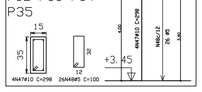
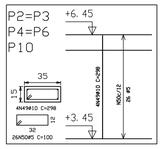
Resumo Aço LAJE DE COBERTURA (PREVISÃO) Pilares		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø10	417.2	288	288
CA-60-B	ø5	912.6	158	158
Total				446

P1=P7=P8=P9
P11=P12=P14
P15=P16=P17
P18=P19=P22
P23=P24=P25
P26=P30=P31
P32=P33=P34
P35

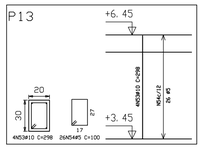


Pilares que terminam em
LAJE DE COBERTURA (PREVISÃO)
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala horizontal: 1:25
Escala vertical: 1:75

P2=P3
P4=P6
P10



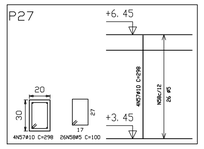
P13



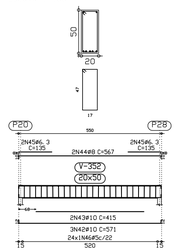
LAJE DE COBERTURA (PREVISÃO)
Piso
Escala: 1:100

LAJE DE COBERTURA (PREVISÃO)
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:100
Escala seções: 1:30

P27

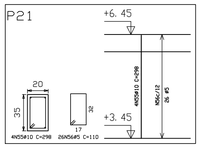


V 19
Escala 1:100

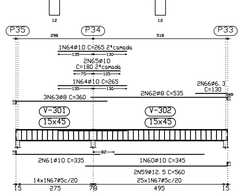


LAJE DE COBERTURA (PREVISÃO) - Superfície total: 440.79 m2			
Elemento	Formas (m2)	Volume (m3)	Barras (kg)
LAJES	399.69	39.97	2386
Vigas fundo	39.23	18.97	1354
forma lateral	188.64		
Pilares (Sup. formas)	87.80	4.64	446
Total	715.36	63.58	4186
Índices (por m2)	1.623	0.144	9.50

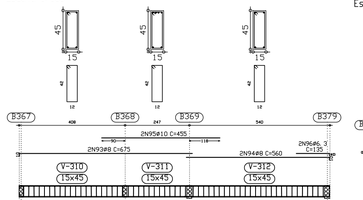
P21



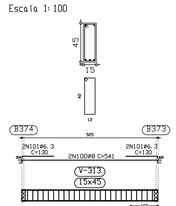
V 1
Escala 1:100



V 3
Escala 1:100



V 4
Escala 1:100

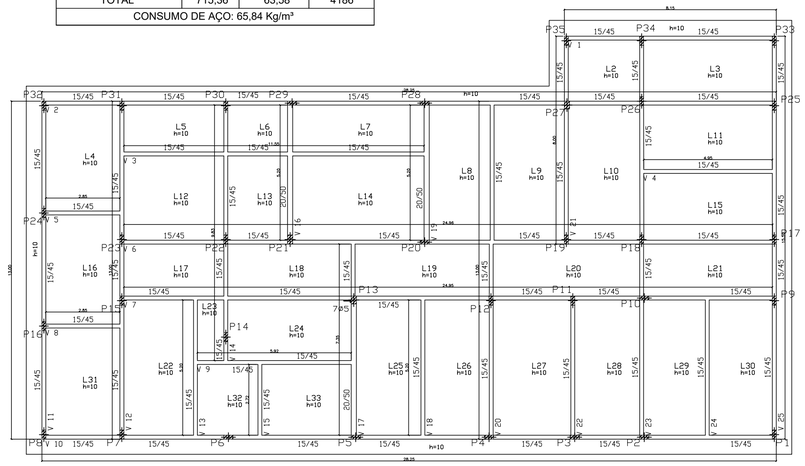


Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 11	1	ø10	2	12	893		905	1810	11.4	
	2	ø10	2		453	12	465	930	5.8	
	3	ø10	1		280		280	280	1.8	
	4	ø10	1		275		275	275	1.7	
	5	ø10	1		265		265	265	1.7	
	6	ø8	2	10	885		895	1790	7.0	
	7	ø8	1		445	10	455	910	3.6	
	8	ø10	4		260		260	1040	6.5	
	9	ø10	2		175		175	350	2.2	
	10	ø6.3	2	8	112		120	240	0.6	
	11	ø6.3	2		107	8	115	230	0.6	
	12	ø5	59				118	6962		10.9
							Total	+10%	47.2	12.0
V 12	13	ø10	2	12	783		795	1590	10.0	
	14	ø10	2		548	12	560	1120	7.0	
	15	ø10	2		355		355	710	4.5	
	16	ø10	1		310		310	310	1.9	
	17	ø8	2	10	785		795	1590	6.5	
	18	ø8	2		550	10	560	1120	4.4	
	19	ø10	2		470		470	940	5.9	
	20	ø10	1		195		195	195	1.2	
	21	ø6.3	4	8	132		140	560	1.4	
	22	ø5	58				118	6844		10.7
							Total	+10%	46.8	11.8
V 14	23	ø10	2	15	1009	12	1036	2072	13.0	
	24	ø10	2		395		395	790	5.0	
	25	ø10	1		245		245	245	1.5	
	26	ø10	1		120		120	120	0.8	
	27	ø8	2	10	1009	10	1029	2058	8.1	
	28	ø10	2		270		270	540	3.4	
	29	ø10	2	12	233		245	490	3.1	
	30	ø12.5	1	15	195		210	210	2.1	
	31	ø10	1		195		195	195	1.2	
	32	ø6.3	2	8	132	8	140	280	0.7	
	33	ø5	46				118	5428		8.5
							Total	+10%	42.8	9.4
V 17	34	ø12.5	2	15	547	15	577	1154	11.3	
	35	ø12.5	1		360		360	360	3.5	
	36	ø10	2		243	12	255	510	3.2	
	37	ø8	2	10	762	10	782	1564	6.1	
	38	ø6.3	2	8	347	8	355	710	1.8	
	39	ø6.3	2	8	127		135	270	0.7	
	40	ø5	23				138	3174		5.0
	41	ø5	11				118	1298		2.0
							Total	+10%	29.3	7.7
V 19	42	ø10	3	12	547	12	571	1713	10.8	
	43	ø10	2		415		415	830	5.2	
	44	ø8	2	10	547	10	567	1134	4.5	
	45	ø6.3	4	8	127		135	540	1.3	
	46	ø5	24				138	3312		5.2
							Total	+10%	24.0	5.7

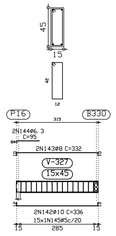
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P1=P7=P8=P9=P11	47	ø10	4		298		298	1192	7.5	
P12=P14=P15=P16	48	ø5	26		100		100	2600		4.1
P17=P18=P19=P22										
P23=P24=P25=P26										
P30=P31=P32=P33							Total	+10%	8.3	4.5
P34=P35							(x23)		190.9	103.5
P2=P3=P4=P6=P10	49	ø10	4		298		298	1192	7.5	
	50	ø5	26		100		100	2600		4.1
							Total	+10%	8.3	4.5
							(x5)		41.5	22.5
P5=P20=P28=P29	51	ø10	4		298		298	1192	7.5	
	52	ø5	26		100		100	2600		4.1
							Total	+10%	8.3	4.5
							(x4)		33.2	18.0
P13	53	ø10	4		298		298	1192	7.5	
	54	ø5	26		100		100	2600		4.1
							Total	+10%	8.3	4.5
P21	55	ø10	4		298		298	1192	7.5	
	56	ø5	26		110		110	2860		4.5
							Total	+10%	8.3	5.0
P27	57	ø10	4		298		298	1192	7.5	
	58	ø5	26		100		100	2600		4.1
							Total	+10%	8.3	4.5
V 1	59	ø12.5	2		545	15	560	1120	11.0	
	60	ø10	1		345		345	345	2.2	
	61	ø10	2	12	323		335	670	4.2	
	62	ø8	2		525	10	535	1070	4.2	
	63	ø8	3	10	350		360	1080	4.2	
	64	ø10	2		265		265	530	3.3	
	65	ø10	2		180		180	360	2.3	
	66	ø6.3	2		122	8	130	260	0.6	
	67	ø5	39				118	4602		7.2
							Total	+10%	35.2	7.9
V 2	68	ø10	2	12	978		990	1980	12.4	
	69	ø10	2		818	12	830	1660	10.4	
	70	ø12.5	4		585		585	2340	23.0	
	71	ø10	2		565		565	1130	7.1	
	72	ø10	2		540		540	1080	6.8	
	73	ø10	2		420		420	840	5.3	
	74	ø10	1		245		245	245	1.5	
	75	ø10	2		1085		1085	2170	13.6	
	76	ø8	2	10	980		990	1980	7.8	
	77	ø8	2		815	10	825	1650	6.5	
	78	ø10	2		530		530	1060	6.7	
	79	ø10	2		470		470	940	5.9	
	80	ø12.5	2		315		315	630	6.2	
	81	ø12.5	2		290		290	580	5.7	
	82	ø10	2		230		230	460	2.9	
	83	ø10	2		220		220	440	2.8	
	84	ø10	2		190		190	380	2.4	
	85	ø10	1		185		185	185	1.2	
	86	ø10	1		155		155	155	1.0	
	87	ø10	1		135		135	135	0.8	
	88	ø6.3	2		122	8	130	260	0.6	
	89	ø6.3	2	8	72		80	160	0.4	
	90	ø5	142				118	16756		26.3
							Total	+10%	144.1	28.9
V 3	91	ø10	2	12	668		680	1360	8.5	
	92	ø10	2		558	12	570	1140	7.2	
	93	ø8	2	10	665		675	1350	5.3	
	94	ø8	2		550	10	560	1120	4.4	
	95	ø10	2		455		455	910	5.7	
	96	ø6.3	2		127	8	135	270	0.7	
	97	ø5	58				118	6844		10.7
							Total	+10%	35.0	11.8
V 4	98	ø10	2	12	521	12	545	1090	6.8	
	99	ø10	1		310		310	310	1.9	
	100	ø8	2	10	521	10	541	1082	4.2	
	101	ø6.3	4	8	122		130	520	1.3	
	102	ø5	29				118	2950		4.6
							Total	+10%	15.6	5.1
V 5	103	ø10	2	12	312	12	336	672	4.2	
	104	ø8	2	10	312	10	332	664	2.6	
	105	ø6.3	2	8	92		100	200	0.5	
	106	ø10	2		73	12	85	170	1.1	
	107	ø5	15				118	1770		2.8
							Total	+10%	9.2	3.1
V 6	108	ø10	2		1095		1095	2190	13.8	
	109	ø10	2		813	12	825	1650	10.4	
	110	ø10	2	12	668		680	1360	8.5	
	111	ø10	1		340		340	340	2.1	
	112	ø10	1		330		330	330	2.1	
	113	ø10	1		315		315	315	2.0	
	114	ø8	2		1080		1080	2160	8.5	
	115	ø8	2		815	10	825	1650	6.5	
	116	ø8	2	10	665		675	1350	5.3	
	117	ø10	2		525		525	1050	6.6	
	118	ø10	2		455		455	910	5.7	
	119	ø10	2		265		265	530	3.3	
	120	ø10	1		215		215	215	1.4	
	121	ø10	1		180		180	180	1.1	
	122	ø6.3	2		122	8	130	260	0.6	
	123	ø6.3	2	8	97		105	210	0.5	
	124	ø5	122				118	14396		22.6
							Total	+10%	86.2	24.9
V 7	125	ø10	2		1160		1160	2320	14.6	
	126	ø10	2	12	923		935	1870	11.7	
	127	ø10	2		528	12	540	1080	6.8	
	128	ø10	2		360		360	720	4.5	
	129	ø10	1		320		320	320	2.0	
	130	ø8	2	10	910		920	1840	7.2	
	131	ø8	2		860		860	1720	6.8	
	132	ø8	2		525	10	535	1070	4.2	
	133	ø8	3		340		340	1020	4.0	
	134	ø10	4		245		245	980	6.2	
	135	ø10	2		225		225	450	2.8	
	136	ø10	3		210		210	630	4.0	
	137	ø10	1		155		155	155	1.0	
	138	ø10	2		135		135	270	1.7	
	139	ø6.3	2		117	8	125	250	0.6	
	140	ø6.3	2	8	97		105	210	0.5	
	141	ø5	122				118	14396		22.6
							Total	+10%	86.5	24.9
V 8	142	ø10	2	12	312	12	336	672	4.2	
	143	ø8	2	10	312	10	332	664	2.6	
	144	ø6.3	2	8	87		95	190	0.5	
	145	ø5	15				118	1770		2.8
							Total	+10%	8.0	3.1
V 10	146	ø10	2	12	743		755	1510	9.5	
	147	ø10	2		650		650	1300	8.2	
	148	ø12.5	2		565		565	1130	11.1	
	149	ø10	2		545		545	1090	6.8	
	150	ø12.5	2		540	15	555	1110	10.9	
	151	ø10	2		520		520	1040	6.5	
	152	ø10	1		435		435	435	2.7	
	153	ø12.5	2		420		420	840	8.2	
	154	ø12.5	1		310		310	310	3.0	
	155	ø10	1		300		300	300	1.9	
	156	ø8	2		1035		1035	2070	8.1	
	157	ø8	2	10	735		745	1490	5.8	
	158	ø8	2		525	10	535	1070	4.2	
	159	ø8	2		360		360	720	2.8	
	160	ø10	3		350		350	1050	6.6	
	161	ø12.5	2		300		300	600	5.9	
	162	ø10	2		285		285	570	3.6	
	163	ø12.5	2		280		280	560	5.5	
	164	ø10	2		270		270	540	3.4	
	165	ø10	2		220		220	440	2.8	
	166	ø10	2		215		215	430	2.7	
	167	ø12.5	1		210		210	210	2.1	
	168	ø10	2		190		190	380	2.4	
	169	ø12.5	1		185		185	185	1.8	
	170	ø10	1		145		145	145	0.9	
	171	ø10	2		135		135	270	1.7	
	172	ø6.3	2		117	8	125	250	0.6	
	173	ø6.3	2	8	72		80	160	0.4	
	174	ø5	144				118	16992		26.7
							Total	+10%	143.1	29.4
V 13	175	ø10	2	12	547	12	571	1142	7.2	
	176	ø8	2	10	547	10	567	1134	4.5	
	177	ø10	2		128	12	140	280	1.8	
	178	ø6.3	2	8	127		135	270	0.7	
	179	ø5	26				118	3068		4.8
							Total	+10%	15.6	5.3
							ø5:	0.0		349.0
							ø6.3:	17.1		0.0
							ø8:	164.7		0.0
							ø10:	754.9		0.0
							ø12.5:	122.4		0.0
							Total:	1059.1		349.0

ACRÉSCIMO DO 2º PAVIMENTO			
RESUMO DA OBRA CONCRETO ARMADO			
ELEMENTO	FORMAS (m2)	CONCRETO (m3) (Fck=250Kg/cm²)	AÇO (kg)
LAJES	399,69	39,97	2386
VIGAS	227,87	18,97	1354
PILARES	87,80	4,64	446
TOTAL	715,36	63,58	4186
CONSUMO DE AÇO: 65,84 Kg/m³			

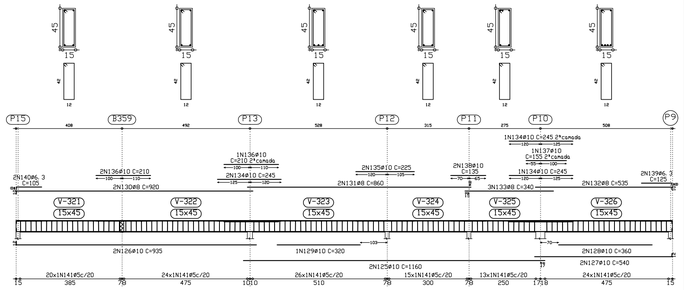
Resumo Aço LAJE DE COBERTURA (PREVISÃO) Vigas		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	99.6	27	
	ø8	561.3	242	
	ø10	953.6	659	
	ø12.5	143.0	154	1082
CA-60-B	ø5	1564.5	270	270
Total				1352



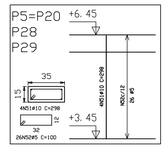
V 8
Escala 1:100



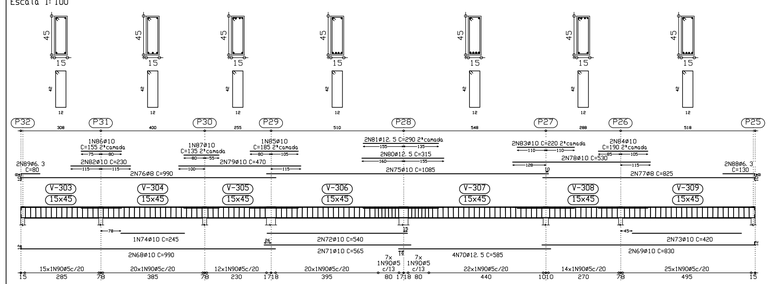
V 7
Escala 1:100



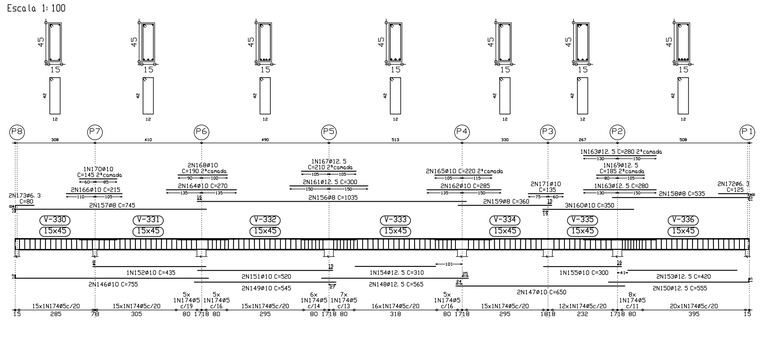
P5=P20
P28
P29



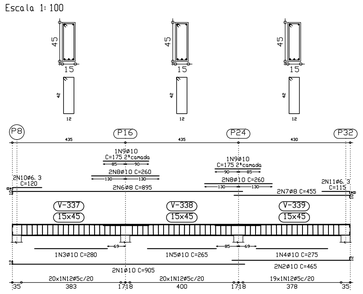
V 2
Escala 1:100



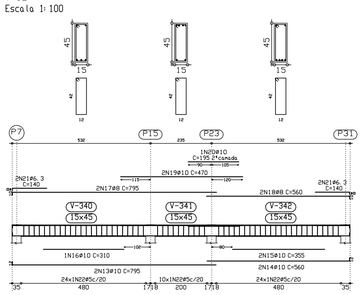
V 10
Escala 1:100



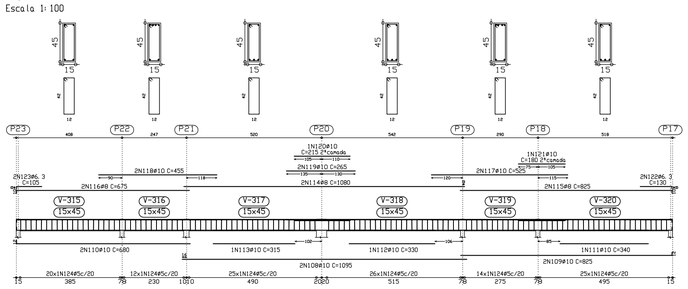
V 11
Escala 1:100



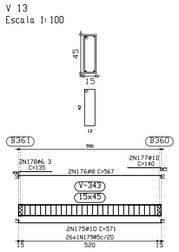
V 12
Escala 1:100



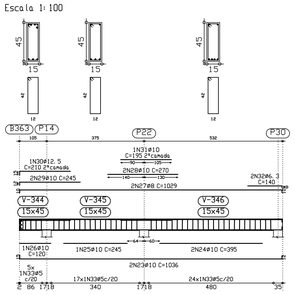
V 6
Escala 1:100



V 13
Escala 1:100



V 14
Escala 1:100



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PROJETO ESTRUTURAL | PRÉDIO

ENDEREÇO: VENDA NOVA DO IMIGRANTE - ES

PROPRIETÁRIO: PREFEITURA MUNICIPAL DE VENDA NOVA DO IMIGRANTE

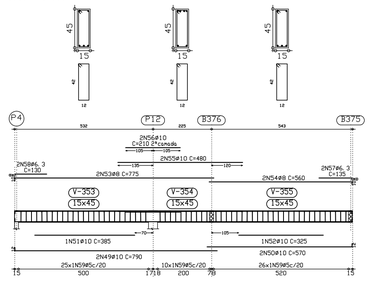
PLANTA: TETO DO 2º PAVIMENTO (LAJE DE COBERTURA)
ACRÉSCIMO DO 2º PAVIMENTO

AUTOR:

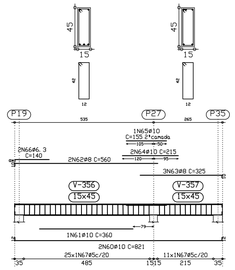
01/02-A

Protocolo: 11747/2026
Documento digital, verifique em: https://vendanova.essencialbpms.com.br/governo-digital.html#!/portal/
Identificador: 452ecc0c69356b2a3ffa73abdfd09490

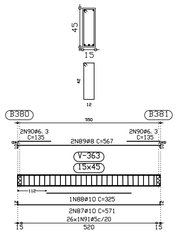
V 20
Escala 1:100



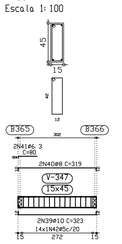
V 21
Escala 1:100



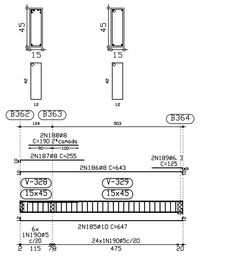
V 24
Escala 1:100



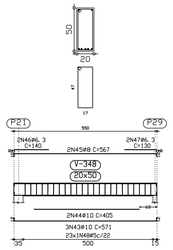
V 15
Escala 1:100



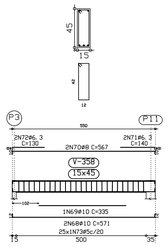
V 9
Escala 1:100



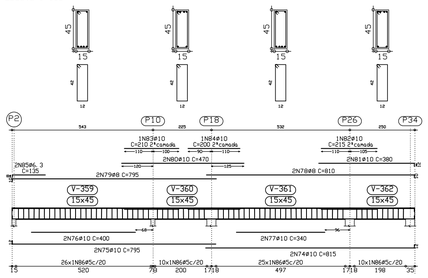
V 16
Escala 1:100



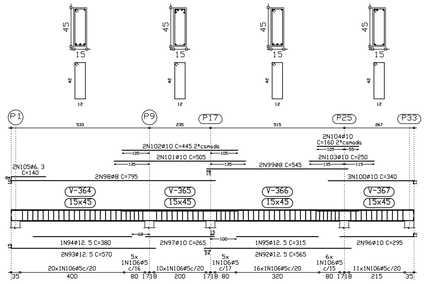
V 22
Escala 1:100



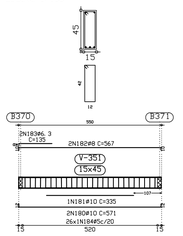
V 23
Escala 1:100



V 25
Escala 1:100



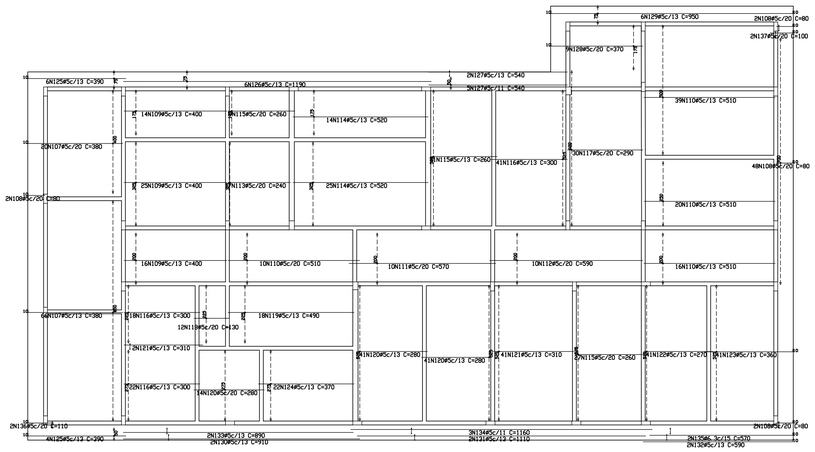
V 18
Escala 1:100



LAJE DE COBERTURA (PREVISÃO)
Desenho de vigas
Concreto C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:100
Escala seções: 1:30

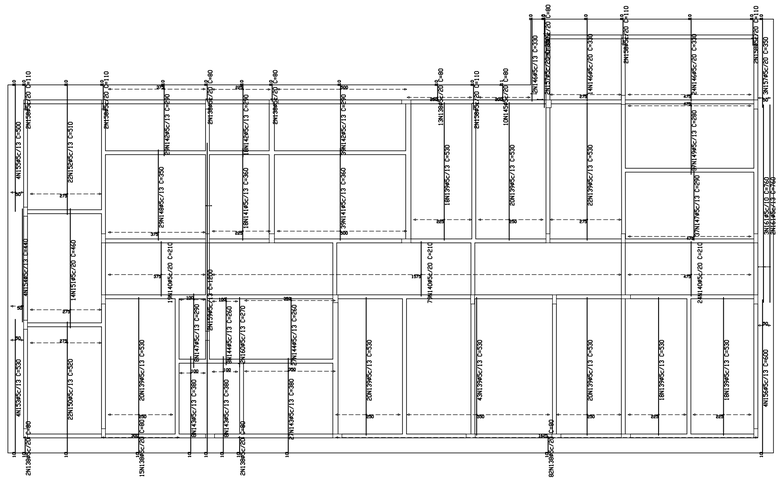
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
Armadura longitudinal superior	1	ø6.3	27	10	462	8	480	12960	32.0	
	2	ø6.3	17	8	454	8	470	7990	19.8	
	3	ø6.3	18	8	304	8	320	5760	14.2	
	4	ø6.3	27	8	504	8	520	14040	34.7	
	5	ø6.3	84	8	172	10	190	15960	39.5	
	6	ø6.3	25	8	192	10	210	5250	13.0	
	7	ø6.3	10	8	564	8	580	5800	14.3	
	8	ø6.3	10	8	764	8	780	7800	19.3	
	9	ø6.3	10	8	594	8	610	6100	15.1	
	10	ø6.3	56	10	472	8	490	27440	67.9	
	11	ø6.3	17	8	344	8	360	6120	15.1	
	12	ø6.3	13	8	534	8	550	7150	17.7	
	13	ø6.3	27	8	274	8	290	7830	19.4	
	14	ø6.3	27	8	464	8	480	12960	32.0	
	15	ø6.3	27	8	294	8	310	8370	20.7	
	16	ø6.3	15	8	394	8	410	6150	15.2	
	17	ø6.3	10	8	354	8	370	3700	9.1	
	18	ø6.3	4	8	544	8	560	2240	5.5	
	19	ø6.3	3	8	284	8	300	900	2.2	
	20	ø6.3	3	8	314	8	330	990	2.4	
	21	ø8	40	11	451	8	470	18800	73.8	
	22	ø8	43	8	191	11	210	9030	35.4	
	23	ø6.3	4	10	192	8	210	840	2.1	
	24	ø6.3	3	8	264	8	280	840	2.1	
	25	ø6.3	3	8	324	8	340	1020	2.5	
	26	ø6.3	3	8	514	8	530	1590	3.9	
	27	ø6.3	4	8	334	8	350	1400	3.5	
	28	ø6.3	8	8	222	10	240	1920	4.7	
	29	ø6.3	3	10	110		120	360	0.9	
	30	ø6.3	2	8	142		150	300	0.7	
	31	ø6.3	2	10	492	8	510	1020	2.5	
	32	ø6.3	4	8	374	8	390	1560	3.9	
	33	ø6.3	2	10	172	8	190	380	0.9	
	34	ø6.3	2	10	162	8	180	360	0.9	
	35	ø6.3	2	8	364	8	380	760	1.9	
	36	ø6.3	3	10	522	8	540	1620	4.0	
	37	ø6.3	2	8	212	10	230	460	1.1	
	38	ø6.3	4	10	512	8	530	2120	5.2	
							Total+10%	615.0		
V 15	39	ø10	2	12	299	12	323	646	4.1	
	40	ø8	2	10	299	10	319	638	2.5	
	41	ø6.3	2	8	72		80	160	0.4	
	42	ø5	14				118	1652		2.6
							Total+10%	7.7		2.9
V 16	43	ø10	3	12	547	12	571	1713	10.8	
	44	ø10	2		405		405	810	5.1	
	45	ø8	2	10	547	10	567	1134	4.5	
	46	ø6.3	2	8	132		140	280	0.7	
	47	ø6.3	2		122	8	130	260	0.6	
	48	ø5	23				138	3174		5.0
							Total+10%	23.9		5.5

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 20	49	ø10	2	12	778		790	1580	9.9	
	50	ø10	2		558	12	570	1140	7.2	
	51	ø10	1		385		385	385	2.4	
	52	ø10	1		325		325	325	2.0	
	53	ø8	2	10	765		775	1550	6.1	
	54	ø8	2		550	10	560	1120	4.4	
	55	ø10	2		480		480	960	6.0	
	56	ø10	2		210		210	420	2.6	
	57	ø6.3	2		127	8	135	270	0.7	
	58	ø6.3	2	8	122		130	260	0.6	
	59	ø5	61				118	7198		11.3
							Total+10%	46.1		12.4
V 21	60	ø10	2	12	797	12	821	1642	10.3	
	61	ø10	1		360		360	360	2.3	
	62	ø8	2	10	550		560	1120	4.4	
	63	ø8	3		315	10	325	975	3.8	
	64	ø10	2		215		215	430	2.7	
	65	ø10	1		155		155	155	1.0	
	66	ø6.3	2	8	132		140	280	0.7	
	67	ø5	36				118	4248		6.7
							Total+10%	27.7		7.4
V 22	68	ø10	2	12	547	12	571	1142	7.2	
	69	ø10	1		335		335	335	2.1	
	70	ø8	2	10	547	10	567	1134	4.5	
	71	ø6.3	2		132	8	140	280	0.7	
	72	ø6.3	2	8	122		130	260	0.6	
	73	ø5	25				118	2950		4.6
							Total+10%	16.6		5.1
V 23	74	ø10	2		803	12	815	1630	10.2	
	75	ø10	2	12	783		795	1590	10.0	
	76	ø10	2		400		400	800	5.0	
	77	ø10	2		340		340	680	4.3	
	78	ø8	2		800	10	810	1620	6.4	
	79	ø8	2	10	785		795	1590	6.2	
	80	ø10	2		470		470	940	5.9	
	81	ø10	2		368	12	380	760	4.8	
	82	ø10	1		215		215	215	1.4	
	83	ø10	1		210		210	210	1.3	
	84	ø10	1		200		200	200	1.3	
	85	ø6.3	2	8	127		135	270	0.7	
	86	ø5	71				118	8378		13.2
							Total+10%	63.3		14.5
V 24	87	ø10	2	12	547	12	571	1142	7.2	
	88	ø10	1		325		325	325	2.0	
	89	ø8	2	10	547	10	567	1134	4.5	
	90	ø6.3	4	8	127		135	540	1.3	
	91	ø5	26				118	3068		4.8
							Total+10%	16.5		5.3
V 25	92	ø12.5	2		565		565	1130	11.1	
	93	ø12.5	2	15	555		570	1140	11.2	
	94	ø12.5	1		380		380	380	3.7	
	95	ø12.5	1		315		315	315	3.1	
	96	ø10	2		283	12	295	590	3.7	
	97	ø10	2		265		265	530	3.3	
	98	ø8	2	10	785		795	1590	6.2	
	99	ø8	2		545		545	1090	4.3	
	100	ø10	3		328	12	340	1020	6.4	
	101	ø10	2		505		505	1010	6.3	
	102	ø10	2		445		445	890	5.6	
	103	ø10	2		250		250	500	3.1	
	104	ø10	2		160		160	320	2.0	
	105	ø6.3	2	8	132		140	280	0.7	
	106	ø5	73				118	8614		13.5
							Total+10%	77.8		14.9
Armadura longitudinal inferior	107	ø5	86	10	370		380	32680		51.3
	108	ø5	54	10	70		80	4320		6.8
	109	ø5	55		400		400	22000		34.5
	110	ø5	85		510		510	43350		68.1
	111	ø5	10		570		570	5700		8.9
	112	ø5	10		590		590	5900		9.3
	113	ø5	17		240		240	4080		6.4
	114	ø5	39		520		520	20280		31.8
	115	ø5	77		260		260	20020		31.4
	116	ø5	81		300		300	24300		38.2
	117	ø5	30		290		290	8700		13.7
	118	ø5	12		130		130	1560		2.4
	119	ø5	18		490		490	8820		13.8
	120	ø5	96		280		280	26880		42.2
	121	ø5	43		310		310	13330		20.9
	122	ø5	41		270		270	11070		17.4
	123	ø5	41	10	350		360	14760		23.2
	124	ø5	22		370		370	8140		12.8
	125	ø5	10	10	380		390	3900		6.1
	126	ø5	6		1190		1190	7140		11.2
	127	ø5	7		540		540	3780		5.9
	128	ø5	9	10	360		370	3330		5.2
	129	ø5	6	10	930	10	950	5700		8.9
	130	ø5	2		910		910	1820		2.9
	131	ø5	2		1110		1110	2220		3.5
	132	ø5	2	10	580		590	1180		1.9
	133	ø5	2		890		890	1780		2.8
	134	ø5	3		1160		1160	3480		5.5
	135	ø6.3	2	10	560		570	1140	2.8	
	136	ø5	2	10	100		110	220		0.3
	137	ø5	2	10	90		100	200		0.3
							Total+10%	3.1		536.4
Armadura transversal inferior	138	ø5	120	10	70		80	9600		15.1
	139	ø5	199		530		530	105470		165.6
	140	ø5	122		210		210	25620		40.2
	141	ø5	57		360		360	20520		32.2
	142	ø5	86	10	280		290	24940		39.2
	143	ø5	43	10	370		380	16340		25.7
	144	ø5	35		260		260	9100		14.3
	145	ø5	10	11	69		80	800		1.3
	146	ø5	40	10	320		330	13200		20.7
	147	ø5	45		290		290	13050		20.5
	148	ø5	29		350		350	10150		15.9
	149	ø5	37		280		280	10360		16.3
	150	ø5	22	10	510		520	11440		18.0
	151	ø5	14		460		460	6440		10.1
	152	ø5	22	10	500		510	11220		17.6
	153	ø5	4	10	520		530	2120		3.3
	154	ø5	4		440		440	1760		2.8
	155	ø5	4	10	490		500	2000		3.1
	156	ø5	4	10	590		600	2400		3.8
	157	ø5	5	10	340		350	1750		2.7
	158	ø5	10		100		110	1100		1.7
	159	ø5	2	10	1190		1200	2400		3.8
	160	ø5	2		270		270	540		0.8
	161	ø5	5		760		760	3800		6.0
							Total+10%			528.8
Armadura transversal superior	162	ø6.3	66	8	454	8	470	31020	76.7	
	163	ø8	105	8	201	11	220	23100	90.7	
	164	ø6.3	159	10	192	8	210	33390	82.6	
	165	ø6.3	33	8	474	8	490	16170	40.0	
	166	ø6.3	17	8	192	10	210	3570	8.8	
	167	ø6.3	34	10	222	8	240	8160	20.2	
	168	ø6.3	29	8	464	8	480	13920	34.4	
	169	ø6.3	5	8	442	10	460	2300	5.7	
	170	ø6.3	5	8	602		610	3050	7.5	
	171	ø8	66	8	451	11	470	31020	121.8	
	172	ø6.3	53	10	172	8	190	10070	24.9	
	173	ø6.3	14	8	444	8	460	6440	15.9	
	174	ø6.3	70	8	182	10	200	14000	34.6	
	175	ø6.3	63	10	212	8	230	14490	35.8	
	176	ø6.3	14	8	624	8	640	8960	22.2	
	177	ø6.3	6	8	324	8	340	2040	5.0	
	178	ø6.3	3	8	524	8	540	1620	4.0	
	179	ø6.3	6	8	492	10	510	3060	7.6	
							Total+10%		702.2	
V 18	180	ø10	2	12	547	12	571	1142	7.2	
	181	ø10	1		335		335	335	2.1	
	182	ø8	2	10	547	10	567	1134	4.5	
	183	ø6.3	2	8	127		135	270	0.7	
	184	ø5	26				118	3068		4.8
							Total+10%	16.0		5.3
V 9	185	ø10	2	12	623	12	647	1294	8.1	
	186	ø8	2	10	623	10	643	1286	5.0	
	187	ø8	2	10	245		255	510	2.0	
	188	ø8	2		190		190	380	1.5	
	189	ø6.3	2		117	8	125	250	0.6	
	190	ø5	30				118	3540		5.6
							Total+10%	18.9		6.2
							ø5:	0.0		1144.7
							ø6.3:	976.3		0.0
							ø8:	432.0		0.0
							ø10:	194.5		0.0
							ø12.5:	32.0		0.0
							Total:	1634.8		1144.7



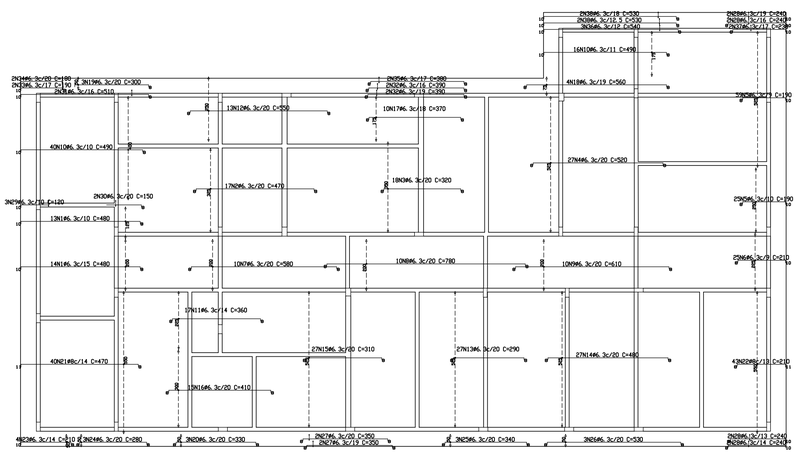
Resumo Aço LAJE DE COBERTURA (PREVISÃO) Armadura longitudinal inferior		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	11.4	3	3
CA-60-B	ø5	3106.4	536	536
Total				539

LAJE DE COBERTURA (PREVISÃO)
Armadura longitudinal inferior
Concreto C20, em geral
CA-50-A e CA-60-B
Escala: 1:100



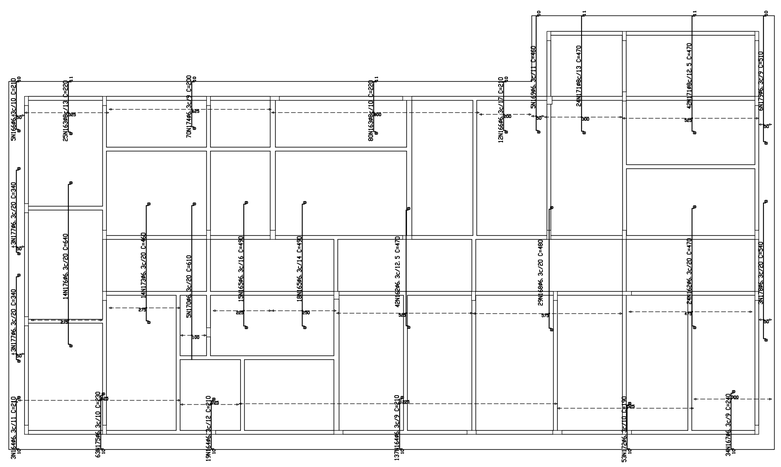
Resumo Aço LAJE DE COBERTURA (PREVISÃO) Armadura transversal inferior		Comp. total (m)	Peso+10% (kg)
CA-60-B	ø5	3061.2	529

LAJE DE COBERTURA (PREVISÃO)
Armadura transversal inferior
Concreto C20, em geral
CA-50-A e CA-60-B
Escala: 1:100



Resumo Aço LAJE DE COBERTURA (PREVISÃO) Armadura longitudinal superior		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	1820.6	495	
	ø8	278.3	120	615

LAJE DE COBERTURA (PREVISÃO)
Armadura longitudinal superior
Concreto C20, em geral
CA-50-A e CA-60-B
Escala: 1:100



Resumo Aço LAJE DE COBERTURA (PREVISÃO) Armadura transversal superior		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	1722.6	469	
	ø8	541.2	234	703

LAJE DE COBERTURA (PREVISÃO)
Armadura transversal superior
Concreto C20, em geral
CA-50-A e CA-60-B
Escala: 1:100

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PROJETO ESTRUTURAL PRÉDIO

ENDEREÇO: VENDA NOVA DO IMIGRANTE - ES

PROPRIETÁRIO: PREFEITURA MUNICIPAL DE VENDA NOVA DO IMIGRANTE

PLANTA: TETO DO 2º PAVIMENTO (LAJE DE COBERTURA)
ACRÉSCIMO DO 2º PAVIMENTO

AUTOR:

02/02-A

Protocolo: 11747/2026
Documento digital, verifique em: https://vendanova.essencialbpms.com.br/governo-digital.html#!/portal/
Identificador: 492ecc0c6939602a3ffa73abdfd09490