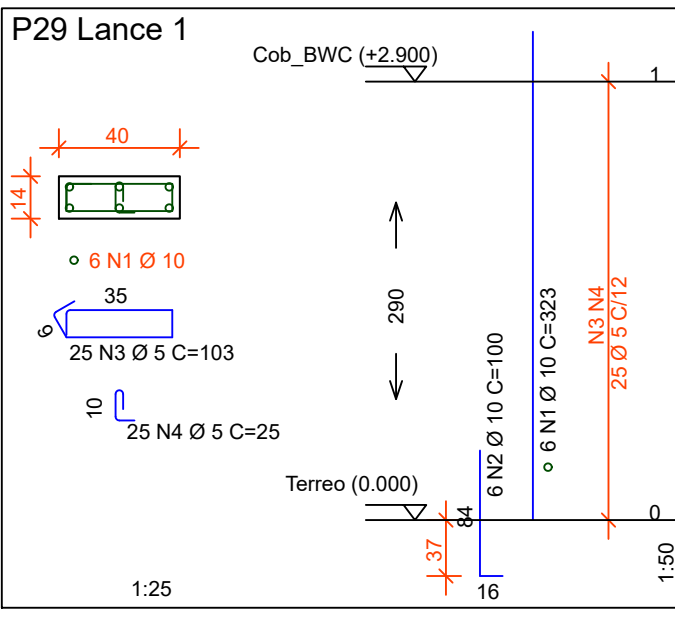
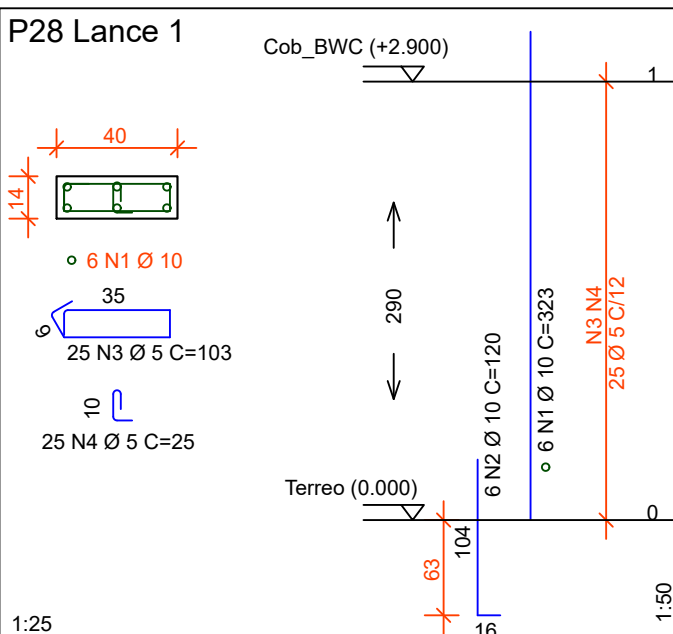
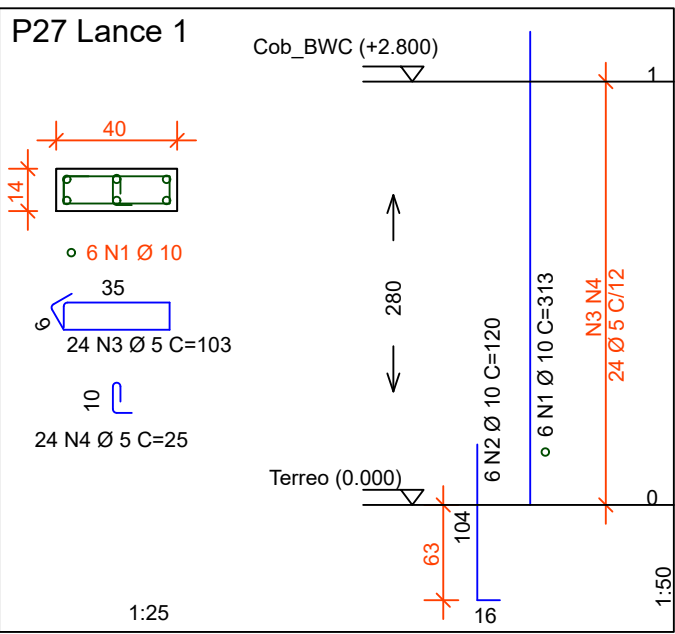
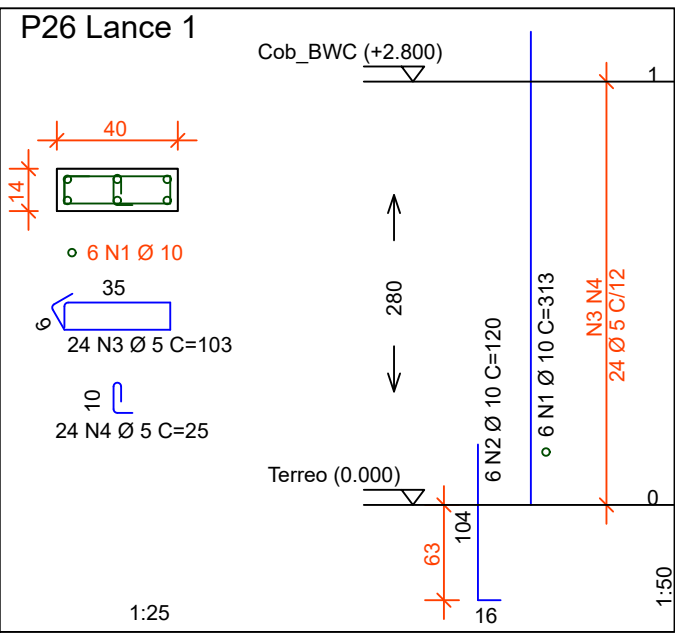
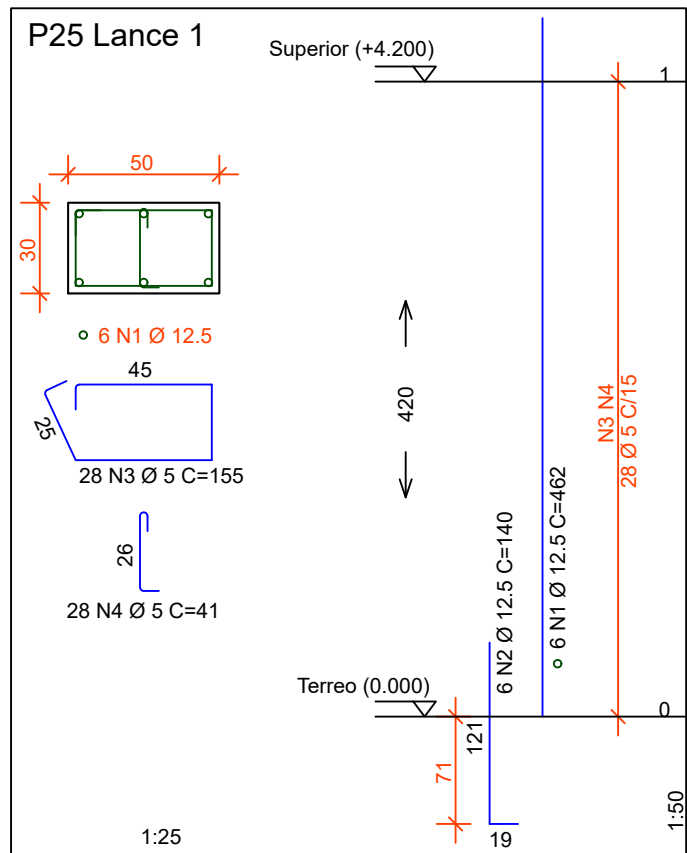
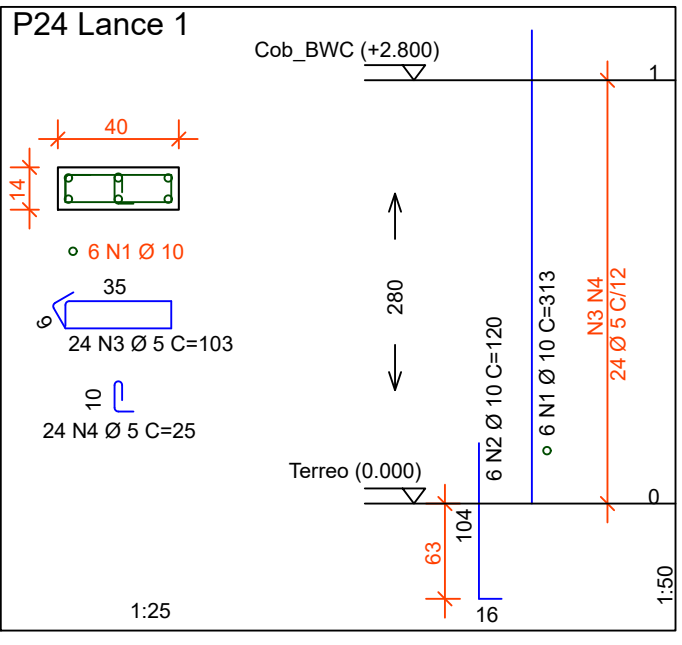
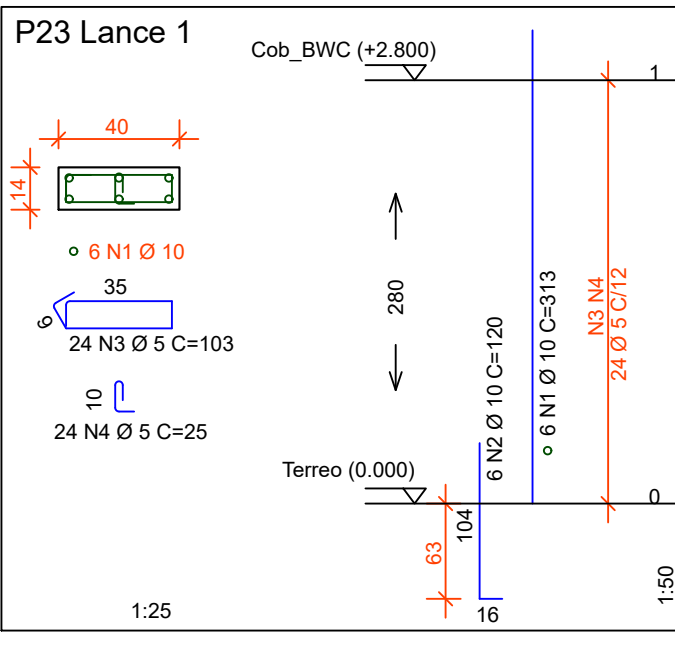
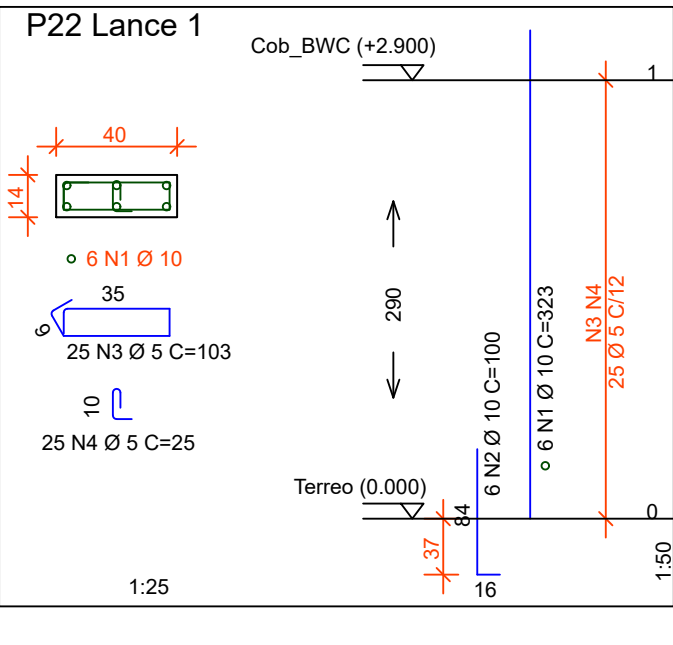
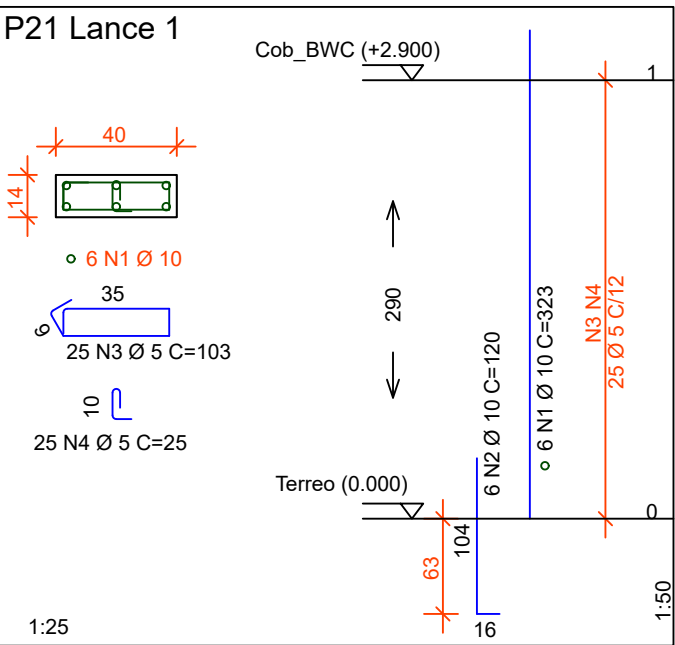
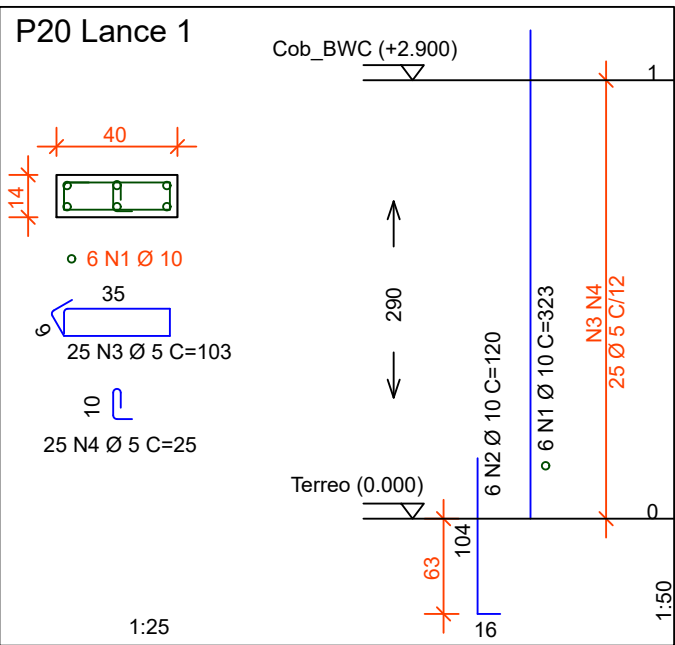
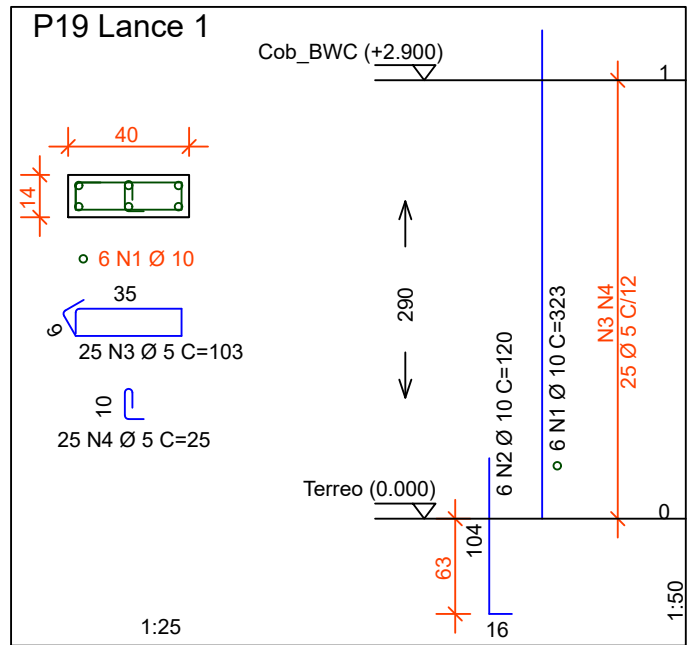
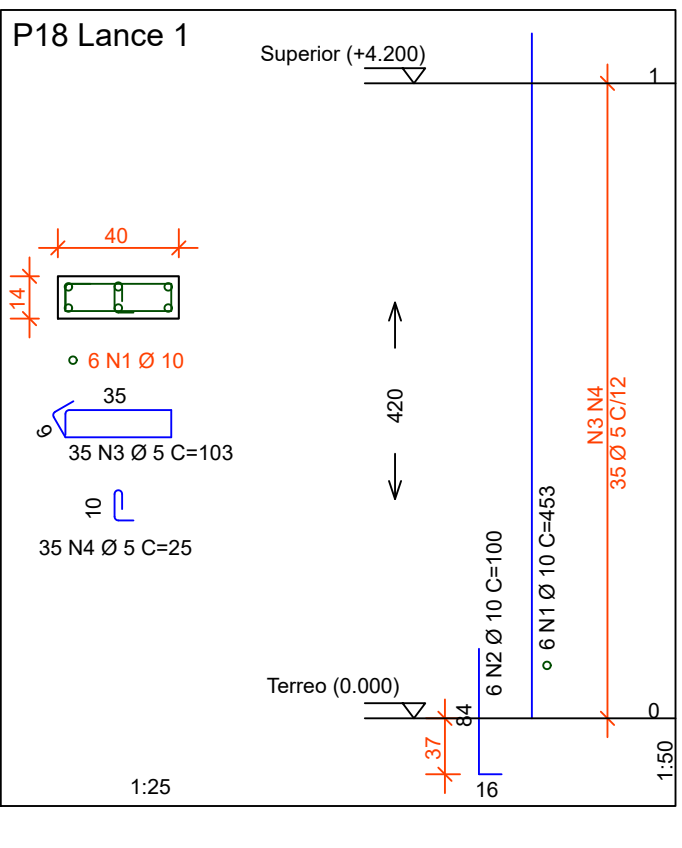
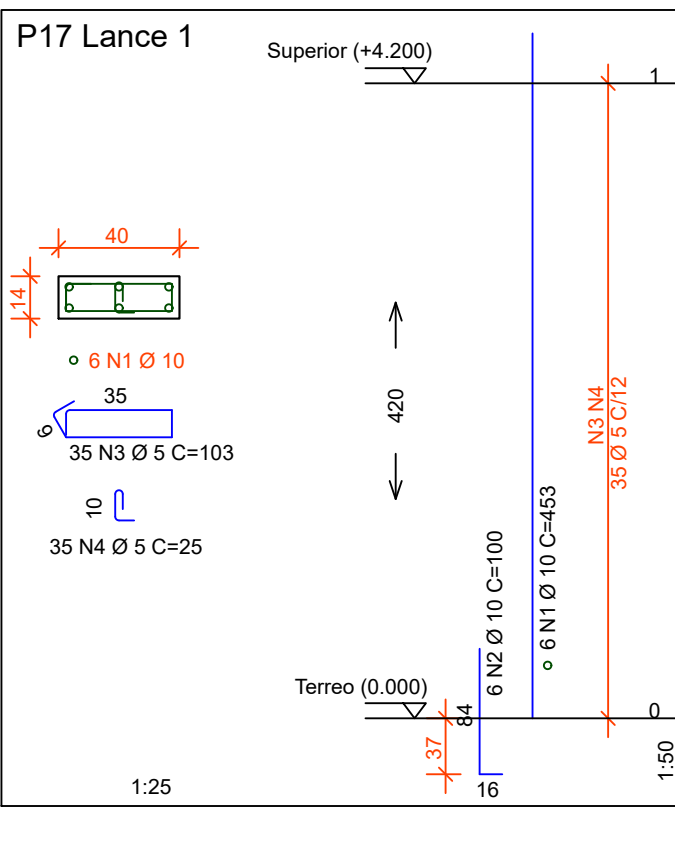
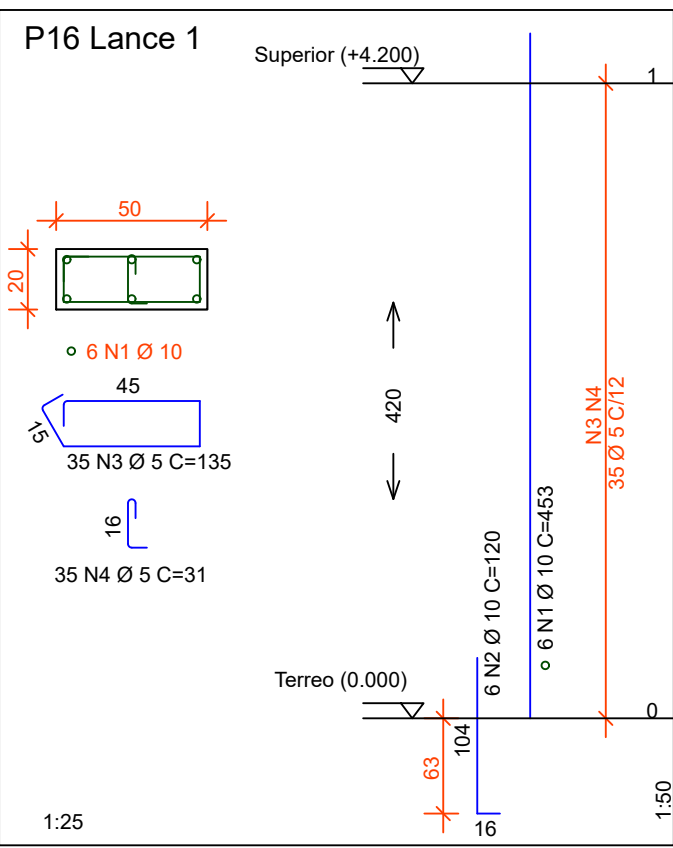
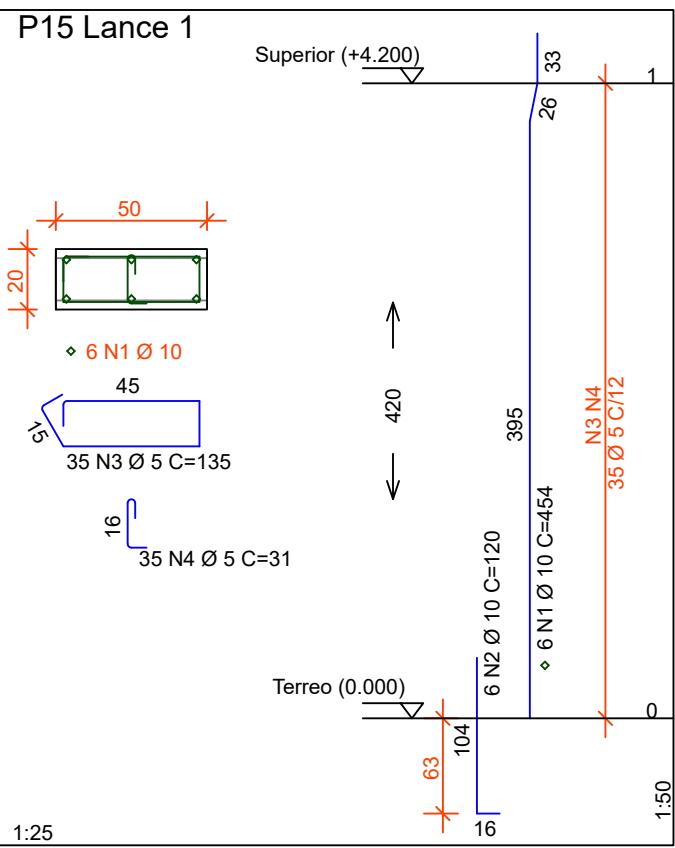
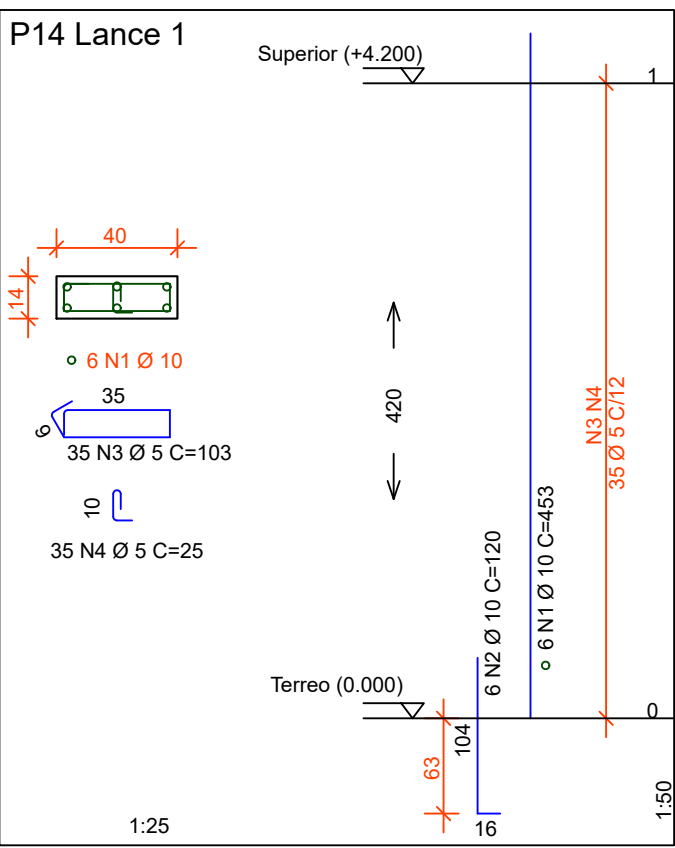
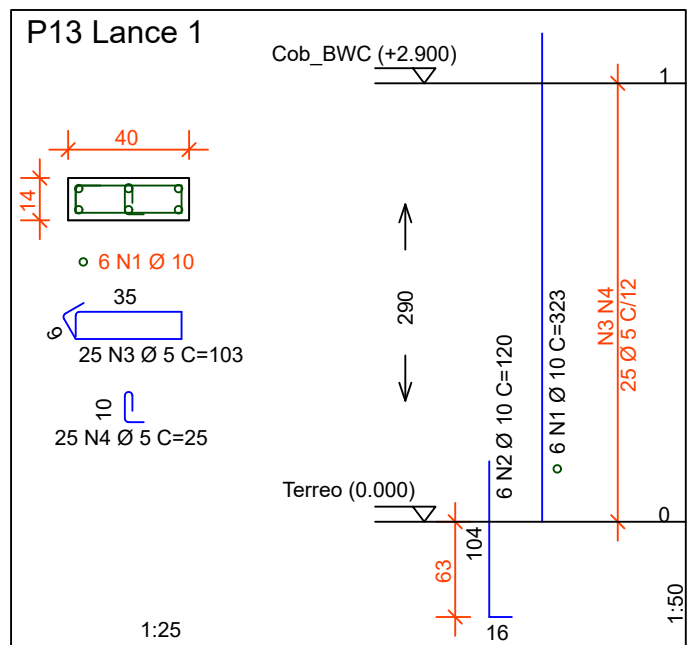
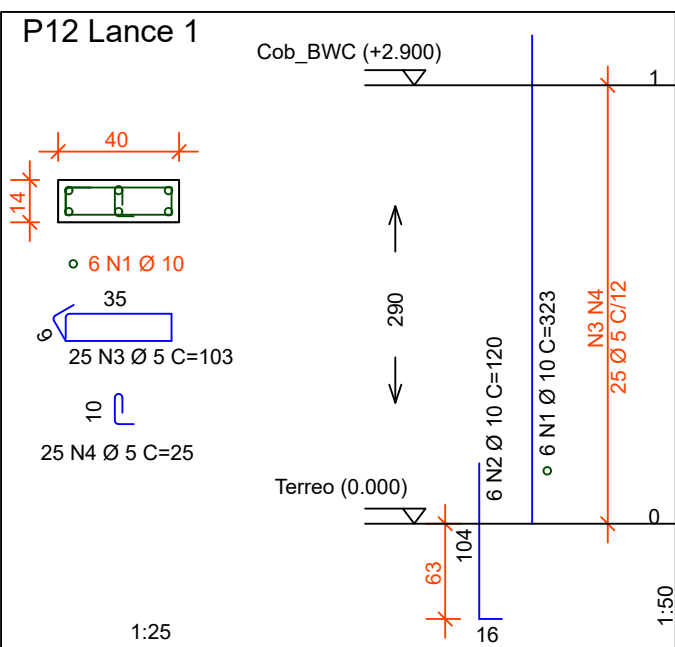
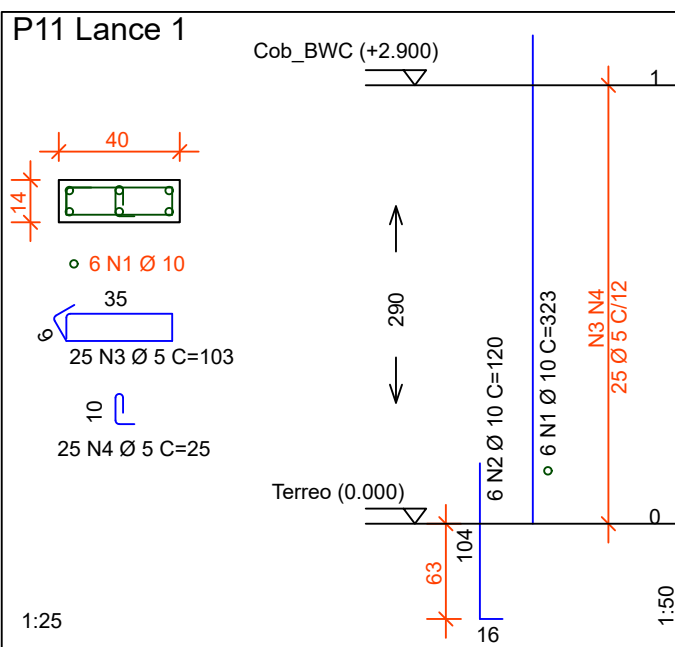
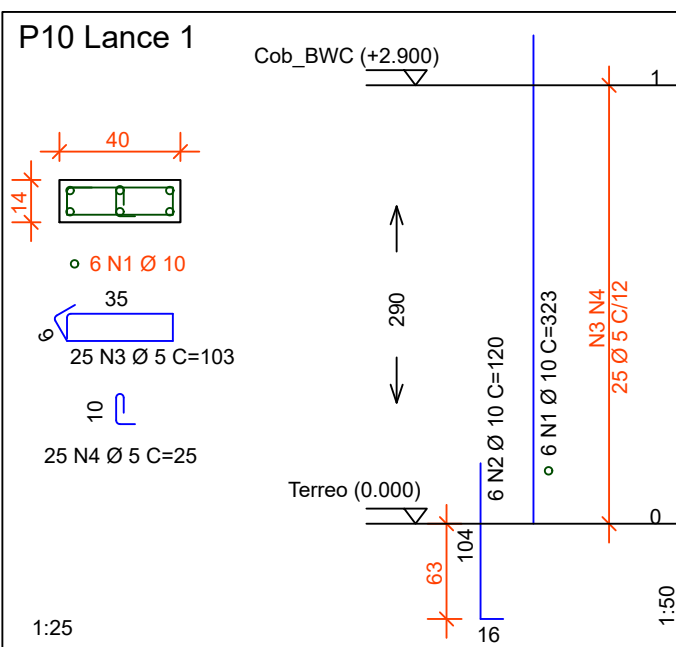
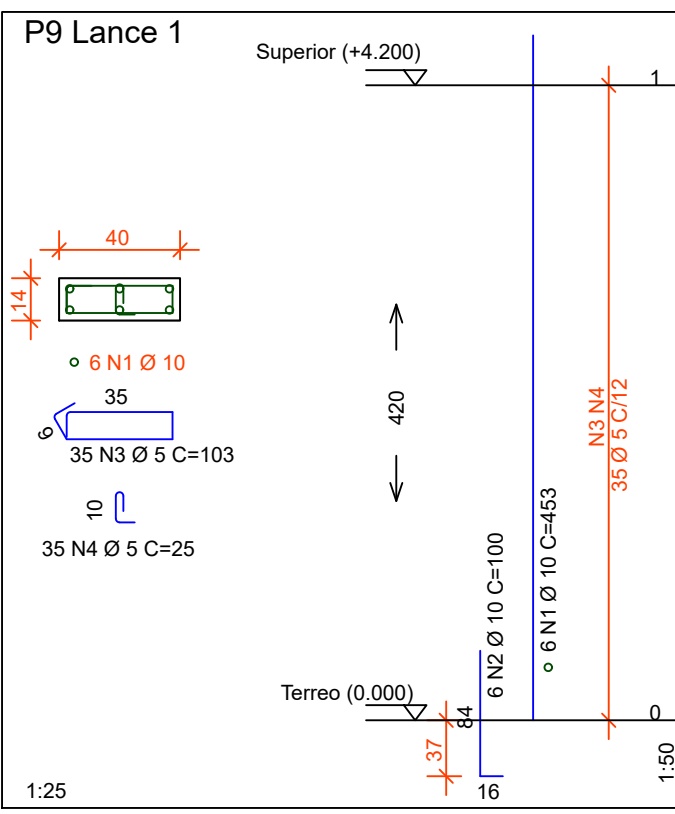
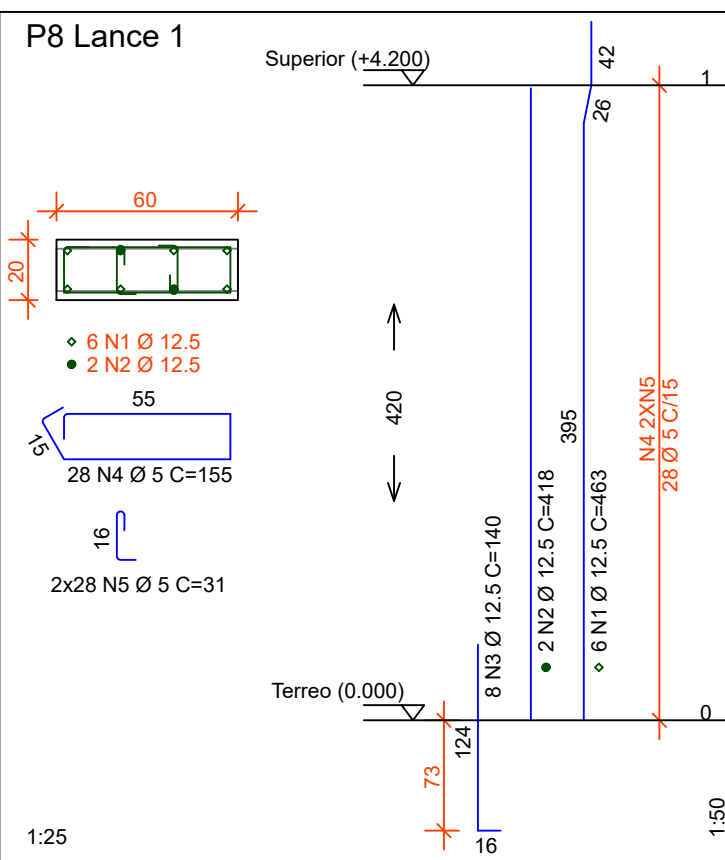
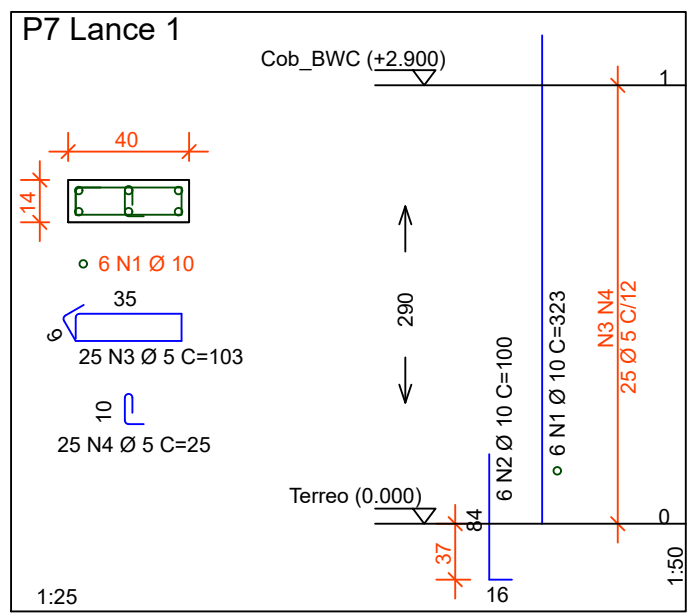
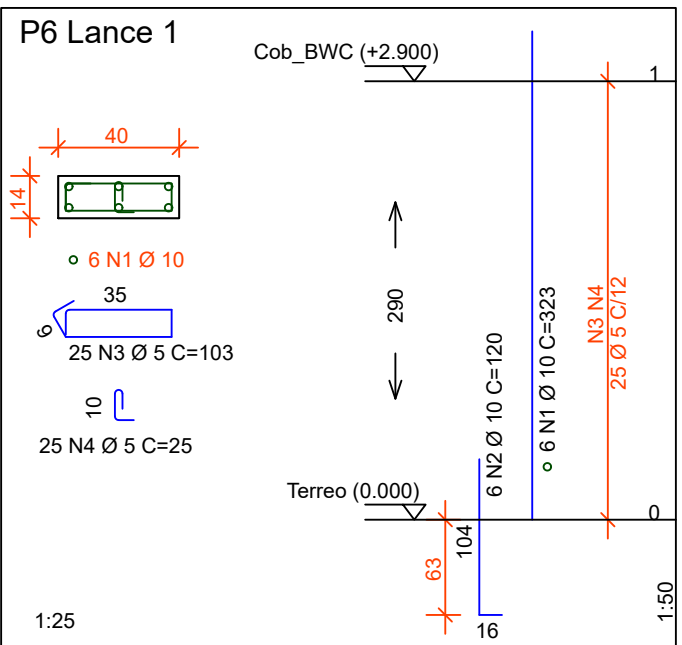
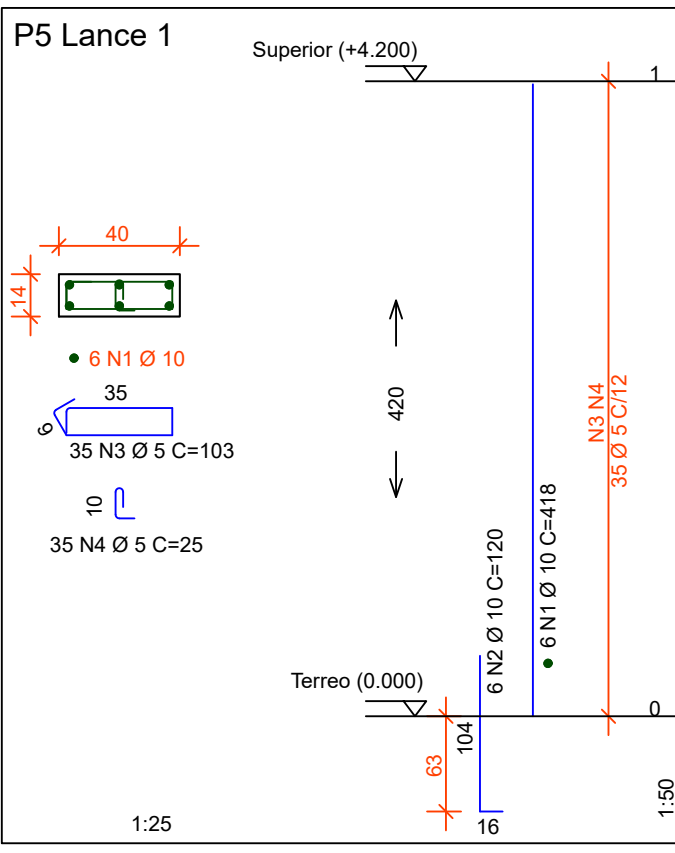
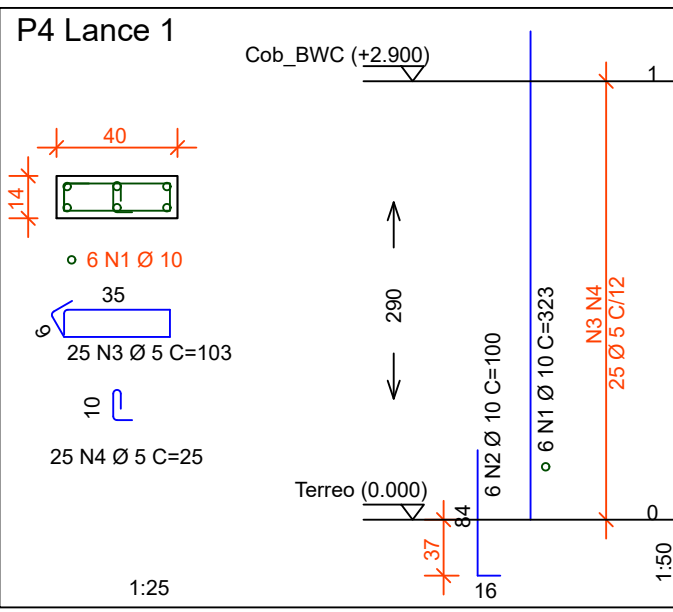
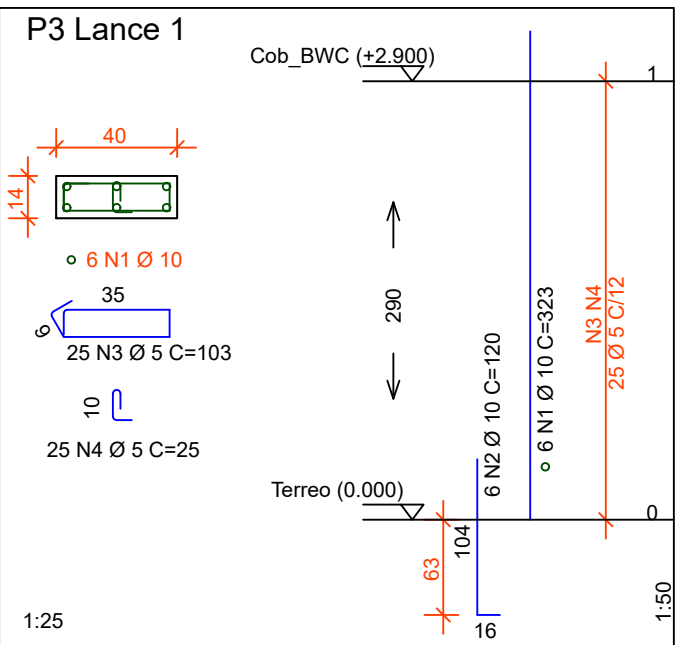
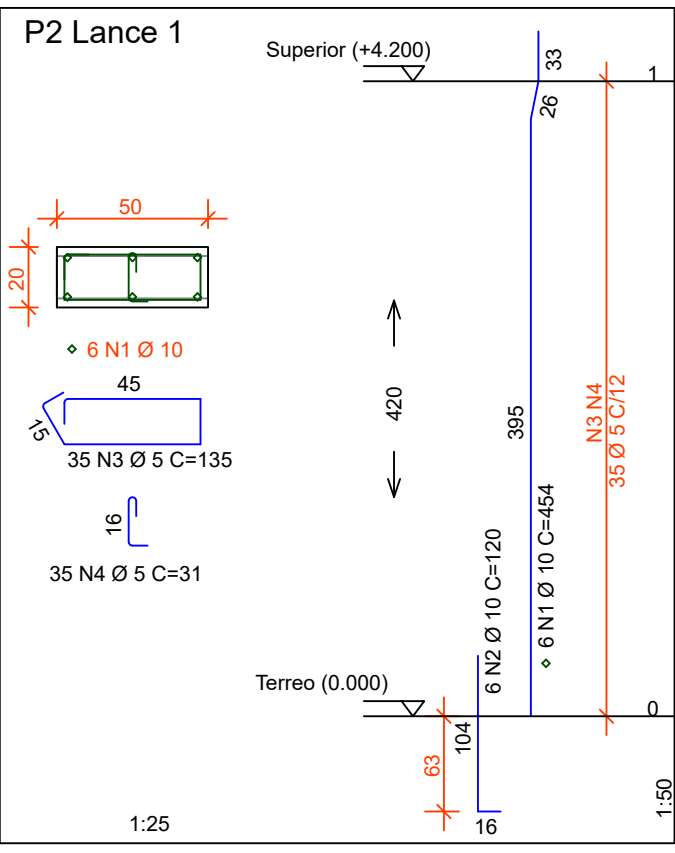
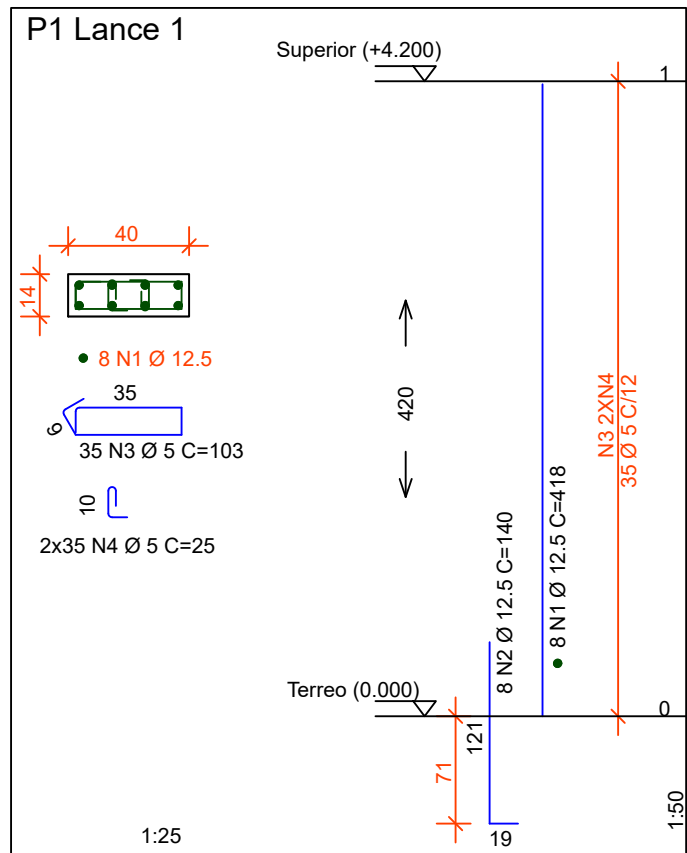


ACO	POS	BIT (mm)	QUANT	COMPRIMENTO UNIT (cm)	TOTAL (cm)
P1 Lance 1					
50	1	12,5	8	418	3344
60	2	12,5	8	140	1120
60	3	5	35	103	3605
60	4	5	70	25	1750
P2 Lance 1					
50	1	10	6	454	2724
50	2	10	6	120	720
60	3	5	35	135	4725
60	4	5	35	31	1085
P3 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P4 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P5 Lance 1					
50	1	10	6	418	2508
50	2	10	6	120	720
60	3	5	35	103	3605
60	4	5	35	25	875
P6 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	3605
60	4	5	25	25	625
P7 Lance 1					
50	1	10	6	323	1938
50	2	10	6	100	600
60	3	5	25	103	2575
60	4	5	25	25	625
P8 Lance 1					
50	1	12,5	2	463	2778
50	2	12,5	2	418	2508
50	3	12,5	8	140	1120
60	4	5	28	155	4340
60	5	5	56	31	1736
P9 Lance 1					
50	1	10	6	453	2718
50	2	10	6	100	600
60	3	5	35	103	3605
60	4	5	35	25	875
P10 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P11 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P12 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P13 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P14 Lance 1					
50	1	10	6	453	2718
50	2	10	6	120	720
60	3	5	35	103	3605
60	4	5	35	25	875
P15 Lance 1					
50	1	10	6	454	2724
50	2	10	6	120	720
60	3	5	35	135	4725
60	4	5	35	31	1085
P16 Lance 1					
50	1	10	6	453	2718
50	2	10	6	100	600
60	3	5	35	135	4725
60	4	5	35	31	1085
P17 Lance 1					
50	1	10	6	453	2718
50	2	10	6	100	600
60	3	5	35	103	3605
60	4	5	35	25	875
P18 Lance 1					
50	1	10	6	453	2718
50	2	10	6	100	600
60	3	5	35	103	3605
60	4	5	35	25	875
P19 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P20 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P21 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P22 Lance 1					
50	1	10	6	323	1938
50	2	10	6	100	600
60	3	5	25	103	2575
60	4	5	25	25	625
P23 Lance 1					
50	1	10	6	313	1878
50	2	10	6	120	720
60	3	5	24	103	2472
60	4	5	24	25	600
P24 Lance 1					
50	1	10	6	313	1878
50	2	10	6	120	720
60	3	5	24	103	2472
60	4	5	24	25	600
P25 Lance 1					
50	1	12,5	6	462	2772
50	2	12,5	6	140	840
60	3	5	28	155	4340
60	4	5	28	41	1148
P26 Lance 1					
50	1	10	6	313	1878
50	2	10	6	120	720
60	3	5	24	103	2472
60	4	5	24	25	600
P27 Lance 1					
50	1	10	6	313	1878
50	2	10	6	120	720
60	3	5	24	103	2472
60	4	5	24	25	600
P28 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625
P29 Lance 1					
50	1	10	6	323	1938
50	2	10	6	120	720
60	3	5	25	103	2575
60	4	5	25	25	625

RESUMO AÇO CA 50-60			
ACO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	1138	175
50	10	741	457
50	12,5	128	123
Peso Total 60 =			175 kg
Peso Total 50 =			580 kg



CONTROLE DAS REVISÕES:		
REVISÃO	DATA	DESCRIÇÃO

**YUTAKA KOBAYASHI**  
Engenharia de Estruturas

Rua Antônio Felipe, 2360 - CENTRO - Paranavai - Paraná - CEP: 87704-030

(44) 9.8827-4040 - [yk@ykengeharia.com.br](mailto:yk@ykengeharia.com.br) - Visite nosso site! <http://www.ykengeharia.com.br>

PROJETO: **ESTRUTURAL EM CONCRETO ARMADO**

CLIENTE: **VANESSA APARECIDA HENRIQUE BALAN**  
OBRA: PARA CONSTRUÇÃO DE UMA EDIFICAÇÃO COMERCIAL EM CONCRETO ARMADO  
LOCAL: RUA MACHADO DE ASSIS, 173 / RUA SANTA JOAQUINA DE VEDRUNA, 141 ZONA 06 - MARINGÁ - PR

REFERÊNCIA(S):	REVISÃO:	PRANCHA:
Detalhes dos Pilares do Térreo;	<b>R-00</b>	<b>11</b>
RESPONSÁVEL TÉCNICO: <i>Yutaka Kobayashi</i>	DATA CRIAÇÃO: 23/11/2020	FCk (MPa) 30 MPa
Eng. MSc. Exp. Yutaka Mario Kobayashi Júnior CREA PR-88.748/D	ART Nº: 1720205324537	PROJETO Nº: P-489
		ESCALA: 1:50