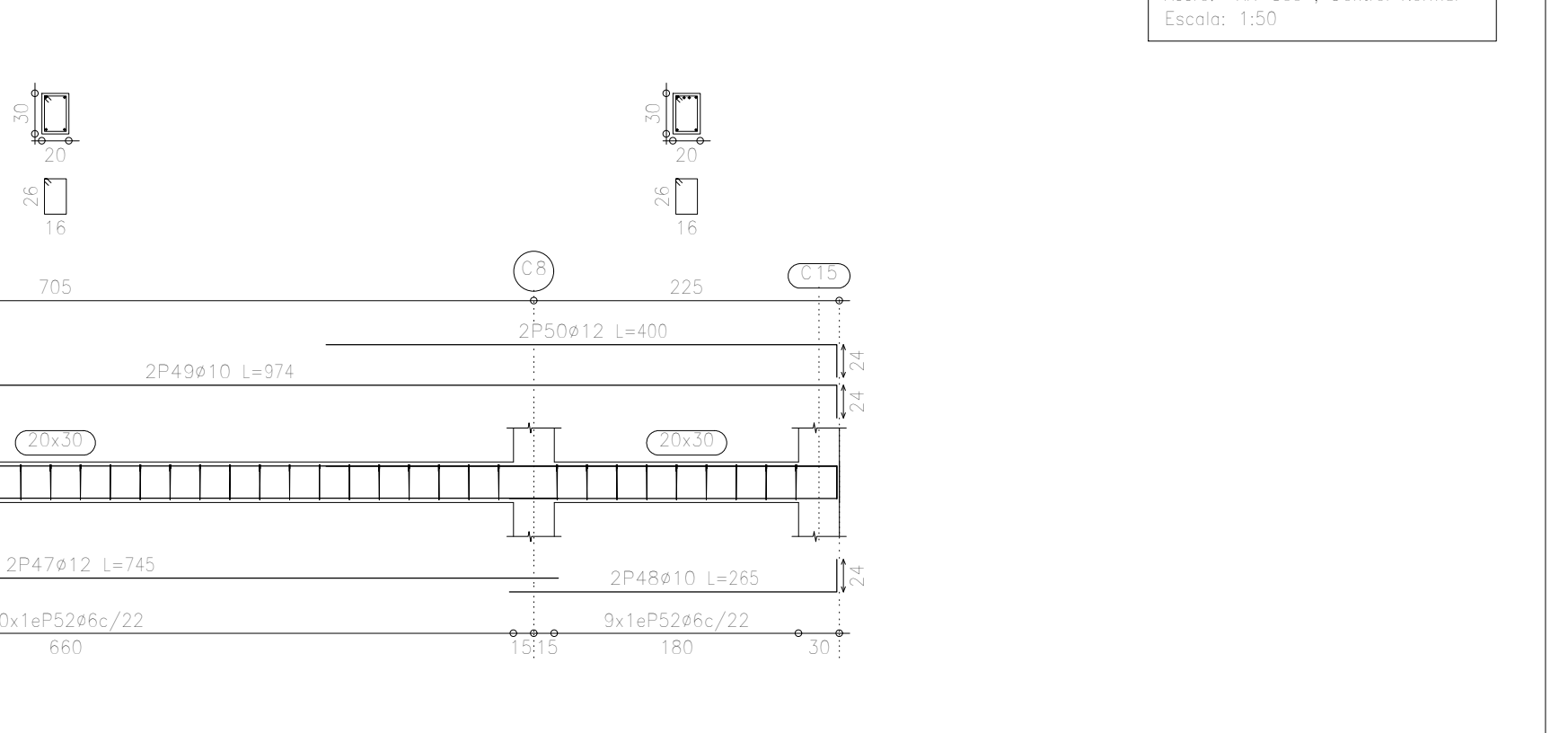
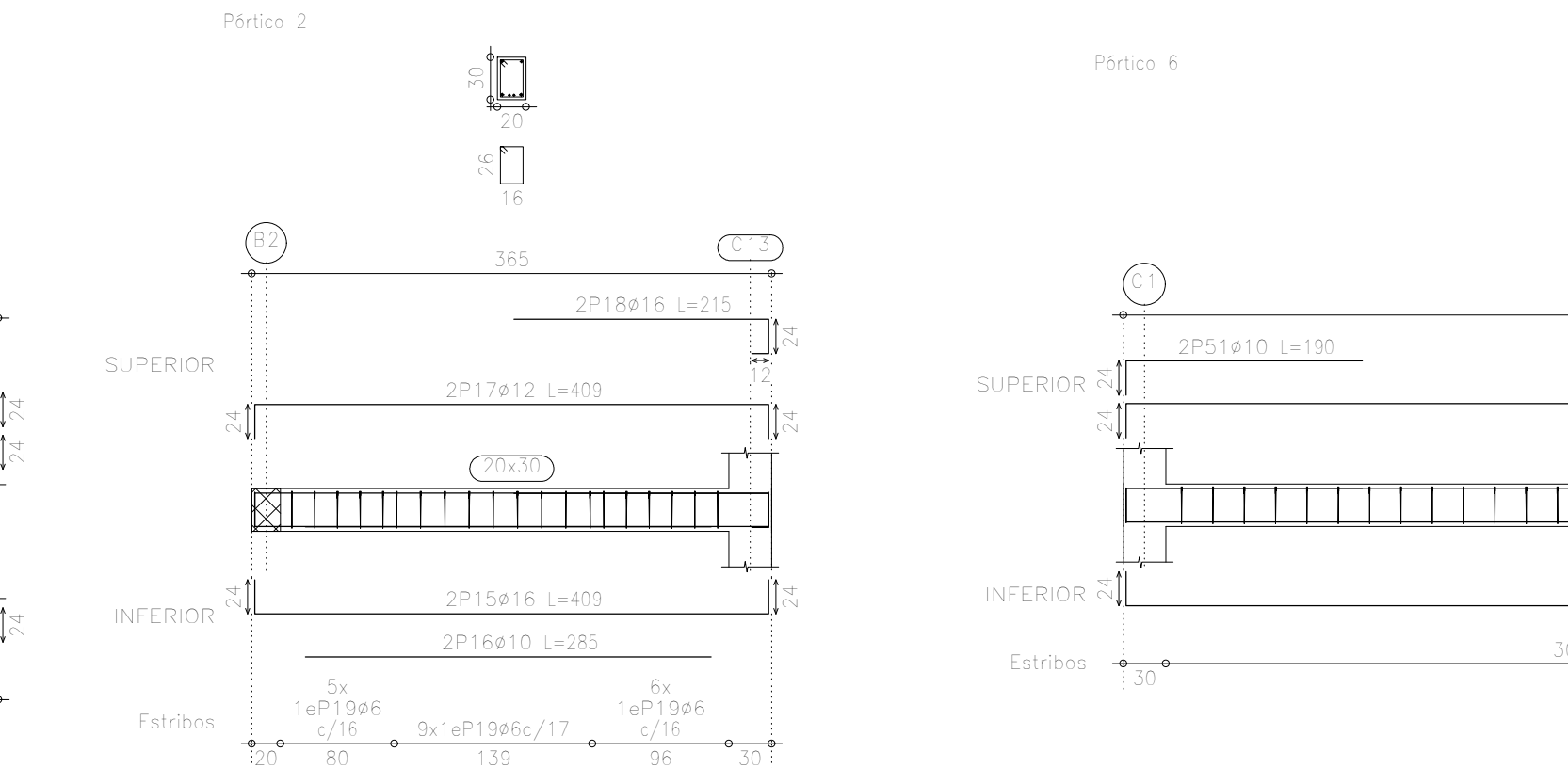
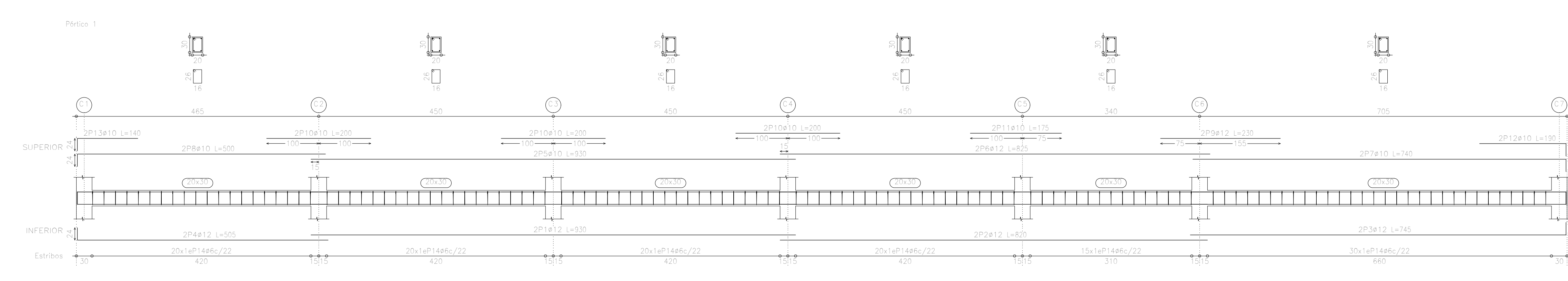
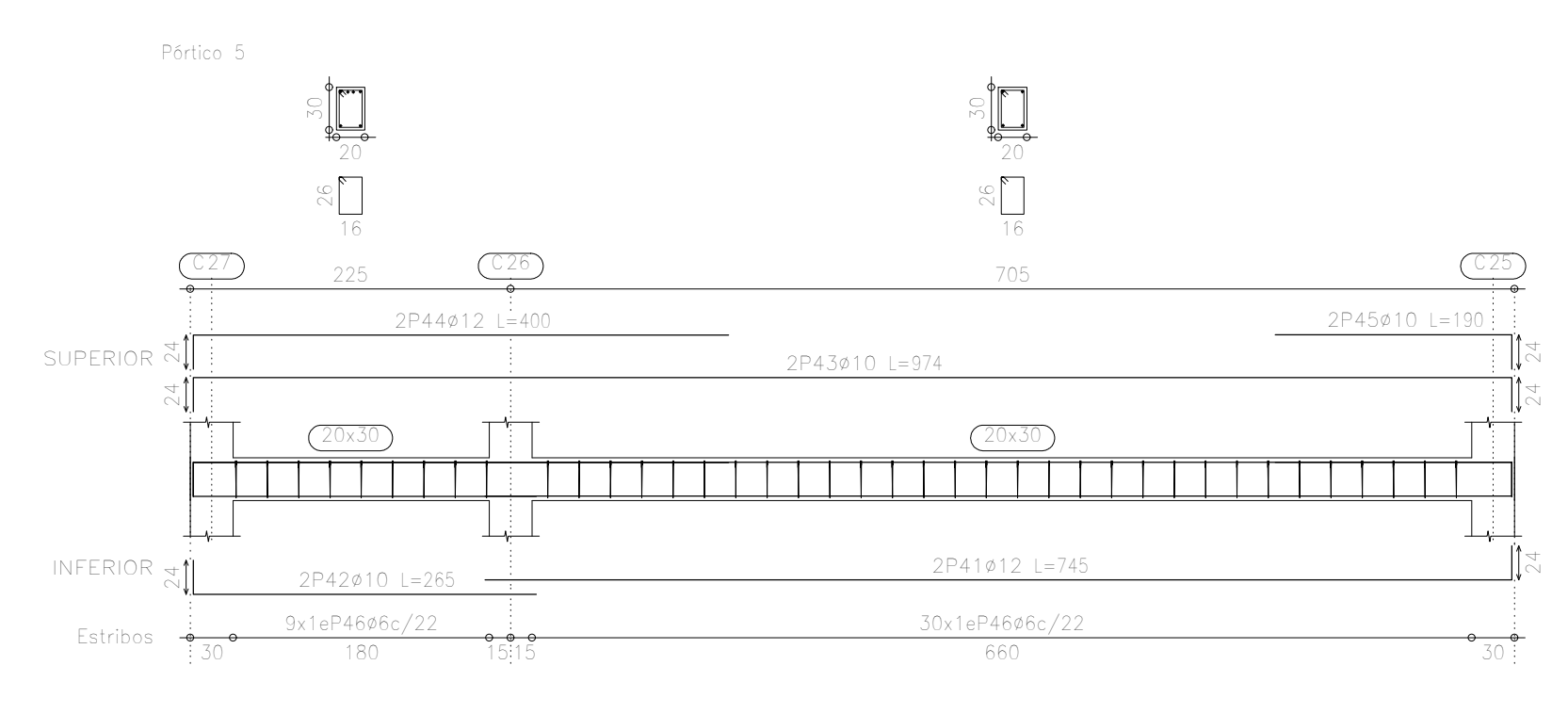
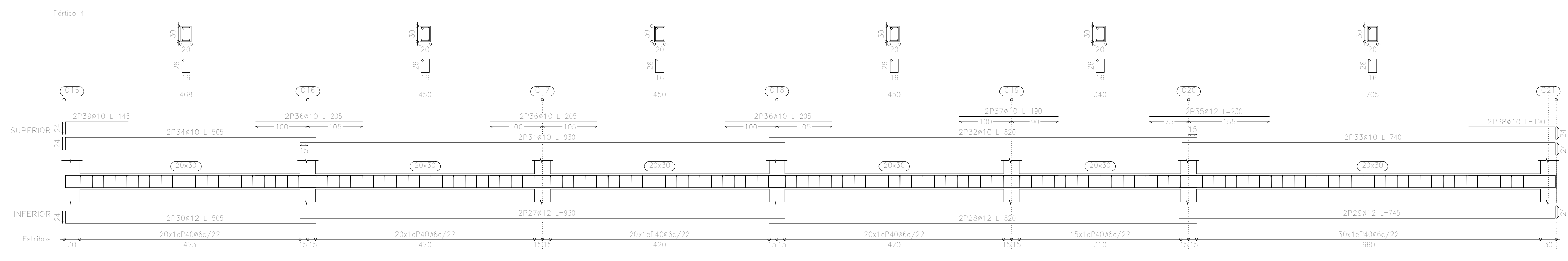
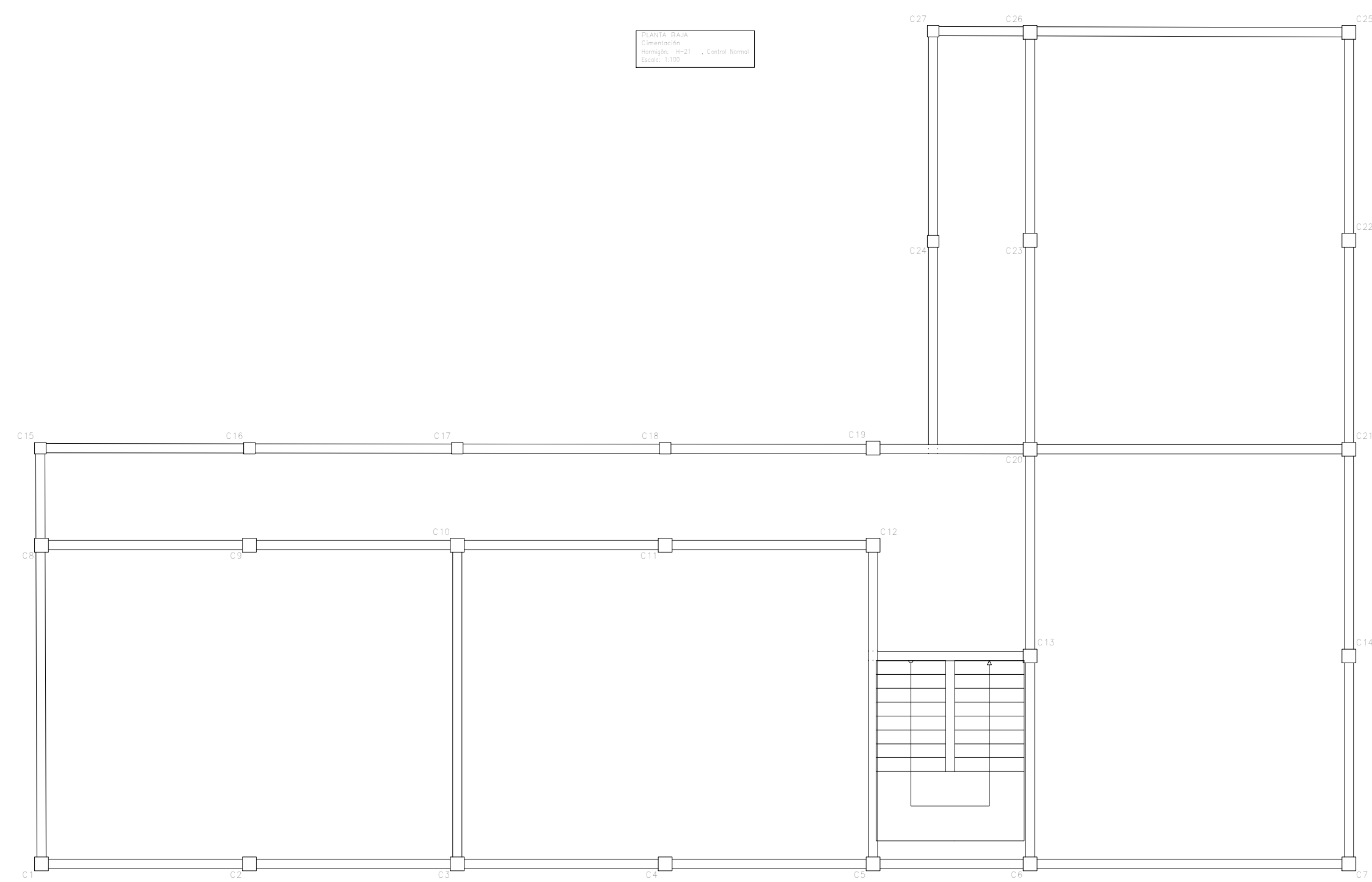


Pilares que terminan en PLANTA BAJA  
 Hormigón: H-21 , Control Normal  
 Acero: AH-500 , Control Normal  
 Escala: 1:50



Pilares que terminan en NIVEL - 2  
 Hormigón: H-21 , Control Normal  
 Acero: AH-500 , Control Normal  
 Escala: 1:50



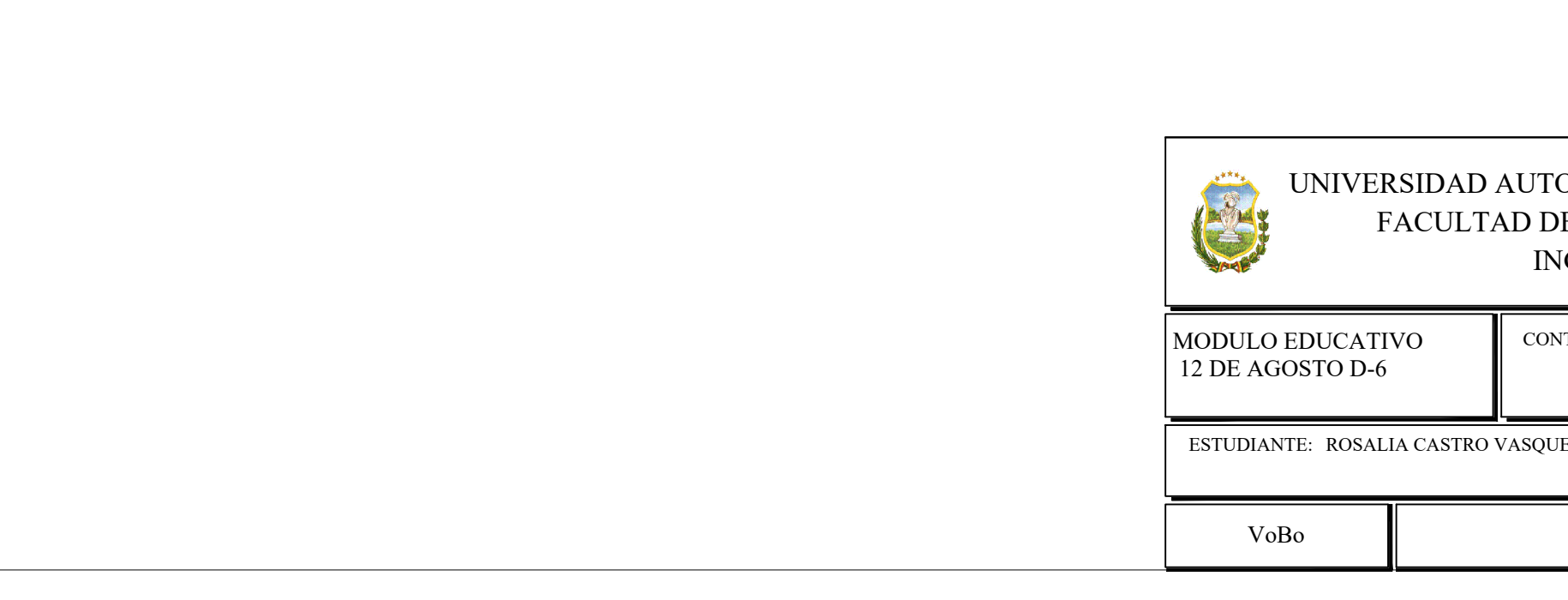
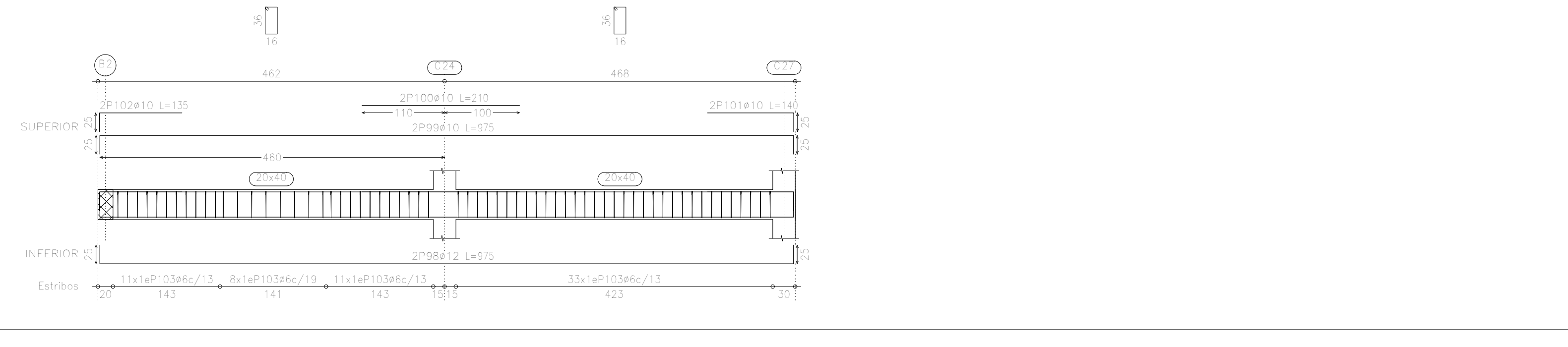
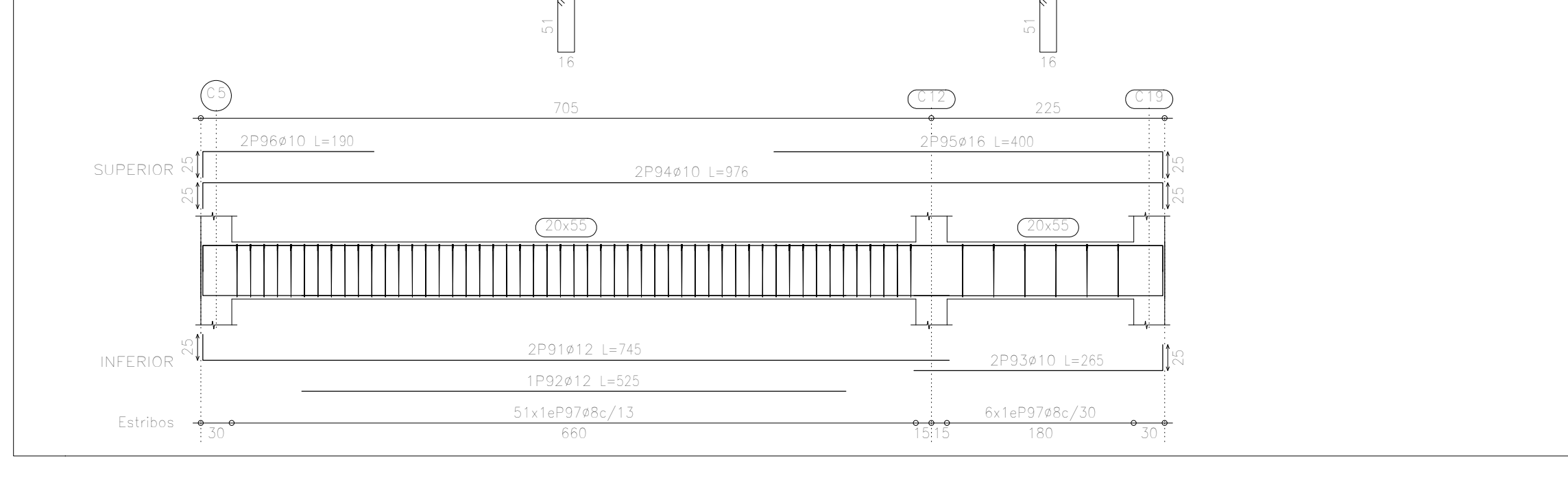
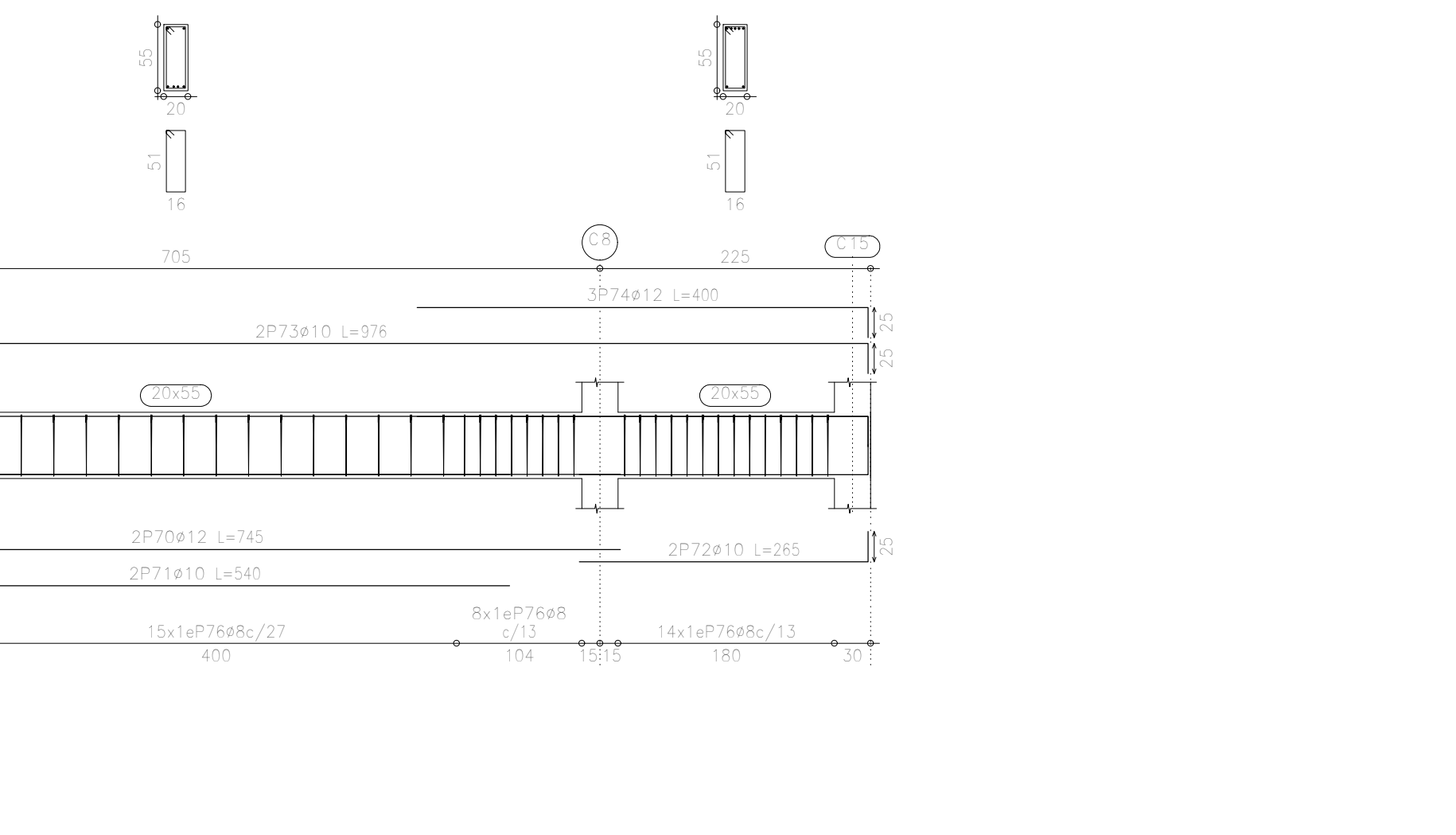
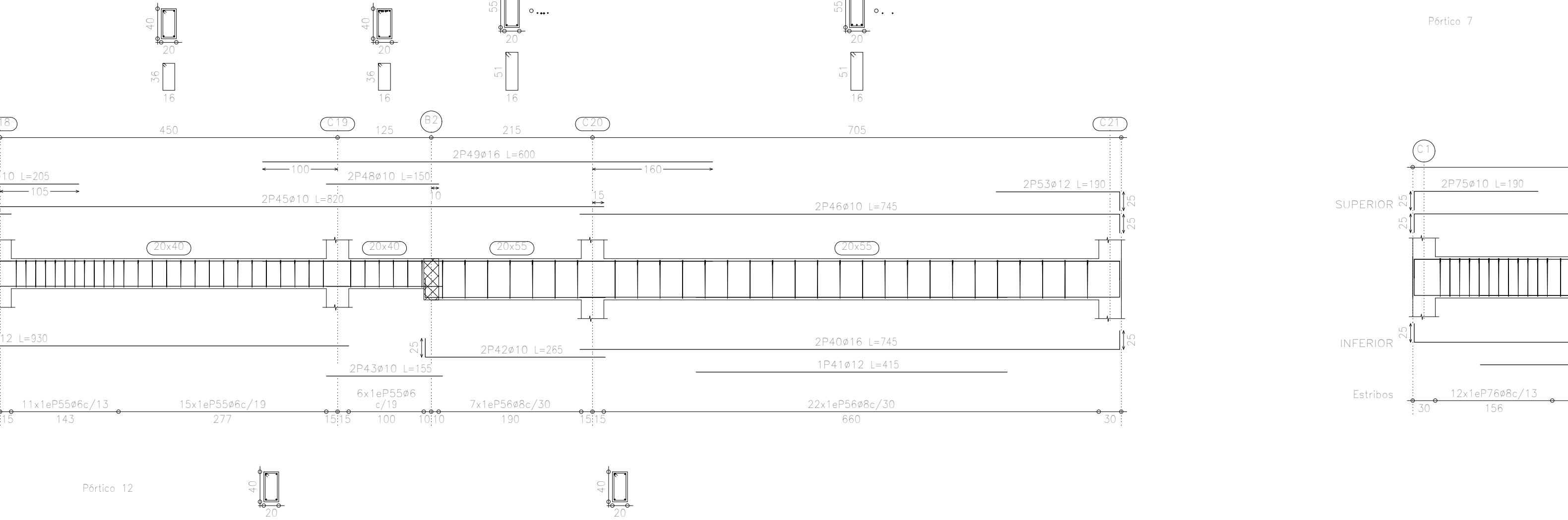
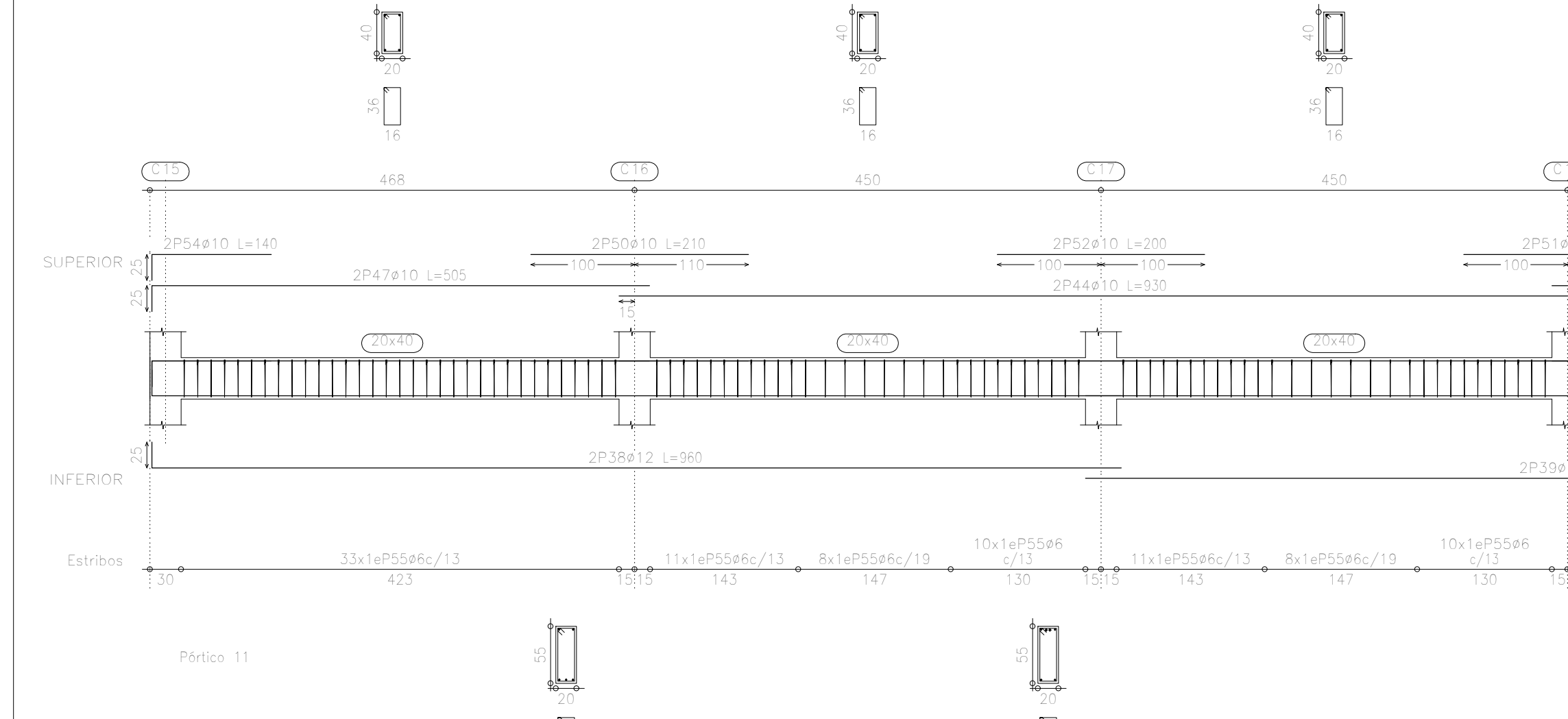
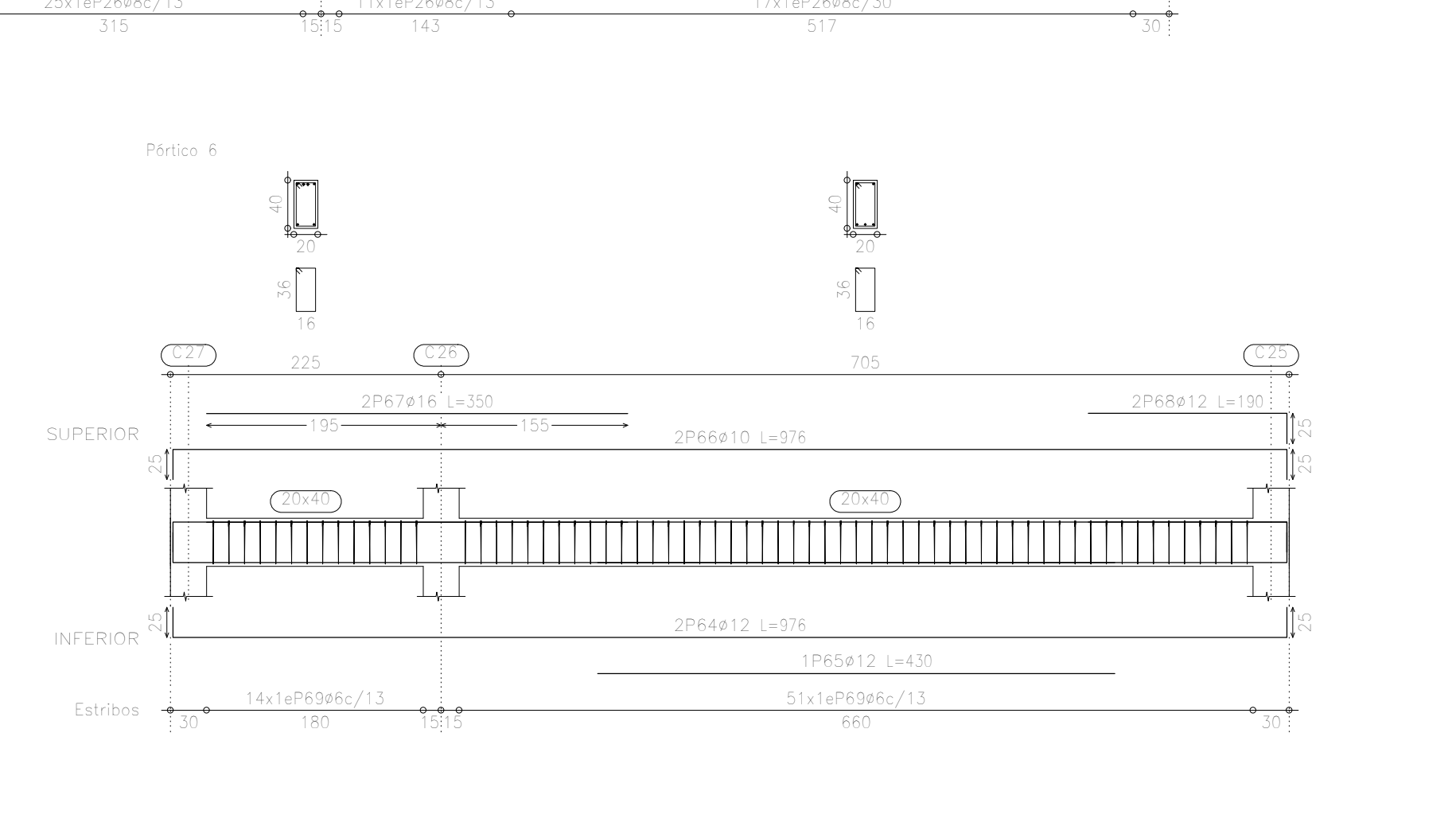
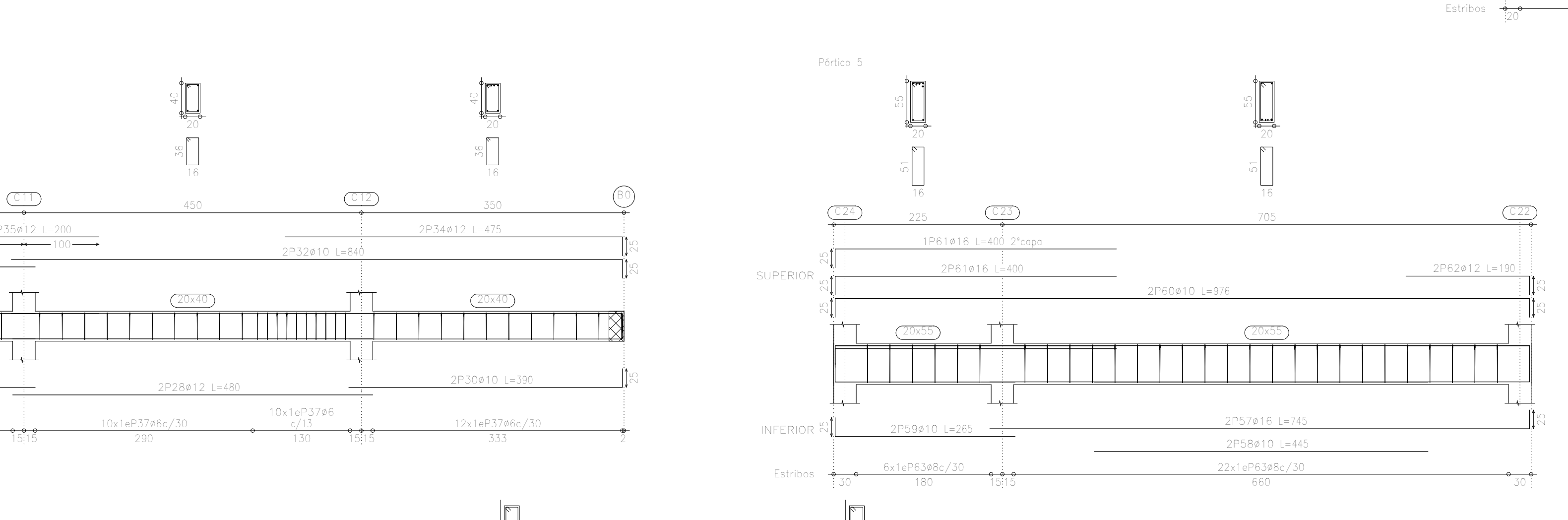
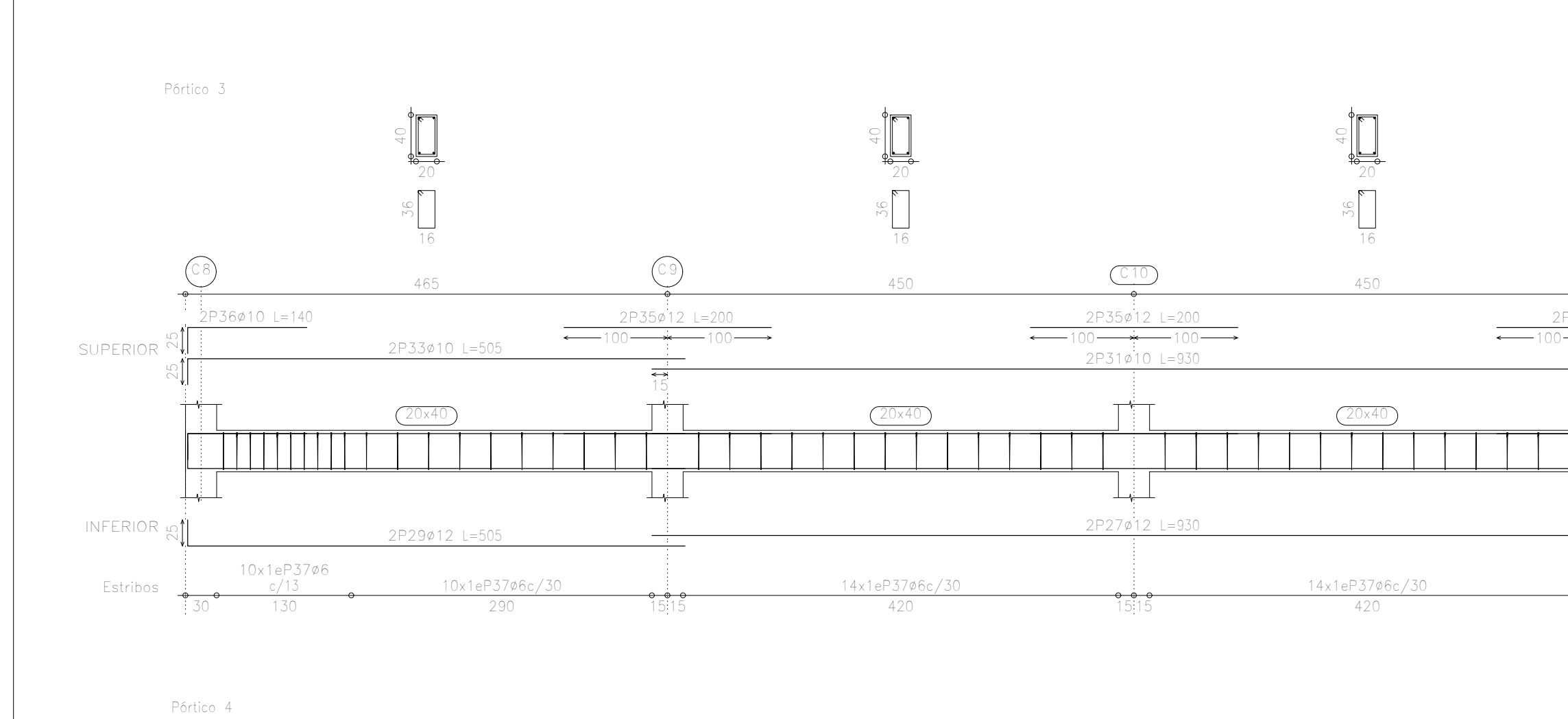
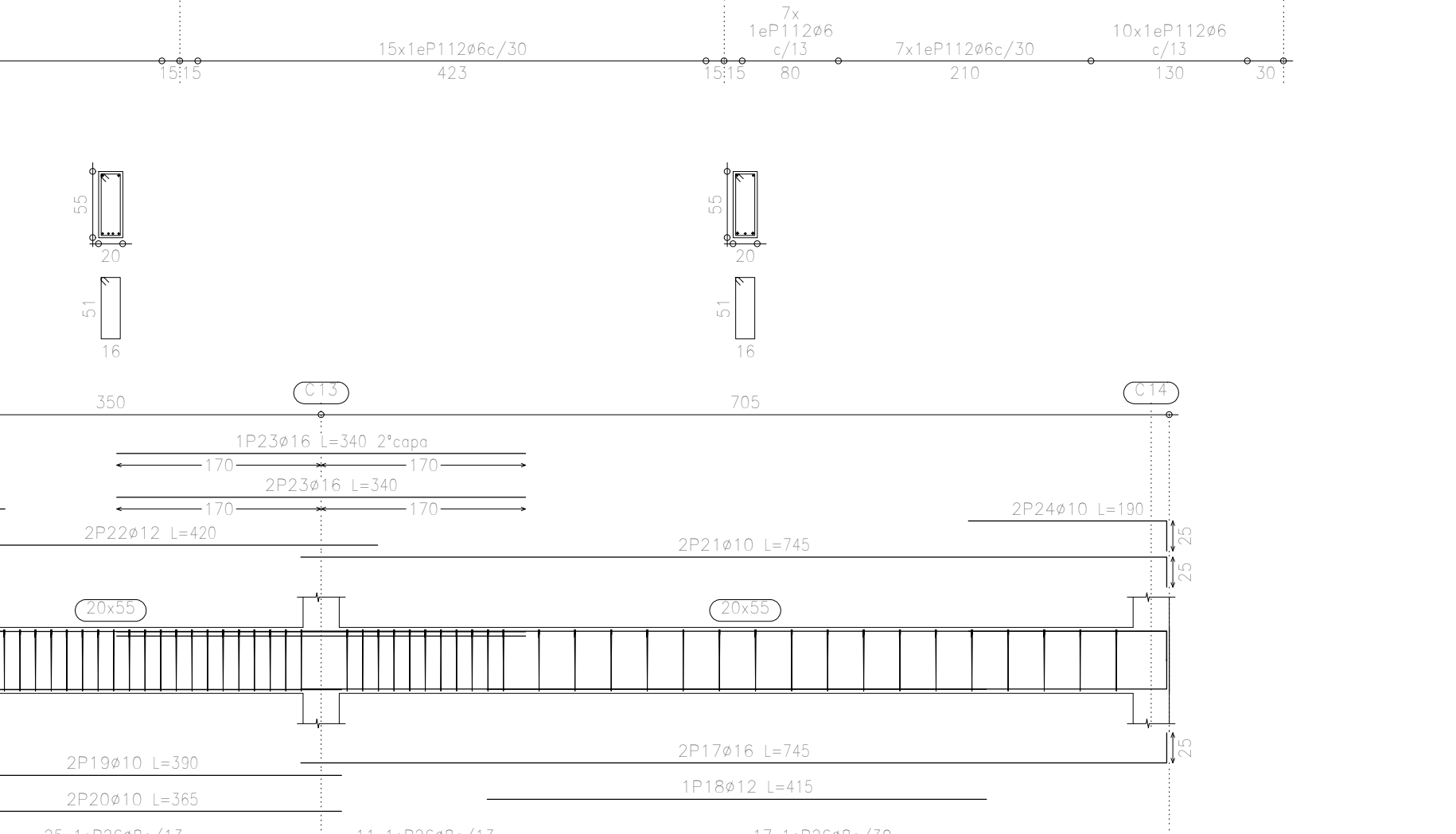
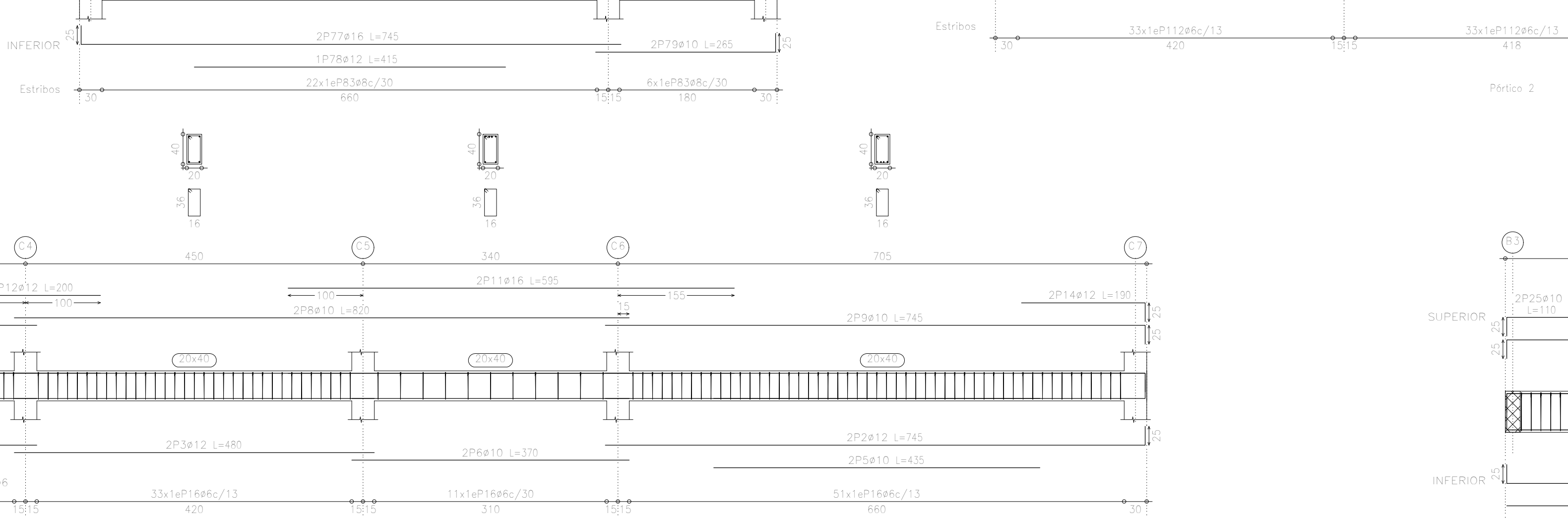
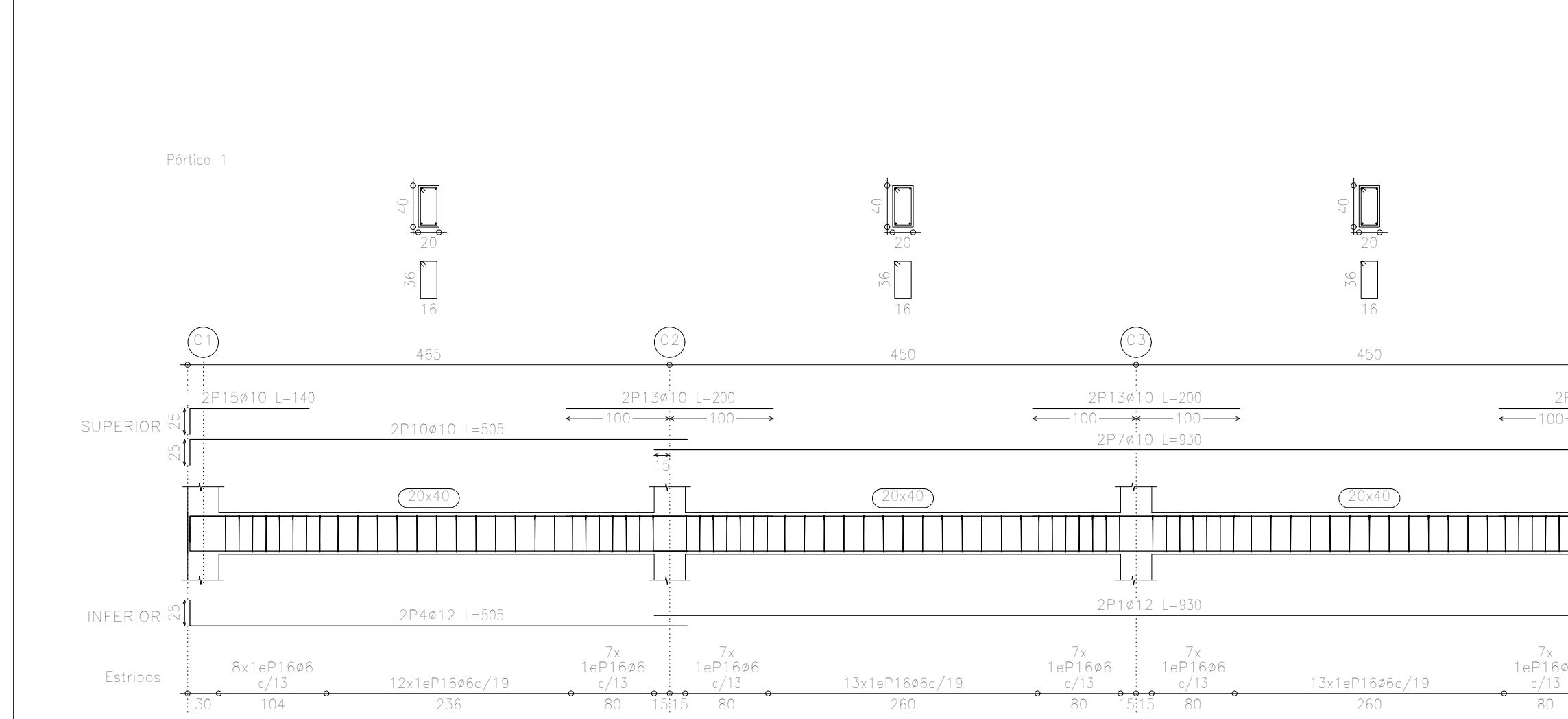
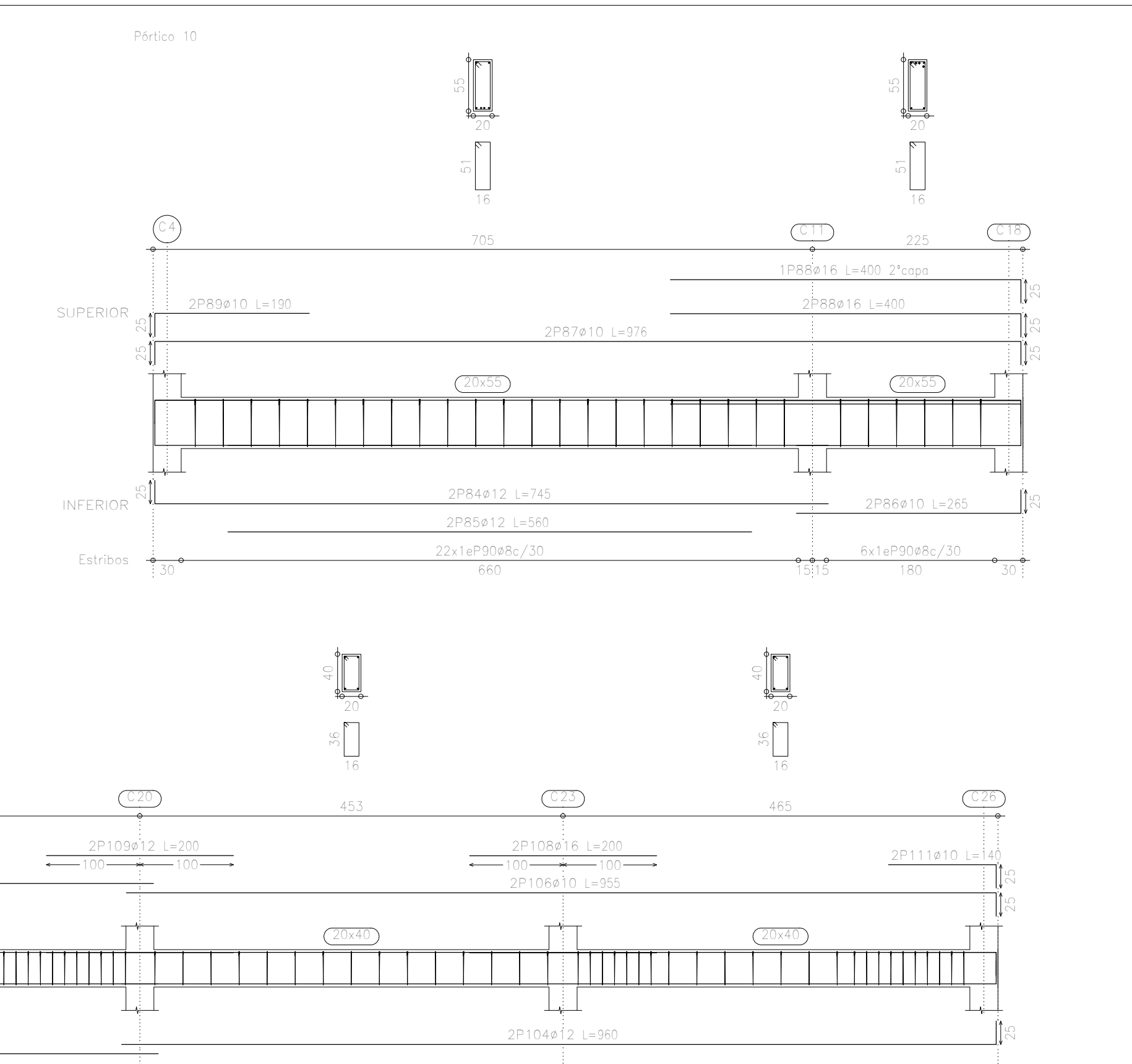
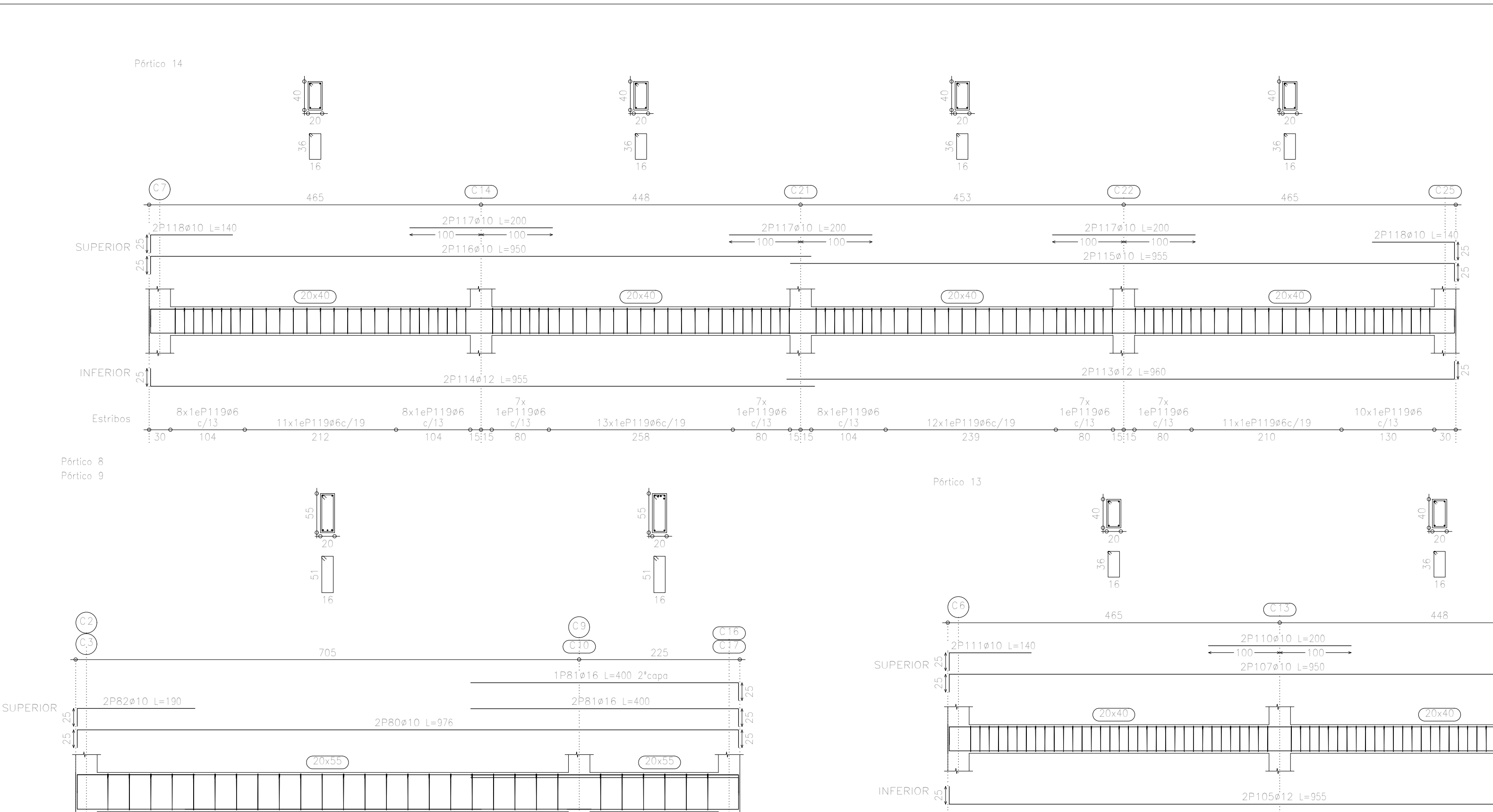
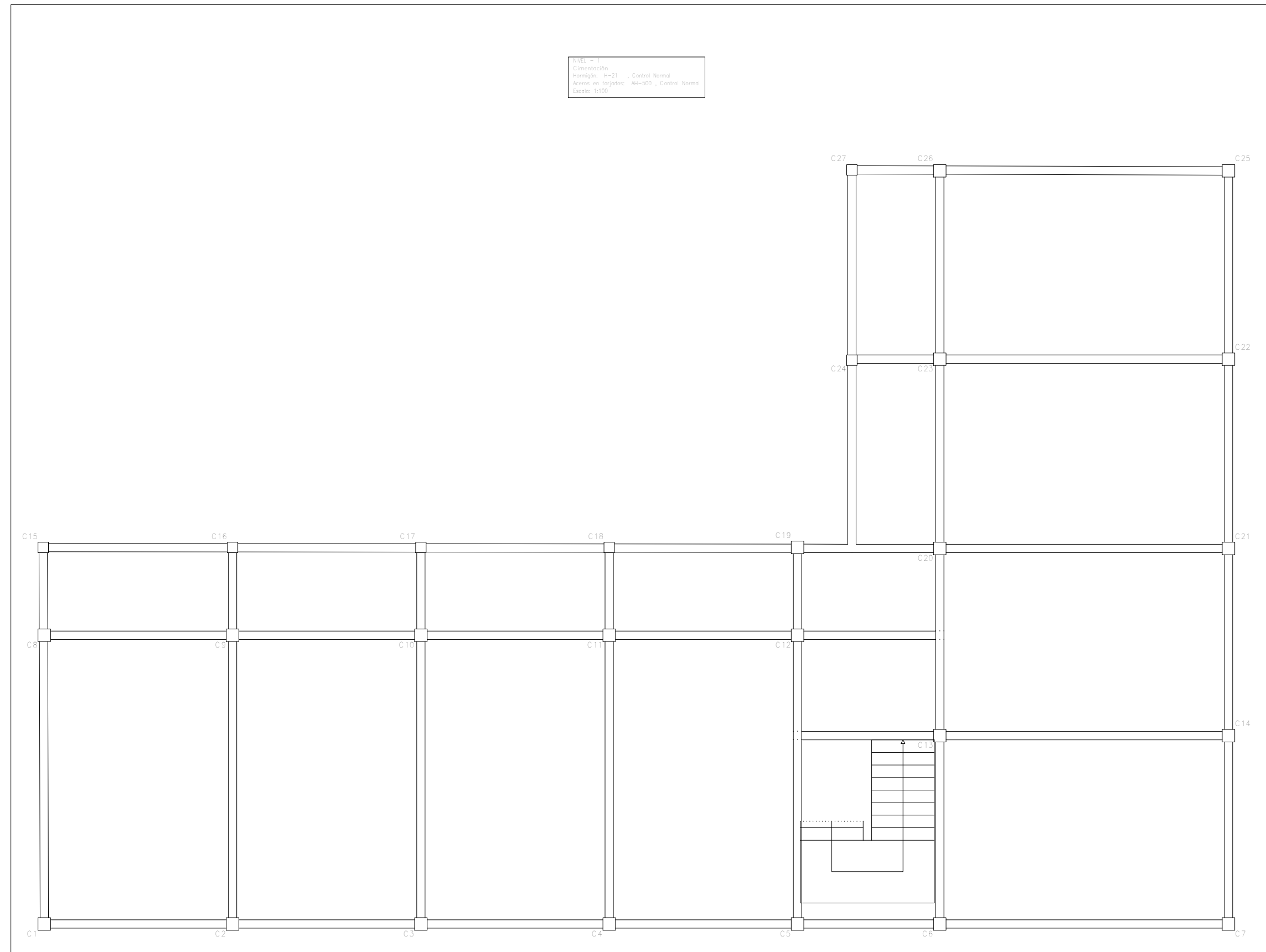


Elemento	Pos.	Subc.	Nº.	Long. (m)	Peso (kg)	Vol. (m³)
Piso 1	1	1	1	1.00	1.00	1.00
	2	1	2	1.00	1.00	1.00
	3	1	3	1.00	1.00	1.00
	4	1	4	1.00	1.00	1.00
	5	1	5	1.00	1.00	1.00
	6	1	6	1.00	1.00	1.00
	7	1	7	1.00	1.00	1.00
	8	1	8	1.00	1.00	1.00
	9	1	9	1.00	1.00	1.00
	10	1	10	1.00	1.00	1.00
	11	1	11	1.00	1.00	1.00
	12	1	12	1.00	1.00	1.00
Piso 2	1	1	1.00	1.00	1.00	
	2	1	2.00	2.00	2.00	
	3	1	3.00	3.00	3.00	
	4	1	4.00	4.00	4.00	
	5	1	5.00	5.00	5.00	
	6	1	6.00	6.00	6.00	
	7	1	7.00	7.00	7.00	
	8	1	8.00	8.00	8.00	
	9	1	9.00	9.00	9.00	
	10	1	10.00	10.00	10.00	
	11	1	11.00	11.00	11.00	
	12	1	12.00	12.00	12.00	
Piso 3	1	1	1.00	1.00	1.00	
	2	1	2.00	2.00	2.00	
	3	1	3.00	3.00	3.00	
	4	1	4.00	4.00	4.00	
	5	1	5.00	5.00	5.00	
	6	1	6.00	6.00	6.00	
	7	1	7.00	7.00	7.00	
	8	1	8.00	8.00	8.00	
	9	1	9.00	9.00	9.00	
	10	1	10.00	10.00	10.00	
	11	1	11.00	11.00	11.00	
	12	1	12.00	12.00	12.00	
Piso 4	1	1	1.00	1.00	1.00	
	2	1	2.00	2.00	2.00	
	3	1	3.00	3.00	3.00	
	4	1	4.00	4.00	4.00	
	5	1	5.00	5.00	5.00	
	6	1	6.00	6.00	6.00	
	7	1	7.00	7.00	7.00	
	8	1	8.00	8.00	8.00	
	9	1	9.00	9.00	9.00	
	10	1	10.00	10.00	10.00	
	11	1	11.00	11.00	11.00	
	12	1	12.00	12.00	12.00	

Resumen Acero	Long. total (m)	Peso +10% (kg)	Total
PLANTA BAJA			
Vigas	452.8	159	
Ø8	15.0	7	
Ø10	428.8	291	
Ø12	373.5	385	
Ø16	51.7	95	912

PLANTA BAJA  
 Desplaz. de vigas  
 Homólogo: 60.21 Control Normal  
 Acero: AII-500 Control Normal  
 Escala: 1:50





Elemento	Piso	Vol. (m³)	Long. (m)	Area (m²)	Peso (kg)
Vigas	1	20x40	100	0.8	100
		20x30	100	0.6	75
		20x25	100	0.4	50
		20x20	100	0.3	37.5
		20x15	100	0.2	25
		20x10	100	0.15	18.75
		20x8	100	0.1	12.5
		20x6	100	0.07	8.75
		20x4	100	0.04	5
		20x3	100	0.03	3.75
		20x2	100	0.02	2.5
		20x1	100	0.01	1.25
Columnas	1	40x40	100	1.6	200
		30x30	100	0.9	112.5
		20x20	100	0.4	50
		20x15	100	0.3	37.5
		20x10	100	0.2	25
		20x8	100	0.15	18.75
		20x6	100	0.1	12.5
		20x4	100	0.07	8.75
		20x3	100	0.05	6.25
		20x2	100	0.03	3.75
		20x1	100	0.02	2.5

Resumen Acero	Long. total (m)	Peso + 10% (kg)	Total
Vigas	836.4	204	
Columnas	455.2	119	
Ø10	332.1	383	
Ø12	175.6	305	149

NOTA: - 1  
 Desplaz. de vigas  
 Horizontal: 1/20 ; Control Normal  
 Acero: A400 ; Control Normal  
 Escala: 1:50

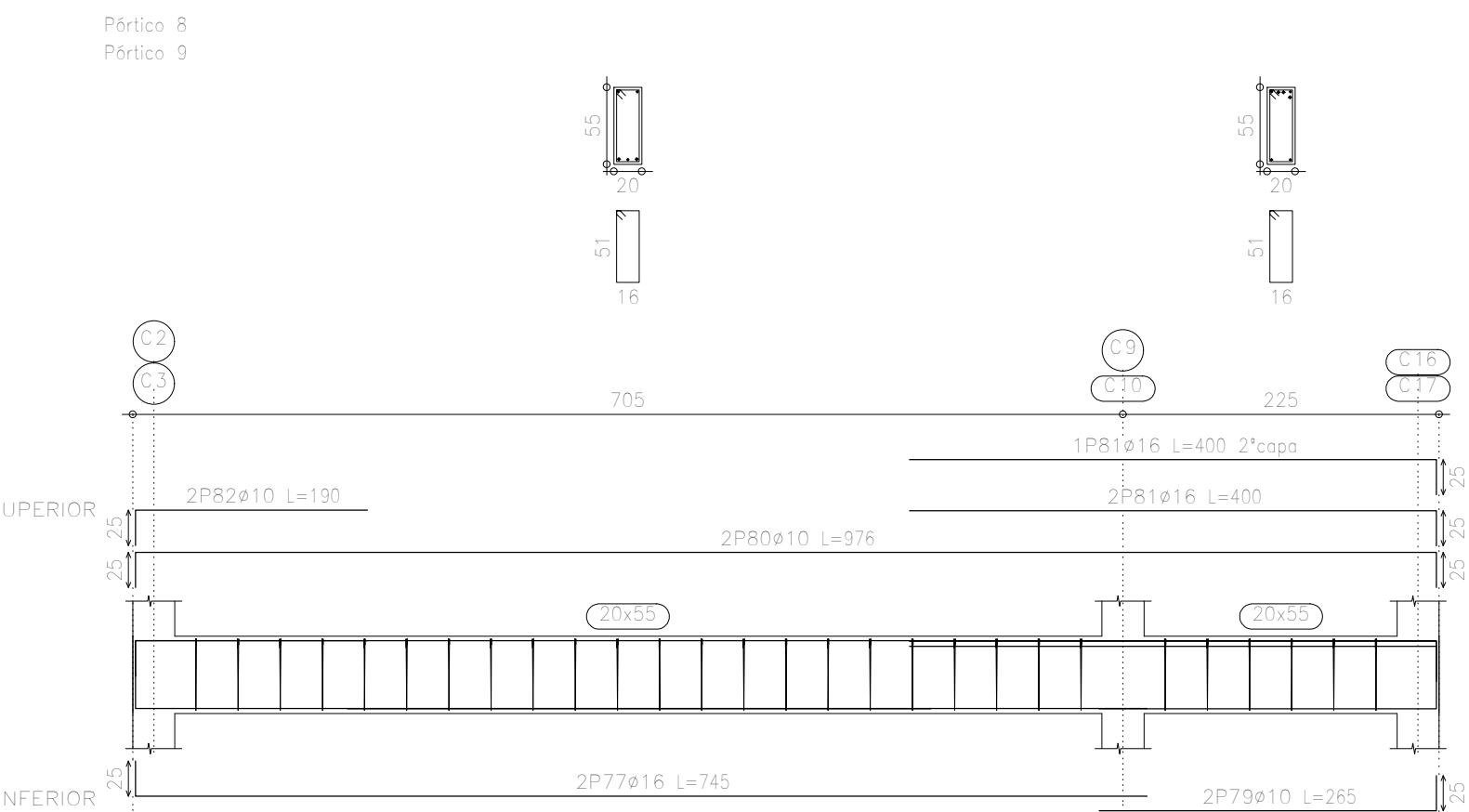
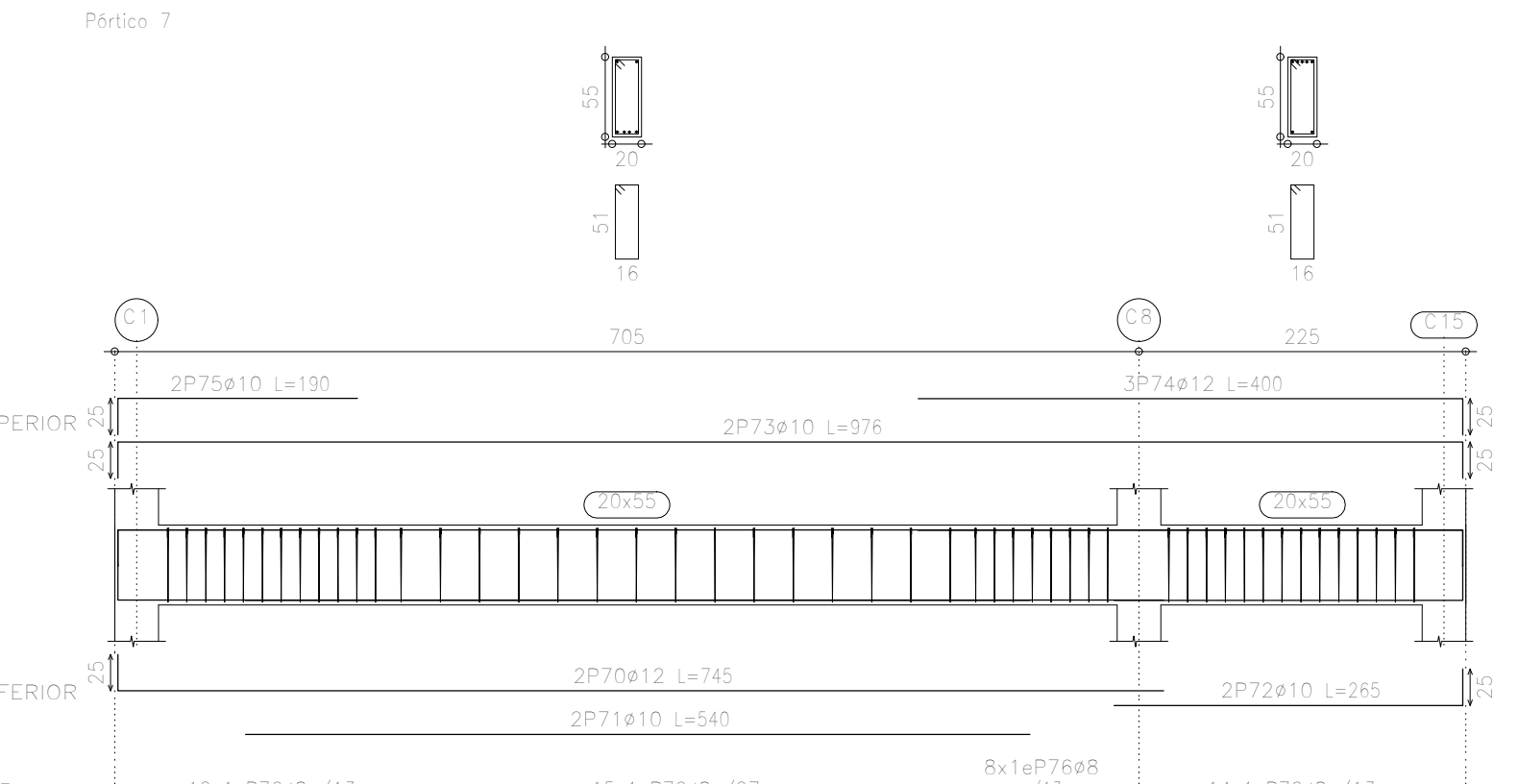
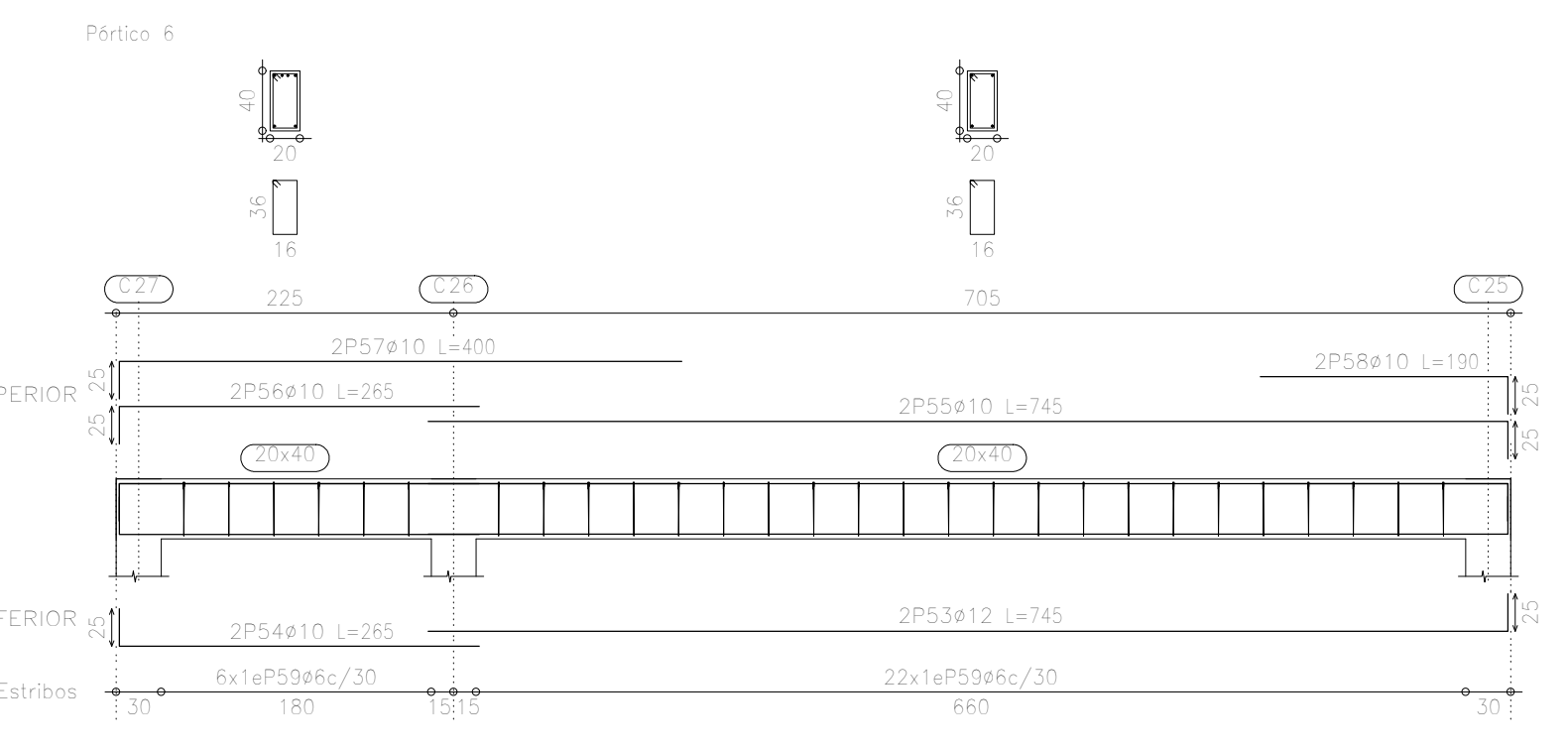
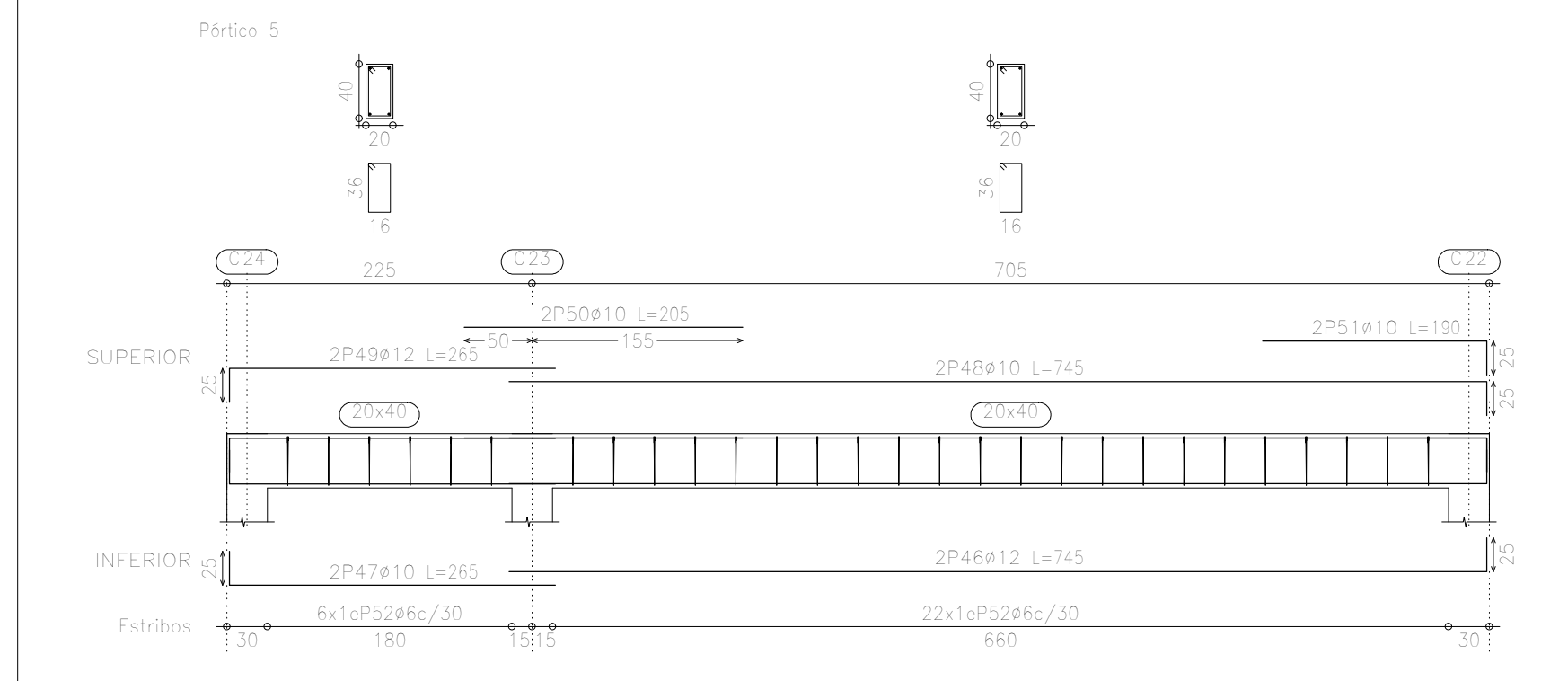
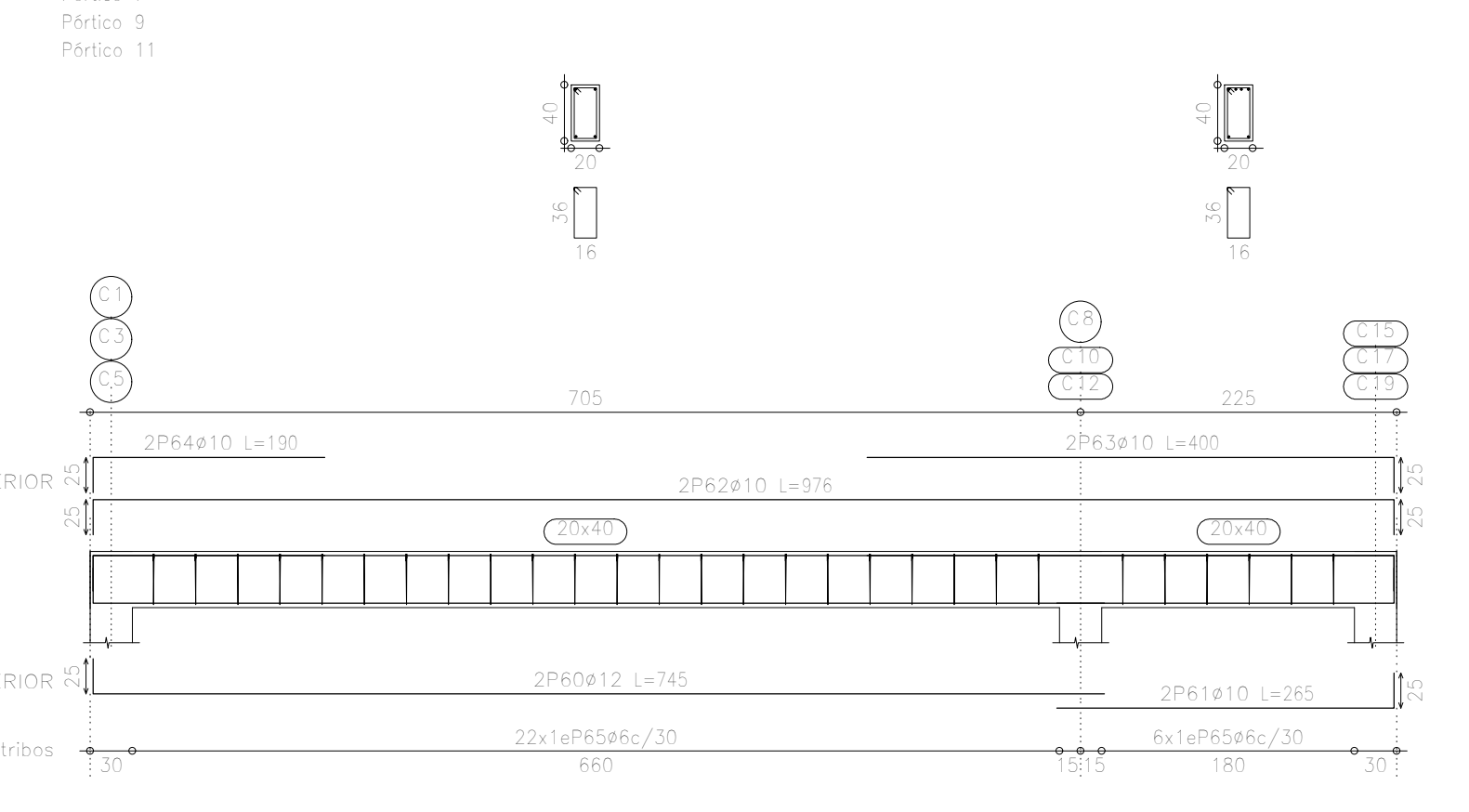
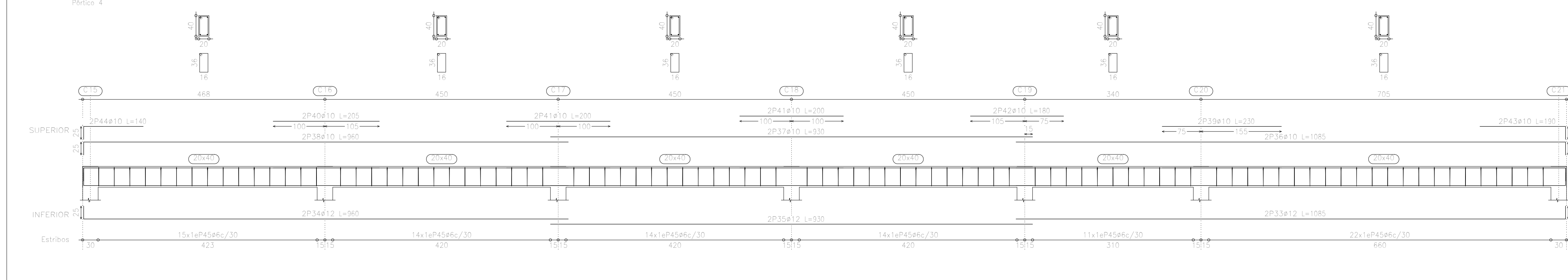
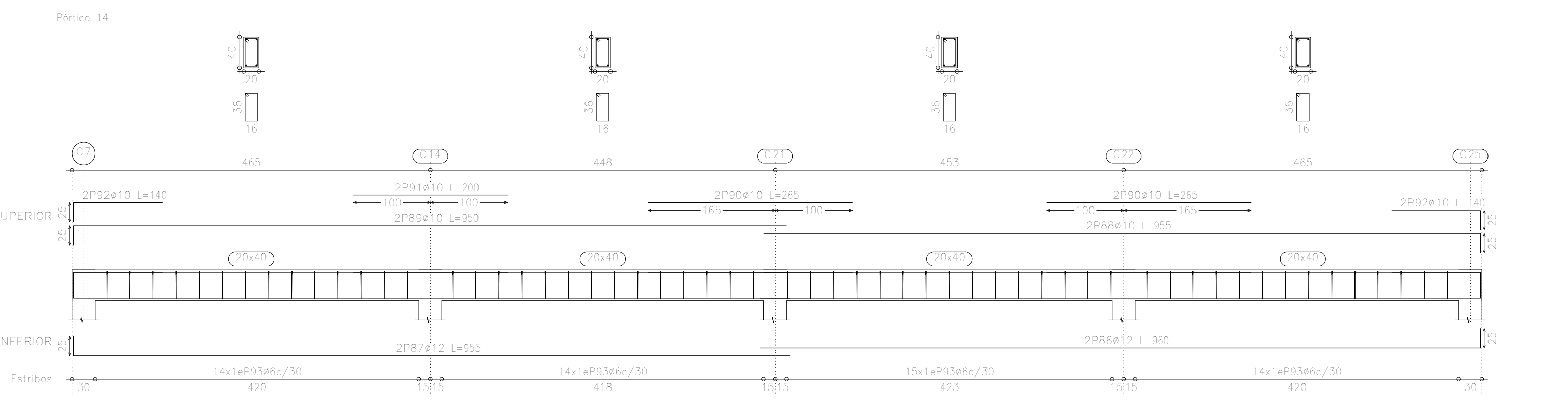
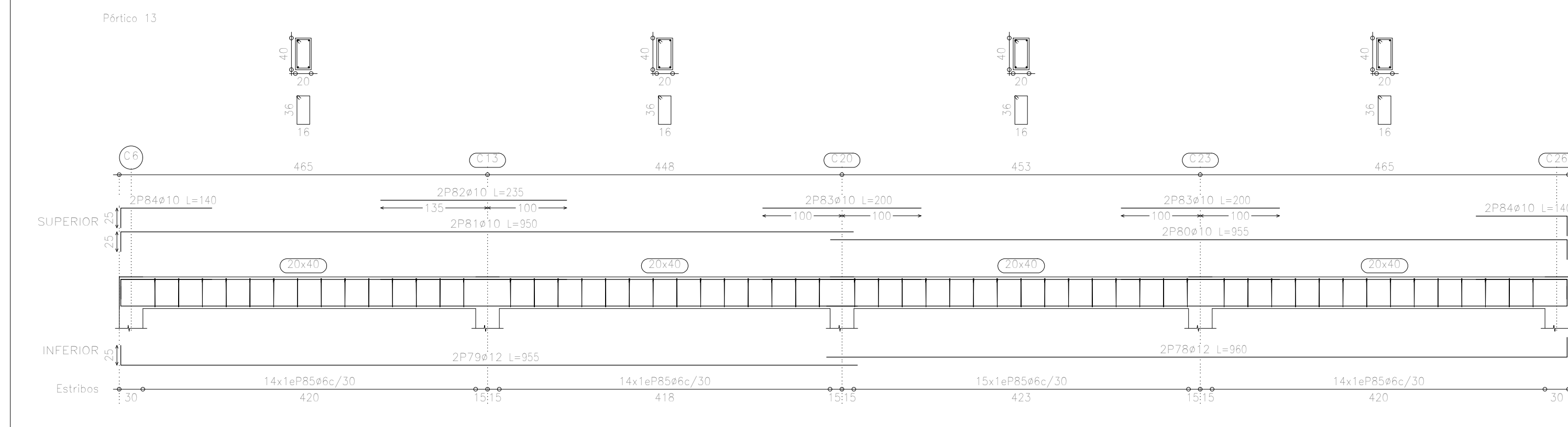
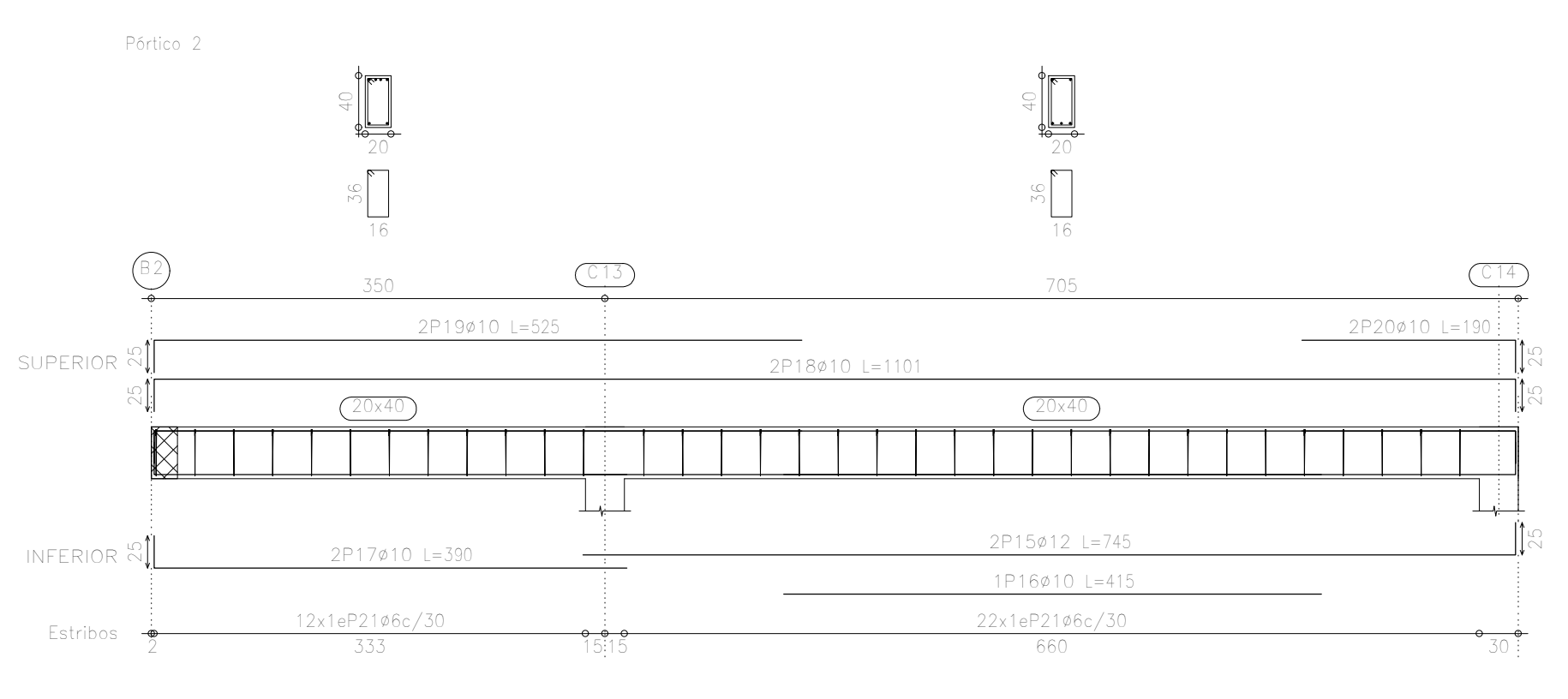
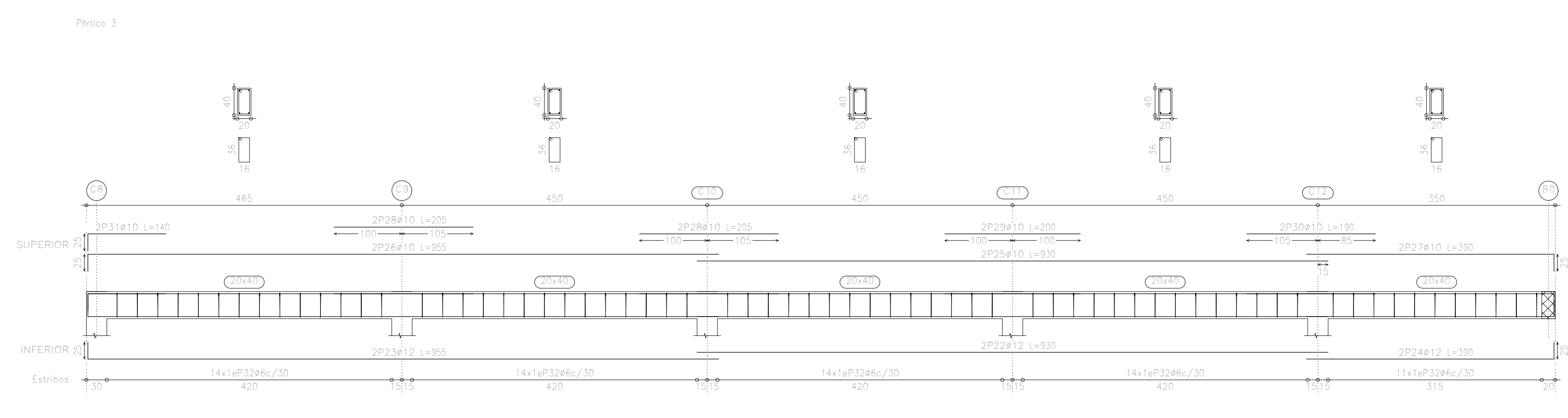
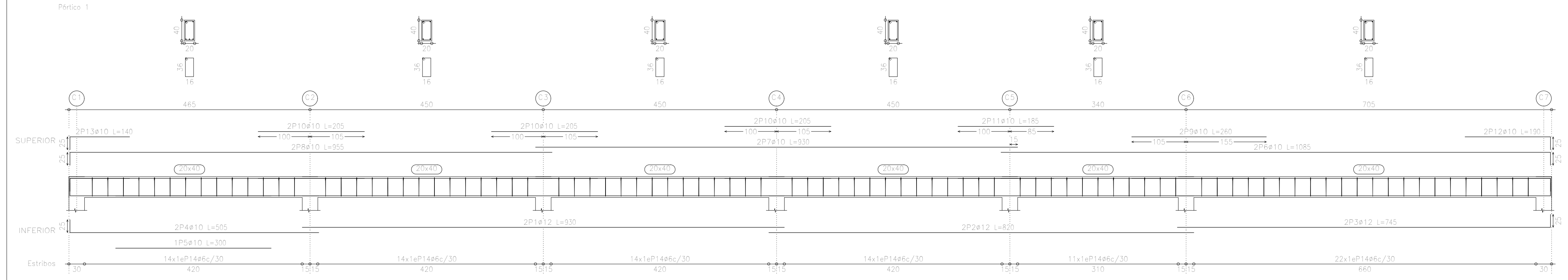
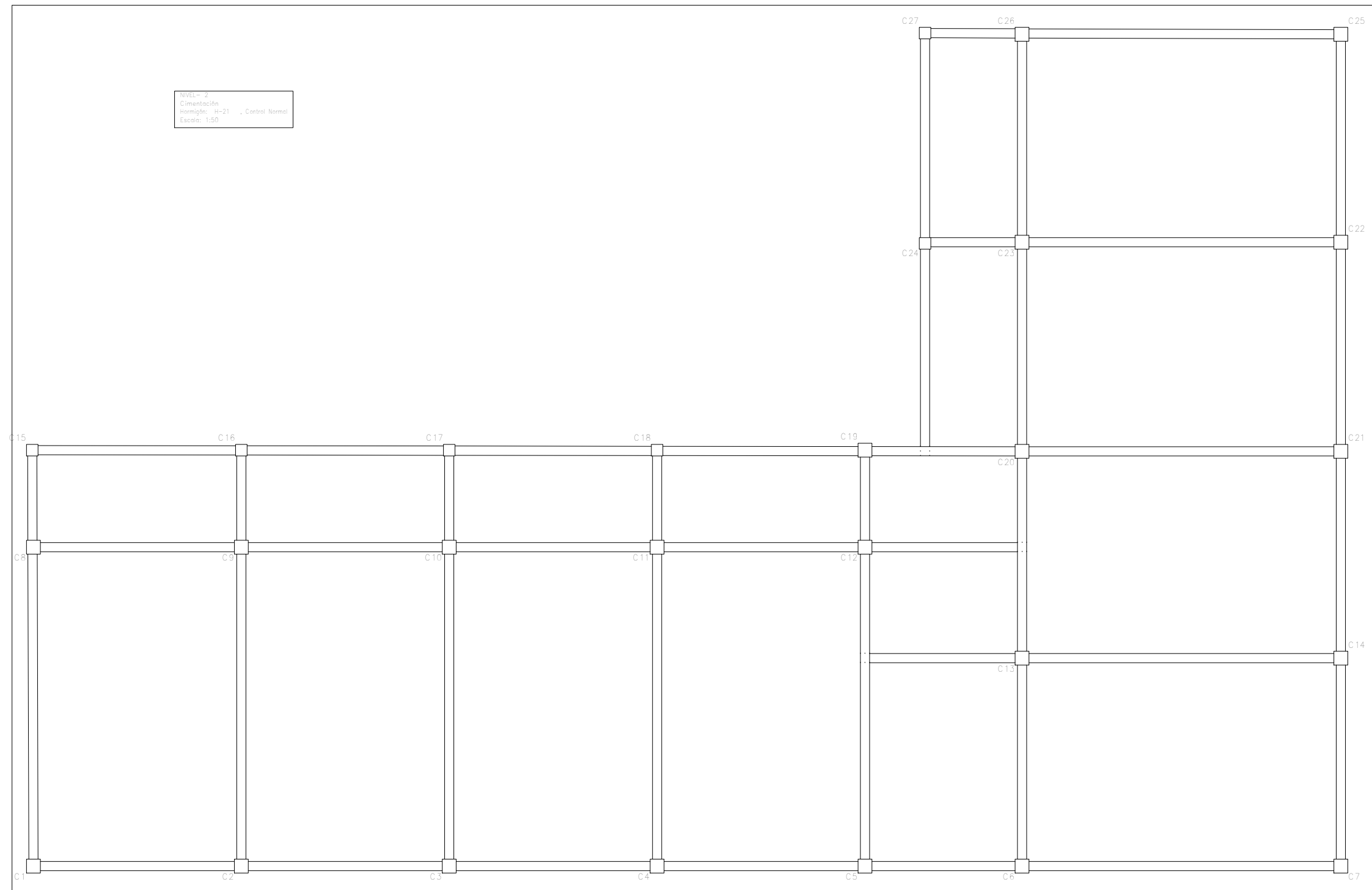
UNIVERSIDAD AUTÓNOMA "JUAN MISAEL SARACHO"  
 FACULTAD DE CIENCIAS Y TECNOLOGÍA  
 INGENIERÍA CIVIL

MODULO EDUCATIVO 12 DE AGOSTO D-6  
 CONTENIDO: ARMADO DE VIGAS

ESTUDIANTE: ROSALIA CASTRO VASQUEZ  
 ESCALA: 1:50  
 LAMINA: 5/10

VoBo  
 FECHA: JUNIO 2022





Elemento	Vol.	Diám.	Long. (m)	Vol. (m³)	Peso (kg)
Pélica 1	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 2	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 3	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 4	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 5	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 6	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 7	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 8	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 9	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 10	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 11	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 12	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 13	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1
Pélica 14	1	#12	100	0.001	1.1
	2	#10	100	0.001	1.1
	3	#10	100	0.001	1.1
	4	#10	100	0.001	1.1
	5	#10	100	0.001	1.1
	6	#10	100	0.001	1.1
	7	#10	100	0.001	1.1
	8	#10	100	0.001	1.1
	9	#10	100	0.001	1.1
	10	#10	100	0.001	1.1
	11	#10	100	0.001	1.1

Resumen Acero	Long. total (m)	Peso +10% (kg)	Total
Nivel - 2 Vigas			
#6	759.2	178	
#10	672.7	456	
#12	386.1	377	1009

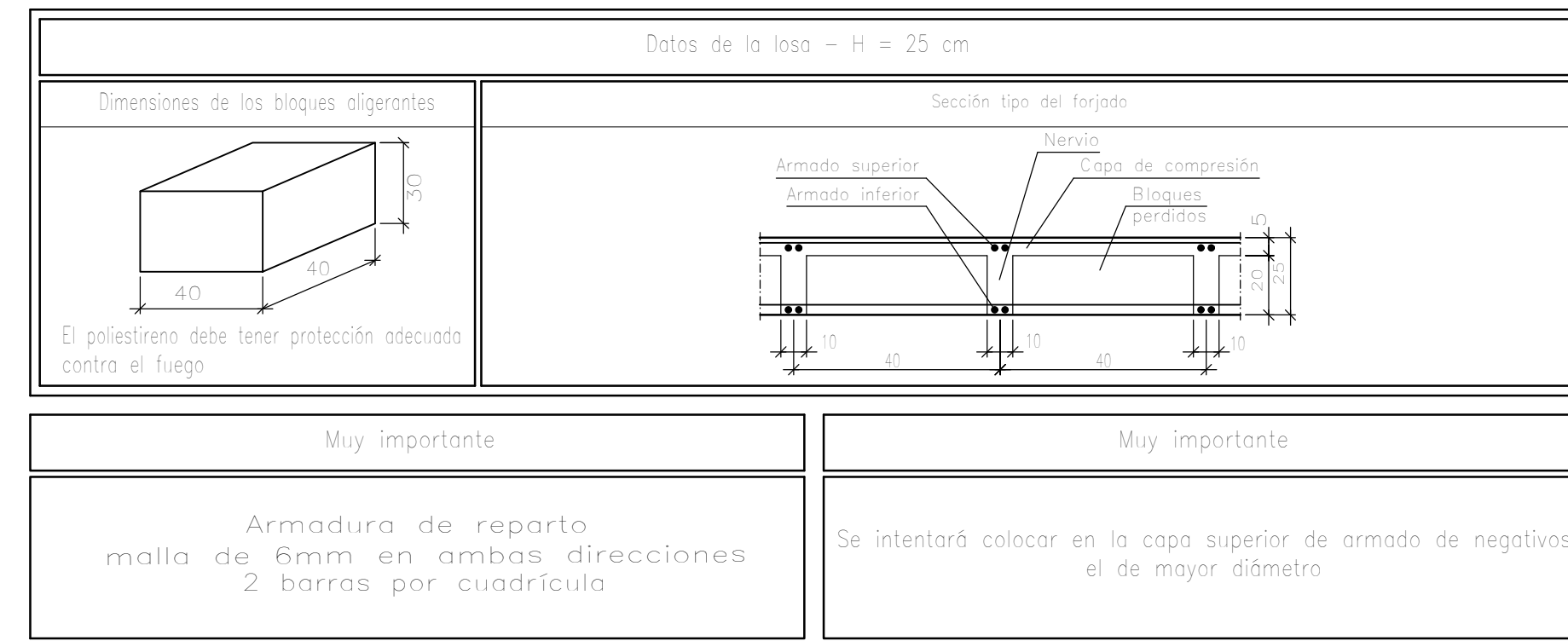
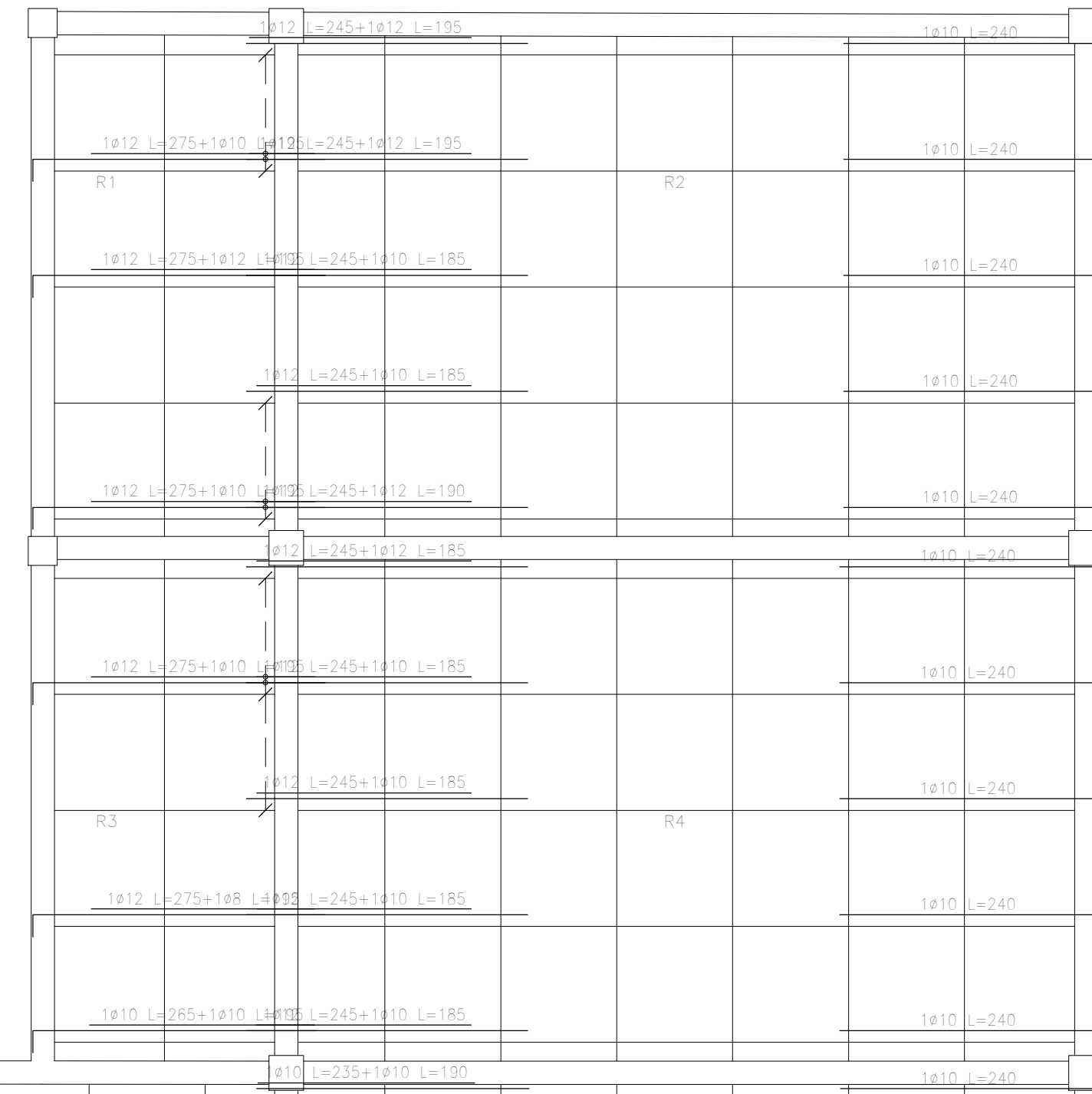
Nivel - 2  
 Desplazamiento de vigas  
 Homólogo: N-21 Control Normal  
 Acero: A600 Control Normal  
 Escala: 1:50

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

MODULO EDUCATIVO 12 DE AGOSTO D-6  
 ESTUDIANTE: ROSALIA CASTRO VASQUEZ

CONTENIDO: ARMADO DE VIGAS  
 ESCALA: LAMINA: 6/10  
 FECHA: JUNIO 2022

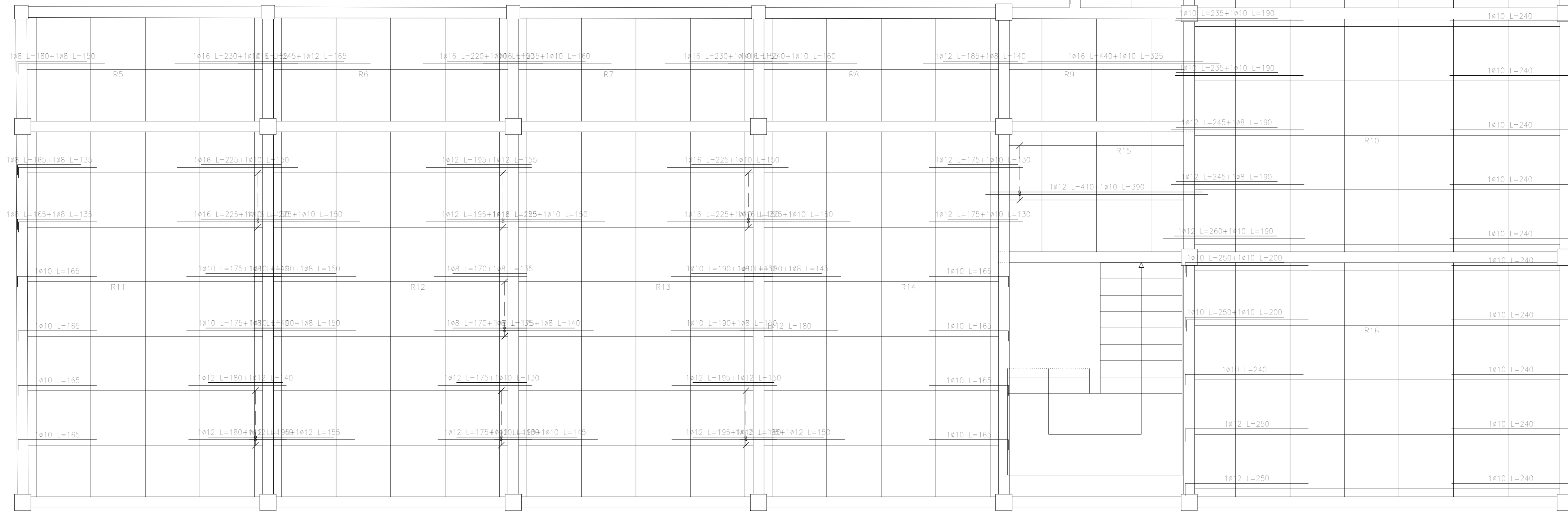
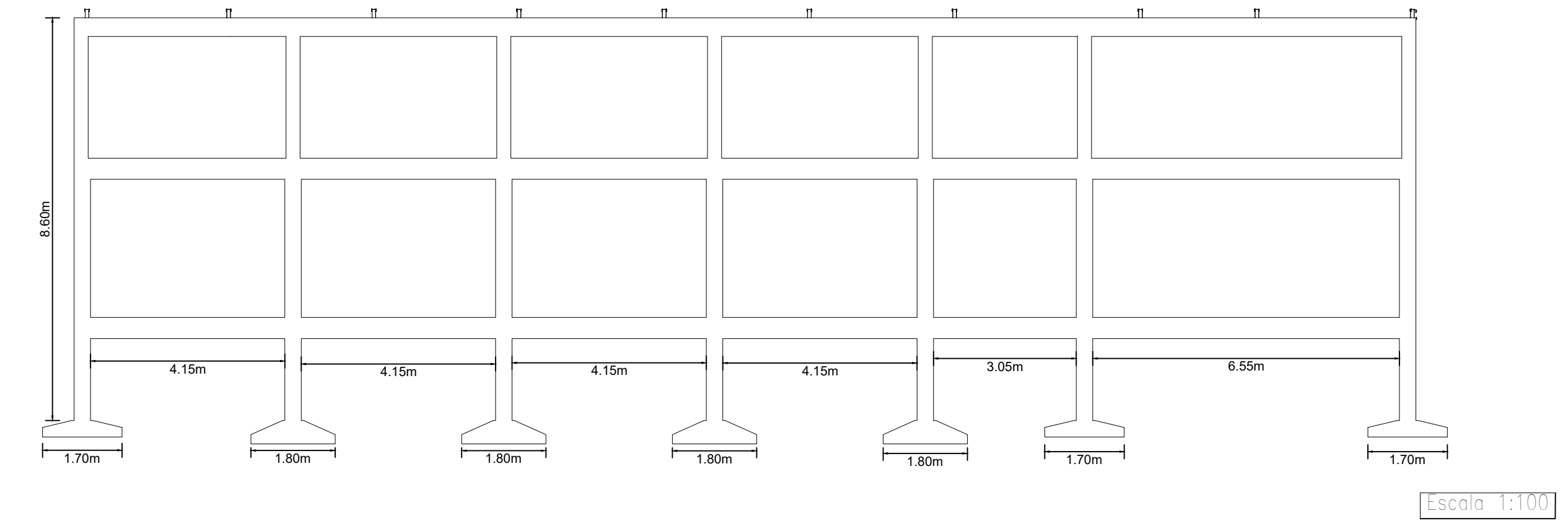
Nivel -1  
 Armadura longitudinal superior  
 Normativa: AS-21 - Control Normal  
 Acero en forjados: AS-500 - Control Normal  
 Escala: 1:50



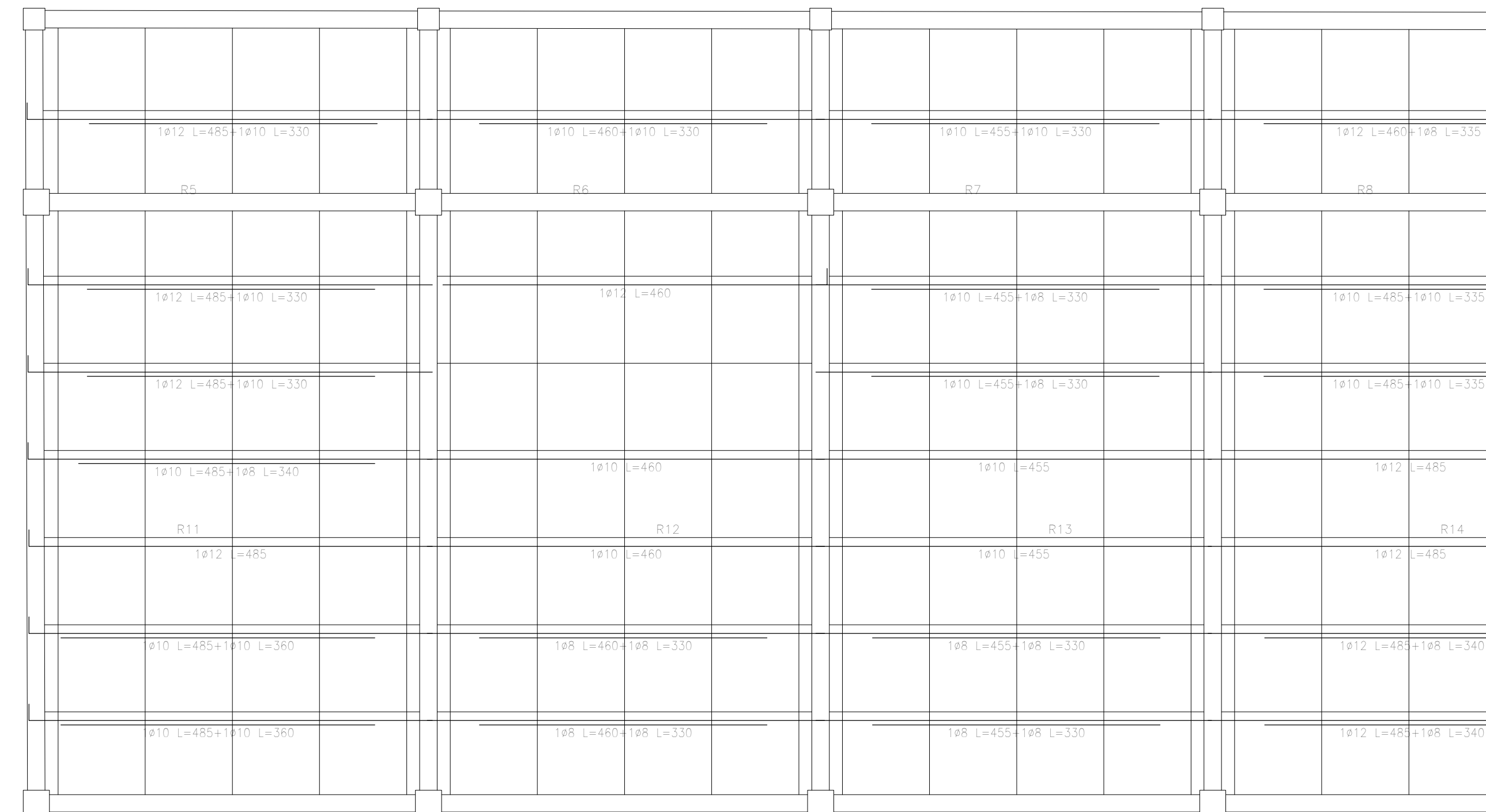
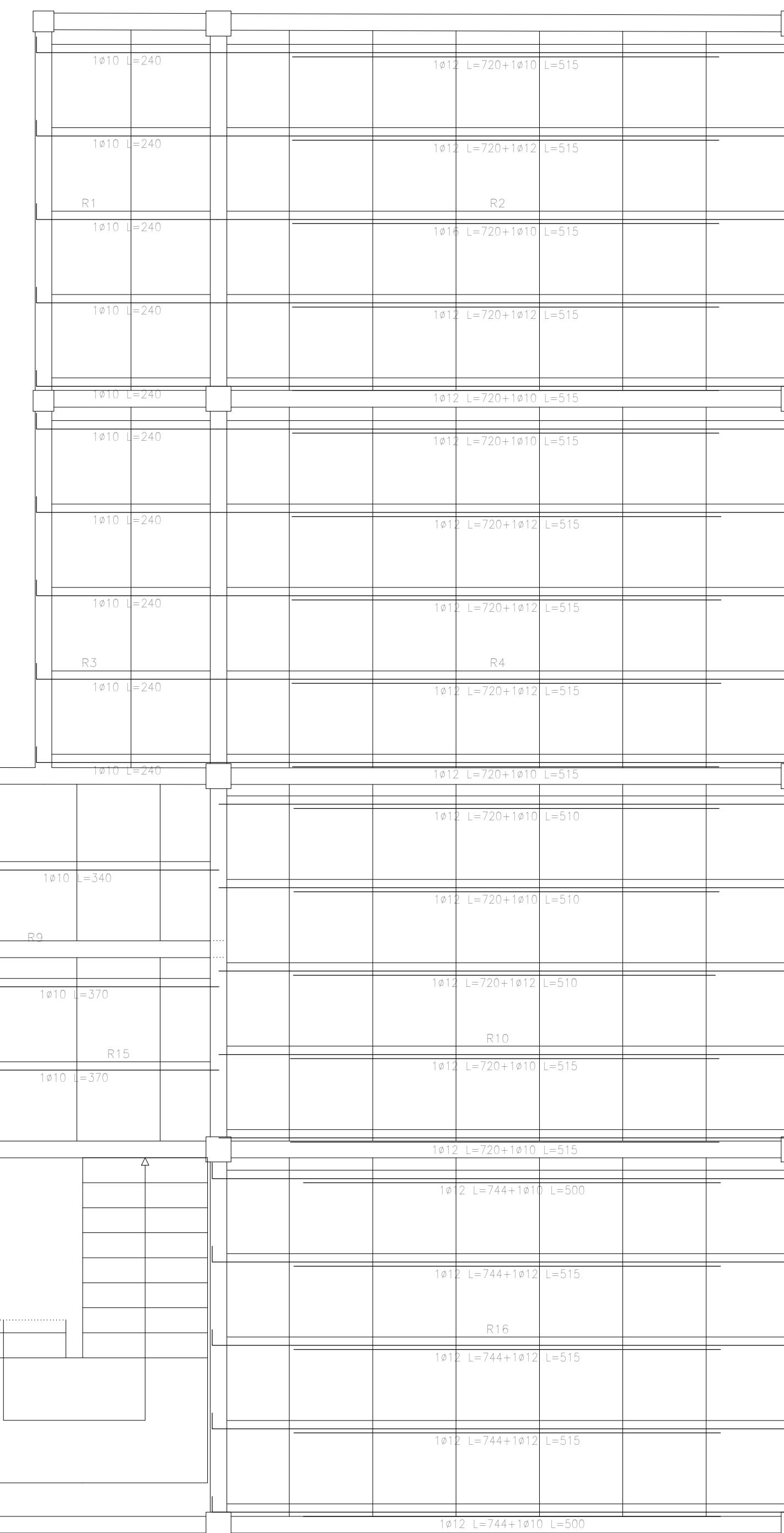
Muy importante  
 Armadura de reparto  
 malla de 6mm en ambas direcciones  
 2 barras por cuadrícula

Muy importante  
 Se intentará colocar en la capa superior de armadura de negativos  
 el de mayor diámetro

### IDEALIZACIÓN DE LA ESTRUCTURA

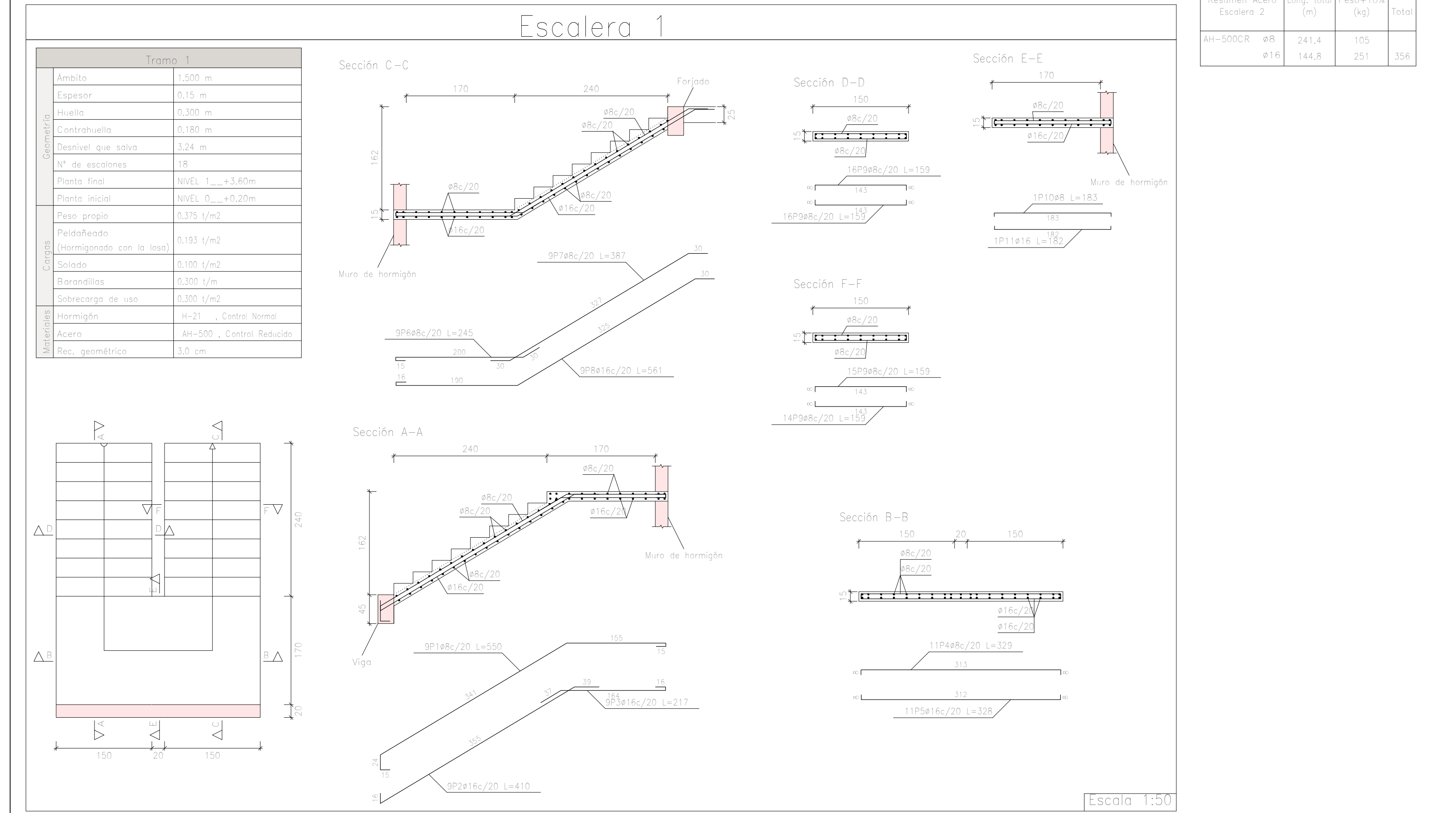
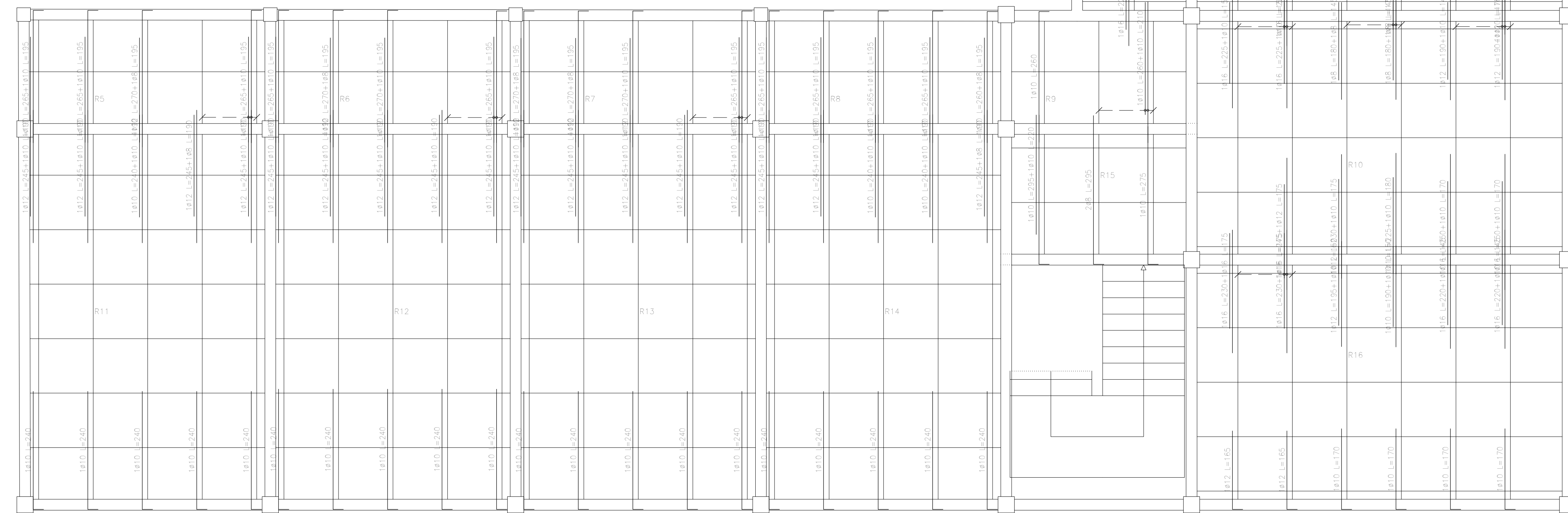
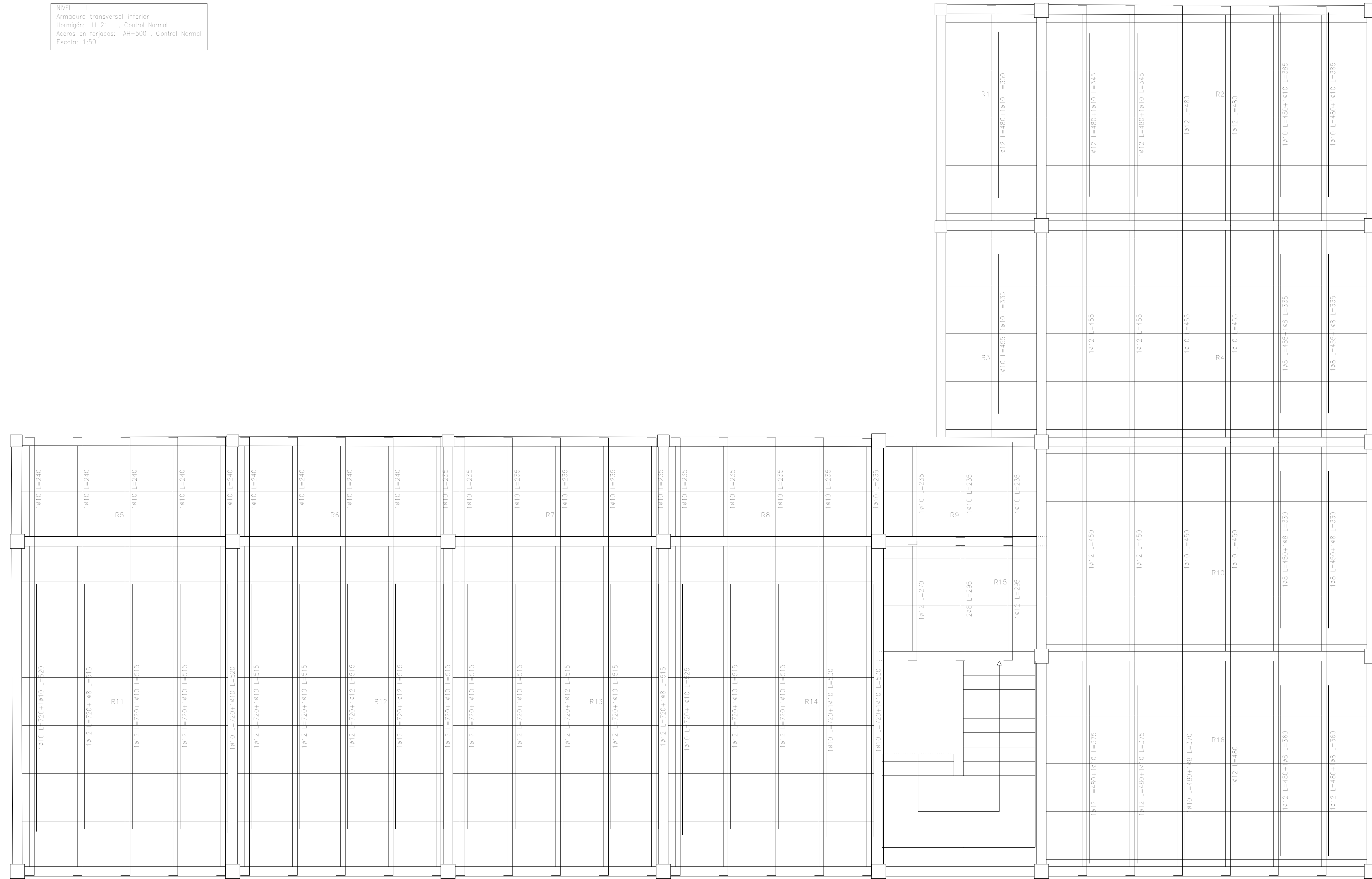


Nivel -1  
 Armadura longitudinal inferior  
 Normativa: AS-21 - Control Normal  
 Acero en forjados: AS-500 - Control Normal  
 Escala: 1:50





NIVEL = Armadura transversal inferior  
 Hormigón: H-21, Control Normal  
 Acero en Forjados: AH-500, Control Normal  
 Escala: 1:50

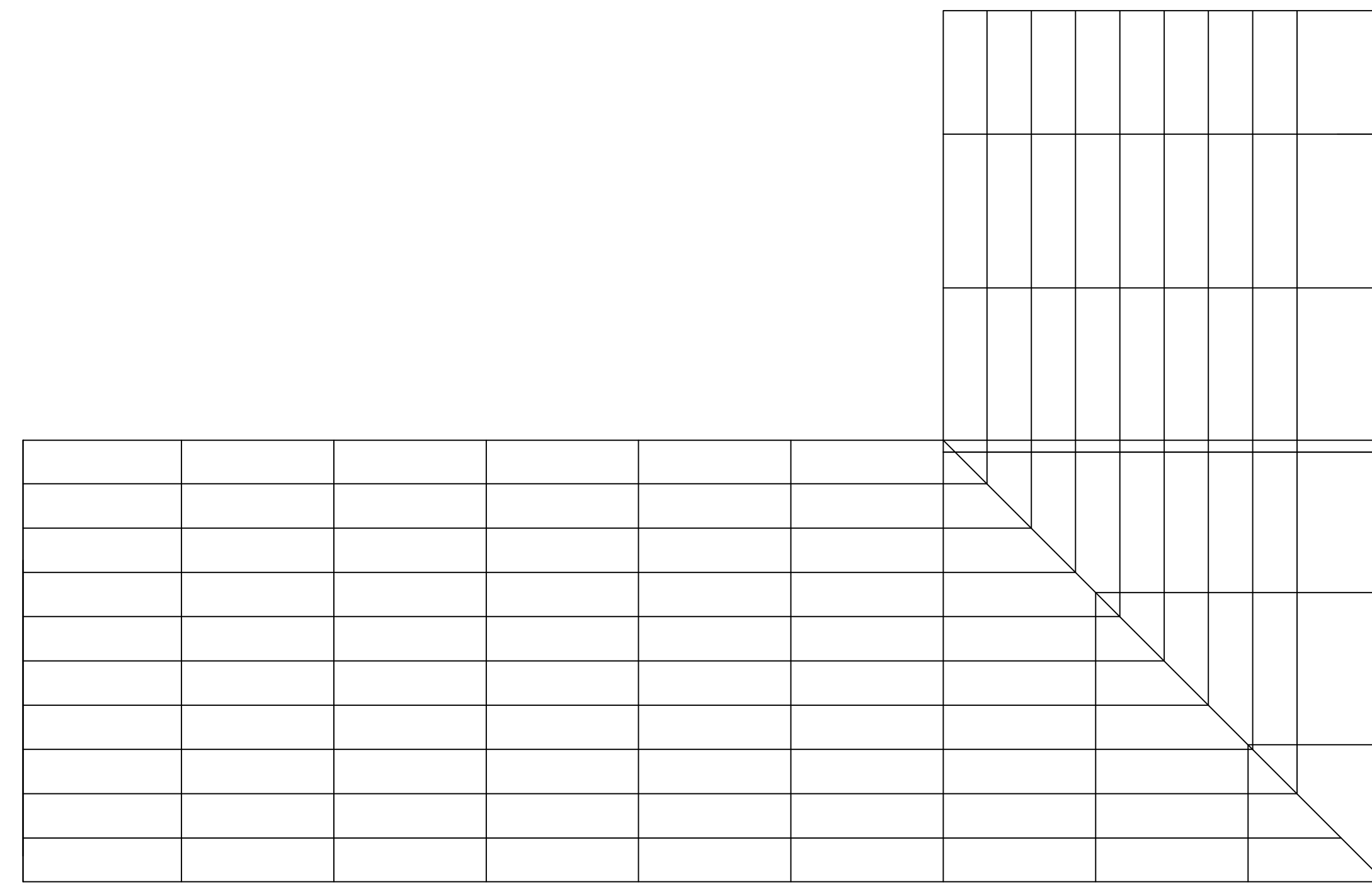


Elemento	Vol. (m <sup>3</sup> )	Long. (m)	Peso (kg)
Arco	0,225	1,500	278
Escalones	0,540	3,000	151
Barandilla	0,540	3,000	151
Sobrecarga	0,540	3,000	151
Intemperias	0,300	3,000	90
Sonido	0,300	3,000	90
Barandilla	0,300	3,000	90
Sobrecarga	0,300	3,000	90
Pedregado	0,181	3,000	54
Intemperias	0,100	3,000	30
Sonido	0,300	3,000	90
Barandilla	0,300	3,000	90
Sobrecarga	0,300	3,000	90
Peso propio	0,278	3,000	83
<b>Total</b>	<b>3,840</b>	<b>11,400</b>	<b>1.140</b>

Resumen Acero	Long. total (m)	Peso +10% (kg)	Total
AH-500CR #8	341,4	105	
#16	144,8	251	356

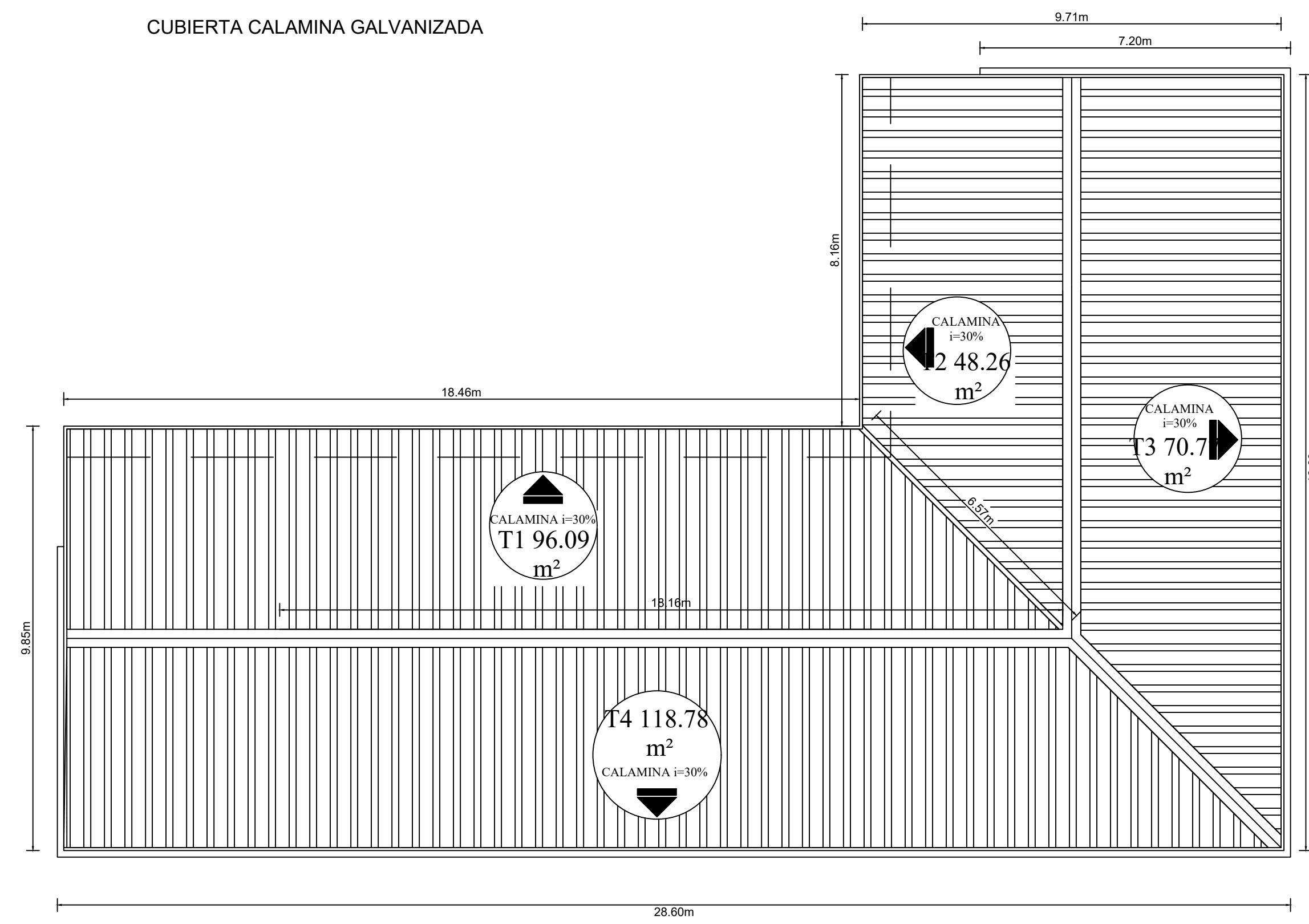
NIVEL = Armadura transversal superior  
 Hormigón: H-21, Control Normal  
 Acero en Forjados: AH-500, Control Normal  
 Escala: 1:50

<b>UNIVERSIDAD AUTÓNOMA "JUAN MISAEL SARACHO"</b> FACULTAD DE CIENCIAS Y TECNOLOGÍA INGENIERÍA CIVIL	
MODULO EDUCATIVO 12 DE AGOSTO D-6	CONTENIDO: ARMADO DE LOSA - ESCALERA
ESTUDIANTE: ROSALÍA CASTRO VASQUEZ	
ESCALA: 8/10	LAMINA: 8/10
FECHA: JUNIO-2022	VoBo

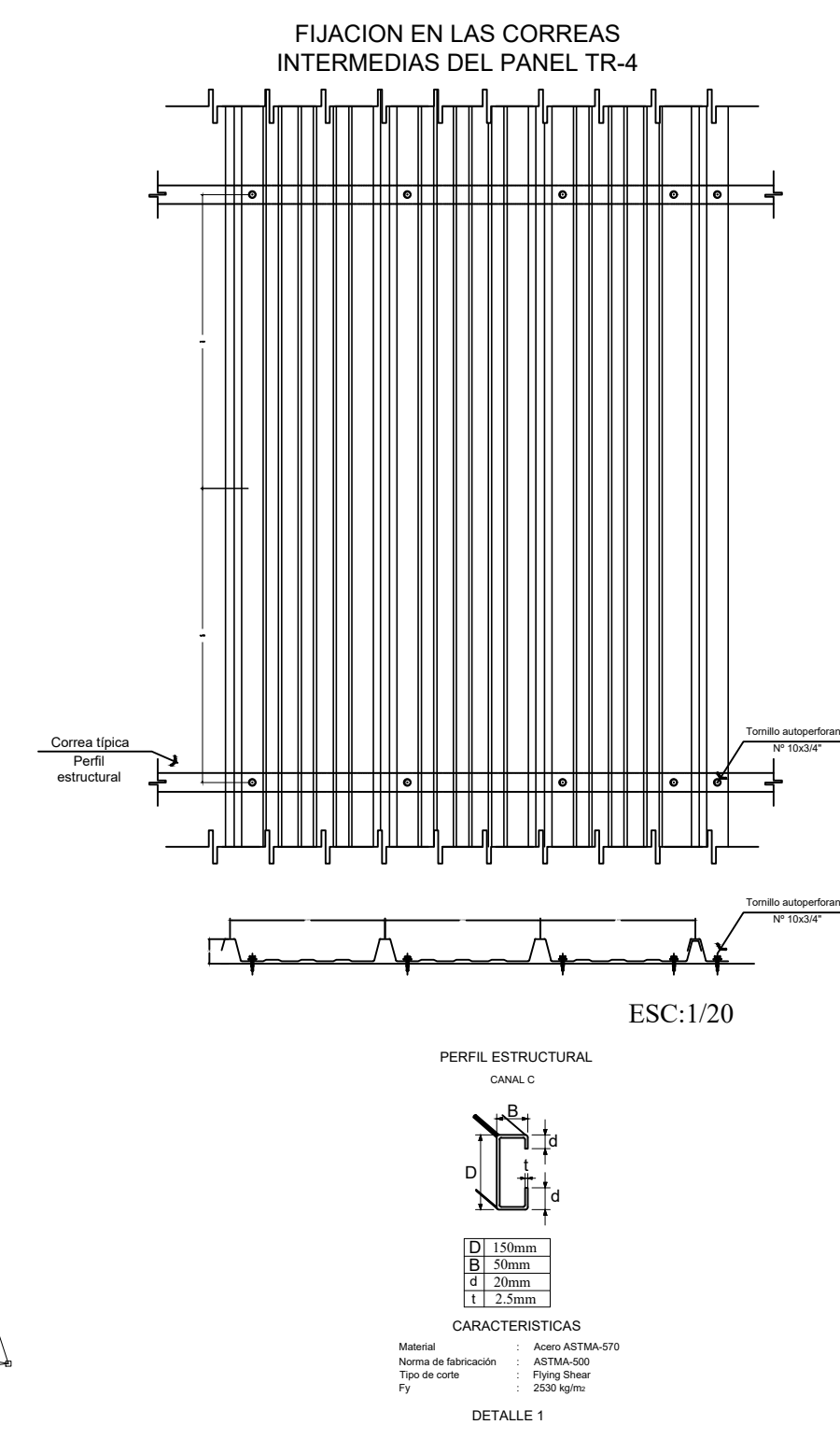
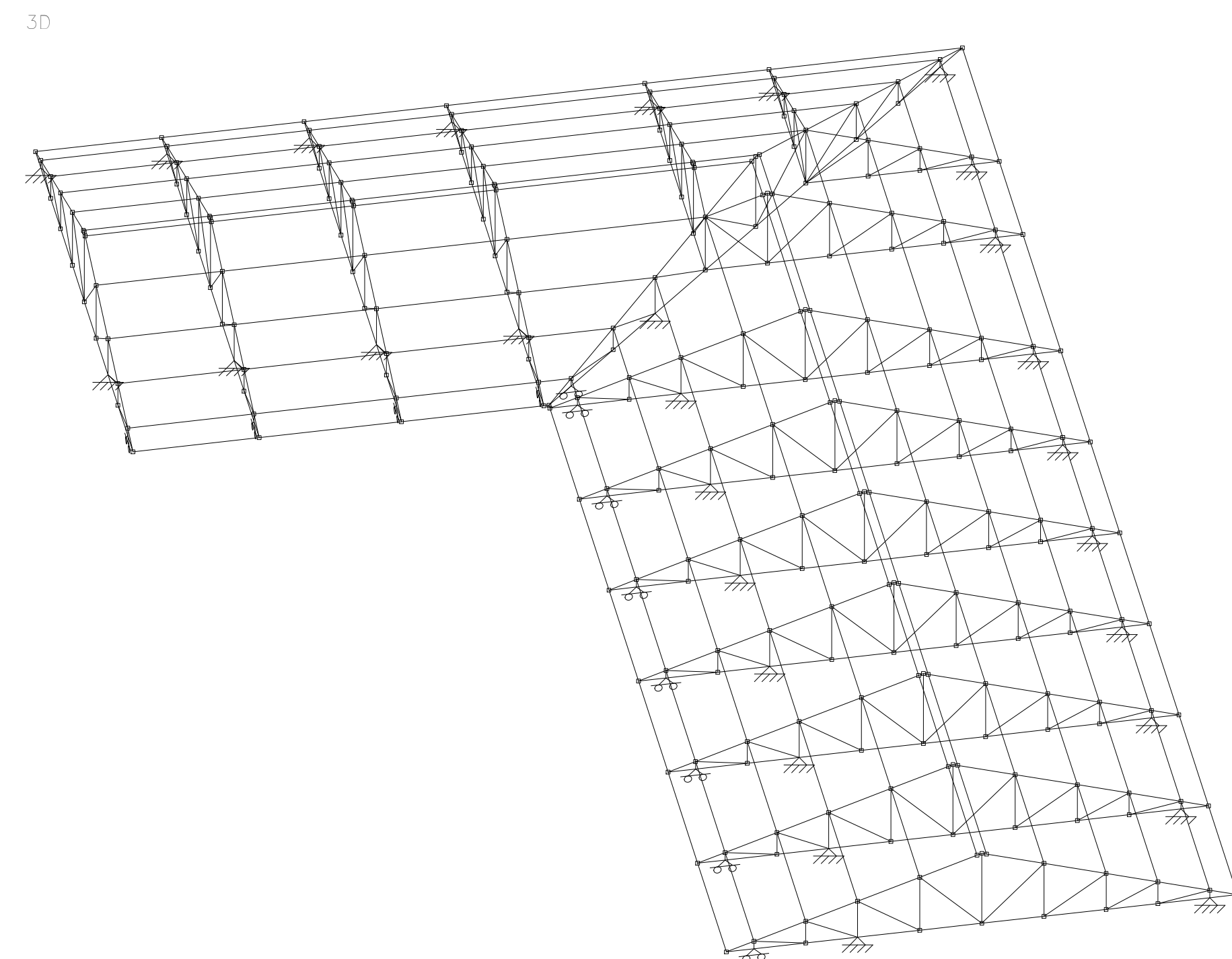


**POSICIÓN DE CORREAS**

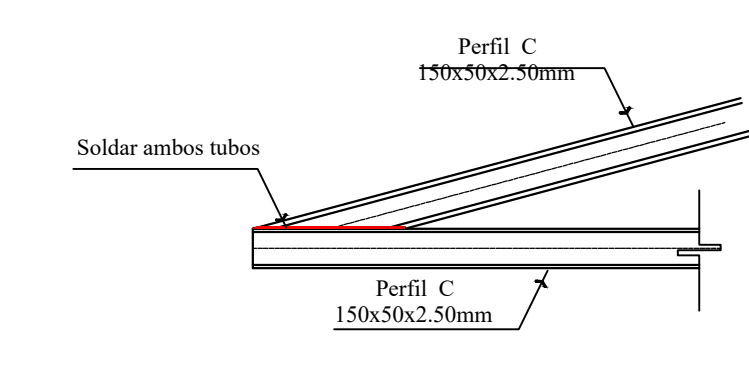
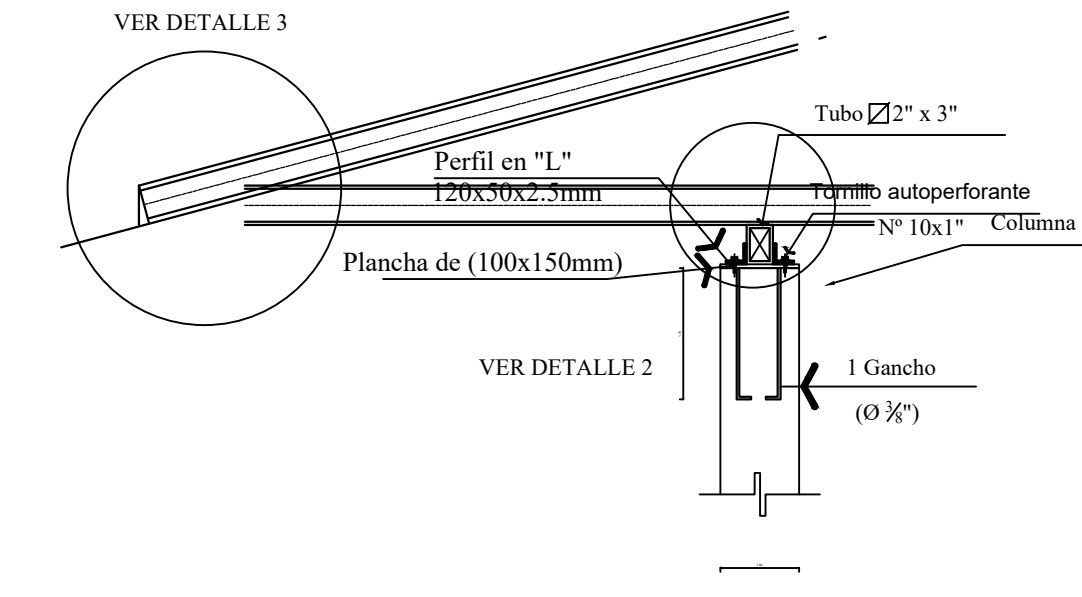
**CUBIERTA CALAMINA GALVANIZADA**



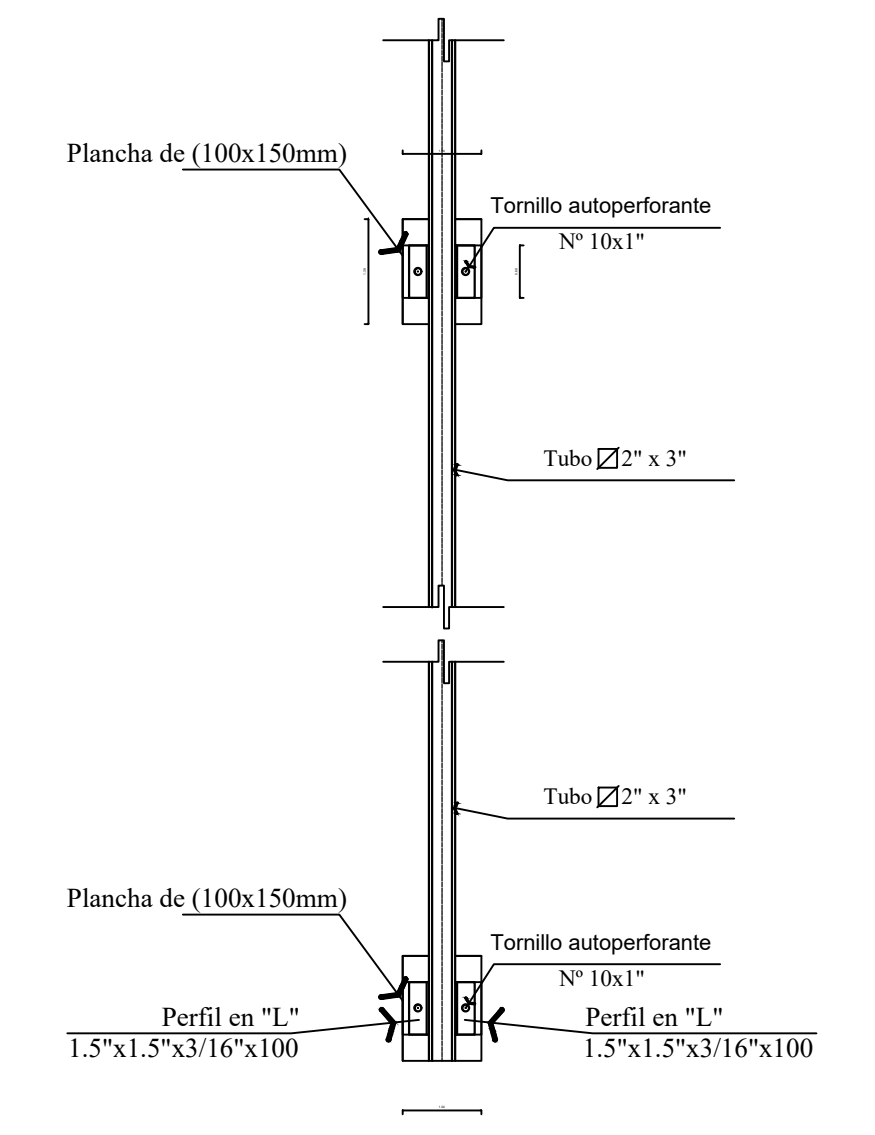
ESTRUCTURA CUBIERTA METALICA  
20/09/2022  
Norma de acero conformado: AISI S100-2007 (LRFD)  
Acero conformado: ASTM A 36 36 ksi  
Escala: 1:100



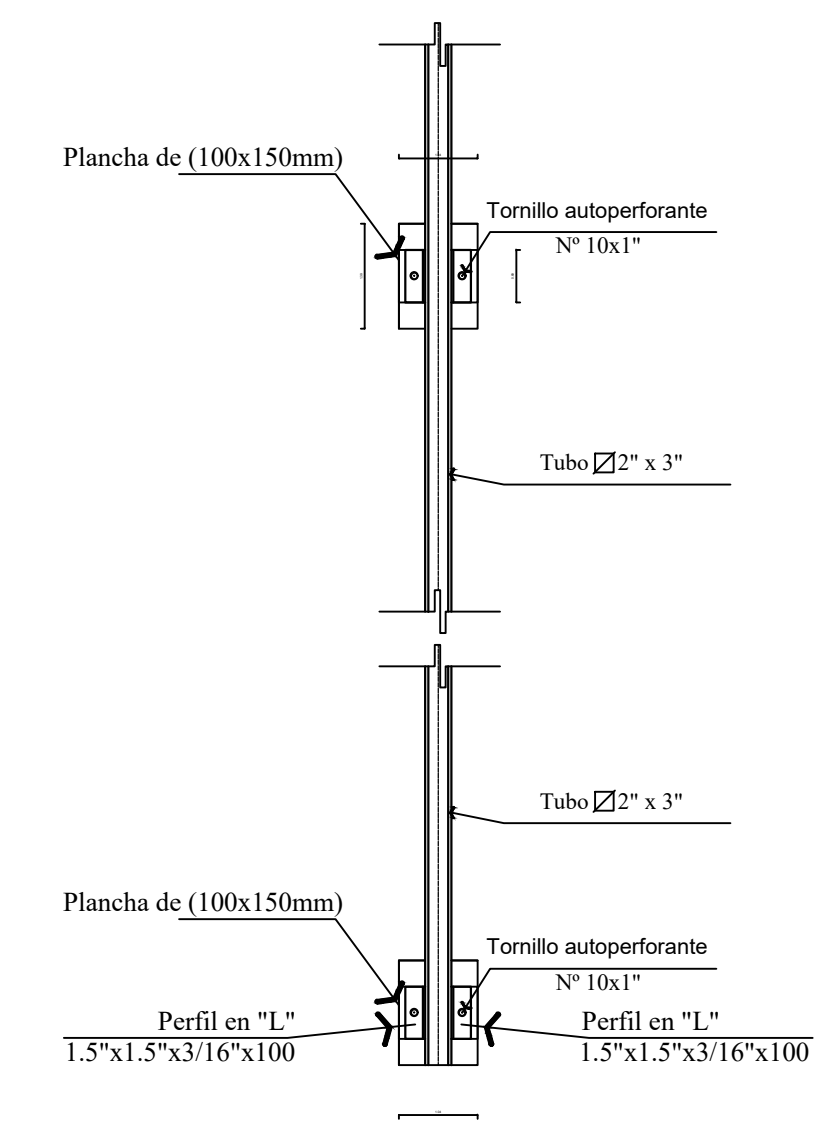
**DETALLES CONSTRUCTIVOS DE LA CUBIERTA**



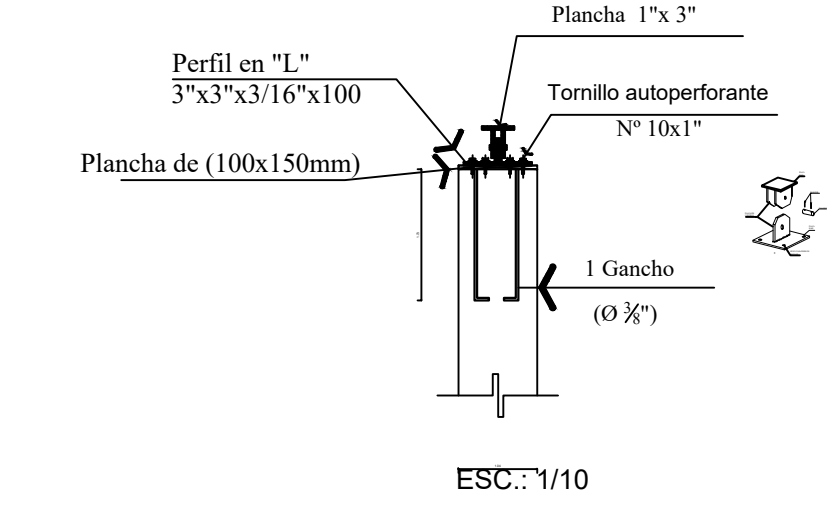
**DETALLE TIJERAL TÍPICO**  
ESC: 1/20  
**APOYO DE TIJERAL EN COLUMNA**



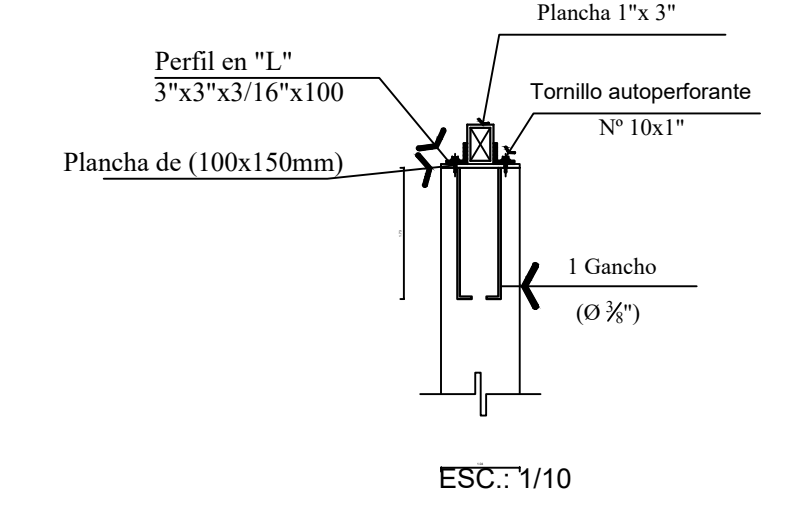
**APOYO DE TIJERAL EN COLUMNA**



**COLUMNA APOYO MOVIL**

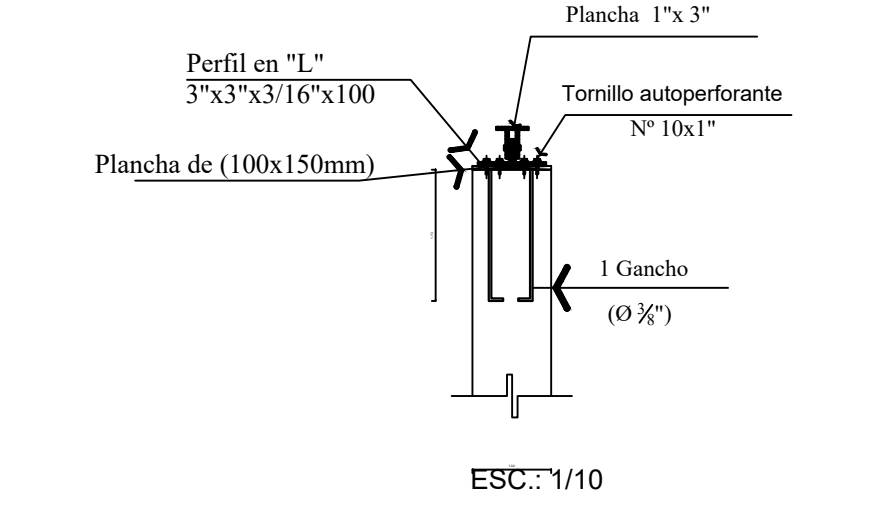


**COLUMNA APOYO FIJO**

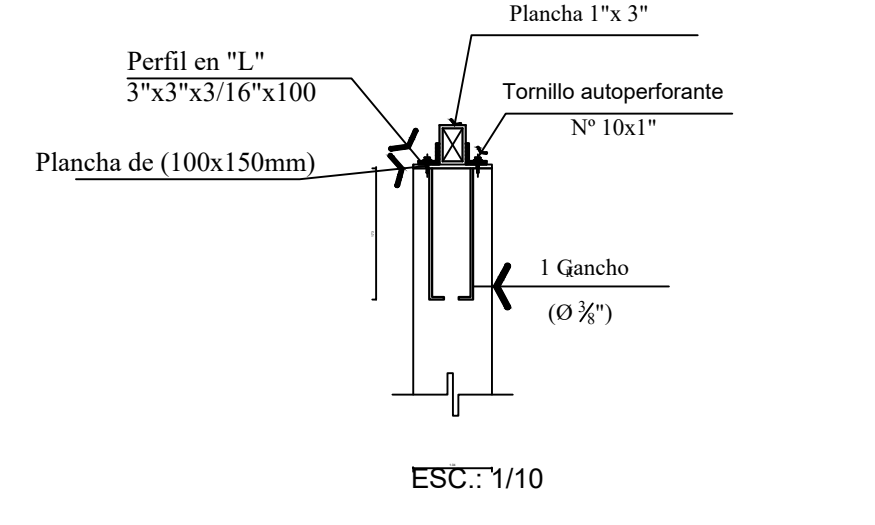


**PLANTA**

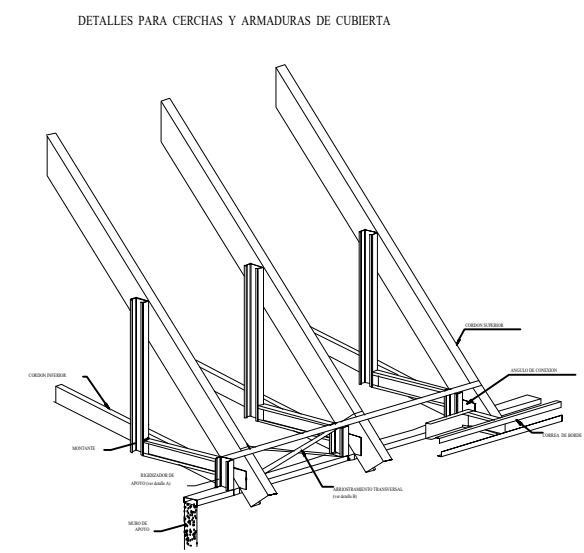
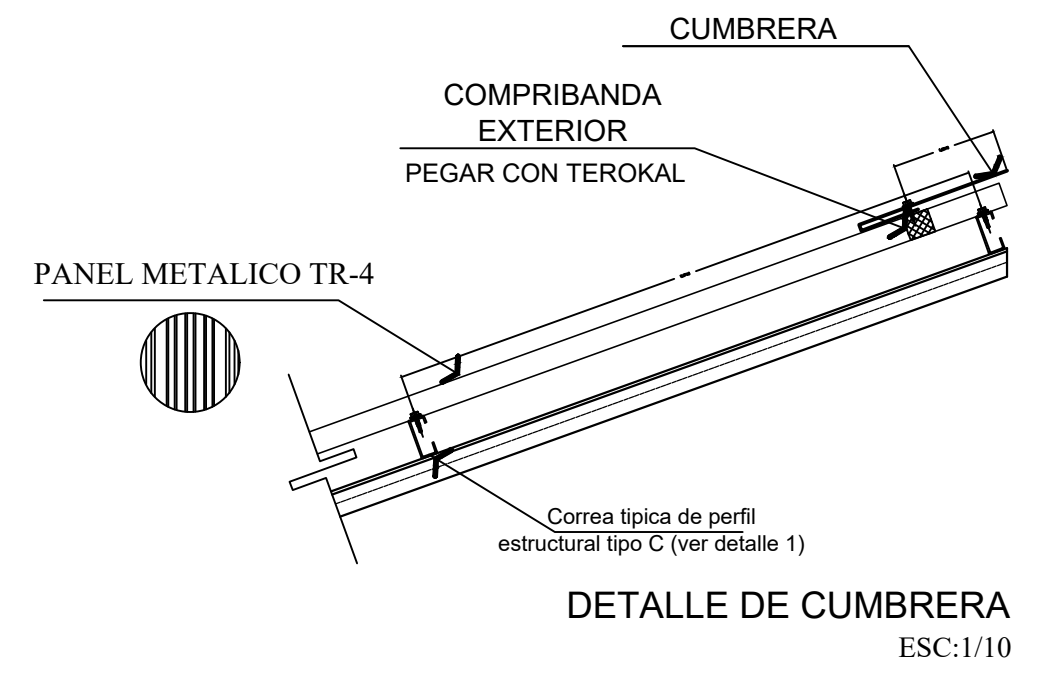
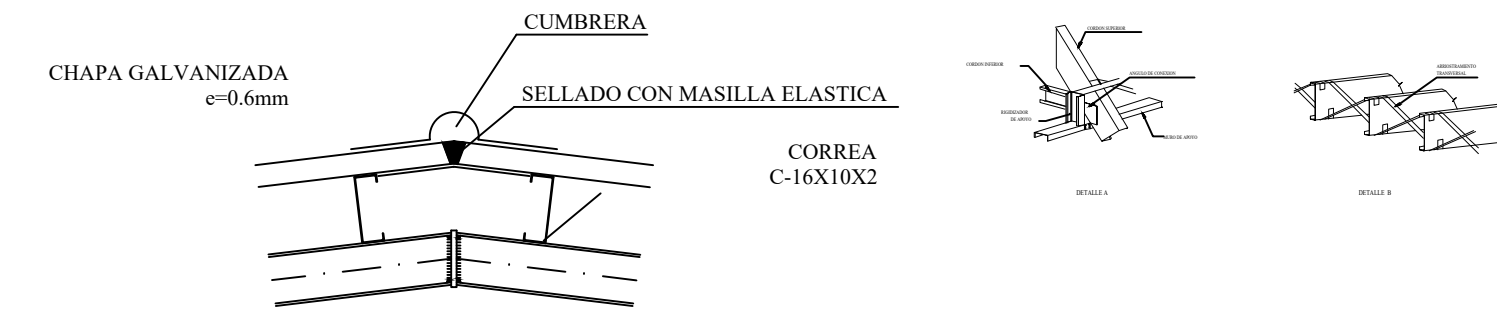
**COLUMNA APOYO MOVIL**



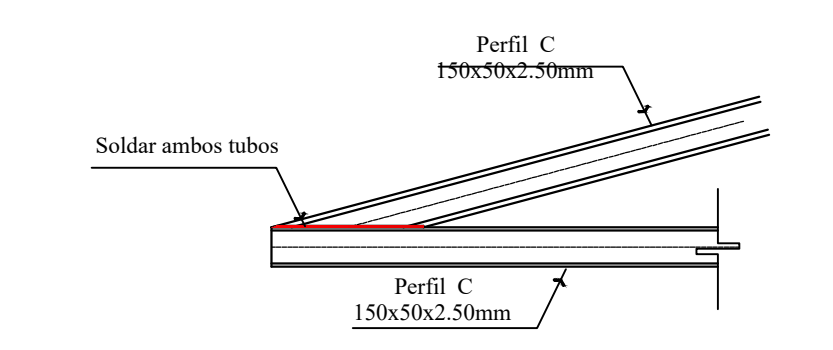
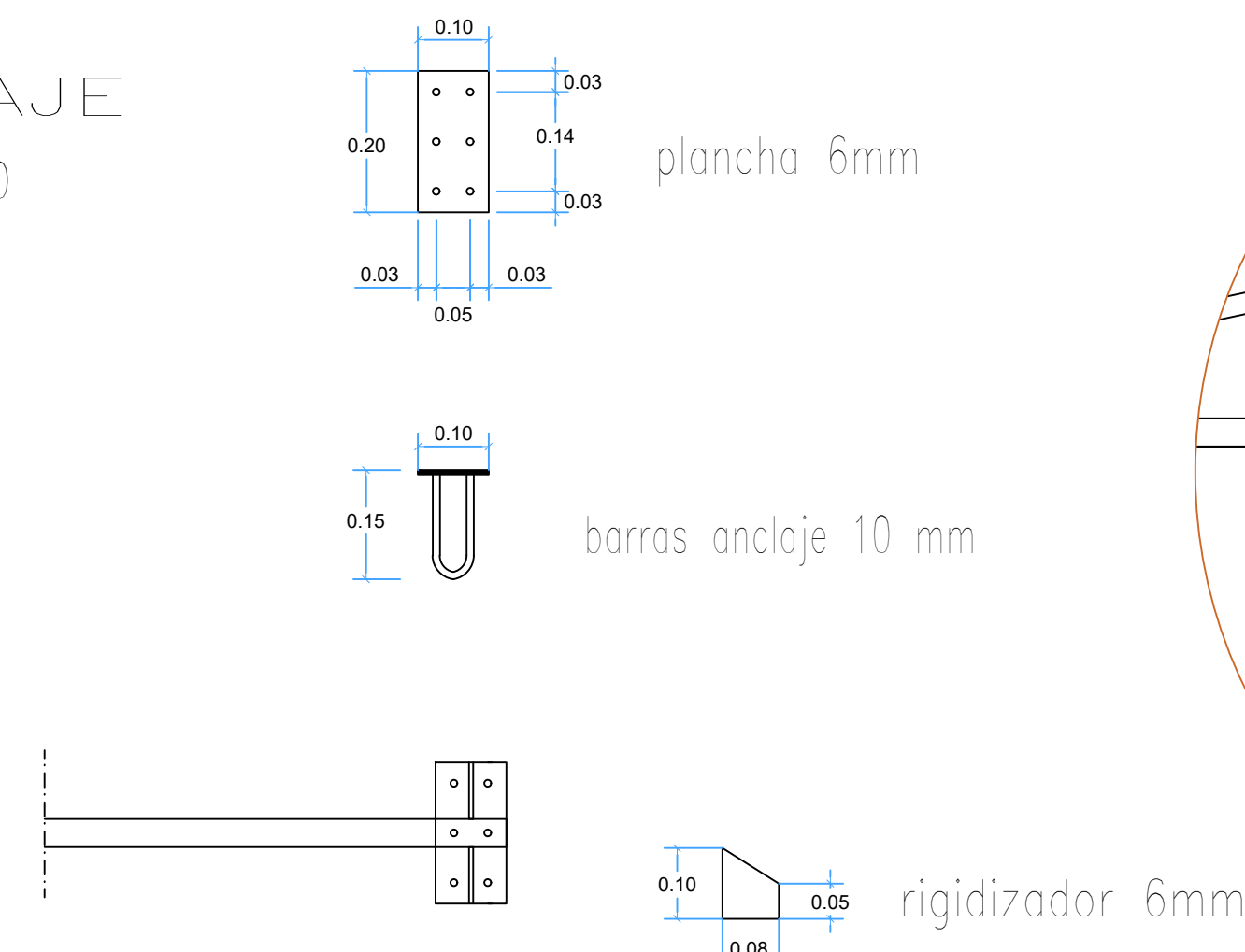
**COLUMNA APOYO FIJO**



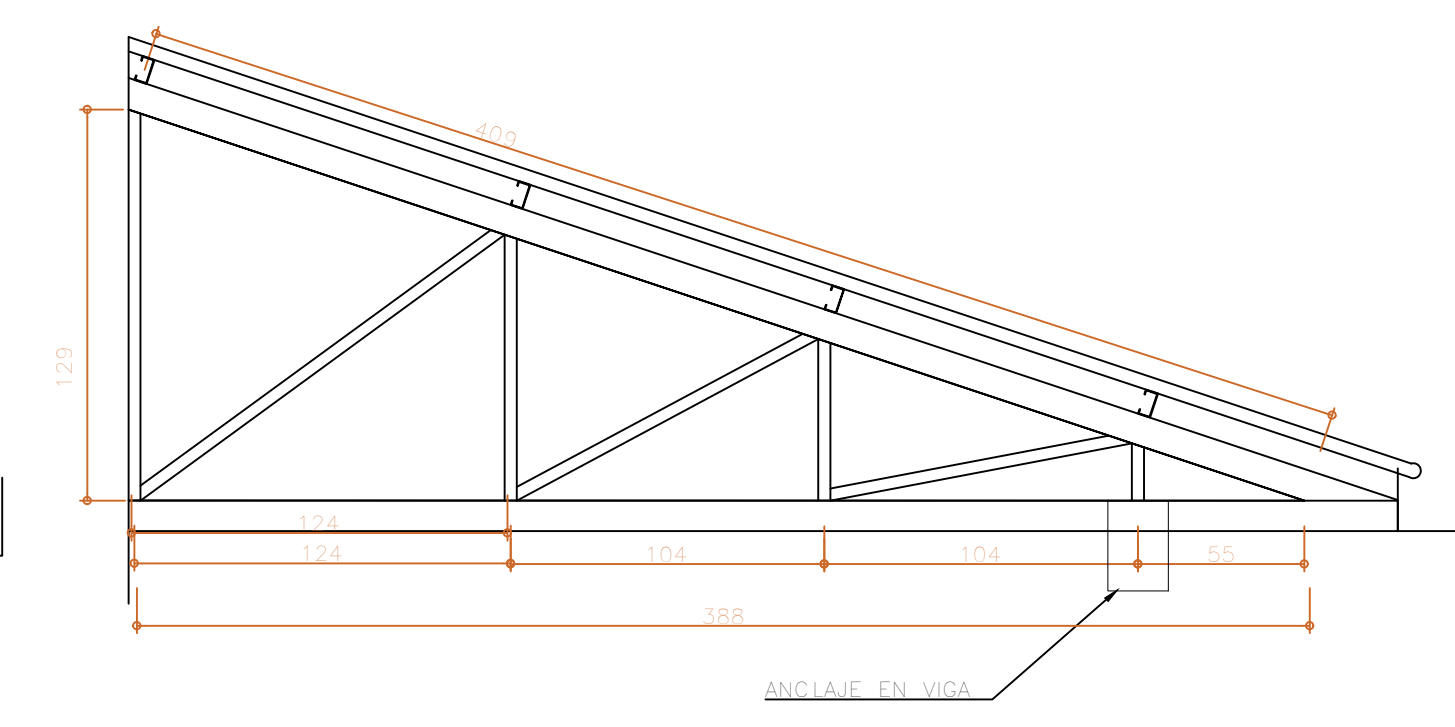
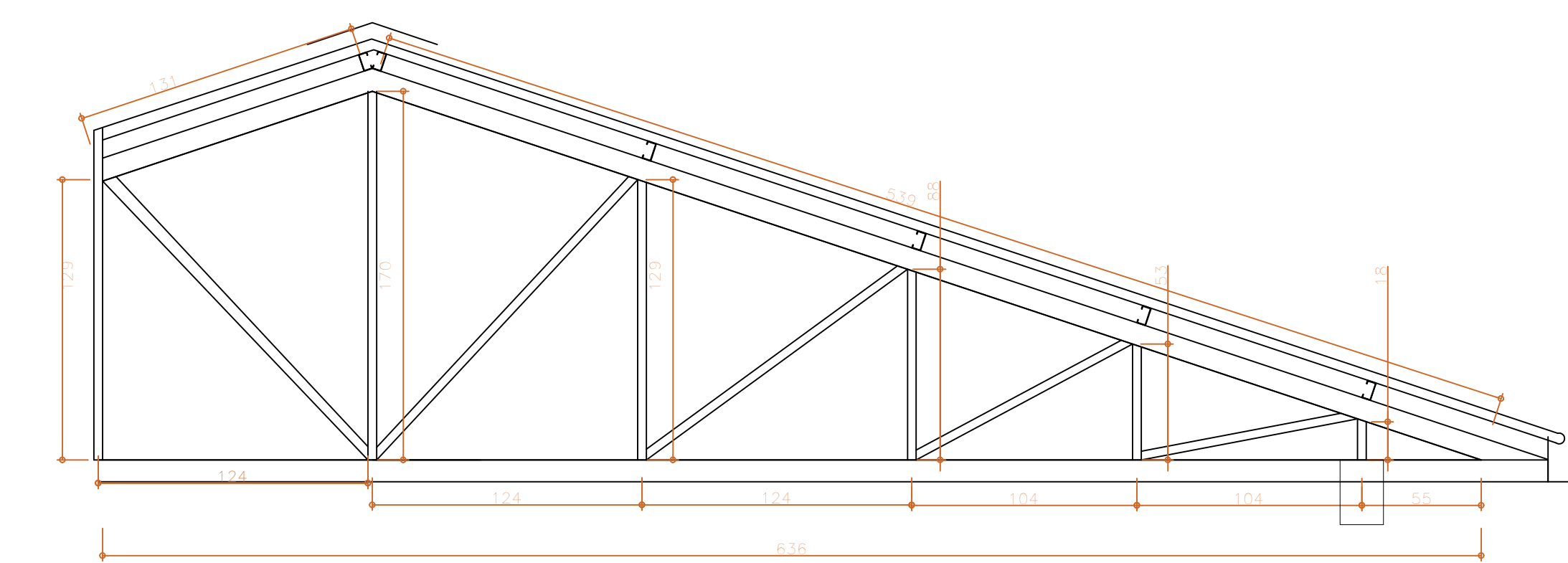
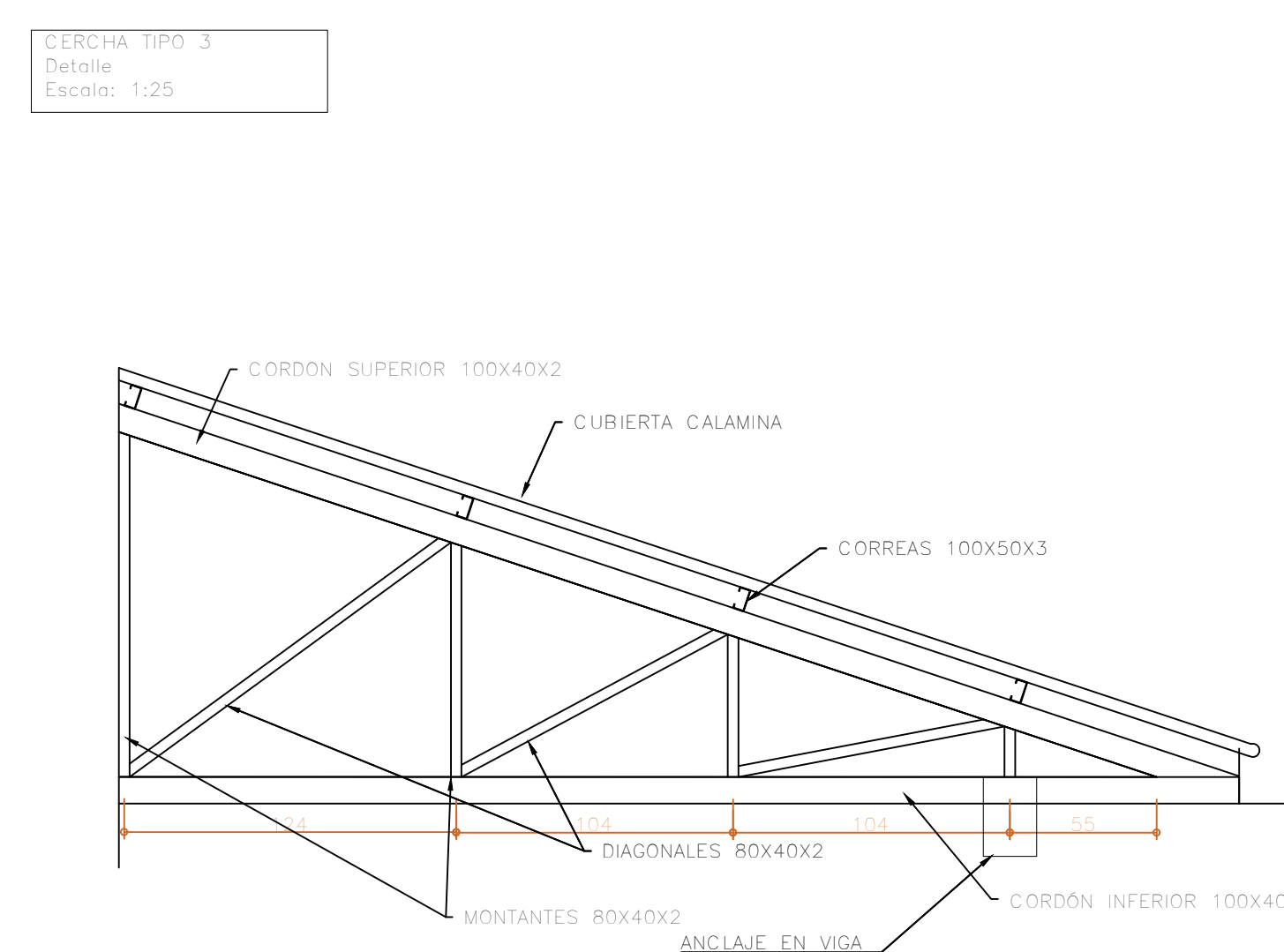
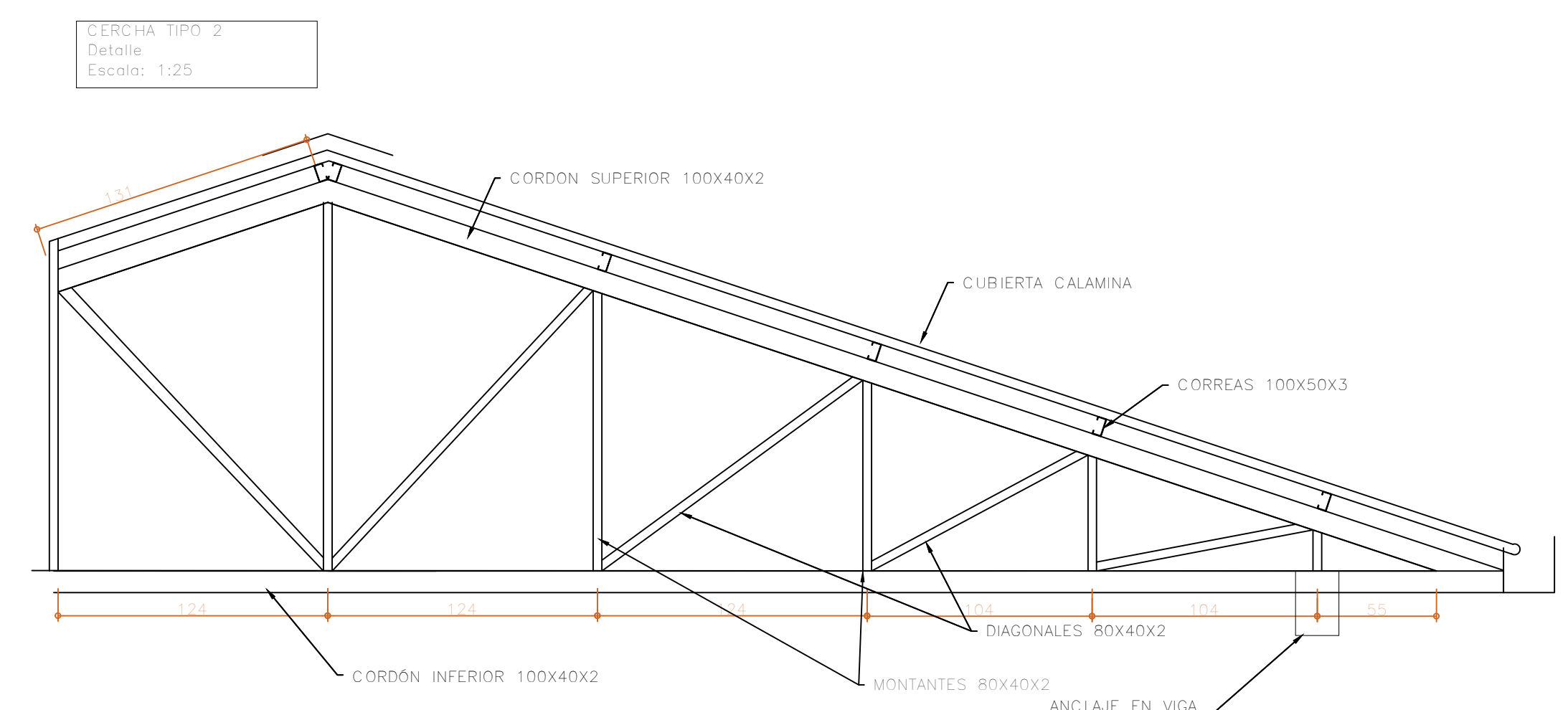
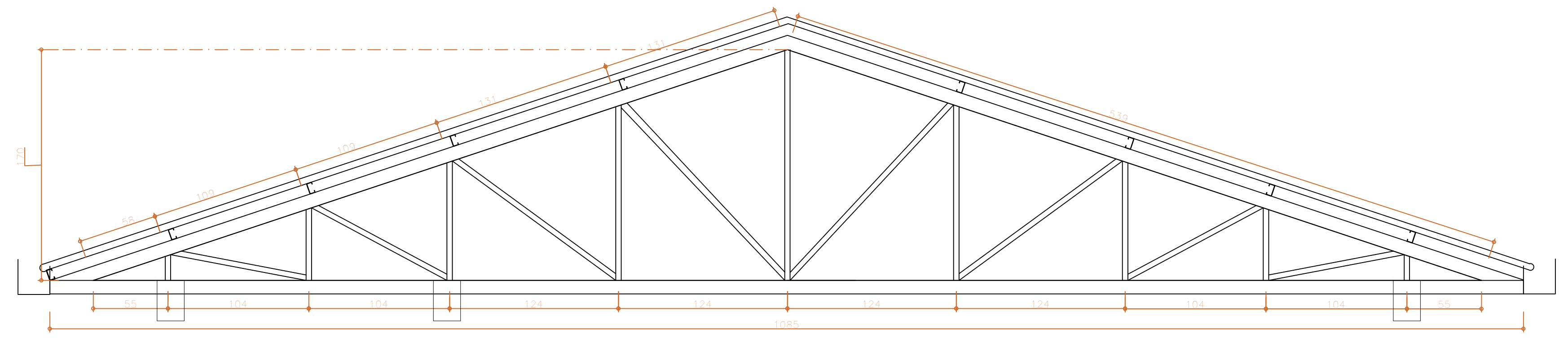
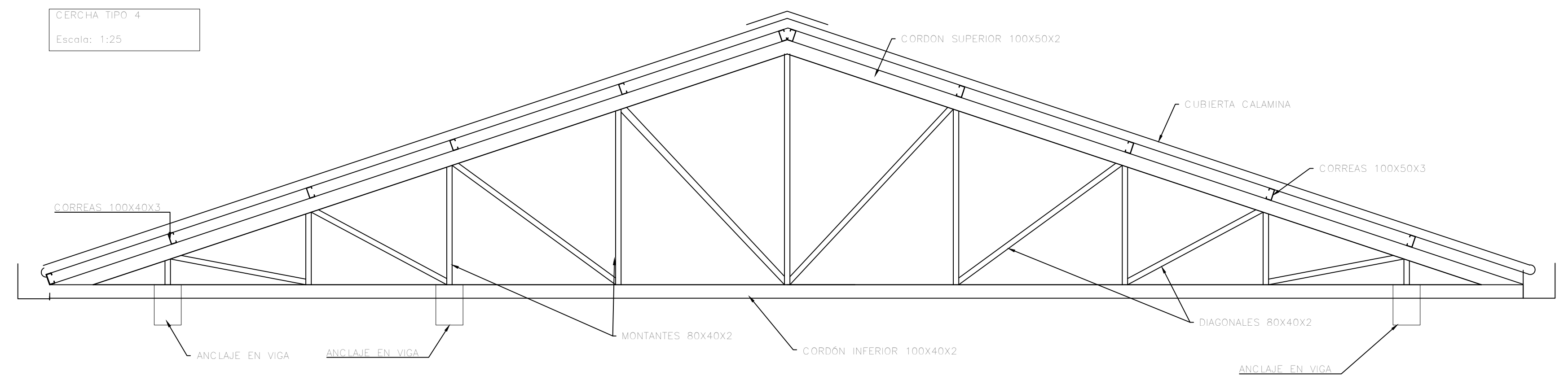
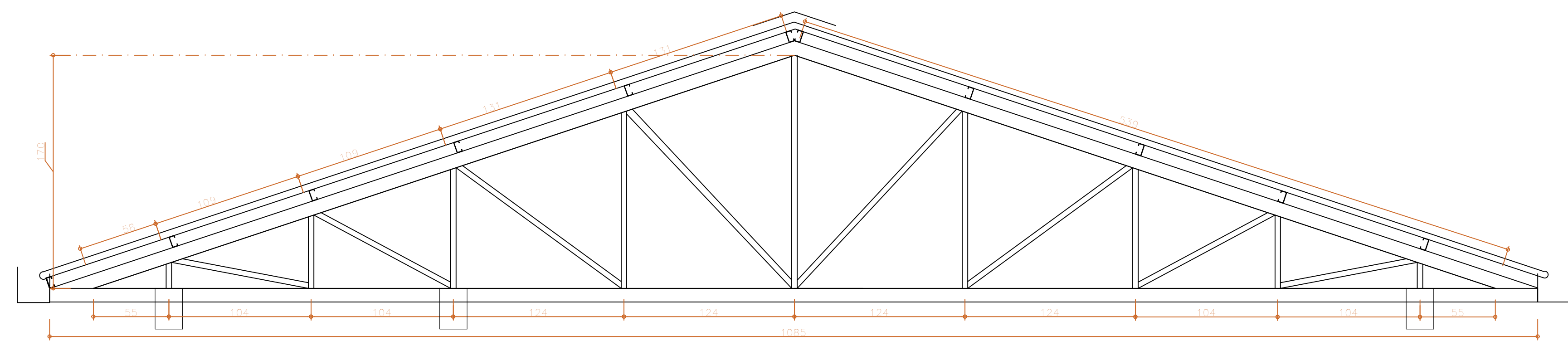
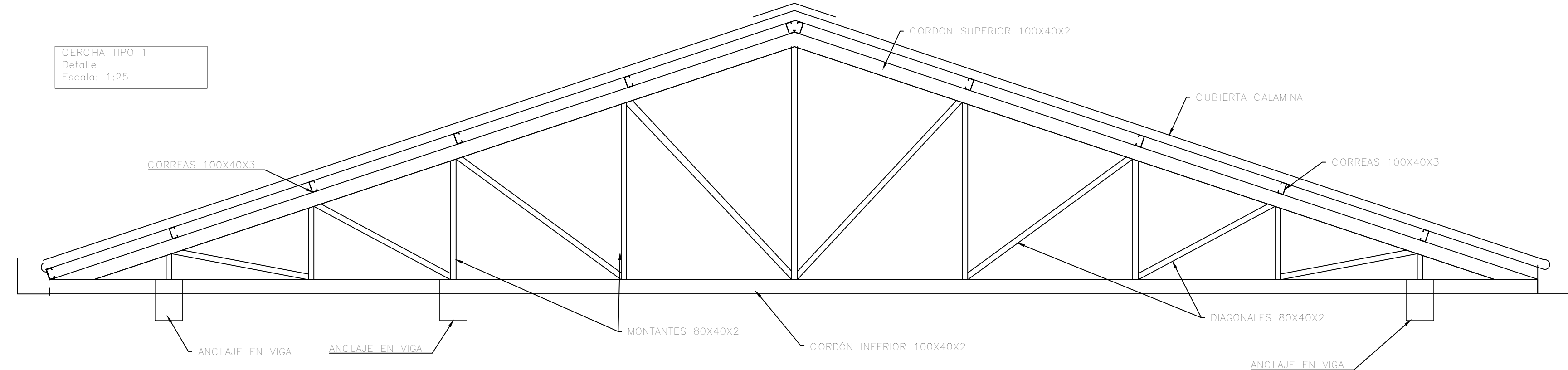
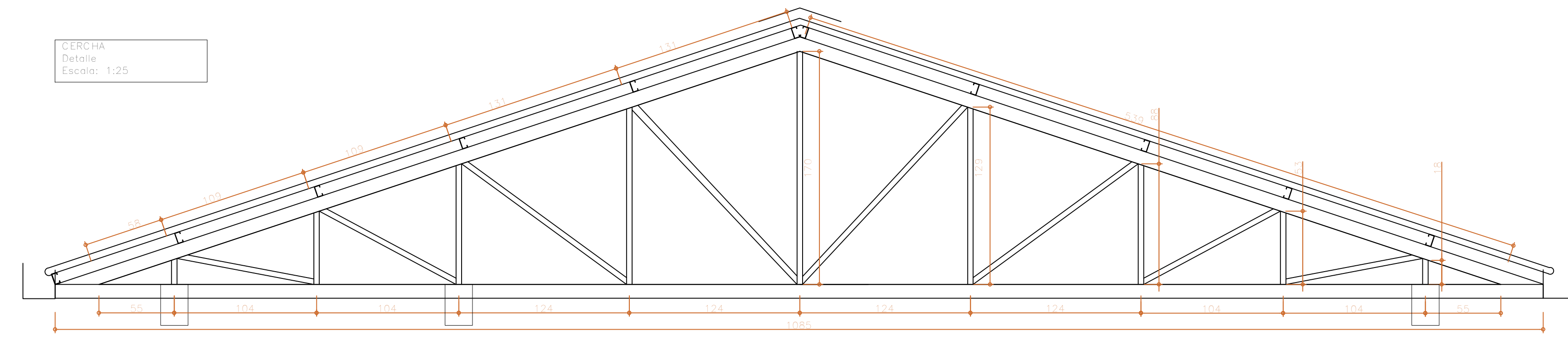
**DETALLE ENCUESTRO CUMBRERA**



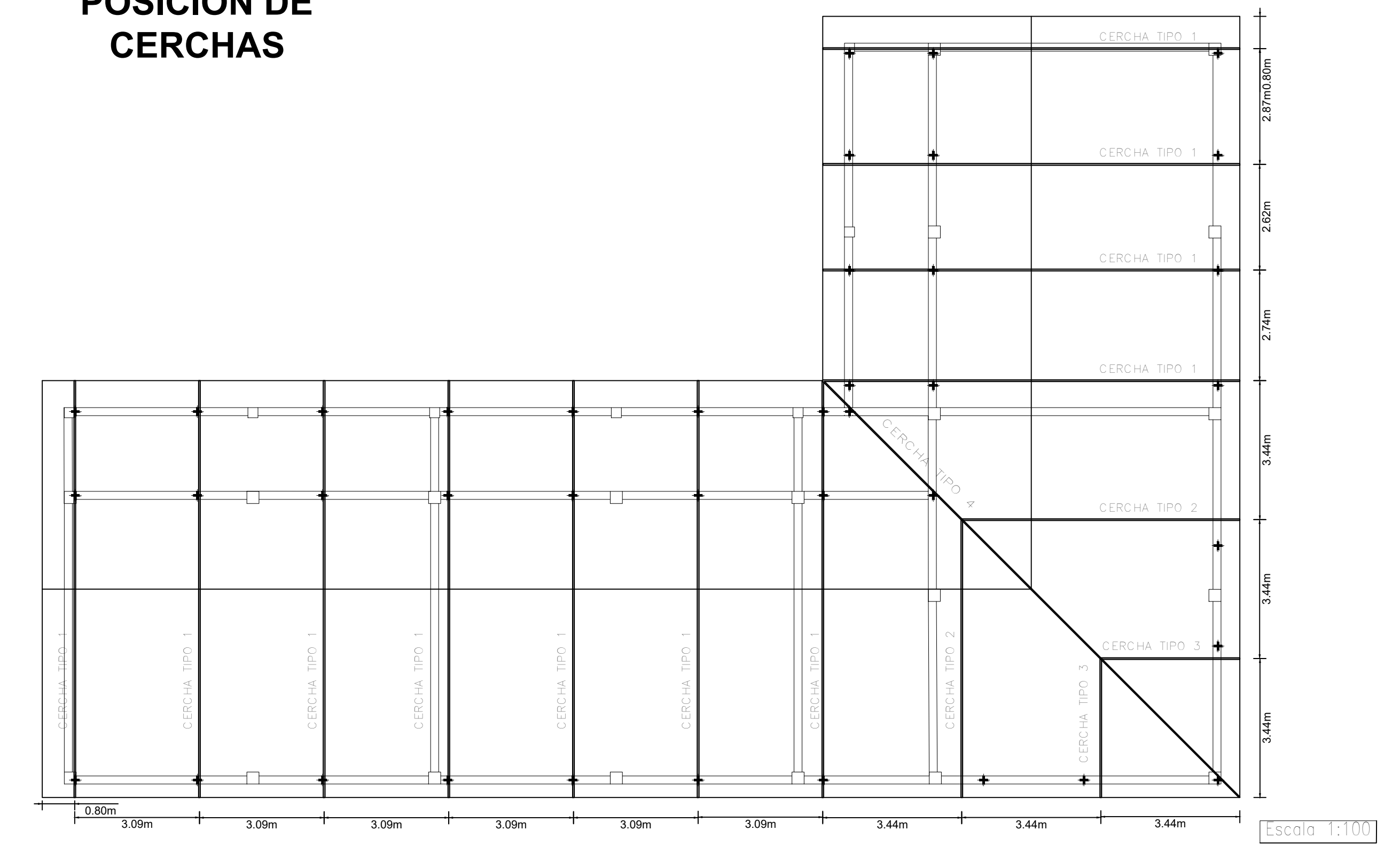
**ANCLAJE**  
escala 1:10







**POSICIÓN DE CERCHAS**



UNIDAD EDUCATIVA 12 AGOSTO D-6

Id	Nombre de tarea	Duración	Comienzo	Fin	1 2 3 4											
					abr	may	jun	jul	ago	sep	oct	nov	dic	ene	feb	mar
1	<b>UNIDAD EDUCATIVA 12 AGOSTO D-6</b>	<b>197 días</b>	<b>mié 5/25/22</b>	<b>jue 2/23/23</b>	[Barra de resumen del proyecto]											
2	<b>ACTV. PREV. COMPLEMENTARIAS</b>	<b>6 días</b>	<b>mié 5/25/22</b>	<b>mié 6/1/22</b>	[Barra de resumen manual]											
3	Instalacion de faenas	1 día	mié 5/25/22	mié 5/25/22	[Barra de tarea crítica]											
4	Letrero de obras	1 día	jue 5/26/22	jue 5/26/22	[Barra de tarea crítica]											
5	Limpieza y desbroce	2 días	vie 5/27/22	lun 5/30/22	[Barra de tarea crítica]											
6	Limpieza general	1 día	mar 5/31/22	mar 5/31/22	[Barra de tarea crítica]											
7	Placa de entrega de obra	1 día	mié 6/1/22	mié 6/1/22	[Barra de tarea crítica]											
8	<b>INFRAESTRUCTURA</b>	<b>152 días</b>	<b>jue 6/2/22</b>	<b>vie 12/30/22</b>	[Barra de resumen del proyecto]											
9	Replanteo y trazado	6 días	jue 6/2/22	jue 6/9/22	[Barra de tarea crítica]											
10	Excavación manual de 0 - 2 m	14 días	vie 6/10/22	mié 6/29/22	[Barra de tarea crítica]											
11	Hormigon pobre	11 días	jue 6/30/22	jue 7/14/22	[Barra de tarea crítica]											
12	Zapatas de h <sup>o</sup> a <sup>e</sup>	14 días	jue 6/30/22	mar 7/19/22	[Barra de tarea crítica]											
13	Cimiento de h <sup>o</sup> c <sup>o</sup> -dosif. 1:2:4 50% pd	8 días	mié 7/20/22	vie 7/29/22	[Barra de tarea crítica]											
14	Sobrecimiento de hormigon armado	15 días	mié 7/20/22	mar 8/9/22	[Barra de tarea crítica]											
15	Impermeabilizacion de sobrecimientos	1 día	mié 8/10/22	mié 8/10/22	[Barra de tarea crítica]											
16	Columnas de hormigon armado	11 días	jue 8/11/22	jue 8/25/22	[Barra de tarea crítica]											
17	Relleno y compactado	19 días	vie 8/26/22	mié 9/21/22	[Barra de tarea crítica]											
18	Muro de ladrillo de 6 huecos (24*18*12)	40 días	jue 9/22/22	mié 11/16/22	[Barra de tarea crítica]											
19	Viga de hormigon armado	25 días	vie 8/26/22	jue 9/29/22	[Barra de tarea crítica]											
20	Vigas de coronamiento de hormigon armado	13 días	vie 9/30/22	mar 10/18/22	[Barra de tarea crítica]											
21	Contrapiso de piedra + frotachado	13 días	mié 10/19/22	vie 11/4/22	[Barra de tarea crítica]											
22	Losa nervada con plastaform	25 días	lun 11/7/22	vie 12/9/22	[Barra de tarea crítica]											
23	Cubierta de lamina galvanizada	15 días	lun 12/12/22	vie 12/30/22	[Barra de tarea crítica]											
24	Escalera de hormigon armado	4 días	vie 9/30/22	mié 10/5/22	[Barra de tarea crítica]											
25	<b>ARQUITECTURA</b>	<b>101 días</b>	<b>jue 10/6/22</b>	<b>jue 2/23/23</b>	[Barra de resumen del proyecto]											
26	Carpeta de nivelacion	2 días	jue 10/6/22	vie 10/7/22	[Barra de tarea crítica]											
27	Piso de ceramico alto trafico	22 días	lun 10/10/22	mar 11/8/22	[Barra de tarea crítica]											
28	Zocalo de ceramica	7 días	lun 10/10/22	mar 10/18/22	[Barra de tarea crítica]											
29	Revoque interior cal-cemento	25 días	mié 10/19/22	mar 11/22/22	[Barra de tarea crítica]											
30	Revoque exterior cal-cemento	25 días	mié 10/19/22	mar 11/22/22	[Barra de tarea crítica]											
31	Revoque cielo razo	17 días	mié 11/23/22	jue 12/15/22	[Barra de tarea crítica]											
32	Cielo falso pvc	17 días	vie 12/16/22	lun 1/9/23	[Barra de tarea crítica]											
33	Revestimiento ceramica escalera	1 día	mar 1/10/23	mar 1/10/23	[Barra de tarea crítica]											
34	Botaguas de hormigon armado	3 días	mié 1/11/23	vie 1/13/23	[Barra de tarea crítica]											
35	Pintura latex interior	20 días	mié 11/23/22	mar 12/20/22	[Barra de tarea crítica]											
36	Pintura latex exterior	17 días	mié 11/23/22	jue 12/15/22	[Barra de tarea crítica]											
37	Baranda metalica	15 días	vie 12/16/22	jue 1/5/23	[Barra de tarea crítica]											
38	Puertas de aluminio	16 días	vie 1/6/23	vie 1/27/23	[Barra de tarea crítica]											
39	Ventanas de aluminio	20 días	vie 1/6/23	jue 2/2/23	[Barra de tarea crítica]											
40	Prov. y coloc. puertas aluminio	6 días	vie 2/3/23	vie 2/10/23	[Barra de tarea crítica]											
41	Chapa exterior puertas de aluminio	2 días	lun 2/13/23	mar 2/14/23	[Barra de tarea crítica]											
42	Chapa interior tipo picaporte	2 días	mié 2/15/23	jue 2/16/23	[Barra de tarea crítica]											
43	Prov. coloc. ventanas de aluminio	5 días	vie 2/17/23	jue 2/23/23	[Barra de tarea crítica]											

INICIO DE PROYECTO  
25/11/20221

División crítica ..... División ..... Resumen del proyecto  Tareas críticas   
 Tarea  Resumen  Resumen manual