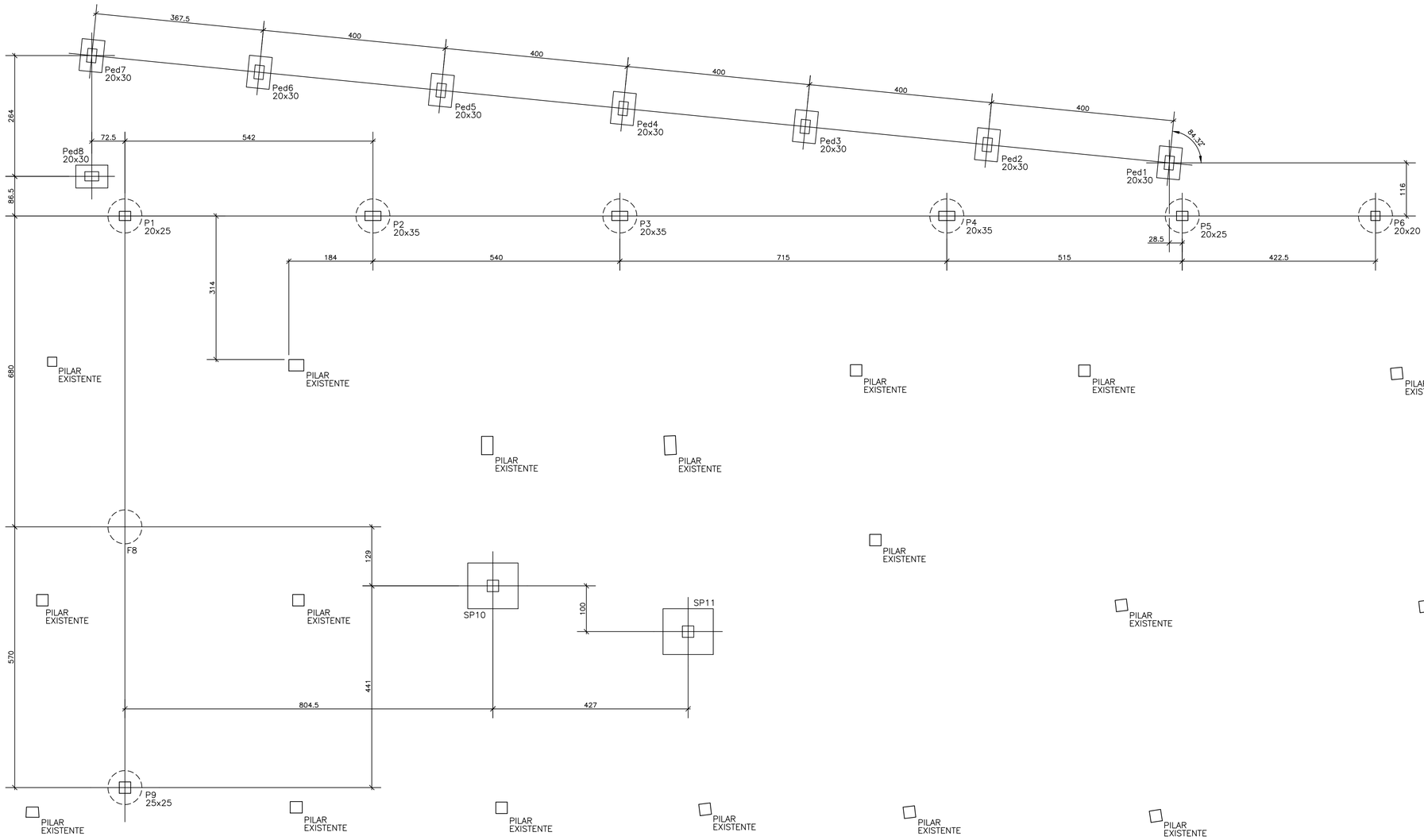
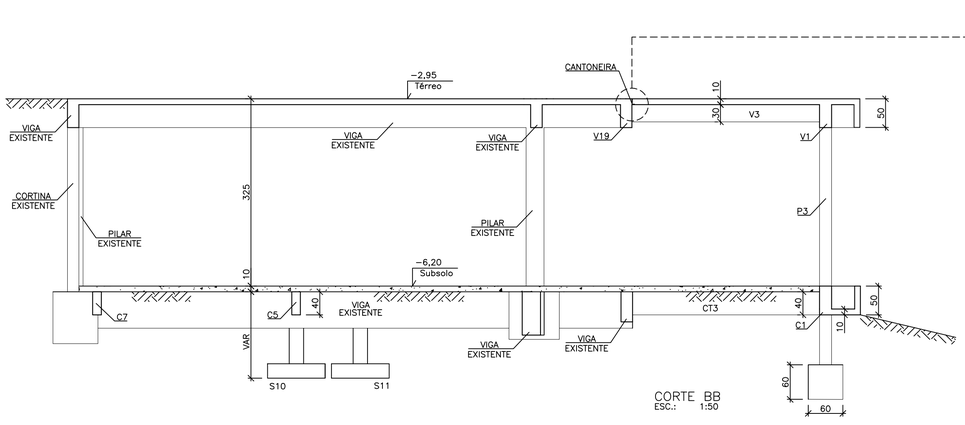


Pilar							
Nome	Seção (cm)	Carga Máx. (tf)	Carga Mín. (tf)	Mx (kgf.m)	My (kgf.m)	Fx (tf)	Fy (tf)
P1	20x25	14.3	11.2	900	400	1.1	2.8
P2	20x35	19.6	14.6	200	500	1.1	0.3
P3	20x35	21.9	16.2	200	600	1.6	0.2
P4	20x35	22.2	16.4	200	400	1.2	0.2
P5	20x25	21.8	15.2	600	400	0.8	2.4
P6	20x20	9.7	6.7	300	200	0.6	1.1
P8	25x25	21.6	16.7	300	200	0.7	0.6
P9	25x25	11.3	8.3	1100	100	0.1	3.2

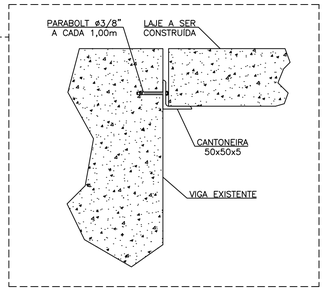
NOTAS:

1) AS FUNDAÇÕES DOS PILARES P1,P2,P3,P4,P5,P6,P8,P9, SERÃO EM TUBULÕES E SUAS BASES DEVERÃO ESTAR ASSENTADAS EM TERRENO C/ TAXA DE TRABALHO $\sigma = 2.0 Kg/cm^2$
2) AS PROFUNDIDADES DOS TUBULÕES SERÁ DEFINIDA NA OBRA EM EM FUNÇÃO DO TERRENO ENCONTRADO DURANTE AS ESCAVAÇÕES. PROFUNDIDADE MÍNIMA DE 3,0m.
3) AS SAPATAS S9=S10 DEVERÃO SER EXECUTAS SOB AS VIGAS EXISTENTES INDICADAS NO PROJETO COMO REFORÇO DE FUNDAÇÃO.
4) CONCRETO ESTRUTURAL: C30 – 30MPa
5) O NIVEL 0,00 DO PROJETO ESTRUTURAL CORRESPONDE AO NÍVEL 0,00 DO PROJETO ARQUITETÔNICO.
6) A DEMOLIÇÃO DE PARTE DA ESTRUTURA DO TÉRREO, INDICADA NO PROJETO, DEVERÁ SER EXECUTADAS APÓS O ESCORAMENTO DA ESTRTURA DA REGIÃO AFETEDA.

LOCAÇÃO E CARGA DOS PILARES
ESC.: 1:50

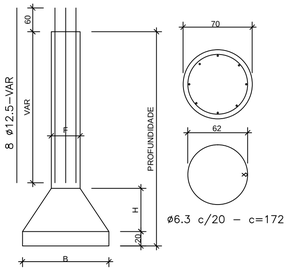


CORTE BB
ESC.: 1:50



TUBULOES	CARGA	ØFUSTE	ØBASE	ALTURA
	TON	F (cm)	B (cm)	H (cm)
T1–T6–T9	15.0	70	100	25
T2–T3–T4–T5–T8	25.0	70	130	55

$\sigma_{solo} \geq 2.0 Kg/cm^2$ (Taxa de Trabalho do Terreno)



REVISÃO	DATA	DESCRIÇÃO
1	SET/2019	

SÉCULO 30 ARQUITETURA E RESTAURO LTDA
Av. NOSSA SENHORA DO CARMO nº221 sala 313 - CARMO - BH/MG
Tel: (31) 996172149 - seculo30arq@gmail.com
ARQUITETURA E RESTAURO

IPHAN - Instituto do Patrimonio Histórico e Artístico Nacional
Superintendência do IPHAN em MINAS GERAIS

PROJETO
IGREJA DE NOSSA SENHORA DO ROSÁRIO
SERRO - MG

PRANCHA
1/6

TÍTULO DO DESENHO
CASA do CONGADEIRO -LOCAÇÃO e CARGA dos PILARES e CORTE BB

DESENVOLVIMENTO / DESENHO
ABÍLIO MAGNO MARQUES DE ALMEIDA / ALEXANDRE MARQUES DE ALMEIDA

DATA
NOV. 2022

ESCALA
1/50

RESPONSÁVEL TÉCNICO
SÉCULO 30 ARQUITETURA E RESTAURO
CAU-MG: 17085-2
CAU-MG: A58843-2

ABÍLIO MAGNO MARQUES DE ALMEIDA
CREA-MG: 39.561/D

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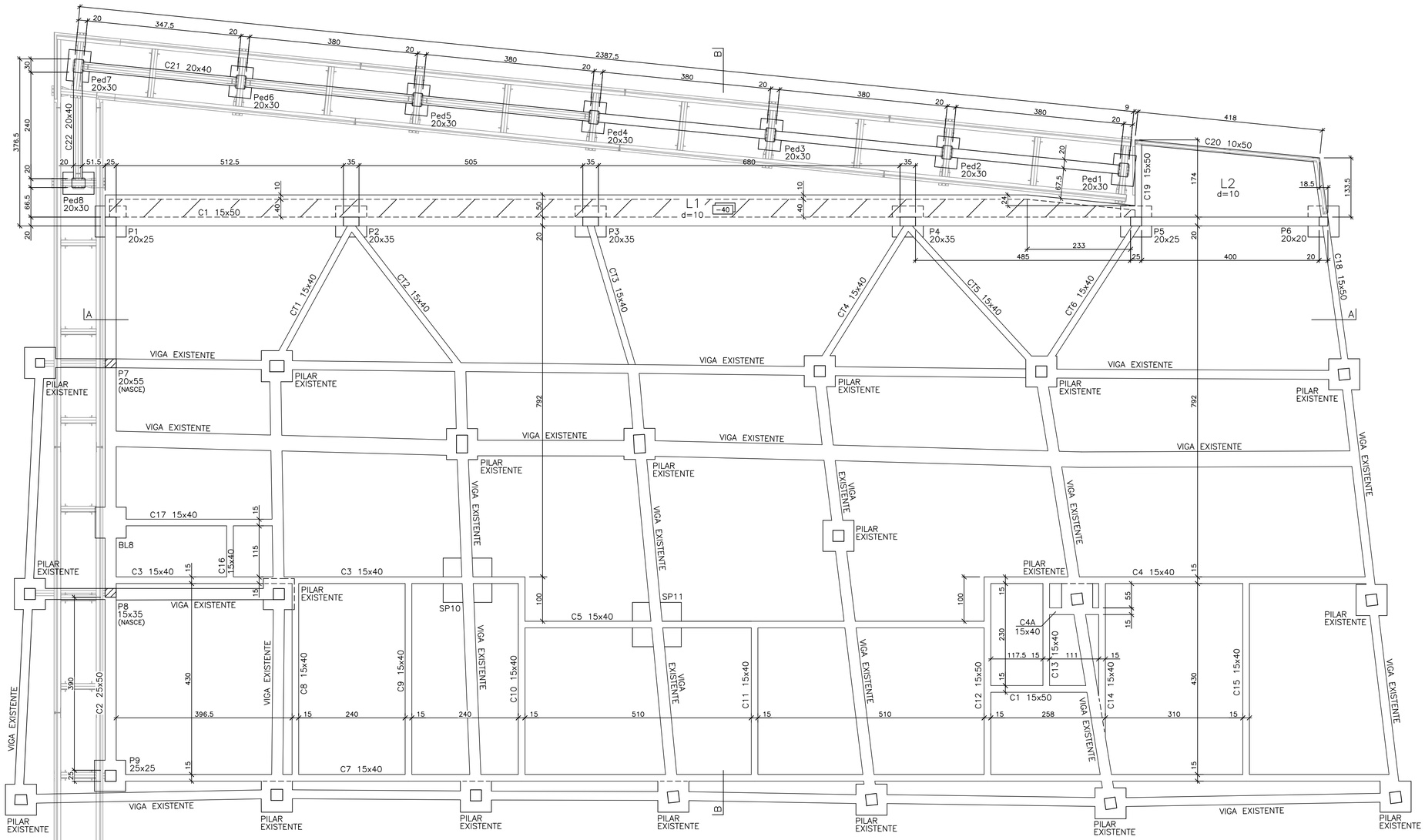
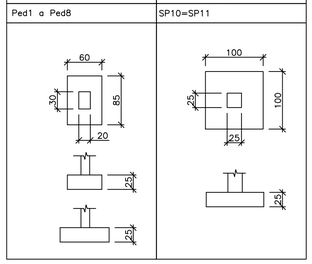


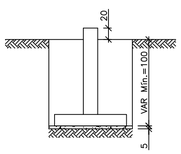
FORMA DO SUBSOLO
ESC.: 1:50

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
C1	20x50	0	-630
C2	25x50	0	-630
C3	15x40	0	-630
C4	15x40	0	-630
C4A	15x40	0	-630
C5	15x40	0	-630
C6	15x40	0	-630
C7	15x40	0	-630
C8	15x40	0	-630
C9	15x40	0	-630
C10	15x40	0	-630
C11	15x40	0	-630
C12	15x40	0	-630
C13	15x40	0	-630
C14	15x40	0	-630
C15	15x40	0	-630
C16	15x40	0	-630
C17	15x40	0	-630
C18	15x40	10	-620
C19	15x50	10	-620
C20	10x50	10	-620
C21	20x40	-	-
C22	20x40	-	-
CT1	15x40	0	-630
CT2	15x40	0	-630
CT3	15x40	0	-630
CT4	15x40	0	-630
CT5	15x40	0	-630
CT6	15x40	0	-630

Características dos materiais	
fck (kgf/cm²)	Ecs (kgf/cm²)
300	260716

65x85x25	100x100x25
Ped1 a Ped8	SP10=SP11





$\sigma_t \geq 1.0 kg/cm^2$ (Taxa de Trabalho do Terreno)
CONCRETO–C30 fck ≥ 30.0MPa

REVISÃO 1	DATA SET/2019	DESCRIÇÃO

SÉCULO 30 ARQUITETURA E RESTAURO LTDA
Av. NOSSA SENHORA DO CARMO nº221 sala 313 - CARMO - BH/MG
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PROJETO
IGREJA DE NOSSA SENHORA DO ROSÁRIO
SERRO - MG

PRANCHA
2/6

TITULO DO DESENHO
CASA do CONGADEIRO -FORMA do SUBSOLO

DESENVOLVIMENTO / DESENHO
ABÍLIO MAGNO MARQUES DE ALMEIDA / ALEXANDRE MARQUES DE ALMEIDA

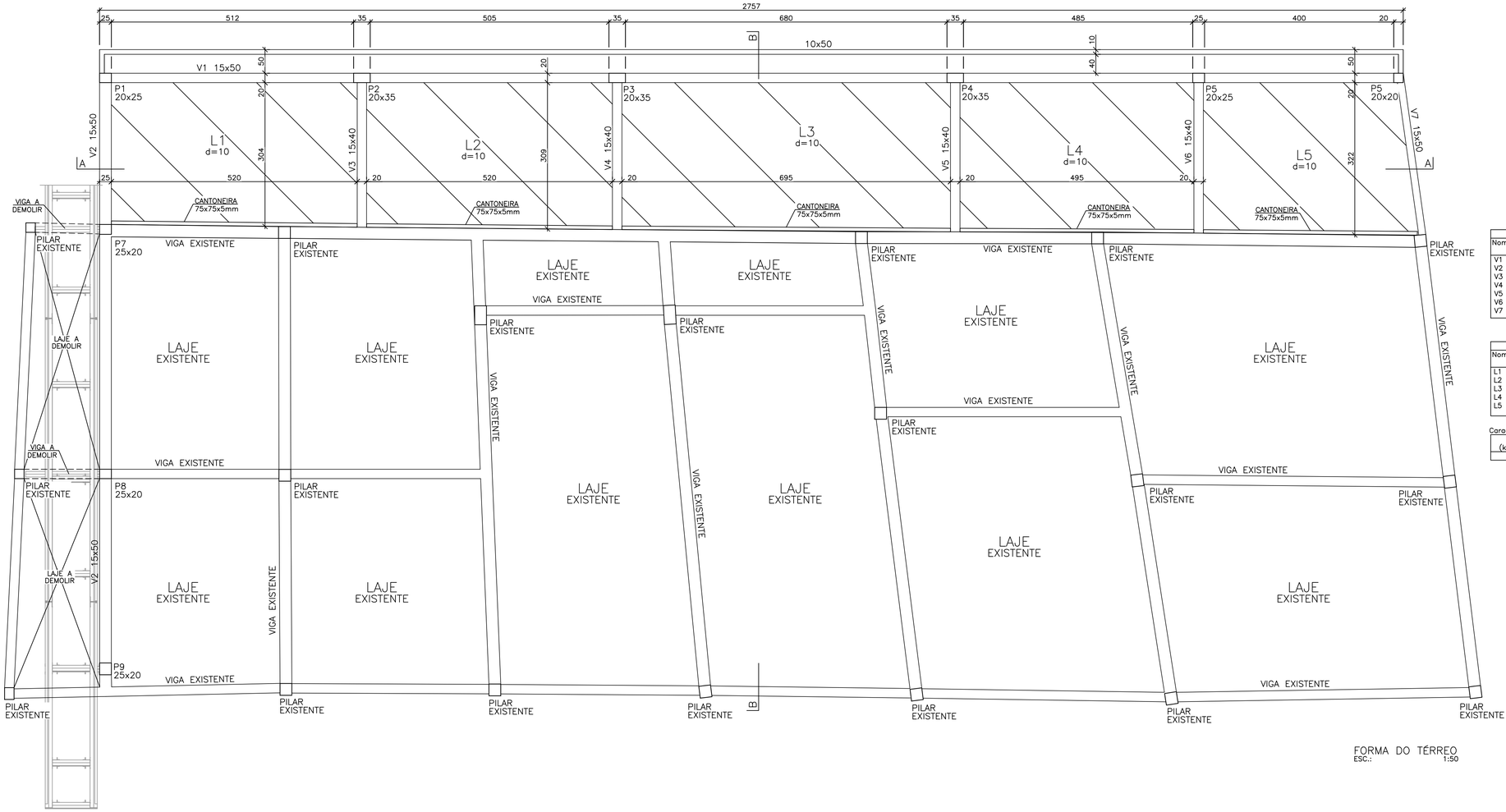
DATA
NOV. 2022

ESCALA
1/50

RESPONSÁVEL TECNICO
Maria Lorrana Paulo CAU-MG: A5843-2
SÉCULO 30 ARQUITETURA E RESTAURO
CAU-MG: 17085-2

ABÍLIO MAGNO MARQUES DE ALMEIDA
CREA-MG: 19.561/D

FORMATO A1 - 841x594 - 15/04/2026



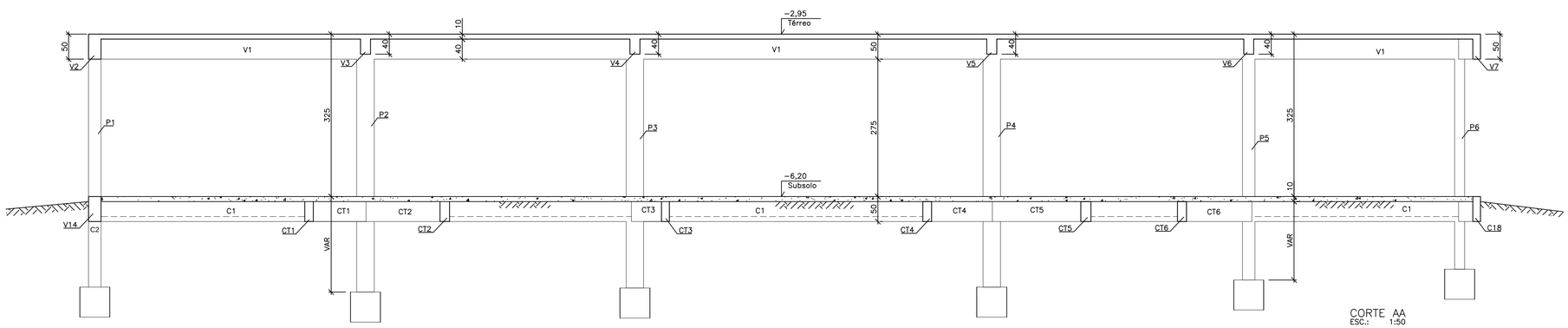
FORMA DO TÉRREO
ESC.: 1:50

Vigas			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V1	20x50	0	325
V2	25x50	0	325
V3	20x40	0	325
V4	20x40	0	325
V5	20x40	0	325
V6	20x40	0	325
V7	15x50	0	325

Lajes					
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Sobrecarga (kgf/m²)
L1	Maciça	10	0	325	650
L2	Maciça	10	0	325	650
L3	Maciça	10	0	325	650
L4	Maciça	10	0	325	650
L5	Maciça	10	0	325	650

Características dos materiais

fck (kgf/cm²)	Ecs (kgf/cm²)
300	260716



CORTE AA
ESC.: 1:50

REVISÃO 1	DATA SET/2019	DESCRIÇÃO

SÉCULO 30 ARQUITETURA E RESTAURO LTDA
Av. NOSSA SENHORA DO CARMO nº221 sala 313 - CARMO - BH/MG
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Superintendência do IPHAN em MINAS GERAIS

PROJETO
IGREJA DE NOSSA SENHORA DO ROSÁRIO
SERRO - MG

PRANCHA
3/6

TÍTULO DO DESENHO
CASA do CONGADEIRO - FORMA do TÉRREO e CORTE AA

DESENVOLVIMENTO / DESENHO
ABÍLIO MAGNO MARQUES DE ALMEIDA / ALEXANDRE MARQUES DE ALMEIDA

DATA
NOV. 2022

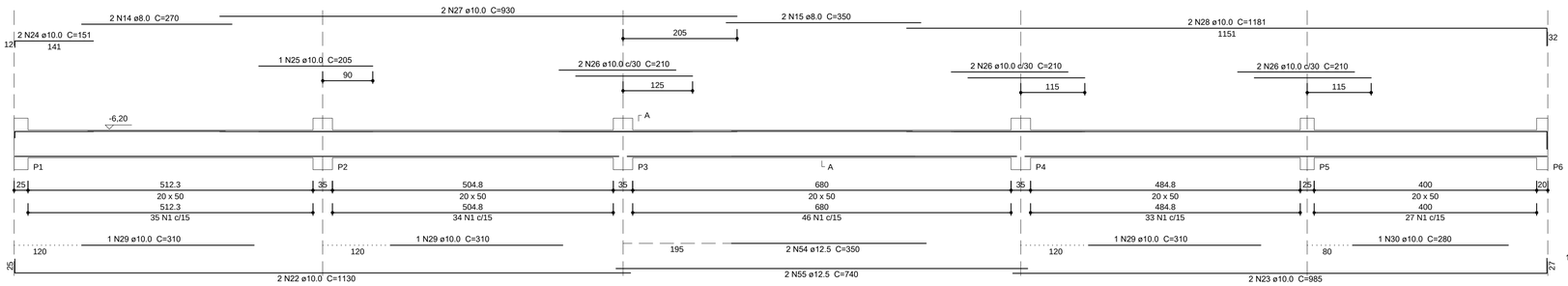
ESCALA
1/50

RESPONSÁVEL TÉCNICO
Milena Carneiro Paulo CAU-MG: A58843-2
SÉCULO 30 ARQUITETURA E RESTAURO
CAU-MG: 17085-2

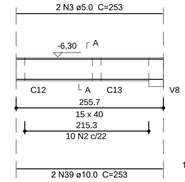
ABÍLIO MAGNO MARQUES DE ALMEIDA
CREA-MG: 19.561/D

FORMATO A1 - 841x594 - 15/04/2026

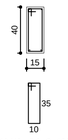
C1 (20 x 50)
ESC 1:50



C6 (15 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25



Relação do aço

8xB1=B2=B3=B4=B5=B6=B8=B9 C1
C2 C3 C4 C4A
C5 C6 C7
C10 C11 C12
C16 2xC8=C9

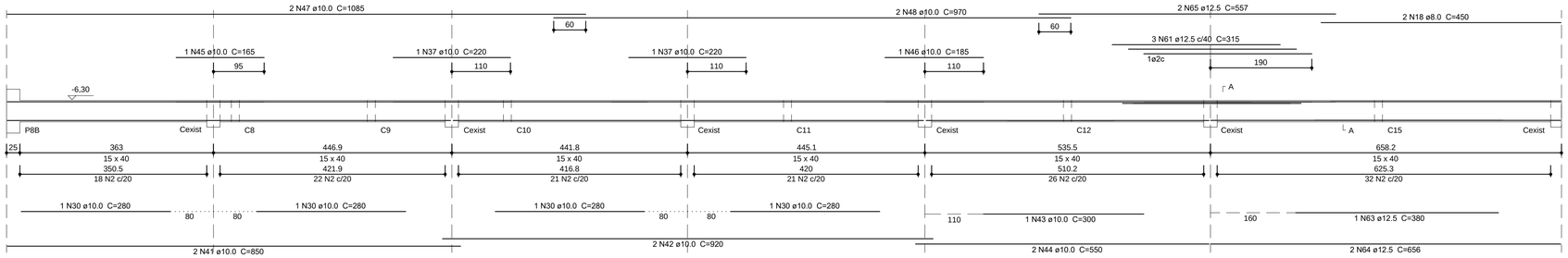
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	175	132	23100
	2	5.0	418	102	42636
	3	5.0	2	253	506
	4	5.0	3	CORR	1236
CA50	5	6.3	86	142	12212
	6	6.3	2	358	716
	7	6.3	6	459	2754
	8	6.3	2	458	916
	9	6.3	11	420	4620
	10	6.3	30	VAR	VAR
	11	6.3	155	164	25420
	12	6.3	80	244	19520
	13	6.3	48	268	12864
	14	8.0	2	270	540
	15	8.0	2	350	700
	16	8.0	4	138	552
	17	8.0	2	403	806
	18	8.0	2	450	900
	19	8.0	2	140	280
	20	8.0	4	CORR	1652
	21	8.0	4	CORR	1656
	22	10.0	2	1130	2260
	23	10.0	2	985	1970
	24	10.0	2	151	302
	25	10.0	1	205	205
	26	10.0	6	210	1260
	27	10.0	2	930	1860
	28	10.0	2	1181	2362
	29	10.0	3	310	930
	30	10.0	5	280	1400
	31	10.0	2	983	1966
	32	10.0	4	245	980
	33	10.0	5	200	1000
	34	10.0	2	1013	2026
	35	10.0	2	250	500
	36	10.0	2	1087	2174
	37	10.0	4	220	880
	38	10.0	2	1131	2262
	39	10.0	2	253	506
	40	10.0	2	358	716
	41	10.0	2	850	1700
	42	10.0	2	920	1840
	43	10.0	3	300	900
	44	10.0	2	550	1100
	45	10.0	1	165	165
	46	10.0	1	185	185
	47	10.0	2	1085	2170
	48	10.0	2	970	1940
	49	10.0	6	485	2910
	50	10.0	1	322	322
	51	10.0	2	459	918
	52	10.0	2	458	916
	53	10.0	2	140	280
	54	12.5	4	350	1400
	55	12.5	2	740	1480
	56	12.5	4	600	2400
	57	12.5	2	440	880
	58	12.5	2	400	800
	59	12.5	3	370	1110
	60	12.5	2	901	1802
	61	12.5	4	315	1260
	62	12.5	2	518	1036
	63	12.5	1	380	380
	64	12.5	2	656	1312
	65	12.5	2	557	1114
	66	16.0	3	400	1200
	67	16.0	2	730	1460
	68	16.0	3	390	1170
	69	16.0	2	570	1140

Resumo do aço

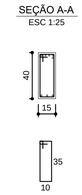
AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	838.3	205.1
	8.0	70.9	28
	10.0	409.1	252.2
	12.5	149.8	144.3
	16.0	49.7	78.4
CA60	5.0	674.8	104
PESO TOTAL			
CA50	708		
CA60	104		

Vol. de concreto total (C-30) = 12.07 m³
Área de forma total = 145.92 m²

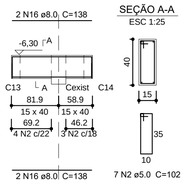
C7 (15 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25

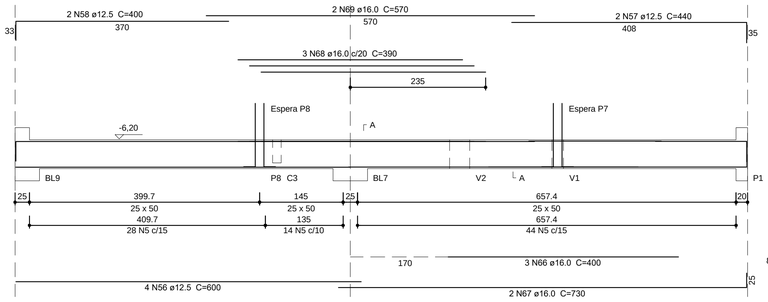


C4A (15 x 40)
ESC 1:50

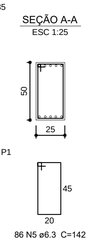


SEÇÃO A-A
ESC 1:25

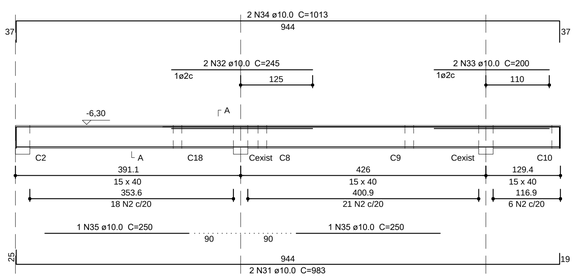
C2 (25 x 50)
ESC 1:50



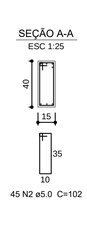
SEÇÃO A-A
ESC 1:25



C3 (15 x 40)
ESC 1:50

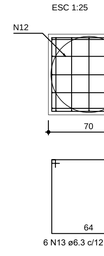


SEÇÃO A-A
ESC 1:25

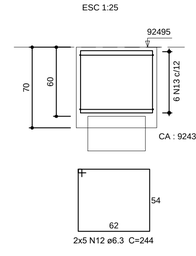


B1=B2=B3=B4=B5=B6=B8=B9
1ø70

PLANTA
ESC 1:25

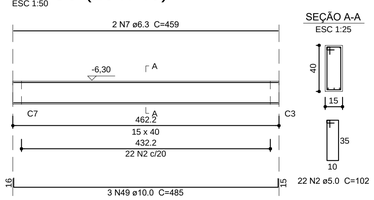


CORTE
ESC 1:25



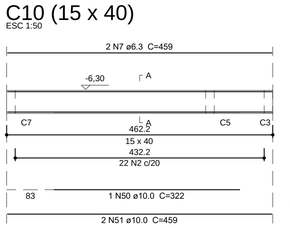
6 N13 ø6.3 c/12 C=268
2x5 N12 ø6.3 C=244

C8=C9 (15 x 40)
ESC 1:50

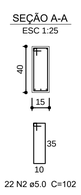


SEÇÃO A-A
ESC 1:25

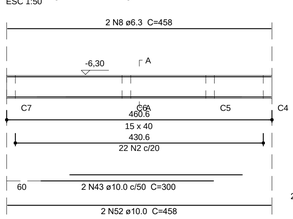
C10 (15 x 40)
ESC 1:50



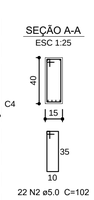
SEÇÃO A-A
ESC 1:25



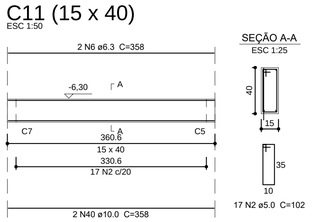
C12 (15 x 40)
ESC 1:50



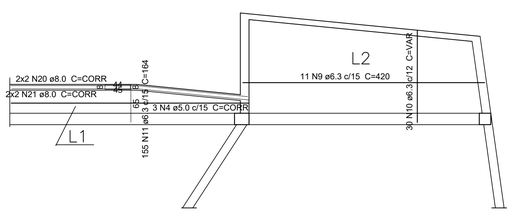
SEÇÃO A-A
ESC 1:25



C11 (15 x 40)
ESC 1:50

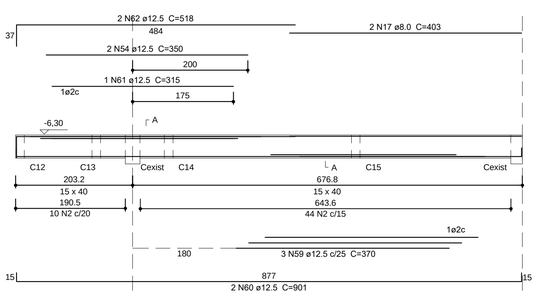


SEÇÃO A-A
ESC 1:25

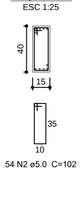


Armação das lajes do SUBSOLO
escala 1:50

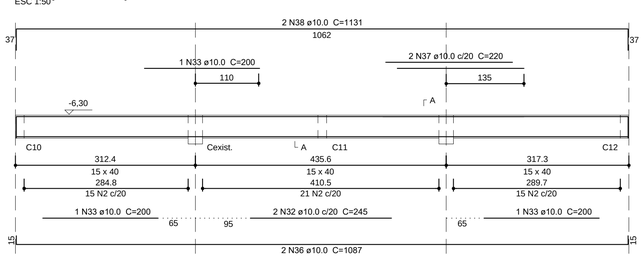
C4 (15 x 40)
ESC 1:50



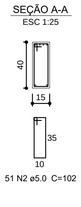
SEÇÃO A-A
ESC 1:25



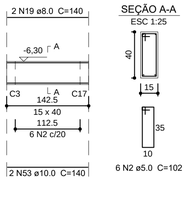
C5 (15 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25



C16 (15 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25

REVISÃO 1	DATA SET/2019	DESCRIÇÃO

SÉCULO 30 ARQUITETURA E RESTAURO
ARQUITETURA E RESTAURO
SÉCULO 30 ARQUITETURA E RESTAURO LTDA
Av. NOSSA SENHORA DO CARMO nº321 sala 313 - CARMO - BH/MG
Tel: (31) 996172149 - seculo30arq@gmail.com

IPHAN - Instituto do Patrimonio Histórico e Artístico Nacional
Superintendência do IPHAN em MINAS GERAIS

PROJETO
IGREJA DE NOSSA SENHORA DO ROSÁRIO
SERRO - MG

PRANCHA
4/6

TÍTULO DO DESENHO
CASA do CONGADEIRO - ARMAÇÃO das CINTAS do SUBSOLO (1ª PARTE)

DESENVOLVIMENTO / DESENHO
ABÍLIO MAGNO MARQUES DE ALMEIDA / ALEXANDRE MARQUES DE ALMEIDA

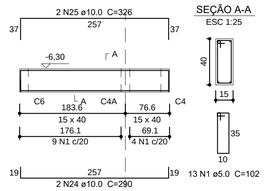
DATA
NOV. 2022

ESCALA
INCDICADA

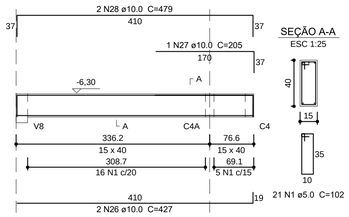
RESPONSÁVEL TÉCNICO
SÉCULO 30 ARQUITETURA E RESTAURO
CAU-MG: 17085-2
CAU-MG: A5843-2
ABÍLIO MAGNO MARQUES DE ALMEIDA
CREA-MG: 19.561/D

FORMATO A1 - 841x594 - 15/04/2026

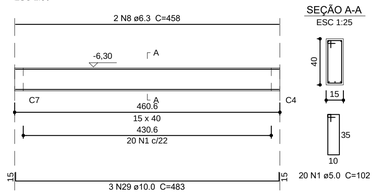
C13 (15 x 40)
ESC 1:50



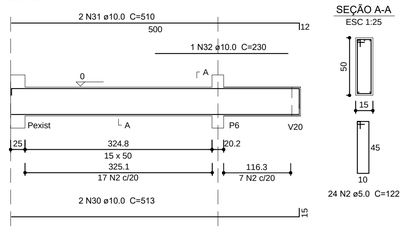
C14 (15 x 40)
ESC 1:50



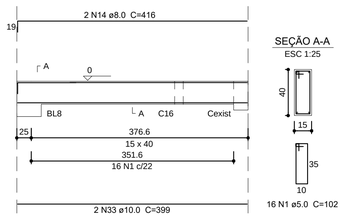
C15 (15 x 40)
ESC 1:50



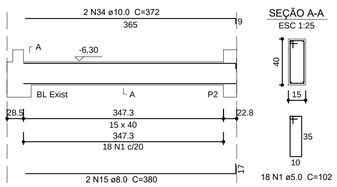
C18 (15 x 50)
ESC 1:50



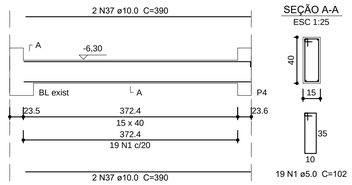
C17 (15 x 40)
ESC 1:50



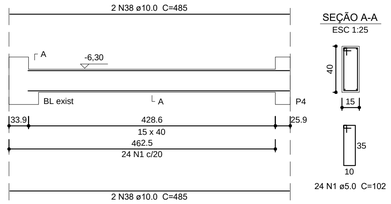
CT1 (15 x 40)
ESC 1:50



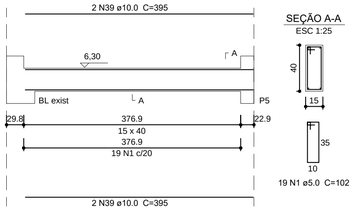
CT4 (15 x 40)
ESC 1:50



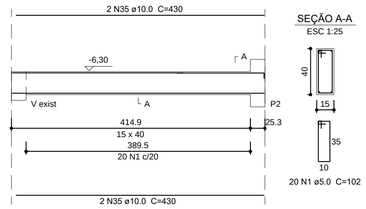
CT5 (15 x 40)
ESC 1:50



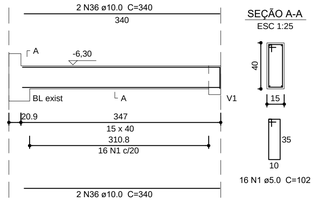
CT6 (15 x 40)
ESC 1:50



CT2 (15 x 40)
ESC 1:50



CT3 (15 x 40)
ESC 1:50



Relação do aço

Subsolo: C13, C14, C15, C16, C17, C18, C19, C20, CT1, CT2, CT3, CT4, CT5, CT6

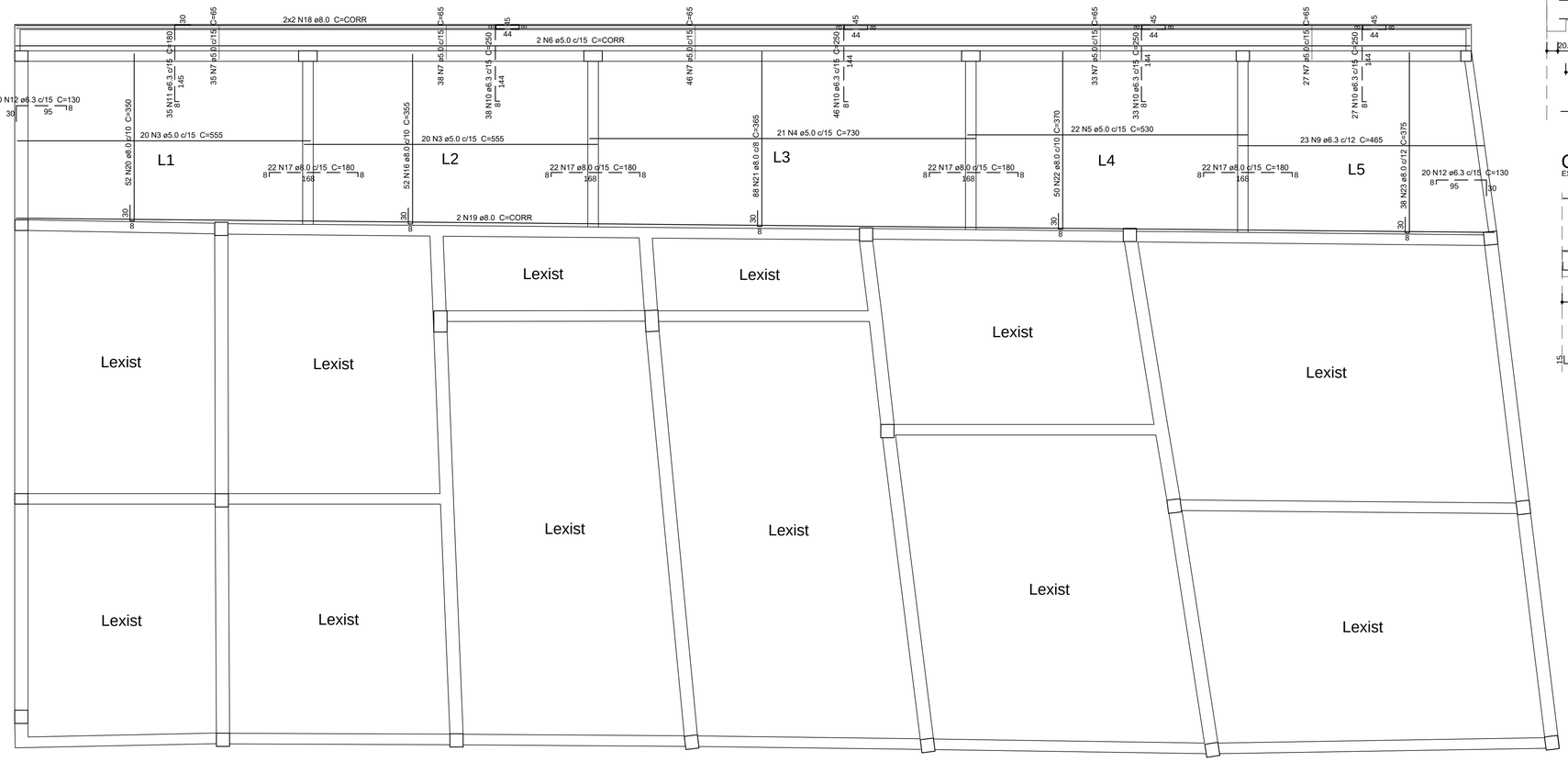
Térreo: Lajes do terreo

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	206	102	21012
	2	5.0	33	122	4026
	3	5.0	40	555	22200
	4	5.0	21	730	15330
	5	5.0	22	530	11660
	6	5.0	2	CORR	5506
	7	5.0	179	65	11635
CA50	8	6.3	2	458	916
	9	6.3	23	465	10695
	10	6.3	144	250	36000
	11	6.3	35	180	6300
	12	6.3	40	130	5200
	13	6.3	2	415	830
	14	8.0	2	416	832
	15	8.0	2	380	760
	16	8.0	52	355	18460
	17	8.0	88	180	15840
	18	8.0	4	CORR	11012
	19	8.0	2	CORR	5596
	20	8.0	52	350	18200
	21	8.0	88	365	32120
	22	8.0	50	370	18500
	23	8.0	38	375	14250
	24	10.0	2	290	580
	25	10.0	2	326	652
	26	10.0	2	427	854
	27	10.0	1	205	205
	28	10.0	2	479	958
	29	10.0	3	483	1449
	30	10.0	2	513	1026
	31	10.0	2	510	1020
	32	10.0	1	230	230
	33	10.0	2	399	798
	34	10.0	2	372	744
	35	10.0	4	430	1720
	36	10.0	4	340	1360
	37	10.0	4	390	1560
	38	10.0	4	485	1940
	39	10.0	4	395	1580
	40	10.0	2	435	870
	41	10.0	2	216	432
	42	10.0	3	280	840

Resumo do aço

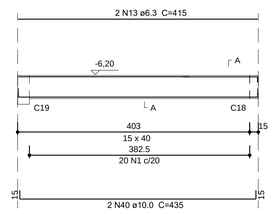
AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	599.5	146.7
	8.0	1355.7	534.9
	10.0	188.2	116
CA60	5.0	913.7	140.8
PESO TOTAL			
CA50	797.6		
CA60	140.8		

Vol. de concreto total (C-30) = 39.85 m³
Área de forma total = 383.76 m²

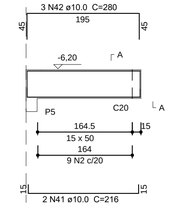


Armação das lajes do Térreo
escala 1:50

C20 (15 x 50)
ESC 1:50



C19 (15 x 50)
ESC 1:50



REVISÃO 1	DATA SET/2019	DESCRIÇÃO

SÉCULO 30 ARQUITETURA E RESTAURO
ARQUITETURA E RESTAURO
SÉCULO 30 ARQUITETURA E RESTAURO LTDA
Av. NOSSA SENHORA DO CARMO nº221 sala 313 - CARMO - BH/MG
Tel: (31) 996172149 - seculo30arq@gmail.com

IPHAN - Instituto do Patrimonio Histórico e Artístico Nacional
Superintendência do IPHAN em MINAS GERAIS

PROJETO
IGREJA DE NOSSA SENHORA DO ROSÁRIO
SERRO - MG

PRANCHA
5/6

TÍTULO DO DESENHO
CASA do CONGADEIRO - ARM. CINTAS SUBSOLO (2ªPARTE) e LAJES TÉRREO

DESENVOLVIMENTO / DESENHO
ABÍLIO MAGNO MARQUES DE ALMEIDA / ALEXANDRE MARQUES DE ALMEIDA

DATA
NOV. 2022

ESCALA
INCDICADA

RESPONSÁVEL TÉCNICO
Milena Carneiro Pereira CAU-MG: A5843-2
SÉCULO 30 ARQUITETURA E RESTAURO
CAU-MG: 17085-2

ABÍLIO MAGNO MARQUES DE ALMEIDA
CREA-MG: 19.561/D

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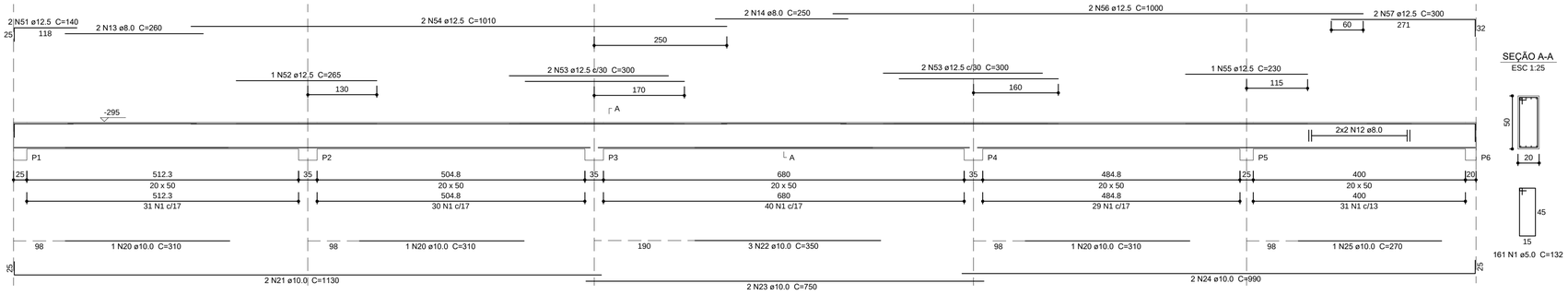
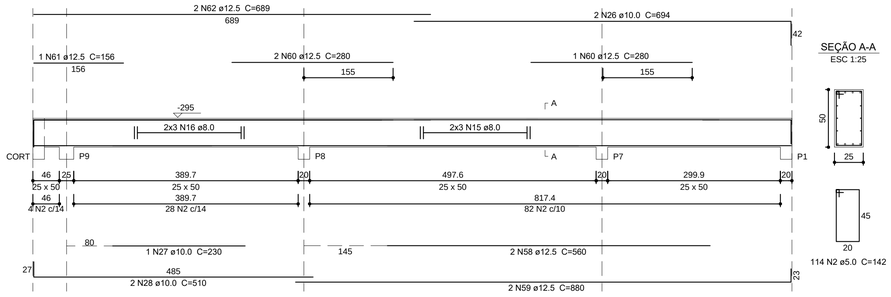
V1 (20 x 50)
ESC 1:50



SEÇÃO A-A
ESC 1:25

161 N1 ø5.0 C=132

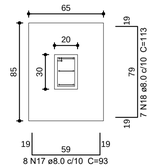
V2 (25 x 50)
ESC 1:50



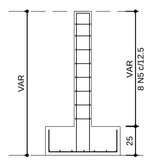
SEÇÃO A-A
ESC 1:25

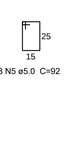
114 N2 ø5.0 C=142

Ped1 a Ped8
PLANTA
ESC 1:25

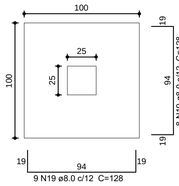


CORTE
ESC 1:25

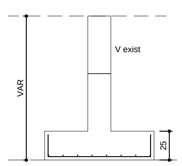




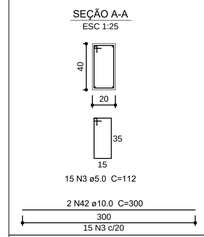
S10=S11
PLANTA
ESC 1:25



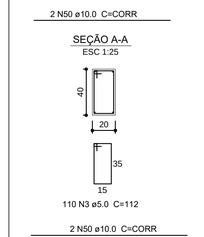
CORTE
ESC 1:25



C22 (20 x 40)
ESC 1:50



C21 (20 x 40)
ESC 1:50



Relação do aço

Subsolo:	C21	C22	
	P1	P5	
	P6	P9	
	3xP2=P3=P4		
Térreo:	2xP7=P8	8xPed1 a Ped8	
	2xS10=S11	V1	
	V2	V3	
	V4	V5	
	V6	V7	

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	161	132	21252
	2	5.0	114	142	16188
	3	5.0	207	112	23184
	4	5.0	19	122	2318
	5	5.0	64	92	5888
CA50	6	6.3	6	CORR	2160
	7	6.3	6	CORR	2202
	8	6.3	106	82	8692
	9	6.3	84	102	8568
	10	6.3	28	72	2016
	11	6.3	28	92	2576
	12	8.0	4	CORR	1768
	13	8.0	2	260	520
	14	8.0	2	250	500
	15	8.0	6	CORR	5160
	16	8.0	6	CORR	2880
	17	8.0	64	93	5952
	18	8.0	56	113	6328
	19	8.0	34	128	4352
	20	10.0	3	310	930
	21	10.0	2	1130	2260
	22	10.0	3	350	1050
	23	10.0	2	750	1500
	24	10.0	2	990	1980
	25	10.0	1	270	270
	26	10.0	2	694	1388
	27	10.0	1	230	230
	28	10.0	2	510	1020
	29	10.0	1	223	223
	30	10.0	2	360	720
	31	10.0	2	368	736
	32	10.0	2	225	450
	33	10.0	2	365	730
	34	10.0	2	373	746
	35	10.0	2	370	740
	36	10.0	2	378	756
	37	10.0	1	235	235
	38	10.0	2	360	720
	39	10.0	3	409	1227
	40	10.0	3	377	1131
	41	10.0	2	396	792
	42	10.0	16	300	4800
	43	10.0	12	90	1080
	44	10.0	18	VAR	VAR
	45	10.0	42	322	13524
	46	10.0	24	VAR	VAR
	47	10.0	6	120	720
	48	10.0	6	332	1992
	49	10.0	24	VAR	VAR
	50	10.0	4	CORR	9200
	51	12.5	2	140	280
	52	12.5	1	265	265
	53	12.5	4	300	1200
	54	12.5	2	1010	2020
	55	12.5	1	230	230
	56	12.5	2	1000	2000
	57	12.5	2	300	600
	58	12.5	2	560	1120
	59	12.5	2	880	1760
	60	12.5	3	280	840
	61	12.5	1	156	156
	62	12.5	2	689	1378

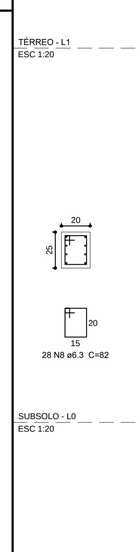
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	262.2	64.1
	8.0	274.6	108.4
	10.0	641.1	395.3
	12.5	118.5	114.1
CA60	5.0	688.3	106.1

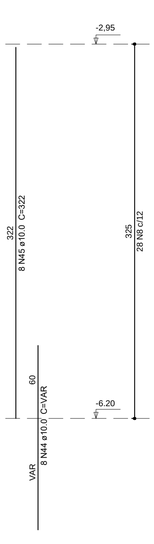
PESO TOTAL	
CA50	681.9
CA60	106.1

Vol. de concreto total (C-30) = 9.41 m³
Área de forma total = 109.11 m²

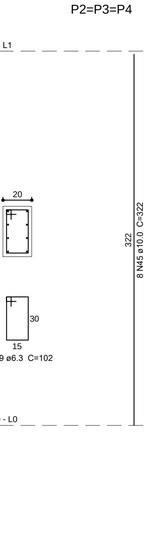
P1



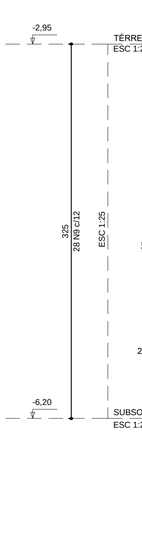
P2=P3=P4



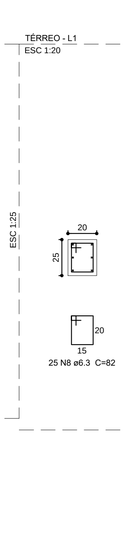
P5



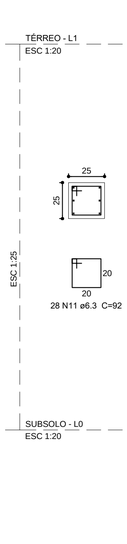
P6



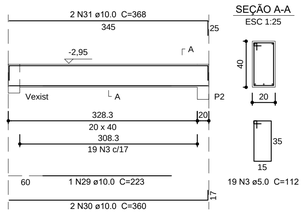
P7=P8



P9

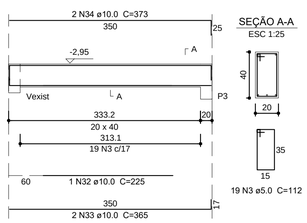


V3 (20 x 40)
ESC 1:50



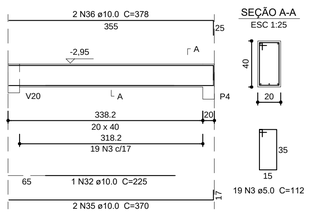
SEÇÃO A-A
ESC 1:25

V4 (20 x 40)
ESC 1:50



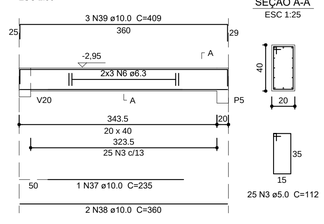
SEÇÃO A-A
ESC 1:25

V5 (20 x 40)
ESC 1:50



SEÇÃO A-A
ESC 1:25

V6 (20 x 40)
ESC 1:50



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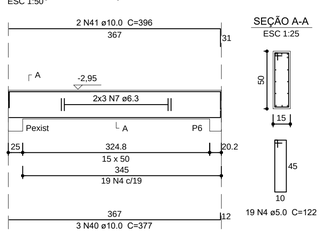
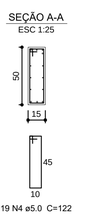
V7 (15 x 50)
ESC 1:50



SEÇÃO A-A
ESC 1:25



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REVISÃO 1	DATA SET/2019	DESCRIÇÃO

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Superintendência do IPHAN em MINAS GERAIS

PROJETO
IGREJA DE NOSSA SENHORA DO ROSÁRIO
SERRO - MG

PRANCHA
6/6

TÍTULO DO DESENHO
CASA do CONGADEIRO - ARMAÇÃO dos PILARES e das VIGAS do TÉRREO

DESENVOLVIMENTO / DESENHO
ABÍLIO MAGNO MARQUES DE ALMEIDA / ALEXANDRE MARQUES DE ALMEIDA

DATA
NOV. 2022

ESCALA
INDICADA

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