



























































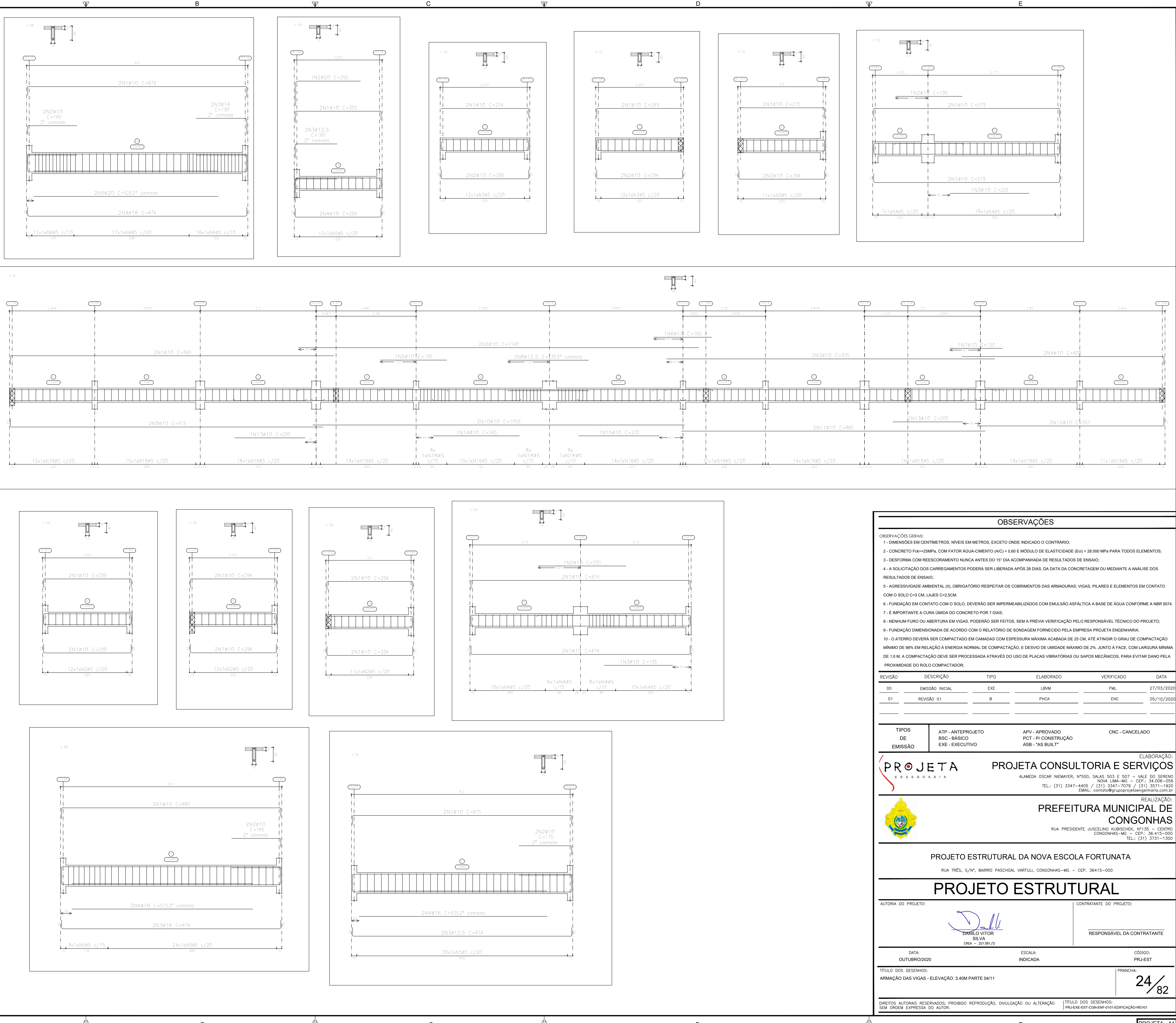


				A				
Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V 48	1	Ø10	2		679	1358	8.4	
	2	Ø10	2		165	330	2.0	
	3	Ø16	2		190	380	6.0	
	4	Ø16	2		674	1348	21.3	
	5	Ø20	2		525	1050	25.9	
	6	Ø5	44		134	5896		9.3
	Total+10%:						70.0	10.2
V 49	1	Ø10	2		302	604	3.7	
	2	Ø20	1		255	255	6.3	
	3	Ø12.5	2		160	320	3.1	
	4	Ø10	2		294	588	3.6	
	5	Ø5	12		94	1128		1.8
Total+10%:						18.4	2.0	
V 50	1	Ø10	2		274	548	3.4	
	2	Ø10	2		299	598	3.7	
	3	Ø5	12		94	1128		1.8
Total+10%:						7.8	2.0	
V 51	1	Ø10	2		269	538	3.3	
	2	Ø10	2		294	588	3.6	
	3	Ø5	12		94	1128		1.8
Total+10%:						7.6		
V 52	1	Ø10	2		275	550	3.4	
	2	Ø10	2		294	588	3.6	
	3	Ø5	11		94	1034		1.6
Total+10%:						7.7	1.8	
V 53	1	Ø10	4		579	2316	14.3	
	2	Ø10	1		190	190	1.2	
	3	Ø10	1		225	225	1.4	
	4	Ø5	25		94	2350		3.7
Total+10%:						18.6	4.1	
V 54	1	Ø10	4		299	1196	7.4	
	2	Ø5	12		94	1128		1.8
Total+10%:						8.1	2.0	
V 55	1	Ø10	4		294	1176	7.2	
	2	Ø5	12		94	1128		1.8
Total+10%:						7.9	2.0	
V 56	1	Ø10	4		294	1176	7.2	
	2	Ø5	11		94	1034		1.6
Total+10%:						7.9	1.8	
V 59	1	Ø10	4		674	2696	16.6	
	2	Ø16	1		250	250	3.9	
	3	Ø10	1		195	195	1.2	
	4	Ø5	34		94	3196		5.0
Total+10%:						23.9	5.5	
V 60	1	Ø10	2		680	1360	8.4	
	2	Ø10	2		165	330	2.0	
	3	Ø16	2		674	1348	21.3	
	4	Ø16	2		515	1030	16.3	
	5	Ø5	32		134	4288		6.7
Total+10%:						52.8	7.4	
V 61	1	Ø10	2		945	1890	11.6	
	2	Ø10	2		1140	2280	14.0	
	3	Ø10	2		935	1870	11.5	
	4	Ø10	2		600	1200	7.4	
	5	Ø10	1		190	190	1.2	
	6	Ø10	1		165	165	1.0	
	7	Ø10	1		150	150	0.9	
	8	Ø12.5	2		230	460	4.4	
	9	Ø10	2		915	1830	11.3	
	10	Ø10	2		1059	2118	13.1	
	11	Ø10	2		865	1730	10.7	
	12	Ø10	2		557	1114	6.9	
	13	Ø10	2		200	400	2.5	
	14	Ø10	1		245	245	1.5	
	15	Ø10	1		230	230	1.4	
	16	Ø5	171		94	16074		25.2
Total+10%:						109.3	27.7	
V 62	1	Ø10	2		675	1350	8.3	
	2	Ø10	2		175	350	2.2	
	3	Ø12.5	2		674	1348	13.0	
	4	Ø16	2		535	1070	16.9	
	5	Ø5	30		134	4020		6.3
Total+10%:						44.4	6.9	
						Ø5: 0.0	75.4	
						Ø10: 232.1	0.0	
						Ø12.5: 22.5	0.0	
						Ø16: 94.3	0.0	
						Ø20: 35.5	0.0	
						Total: 384.4	75.4	

ARMAÇÃO DAS VIGAS - ELEVÇÃO:3.40 M  
PARTE 04/11  
ESCALA 1:50



OBSEVAÇÕES GERAIS:

1 - DIMENSÕES EM CENTÍMETROS, NÍVEIS EM METROS, EXCETO ONDE INDICADO O CONTRÁRIO;

2 - CONCRETO Fck=25MPa, COM FATOR ÁGUA-CIMENTO (A/C) = 0,60 E MÓDULO DE ELASTICIDADE (Esi) > 28.000 MPa PARA TODOS ELEMENTOS;

3 - DEFORMAÇÃO COM RESSACORAMENTO NUNCA ANTES DO 15º DIA ACOMPANHADA DE RESULTADOS DE ENSAIO;

4 - A SOLICITAÇÃO DOS CARREGAMENTOS PODERÁ SER LIBERADA APOS 28 DIAS, DA DATA DA CONCRETAGEM OU MEDIANTE A ANÁLISE DOS RESULTADOS DE ENSAIO;

5 - AGRESSIVIDADE AMBIENTAL (II), OBRIGATORIO RESPEITAR OS COBRIMENTOS DAS ARMADURAS, VIGAS, PILARES E ELEMENTOS EM CONTAO COM O SOLO C=3 CM, LAJES C=2,5CM;

6 - FUNDAÇÃO EM CONTATO COM O SOLO, DEVERÃO SER IMPERMEABILIZADOS COM EMULSÃO ASFÁLTICA A BASE DE ÁGUA CONFORME A NBR 9574;

7 - É IMPORTANTE A CURA ÚMIDA DO CONCRETO POR 7 DIAS;

8 - NENHUM FURO OU ABERTURA EM VIGAS, PODERÃO SER FEITOS, SEM A PRÉVIA VERIFICAÇÃO PELO RESPONSÁVEL TÉCNICO DO PROJETO;

9 - FUNDAÇÃO DIMENSIONADA DE ACORDO COM O RELATÓRIO DE SONDAEM FORNECIDO PELA EMPRESA PROJETA ENGENHARIA;

10 - O ATÉRIO DEVERÁ SER COMPACTADO EM CAMADAS COM ESPESSURA MÁXIMA ACABADA DE 25 CM, ATÉ ATINGIR O GRAU DE COMPACTAÇÃO MÍNIMO DE 98% EM RELAÇÃO À UNIDADE NORMAL DE COMPACTAÇÃO, E DESVIO DE UNIDADE MÁXIMO DE 2%, JUNTO A FACE, COM LARGURA MÍNIMA DE 1,0 M, A COMPACTAÇÃO DEVE SER PROCESSADA ATRAVÉS DO USO DE PLACAS VIBRATÓRIAS OU SAPOS MECÂNICOS, PARA EVITAR DANO PELA PROXIMIDADE DO ROLO COMPACTADOR;

REVISÃO	DESCRIÇÃO	TIPO	ELABORADO	VERIFICADO	DATA
00	EMISSÃO INICIAL	EXE	LBVM	FML	27/03/2020
01	REVISÃO 01	B	FHCA	ENC	05/10/2020

TIPOS DE EMISSÃO	ATP - ANTEPROJETO BSC - BÁSICO EXE - EXECUTIVO	APV - APROVADO POT - PI CONSTRUÇÃO ASB - "AS BUILT"	CNC - CANCELADO
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PROJETA

ENGENHARIA

LABORAÇÃO:

ALAMEDA OSCAR NIEMAYER, Nº500, SALAS 503 E 507 – VALÉ DO SERENO  
NOVA LIMA-MG – CEP.: 34.006-056  
TEL.: (31) 3347-1405 / (31) 3347-7079 / (31) 3571-1920  
EMAIL: contato@grupoprojetaengenharia.com.br

REALIZAÇÃO:

PREFEITURA MUNICIPAL DE CONGONHAS

RUA PRESIDENTE JUSCELINO KUBISCHKE, Nº135 – CENTRO  
CONGONHAS-MG – CEP.: 36.415-000  
TEL.: (31) 3731-1300

PROJETO ESTRUTURAL DA NOVA ESCOLA FORTUNATA

RUA TRÊS, 5/Nº, BAIRRO PASCHOAL VARTULI, CONGONHAS-MG – CEP. 36.415-000

PROJETO ESTRUTURAL

AUTORIA DO PROJETO:

DANILO VITOR SILVA

CREA – 201381/D

CONTRATANTE DO PROJETO:

RESPONSÁVEL DA CONTRATANTE

DATA:

OUTUBRO/2020

ESCALA:

INDICADA

CÓDIGO:

PRJ-EST

TÍTULO DOS DESENHOS:

ARMADAÇÃO DAS VIGAS - ELEVAÇÃO: 3.40M PARTE 04/11

TÍTULO DOS DESENHOS:

PRJ-EST-EST-03N-ENF-0101-EDIFICAÇÃO-REV01

24/82