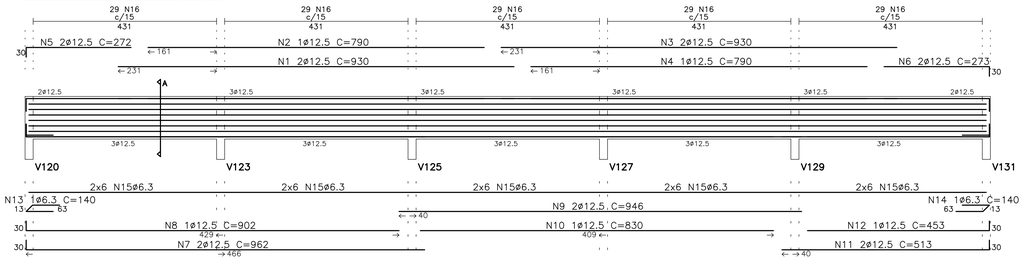
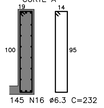
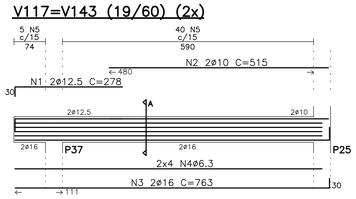
V101=V115 (19/100) (2x)

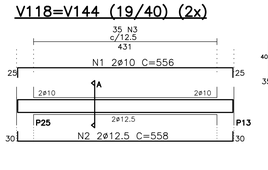




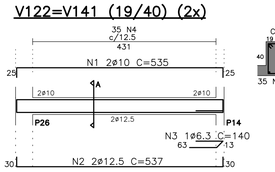
V117=V143 (19/60) (2x)

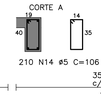


V118=V144 (19/40) (2x)

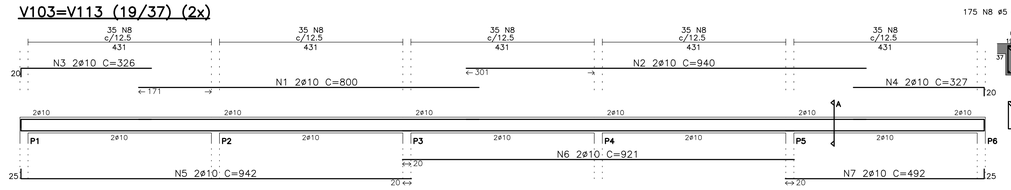


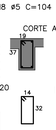
V122=V141 (19/40) (2x)



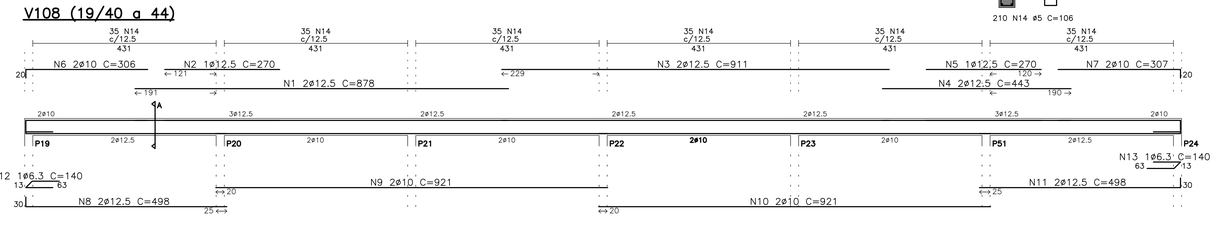


V103=V113 (19/37) (2x)

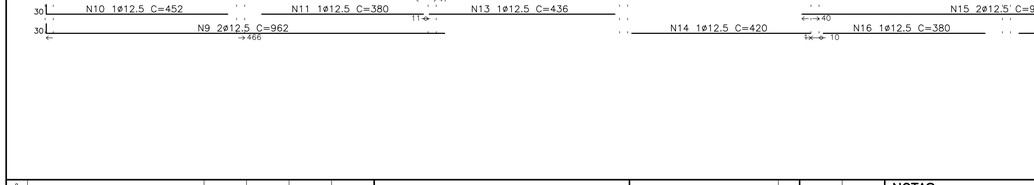




V108 (19/40 a 44)



V105 (19/37)



V106 (19/40 a 44)

V107 (19/37)

V130=V132 (19/60) (2x)

V109 (19/37)

V104=V114 (19/37) (2x)

V102=V116 (19/100) (2x)

V119=V145 (19/40) (2x)

RESUMO DAS VIGAS DA COBERTURA (01/02)

ACO	ø	COMPR(cm)	PESO(kg)
60B	5	201110	322
50A	6.3	321108	803
50A	8	2092	9
50A	10	77166	487
50A	12.5	93862	939
50A	16	6104	98
50A	20	–	–
50A	25	–	–
PESO TOTAL (kg)			2658

V101=V115 (2x)

N	ø	Q	UNI	TOTAL
1	12.5	2	930	1860
2	12.5	1	790	790
3	12.5	2	930	1860
4	12.5	1	790	790
5	12.5	2	272	544
6	12.5	2	273	546
7	12.5	2	962	1924
8	12.5	1	902	902
9	12.5	2	946	1892
10	12.5	1	830	830
11	12.5	2	513	1026
12	12.5	1	453	453
13	6.3	1	140	140
14	6.3	1	140	140
15	6.3			27540
16	6.3	145	232	33640

V103=V113 (2x)

N	ø	Q	UNI	TOTAL
1	10	2	800	1600
2	10	2	940	1880
3	10	2	326	652
4	10	2	327	654
5	10	2	942	1884
6	10	2	921	1842
7	10	2	492	984
8	5	175	104	18200

V105

N	ø	Q	UNI	TOTAL
1	12.5	2	750	1500
2	12.5	1	290	290
3	10	2	980	1960
4	10	2	336	672
5	10	2	327	654
6	12.5	3	495	1485
7	10	2	921	1842
8	10	2	942	1884
9	6.3	1	140	140
10	5	175	104	18200

V106

N	ø	Q	UNI	TOTAL
1	12.5	2	883	1766
2	12.5	1	270	270
3	12.5	2	883	1766
4	12.5	1	270	270
5	10	2	306	612
6	10	2	307	614
7	12.5	2	498	996
8	10	2	921	1842
9	10	2	471	942
10	12.5	2	498	996
11	6.3	1	140	140
12	6.3	1	140	140
13	5	175	114	19950

V107

N	ø	Q	UNI	TOTAL
1	12.5	2	1062	2124
2	12.5	1	290	290
3	12.5	2	950	1900
4	12.5	2	793	1586
5	12.5	2	496	992
6	12.5	1	437	437
7	10	2	939	1878
8	12.5	2	471	942
9	12.5	2	943	1886
10	6.3	1	140	140
11	5	210	100	21000

V108

N	ø	Q	UNI	TOTAL
1	12.5	2	878	1756
2	12.5	1	270	270
3	12.5	2	911	1822
4	12.5	2	443	886
5	12.5	1	270	270
6	10	2	306	612
7	10	2	307	614
8	12.5	2	498	996
9	10	2	921	1842
10	10	2	921	1842
11	12.5	2	498	996
12	6.3	1	140	140
13	6.3	1	140	140
14	5	210	106	22260

V109

N	ø	Q	UNI	TOTAL
1	12.5	2	750	1500
2	12.5	1	290	290
3	10	2	980	1960
4	10	2	336	672
5	10	2	327	654
6	12.5	3	495	1485
7	10	2	921	1842
8	10	2	942	1884
9	6.3	1	140	140
10	5	175	104	18200

V117=V143 (2x)

N	ø	Q	UNI	TOTAL
1	12.5	2	278	556
2	10	2	515	1030
3	16	2	763	1526
4	6.3			5892
5	6.3	45	152	6840

V118=V144 (2x)

N	ø	Q	UNI	TOTAL
1	10	2	556	1112
2	12.5	2	558	1116
3	5	35	110	3850

V119=V145 (2x)

N	ø	Q	UNI	TOTAL
1	8	2	523	1046
2	10	2	556	1112
3	5	35	110	3850

V122=V141 (2x)

N	ø	Q	UNI	TOTAL
1	10	2	535	1070
2	12.5	2	537	1074
3	6.3	1	140	140
4	5	35	110	3850

V130=V132 (2x)

N	ø	Q	UNI	TOTAL
1	12.5	2	278	556
2	10	2	542	1084
3	16	2	763	1526
4	6.3			5892
5	6.3	45	152	6840

V102=V116 (2x)

N	ø	Q	UNI	TOTAL
1	12.5	2	930	1860
2	12.5	2	790	1580
3	12.5	2	930	1860
4	12.5	1	340	340
5	12.5	1	790	790
6	12.5	2	510	1020
7	12.5	2	272	544
8	12.5	2	273	546
9	12.5	2	962	1924
10	12.5	1	452	452
11	12.5	1	380	380
12	12.5	2	975	1950
13	12.5	1	436	436
14	12.5	1	420	420
15	12.5	2	963	1926
16	12.5	1	380	380
17	12.5	1	453	453
18	6.3	1	140	140
19	6.3	1	140	140
20	6.3			33048
21	6.3	174	228	39672

V104=V114 (2x)

N	ø	Q	UNI	TOTAL
1	10	2	930	1860
2	10	2	848	1696
3	10	2	725	1450
4	10	2	326	652
5	10	2	942	1884
6	10	2	921	1842
7	10	2	942	1884
8	5	210	100	21000

NOTAS:

01–CONCRETO= fck ≥ 25 MPa
02–AÇO= CA–50 – fyk=500 MPa
CA–60 – fyk=600 MPa
03–MEDIDAS EM cm, NÍVEIS EM m.
04–NÃO TIRAR MEDIDAS EM ESCALA.
05–CONFIRMAR MEDIDAS NO LOCAL.
06– COBRIMENTO=2,5cm

DETALHE DO RAIO DE CURVATURA (R)

ø (mm)	R (cm)	C.C. (cm)
12.5	10	16
16	13	21
20	16	25
25	20	31

C.C.=COMPRIMENTO DA CURVA

FDE
FUNDAÇÃO PARA O DESENVOLVIMENTO DA EDUCAÇÃO

PROJETO DESENVOLVIDO POR ENGECALC ENGENHARIA E PROJETOS ESTRUTURAIS A PARTIR DO PAD CR-1 12.01.044
RESPONSÁVEL TÉCNICO: NELSON SHOTARO YOKOI - CREA: 060056764-0

No.	MODIFICAÇÕES	APROVAÇÃO	DATA	APROVAÇÃO	DATA
		AUTOR DO PROJETO		FDE	

OBSERVAÇÕES

DESENHO DE REFERÊNCIA

No.	APROVAÇÃO	DATA
	AUTOR DO PROJETO	
	FDE	

FUNDAÇÃO PARA O DESENVOLVIMENTO DA EDUCAÇÃO – F D E

ESCOLA – NOME/LOCAL: –	CÓDIGO: 1,2,0,1,0,8,9
INTERVENÇÃO: CRECHE + PRÉ–ESCOLA – CR–1A	Nº LOTE: 01
ETAPA/ÁREA TÉCNICA: PROJETO EXECUTIVO DE ESTRUTURA	TIPO PROJETO: PAD CR–1A / DATA: JULHO/2020 / ETAPA/ÁREA TÉCNICA: PE – EST
CONTEÚDO: ARMAÇÃO DAS VIGAS DA COBERTURA (01/02)	ESCALA: INDICADA / FOLHA: 26/00 / REVISÃO: 00

1201089_01EPE002600_01

CR-1A - PADRÃO TUBULÃO 207