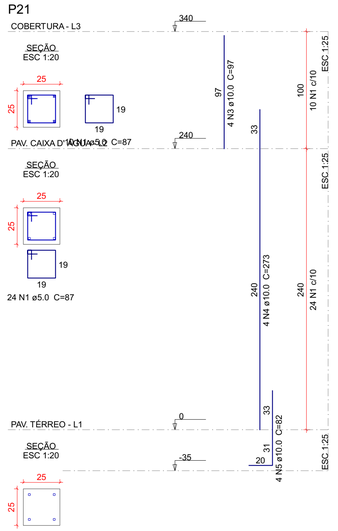
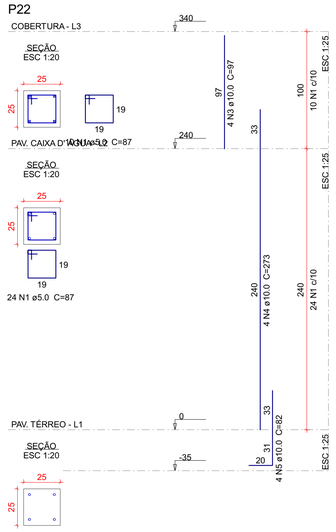
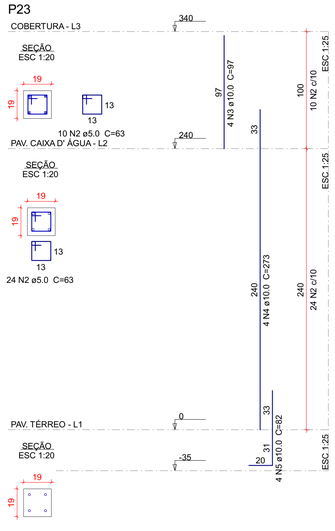
P21



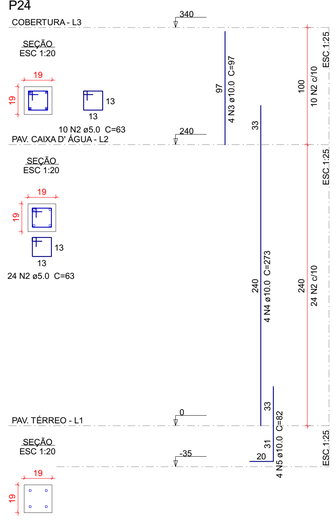
P22



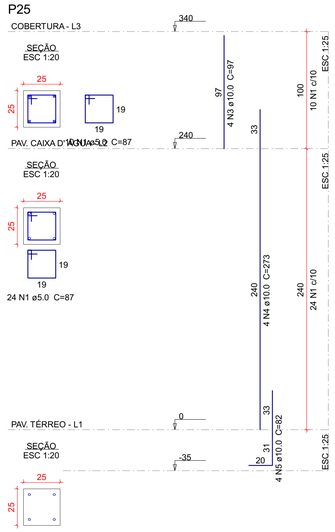
P23



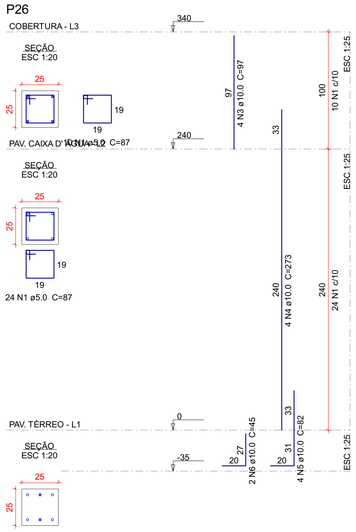
P24



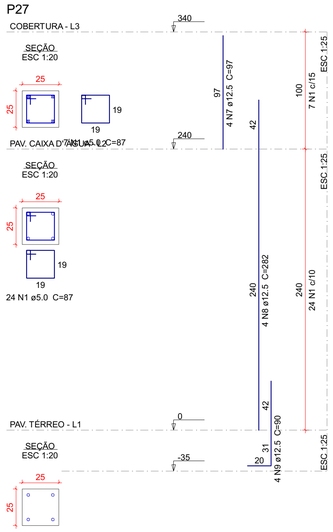
P25



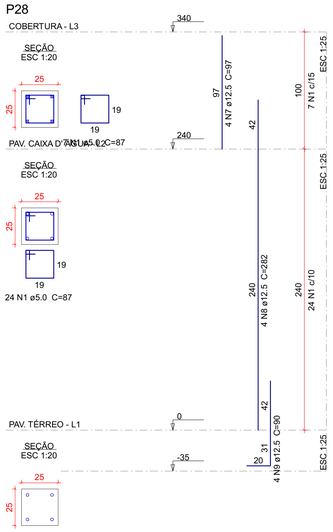
P26



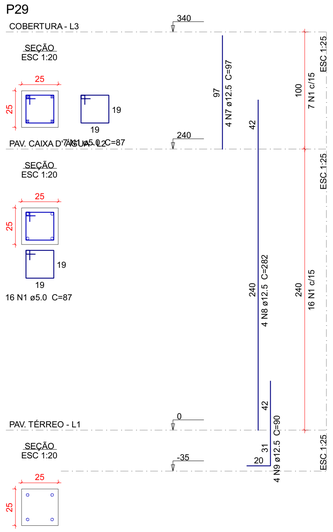
P27



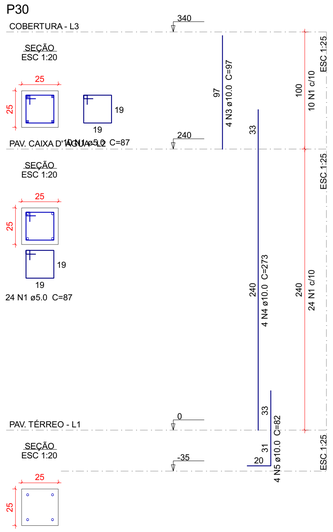
P28



P29



P30



Relação do aço

P21 P22 P23
P24 P25 P26
P27 P28 P29
P30

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	255	87	22185
	2	5.0	68	63	4284
CA50	3	10.0	28	97	2716
	4	10.0	28	273	7644
	5	10.0	28	82	2296
	6	10.0	2	45	90
	7	12.5	12	97	1164
	8	12.5	12	282	3384
	9	12.5	12	90	1080

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	10.0	127.5	78.6
	12.5	56.3	54.2
CA60	5.0	264.7	40.8

PESO TOTAL (kg)	
CA50	132.8
CA60	40.8

Volume de concreto (C-30) = 1.95 m³
Área de forma = 32.37 m²



- Efetuar o adensamento do concreto com uso de vibradores.

BATER EXTERNAMENTE NAS FORMAS NÃO FUNCIONA!!

PROJETO ESTRUTURAL

EM CASO DE DÚVIDAS CONSULTAR A DIVISÃO DE PROJETOS F. (41) 3888-4850

OBRA:
Bloco Multiuso - Campus União da Vitória

AUTOR(ES) DO PROJETO:
Eng. Civil Tiago Radaskievicz
PR 132.448/D

PROPRIETÁRIO:
INSTITUTO FEDERAL DO PARANÁ - CNPJ: 10.652.179/0001-15

RESPONSÁVEL EXECUÇÃO:
A LICITAR

REFERÊNCIA:
Pilares

DATA: 09/10/2026
ESCALA: INDICADA
DESENHO: Rada
ARQUIVO:

PRANCHA: 10 / 10
PLOTAGEM: 09/10/2026

DIRETORIA DE INFRAESTRUTURA - DI