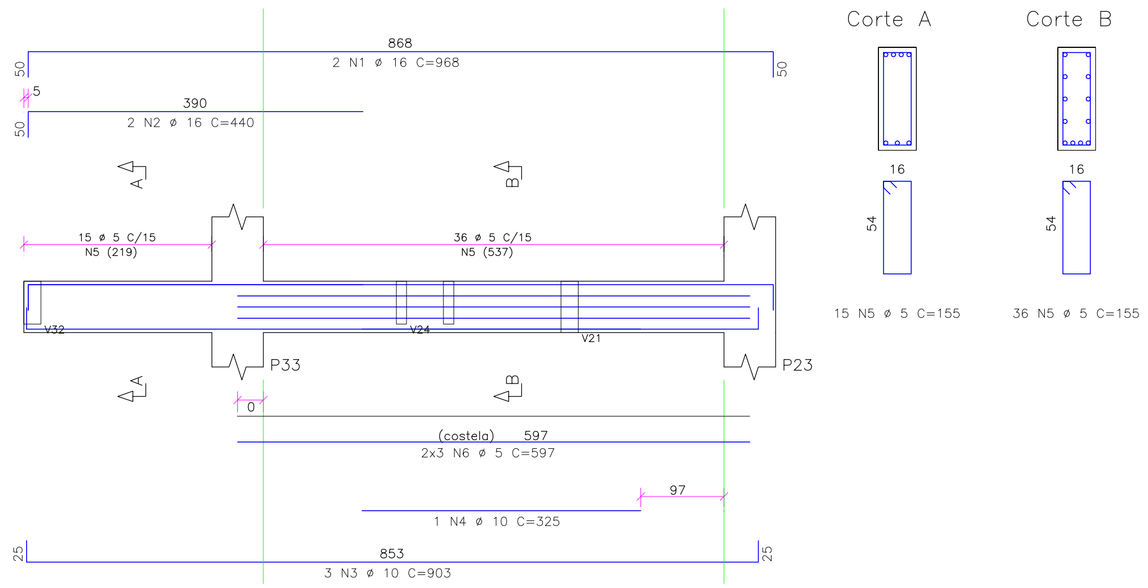
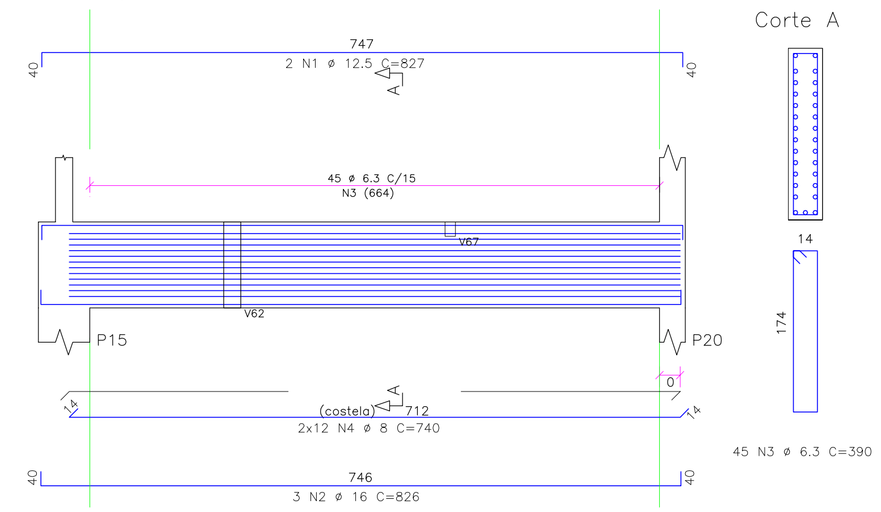
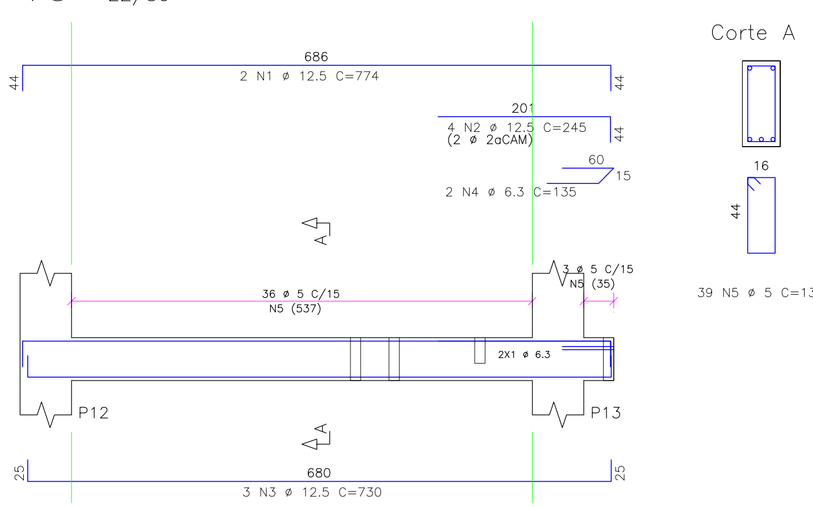
V42 22/60



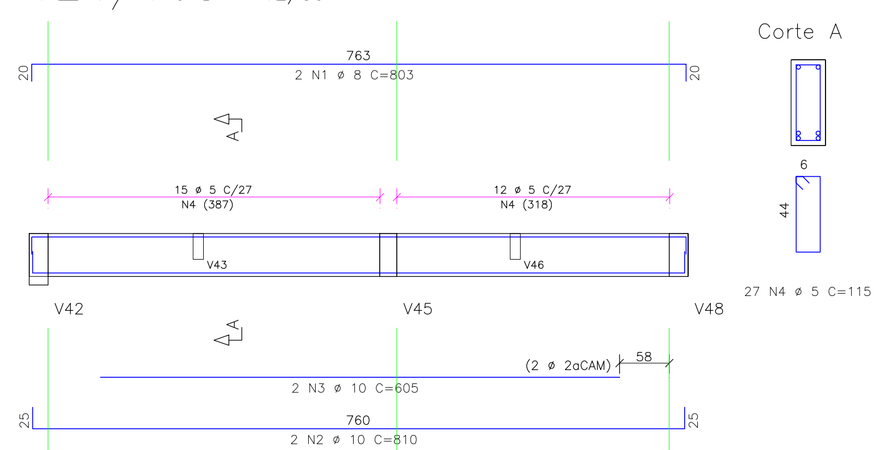
V15/V56 20/180



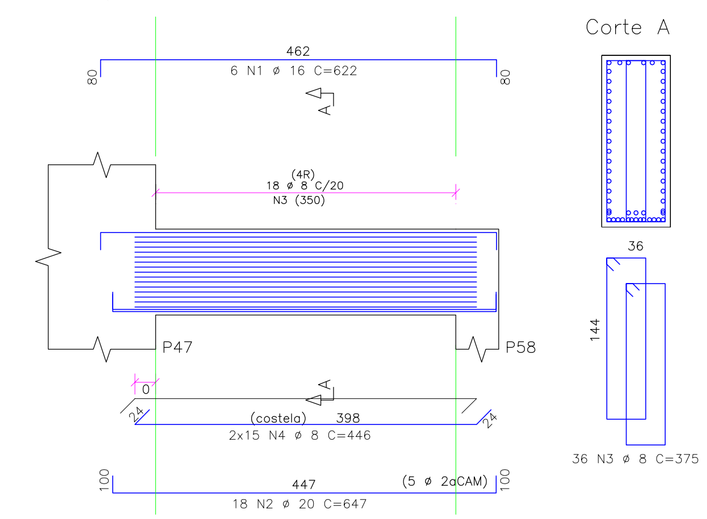
V9 22/50



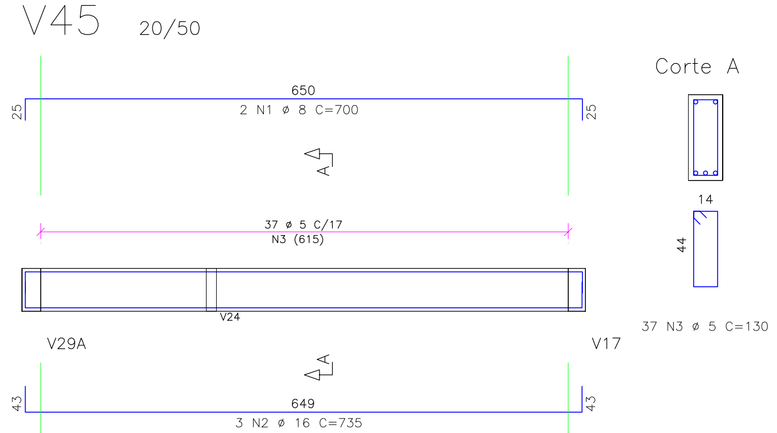
V24/V65 12/50



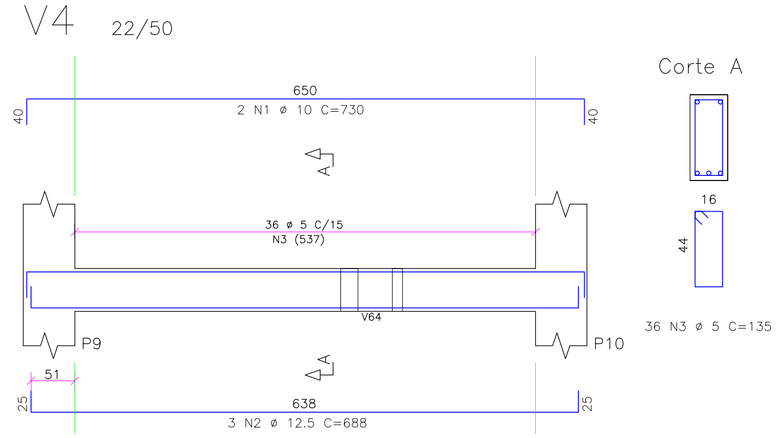
VT 60/150



V45 20/50



V4 22/50



AÇO		POS	BIT (mm)	QUANT	COMPRIMENTO UNIT (cm)	COMPRIMENTO TOTAL (cm)
V1						
	50	1	10	2	463	926
	50	2	10	1	195	195
	50	3	10	2	775	1550
	50	4	10	1	240	240
	50	5	10	1	215	215
	50	6	8	4	575	2300
	50	7	8	4	555	2220
	60	8	5	66	135	8910
VT	(X4)					
	50	1	16	24	622	14928
	50	2	20	72	647	46584
	50	3	8	144	375	54000
	50	4	8	120	446	53520
V4						
	50	1	10	2	730	1460
	50	2	12.5	3	688	2064
	60	3	5	36	135	4860
V9						
	50	1	12.5	2	774	1548
	50	2	12.5	4	245	980
	50	3	12.5	3	730	2190
	50	4	6.3	2	135	270
	60	5	5	39	135	5265
V14/V55	(X2)					
	50	1	12.5	4	808	3232
	50	2	12.5	4	255	1020
	50	3	12.5	6	747	4482
	60	4	5	72	130	9360
V15/V56	(X2)					
	50	1	12.5	4	827	3308
	50	2	16	6	826	4956
	50	3	6.3	90	390	35100
	50	4	8	48	740	35520
V17/V61	(X2)					
	50	1	16	4	605	2420
	50	2	16	2	255	510
	50	3	16	4	681	2724
	50	4	16	2	240	480
	50	5	12.5	6	775	4650
	50	6	12.5	2	325	650
	50	7	8	6	420	2520
	60	8	5	122	130	15860
V24/V65	(X2)					
	50	1	8	4	803	3212
	50	2	10	4	810	3240
	50	3	10	4	605	2420
	60	4	5	54	115	6210
V32						
	50	1	8	2	811	1622
	50	2	16	3	845	2535
	60	3	5	43	130	5590
V33/V72	(X2)					
	50	1	12.5	4	700	2800
	50	2	12.5	4	639	2556
	50	3	10	4	435	1740
	50	4	8	8	800	6400
	50	5	8	2	600	1200
	60	6	5	130	130	16900
V34						
	50	1	10	2	961	1922
	50	2	16	3	966	2898
	60	3	5	51	130	6630
V37						
	50	1	10	3	780	2340
	50	2	10	3	886	2658
	50	3	8	4	550	2200
	50	4	8	4	530	2120
	50	5	8	4	435	1740
	60	6	5	91	135	12285
V42						
	50	1	16	2	968	1936
	50	2	16	2	440	880
	50	3	10	3	903	2709
	50	4	10	1	325	325
	60	5	5	51	155	7905
	60	6	5	6	597	3582
V45						
	50	1	8	2	700	1400
	50	2	16	3	735	2205
	60	3	5	37	130	4810
V29A/V70A	(X2)					
	50	1	10	8	538	4304
	50	2	16	4	606	2424
	50	3	16	4	400	1600
	50	4	16	4	240	960
	50	5	16	4	250	1000
	50	6	8	8	675	5400
	50	7	16	6	780	4680
	60	8	5	172	135	23220

RESUMO AÇO CA 50-60

AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	1314	210
50	6.3	354	88
50	8	1754	701
50	10	262	165
50	12.5	295	295
50	16	471	754
50	20	466	1165
Peso Total	60	=	210 kg
Peso Total	50	=	3169 kg

OBSERVAÇÃO:

ALTERAÇÃO	DATA	REVISÃO	ASSUNTO

PROPLAN PLANEJAMENTO DE PROJETOS

R. Cursino Amarante, 988, Duque de Caxias, Cuiabá / MT , CEP.78.045-330
fone / fax: (65) 3322 - 3669 aquatro@aquatroprojetos.com
www.aquatroprojetos.com

PROJETO EXECUTIVO

PROJETO DE ESTRUTURA DE CONCRETO ARMADO

Proprietário: UNIRIO - UNIVERSIDADE FEDERAL DO ESTADO DO RIO DE JANEIRO

Local: AV. PAUSTER, 458, URCA, RIO DE JANEIRO-RJ

Autor do Projeto:
LÚCIO ROBERTO DE ALMEIDA
ENGENHEIRO CIVIL/ CREA 2915/D MT

Co-autores do Projeto:
ANDRÉ LUIZ S.RAMOS
ENGENHEIRO CIVIL/ CREA 3646/D MT
MÁRIO ANDRÉ DE AMORIM PALMA
ENGENHEIRO CIVIL/ CREA 1208557777

Responsável Técnico:

Assunto: ARMAÇÃO DAS VIGAS 1ºPAVIMENTO:
V4, V9, V15, V24, V42, V45, V56, V65, VT

CONCRETO : Fck 30 Mpa A/C : 0.55

Folha: VIGA 14

1 viga14 | ESC SEM | **ESTRUTURA DE CONCRETO ARMADO**
ARMAÇÃO DAS VIGAS 1ºPAVIMENTO: V4, V9, V15, V24, V42, V45, V56, V65, VT