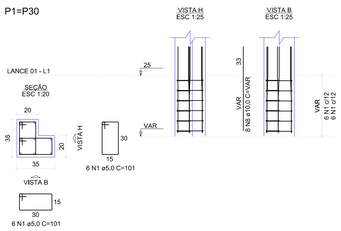
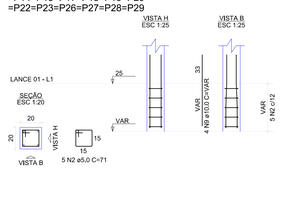
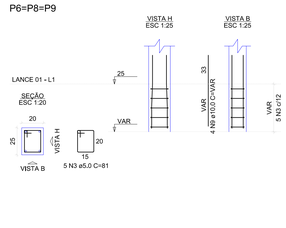
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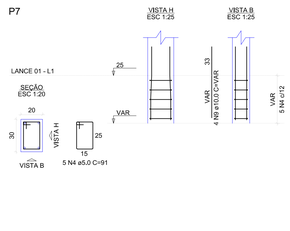
P2=P3=P4=P5=P11=P12=P13= =P14=P15=P17=P18=P19=P20= =P22=P23=P26=P27=P28=P29



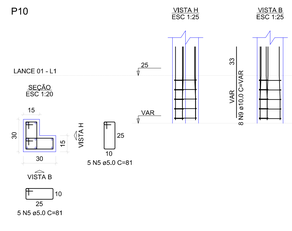
P6=P8=P9



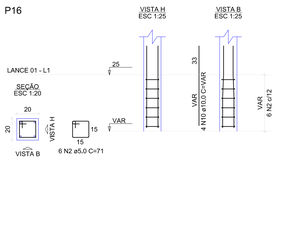
P7



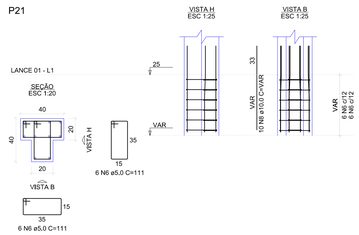
P10



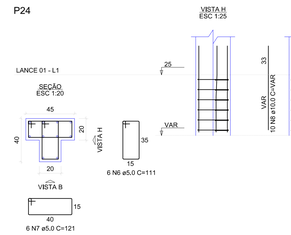
P16



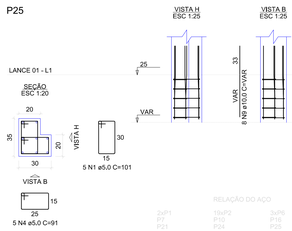
P21



P24



P25



RELAÇÃO DO AÇO

2xP1 P7 P21 | 19xP2 P10 P24 | 3xP6 P16 P25

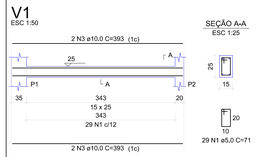
AÇO	N	DIAM. (mm)	QUANT.	C.UNIT. (cm)	C.TOTAL (cm)
CA50	1	5,0	28	101	2828
	2	5,0	103	71	7313
	3	5,0	15	81	1215
	4	5,0	12	91	1092
	5	5,0	10	81	810
	6	5,0	18	111	1998
	7	5,0	6	121	726
CA50	8	10,0	36	VAR	VAR
	9	10,0	108	VAR	VAR
	10	10,0	4	VAR	VAR

RESUMO DO AÇO

AÇO	DIAM. (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	10,0	156,8	96,8
CA60	5,0	157,8	24,3
PESO TOTAL (kg)			
CA50	96,8		
CA60	24,3		

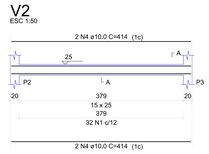
Volume de concreto (C-30) = 0,96 m³
Área de forma = 16,66 m²

V1



SEÇÃO A-A ESC 1:25

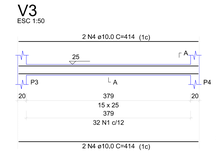
V2



SEÇÃO A-A ESC 1:25



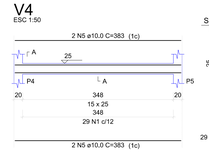
V3



SEÇÃO A-A ESC 1:25



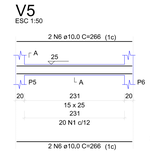
V4



SEÇÃO A-A ESC 1:25



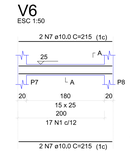
V5



SEÇÃO A-A ESC 1:25



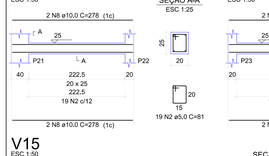
V6



SEÇÃO A-A ESC 1:25

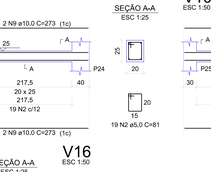


V8

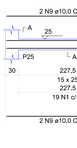


SEÇÃO A-A ESC 1:25

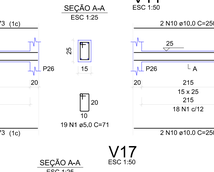
V9



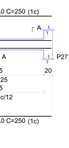
SEÇÃO A-A ESC 1:25



V10



SEÇÃO A-A ESC 1:25

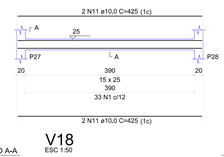


V11

SEÇÃO A-A ESC 1:25



V12



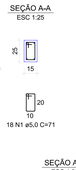
SEÇÃO A-A ESC 1:25



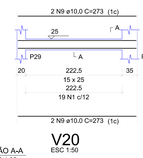
V13



SEÇÃO A-A ESC 1:25



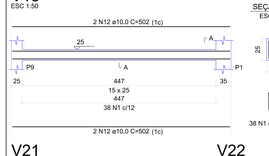
V14



SEÇÃO A-A ESC 1:25

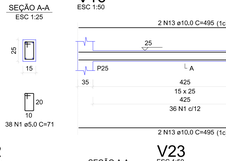


V15

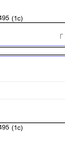


SEÇÃO A-A ESC 1:25

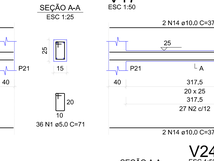
V16



SEÇÃO A-A ESC 1:25



V17



SEÇÃO A-A ESC 1:25

V18

SEÇÃO A-A ESC 1:25

V19

SEÇÃO A-A ESC 1:25

V20

SEÇÃO A-A ESC 1:25

V21

SEÇÃO A-A ESC 1:25

V22

SEÇÃO A-A ESC 1:25

V23

SEÇÃO A-A ESC 1:25

V24

SEÇÃO A-A ESC 1:25

V25

SEÇÃO A-A ESC 1:25

V26

SEÇÃO A-A ESC 1:25

V27

SEÇÃO A-A ESC 1:25

V28

SEÇÃO A-A ESC 1:25

V29

SEÇÃO A-A ESC 1:25

V30

SEÇÃO A-A ESC 1:25

V7

SEÇÃO A-A ESC 1:25

RELAÇÃO DO AÇO

V1 V4 V7 V10 V13 V16 V19 V22 V25 V28 | V2 V5 V8 V11 V14 V17 V20 V23 V26 V29 | V3 V6 V9 V12 V15 V18 V21 V24 V27 V30

AÇO	N	DIAM. (mm)	QUANT.	C.UNIT. (cm)	C.TOTAL (cm)
CA50	1	5,0	419	71	29749
	2	5,0	323	81	26163
CA50	3	10,0	4	393	1572
	4	10,0	8	414	3312
	5	10,0	4	348	1392
	6	10,0	4	266	1064
	7	10,0	8	215	1720
	8	10,0	4	278	1112
	9	10,0	12	273	3276
	10	10,0	8	250	2000
	11	10,0	4	425	1700
	12	10,0	4	502	2008
	13	10,0	4	495	1980
	14	10,0	4	373	1492
	15	10,0	4	349	1396
	16	10,0	4	339	1356
	17	10,0	4	336	1344
	18	10,0	4	252	1008
	19	10,0	4	203	812
	20	10,0	4	498	1992
	21	10,0	4	379	1516
	22	10,0	4	326	1304
	23	10,0	4	337	1348
	24	10,0	4	318	1272
	25	10,0	4	263	1052
	26	10,0	4	380	1520

RESUMO DO AÇO

AÇO	DIAM. (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	10,0	600,2	248,7
CA60	5,0	598,1	86,2
PESO TOTAL (kg)			
CA50	248,7		
CA60	86,2		

Volume de concreto (C-30) = 4,36 m³
Área de forma = 68,19 m²

Forma do pavimento LANCE 01 (Nível 25)

escala 1:50

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	15x25	0	25
V2	15x25	0	25
V3	15x25	0	25
V4	15x25	0	25
V5	15x25	0	25
V6	15x25	0	25
V7	15x25	0	25
V8	20x25	0	25
V9	20x25	0	25
V10	15x25	0	25
V11	15x25	0	25
V12	15x25	0	25
V13	15x25	0	25
V14	15x25	0	25
V15	15x25	0	25
V16	15x25	0	25
V17	20x25	0	25
V18	20x25	0	25
V19	20x25	0	25
V20	20x25	0	25
V21	20x25	0	25
V22	20x25	0	25
V23	15x25	0	25
V24	20x25	0	25
V25	20x25	0	25
V26	20x25	0	25
V27	20x25	0	25
V28	20x25	0	25
V29	20x25	0	25
V30	15x25	0	25

Pilares			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	L 35x35x20x20	0	25
P2	20x20	0	25
P3	20x20	0	25
P4	20x20	0	25
P5	20x20	0	25
P6	20x25	0	25
P7	20x30	0	25
P8	20x25	0	25
P9	20x25	0	25
P10	L 30x30x15x15	0	25
P11	20x20	0	25
P12	20x20	0	25
P13	20x20	0	25
P14	20x20	0	25
P15	20x20	0	25
P16	20x20	0	25
P17	20x20	0	25
P18	20x20	0	25
P19	20x20	0	25
P20	20x20	0	25
P21	T 40x40x20x20	0	25
P22	20x20	0	25
P23	20x20	0	25
P24	T 45x40x20x20	0	25
P25	L 30x35x20x20	0	25
P26	20x20	0	25
P27	20x20	0	25
P28	20x20	0	25
P29	20x20	0	25
P30	L 35x35x20x20	0	25

Características dos materiais	
fck (kgf/cm²)	Ecs (kgf/cm²)
300	268384

Dimensão máxima do agregado = 19 mm

Legenda dos pilares
Pilar que passa

Legenda das vigas e paredes
Viga

PREFEITURA MUNICIPAL DE SERRANIA
CNPJ:18.243.261/0001-06

Proprietário: PREFEITURA MUNICIPAL DE SERRANIA
Projeto: ESTRUTURAL
Ref.: PILARES E VIGAS - LANCE 01
Endereço: RUA CEL. ANTONIO FAUSTINO, CENTRO - SERRANIA - MG
Data: JUN/2021
Autores: SAMIR ABDALA N. FERREIRA
Engenheiro Civil - CREA 240413/D - MG
Escala: 1/50
Folha: 01