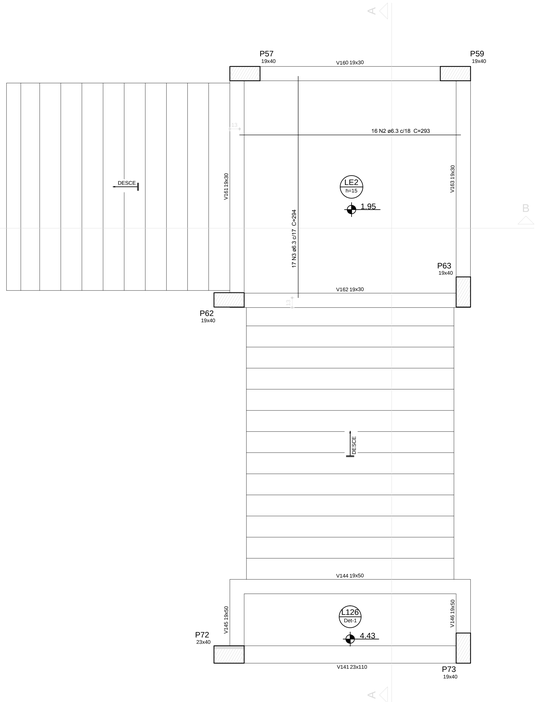
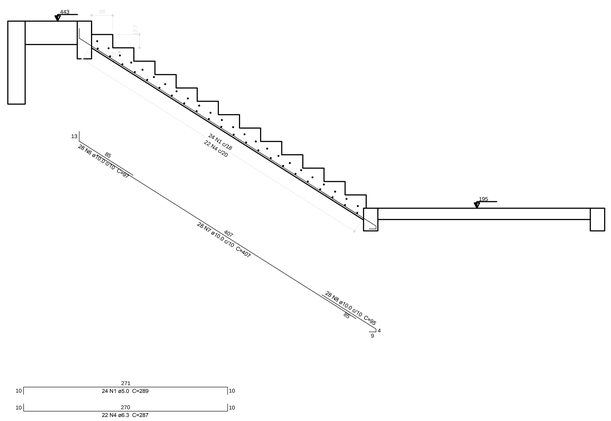
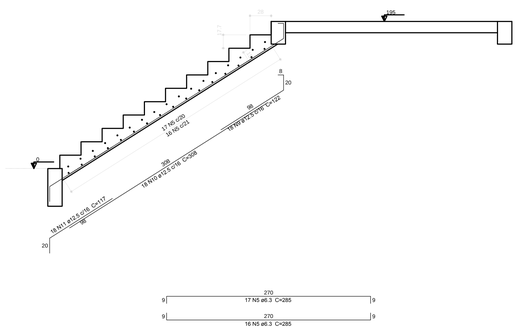


Armação positiva da escada E1
escala 1:25



Corte A-A (LE3)
escala 1:25



Corte B-B (LE1)
escala 1:25

Relação do aço

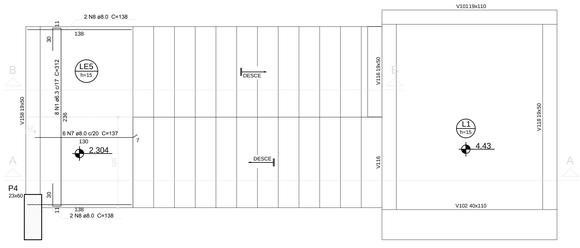
LE3

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	24	289	6936
CA50	2	6.3	16	293	4688
	3	6.3	17	294	4998
	4	6.3	22	287	6314
	5	6.3	33	285	9405
	6	10.0	28	97	2716
	7	10.0	29	407	11396
	8	10.0	28	95	2660
	9	12.5	18	122	2196
	10	12.5	18	308	5544
	11	12.5	18	117	2106

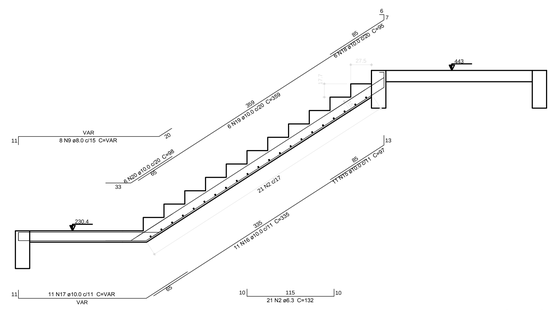
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	254.1	68.4
	10.0	167.8	113.7
	12.5	98.5	104.3
CA60	5.0	69.4	11.8
PESO TOTAL (kg)			
CA50	286.5		
CA60	11.8		

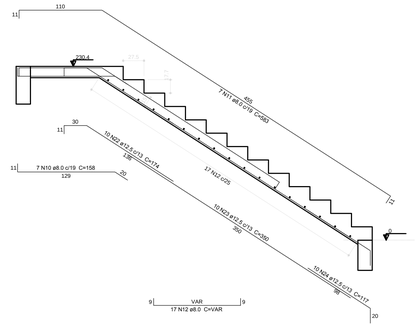
Volume de concreto (C-40) = 6.06 m³
Área de forma = 46.12 m²



Armação positiva da escada E2
escala 1:25



Corte A-A (LE6)
escala 1:25



Corte B-B (LE4)
escala 1:25

Relação do aço

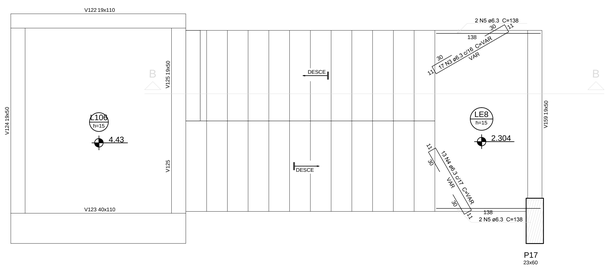
LE6 LE9

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	8	312	2496
	2	6.3	21	132	2772
	3	6.3	17	VAR	VAR
	4	6.3	13	VAR	VAR
	5	6.3	4	138	552
	6	6.3	21	VAR	VAR
	7	8.0	6	137	822
	8	8.0	4	138	552
	9	8.0	17	VAR	VAR
	10	8.0	7	158	1106
	11	8.0	7	583	4081
	12	8.0	34	VAR	VAR
	13	8.0	7	156	1092
	14	8.0	7	587	4109
	15	10.0	22	97	2134
	16	10.0	22	335	7370
	17	10.0	22	VAR	VAR
	18	10.0	12	95	1140
	19	10.0	12	359	4308
	20	10.0	6	98	588
	21	10.0	6	97	582
	22	12.5	20	174	3480
	23	12.5	20	350	7000
	24	12.5	20	117	2340

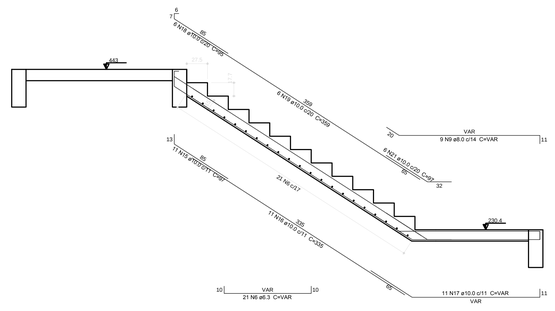
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	140	37.7
	8.0	198.1	86
	10.0	214.5	145.4
	12.5	128.2	135.9
PESO TOTAL (kg)			
CA50	404.9		

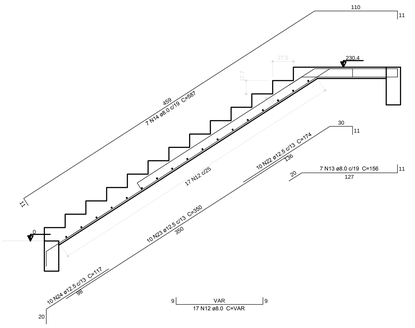
Volume de concreto (C-40) = 5.13 m³
Área de forma = 47.04 m²



Armação positiva da escada E3
escala 1:25



Corte A-A (LE9)
escala 1:25



Corte B-B (LE10)
escala 1:25

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE LAVRAS

PROJETO

TITULO:

PROJETO EXECUTIVO - ENGENHARIAS

CONTEÚDO:

PROJETO DE ESTRUTURA
ARMAÇÃO POSITIVA DAS ESCADAS E1, E2 e E3
CORTES AA e BB DAS ESCADAS E1, E2 e E3

AUTOR DO PROJETO:

MARIUS OLIVEIRA COSTA CREA 90786/D

EXECUÇÃO DE OBRA:

APROVAÇÃO DO LAYOUT (PROF. RESPONSÁVEL):

DATA:	REVISÃO DATA:	PROJETO:
03/09/2018		ESTRUTURA
ESCALA:	ÁREA: (m²)	FOLHA:
INDICADA	4772,00 m²	14/40