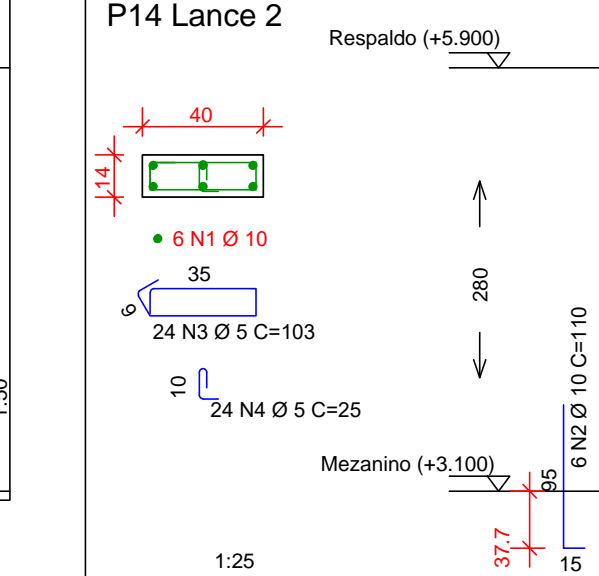
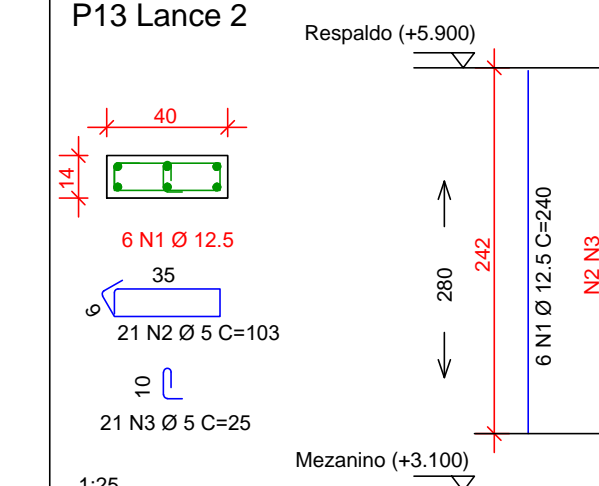
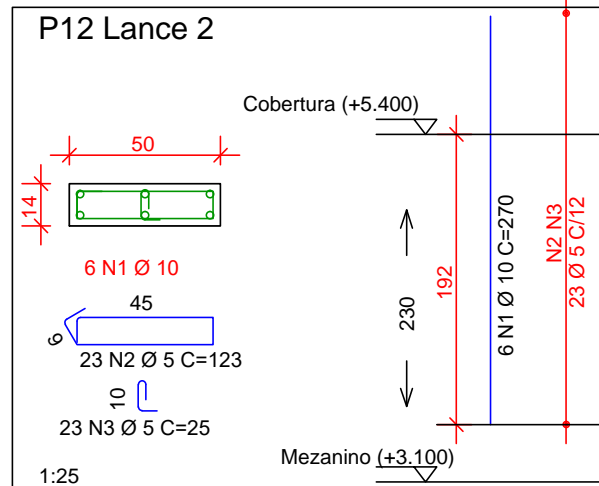
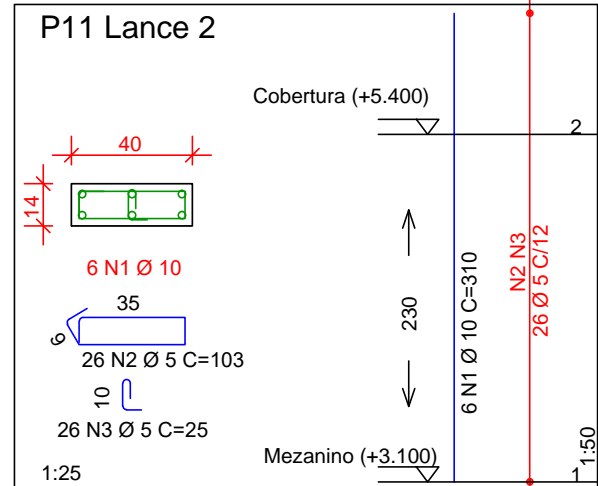
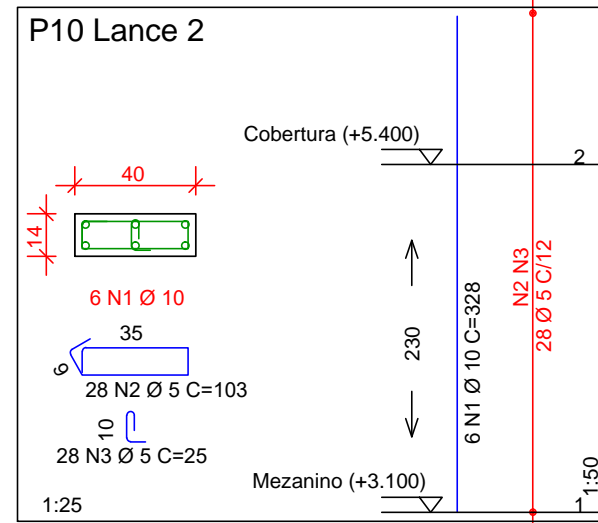
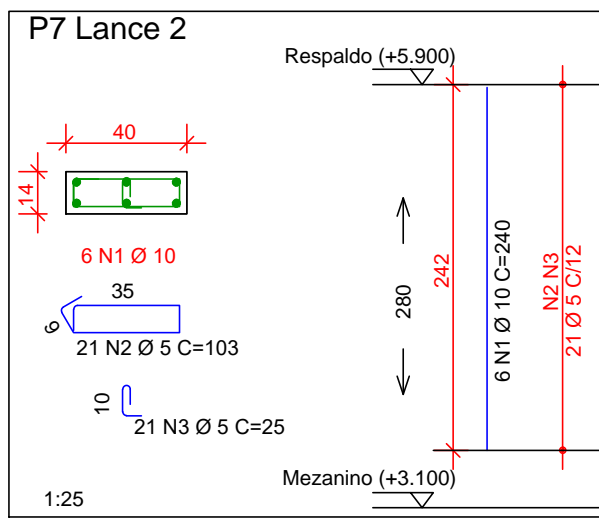
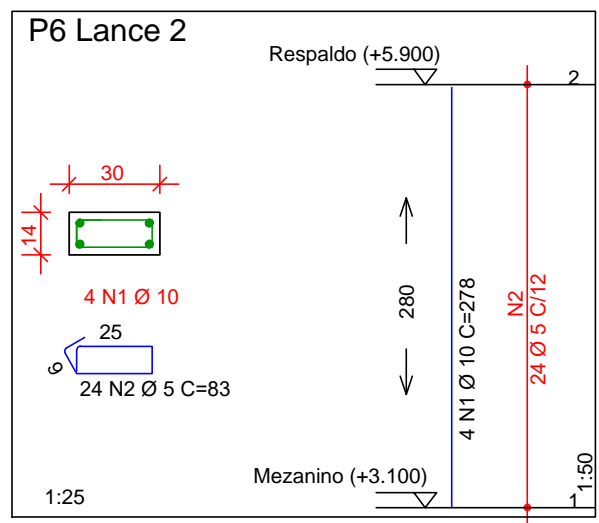
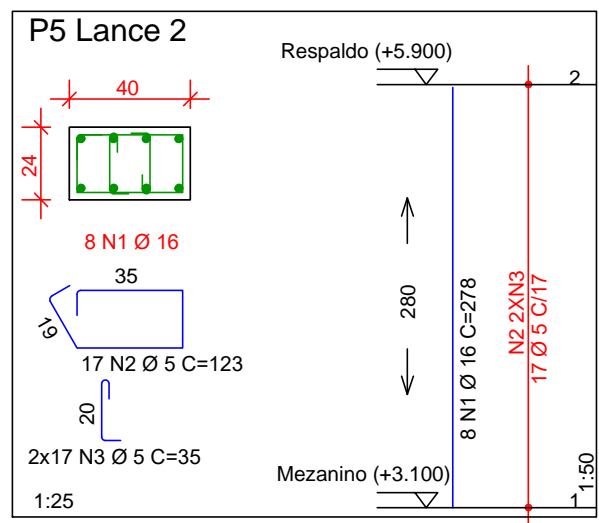
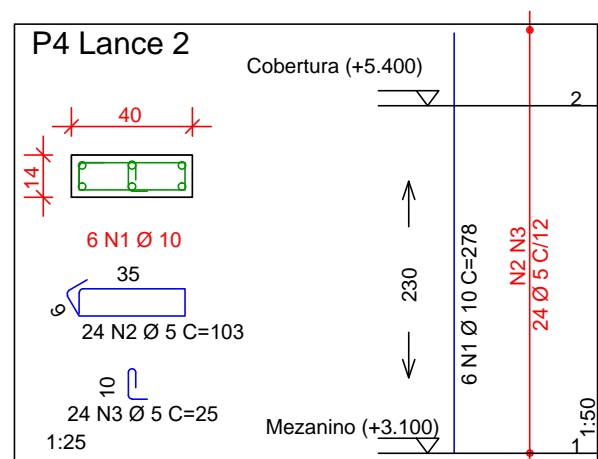
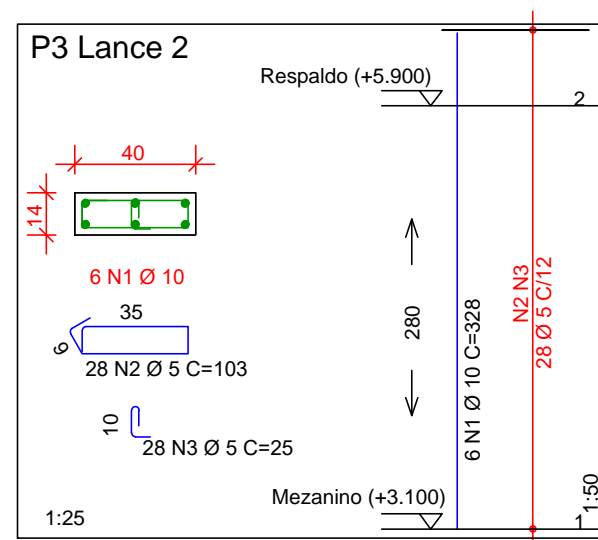


AÇO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
P1 Lance 1					
50	1	10	6	298	1788
50	2	10	6	140	840
60	3	5	25	103	2575
60	4	5	25	25	625
P2 Lance 1					
50	1	12,5	4	298	1192
50	2	12,5	4	115	460
60	3	5	25	83	2075
P3 Lance 1					
50	1	10	6	348	2088
50	2	10	6	113	678
60	3	5	26	103	2678
60	4	5	26	25	650
P4 Lance 1					
50	1	10	2	75	150
50	2	10	2	348	696
50	3	10	2	349	698
60	4	10	2	308	616
50	5	10	6	140	840
60	6	5	26	103	2678
60	7	5	26	25	650
P5 Lance 1					
50	1	16	8	370	2960
50	2	16	8	177	1416
60	3	5	19	123	2337
60	4	5	38	35	1330
P6 Lance 1					
50	1	10	4	348	1392
50	2	10	4	140	560
60	3	5	26	83	2158
P7 Lance 1					
50	1	10	6	386	2316
50	2	10	6	113	678
60	3	5	29	103	2987
60	4	5	29	25	725
P8 Lance 1					
50	1	10	6	348	2088
50	2	10	6	140	840
60	3	5	26	103	2678
60	4	5	26	25	650
P9 Lance 1					
50	1	10	6	348	2088
50	2	10	6	140	840
60	3	5	26	103	2678
60	4	5	26	25	650
P10 Lance 1					
50	1	10	6	348	2088
50	2	10	6	113	678
60	3	5	26	103	2678
60	4	5	26	25	650
P11 Lance 1					
50	1	10	6	348	2088
50	2	10	6	140	840
60	3	5	26	103	2678
60	4	5	26	25	650
P12 Lance 1					
50	1	10	6	386	2316
50	2	10	6	140	840
60	3	5	29	123	3567
60	4	5	29	25	725
P13 Lance 1					
50	1	12,5	6	395	2370
50	2	12,5	6	125	750
60	3	5	29	103	2987
60	4	5	29	25	725

RESUMO AÇO CA 50-60			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	428	66
50	10	280	173
50	12,5	48	46
50	16	44	69
Peso Total 60 =		66 kg	
Peso Total 50 =		288 kg	



AÇO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
P3 Lance 2					
50	1	10	6	328	1968
60	2	5	28	103	2884
60	3	5	28	25	700
P4 Lance 2					
50	1	10	6	278	1668
60	2	5	24	103	2472
60	3	5	24	25	600
P5 Lance 2					
50	1	16	8	278	2224
60	2	5	17	123	2091
60	3	5	34	35	1190
P6 Lance 2					
50	1	10	4	278	1112
60	2	5	24	83	1992
P7 Lance 2					
50	1	10	6	240	1440
60	2	5	21	103	2163
60	3	5	21	25	525
P8 Lance 2					
50	1	10	6	227	1362
60	2	5	20	103	2060
60	3	5	20	25	500
P9 Lance 2					
50	1	10	6	227	1362
60	2	5	20	103	2060
60	3	5	20	25	500
P10 Lance 2					
50	1	10	6	328	1968
60	2	5	28	103	2884
60	3	5	28	25	700
P11 Lance 2					
50	1	10	6	310	1860
60	2	5	26	103	2678
60	3	5	26	25	650
P12 Lance 2					
50	1	10	6	270	1620
60	2	5	23	123	2829
60	3	5	23	25	575
P13 Lance 2					
50	1	12,5	6	240	1440
60	2	5	21	103	2163
60	3	5	21	25	525
P14 Lance 2					
50	1	10	6	278	1668
50	2	10	6	110	660
60	3	5	24	103	2472
60	4	5	24	25	600

RESUMO AÇO CA 50-60			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	358	55
50	10	167	103
50	12,5	14	14
50	16	22	36
Peso Total 60 =		55 kg	
Peso Total 50 =		152 kg	

CONTROLE DAS REVISÕES:		
REVISÃO	DATA	DESCRIÇÃO

YUTAKA KOBAYASHI
Engenharia de Estruturas

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

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

PROJETO:

ESTRUTURAL EM CONCRETO ARMADO

CLIENTE:

OBRA:

PARA CONSTRUÇÃO DE UMA EDIFICAÇÃO COMERCIAL EM CONCRETO ARMADO

LÓCAL:

AVENIDA WALDEMAR ALLEGRETTI, 671 - JD. MUNIQUE - MARINGÁ - PR

REFERÊNCIA(S):
PILARES DO TERREO
PILARES DO MEZANINO

RESPONSÁVEL TÉCNICO:

Engº Me. Esp. Yutaka Mario Kobayashi Júnior
CREA PR-89.748/D

REVISÃO:
R-00

DATA CRIAÇÃO:
20/08/2020

ART Nº:
NART

PRANCHA:
05

FCR (MPa)
25 MPa

PROJETO Nº:
P-480

ESCALA:
1:50