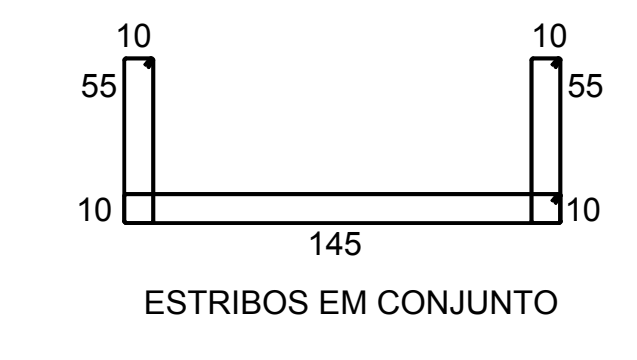
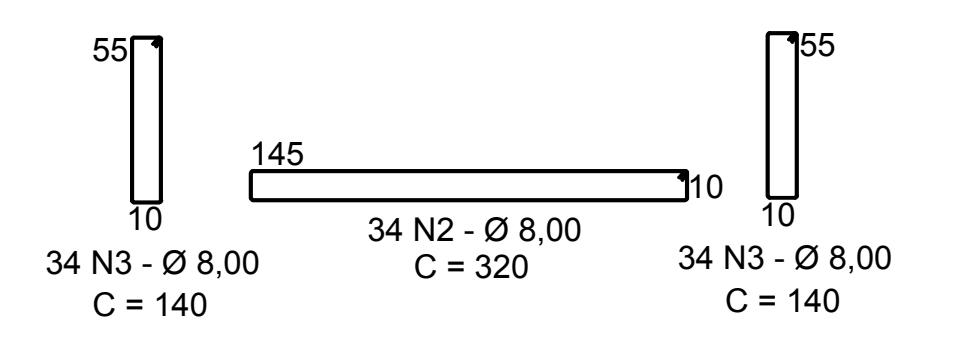
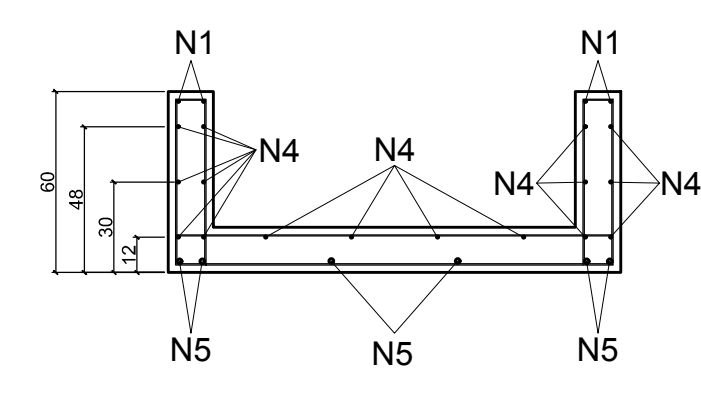
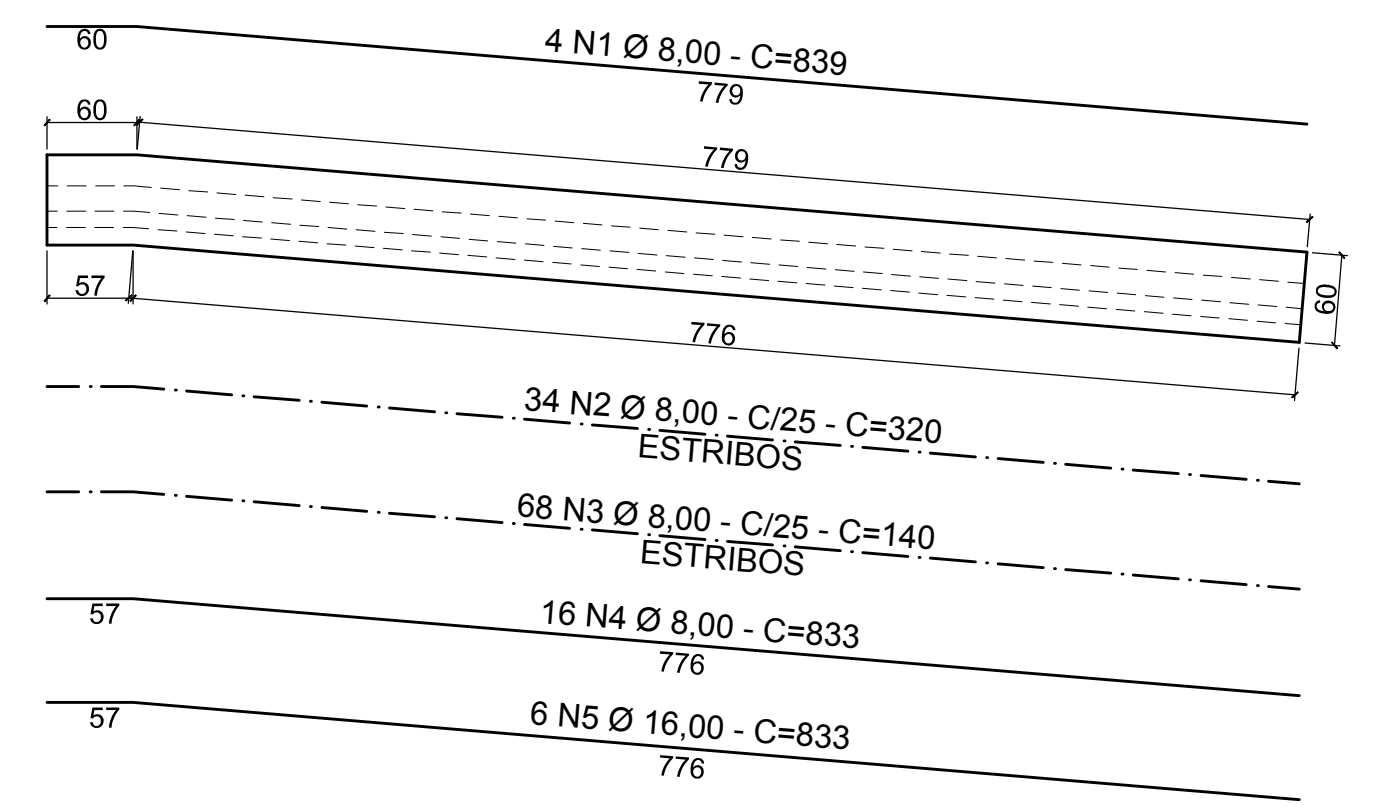
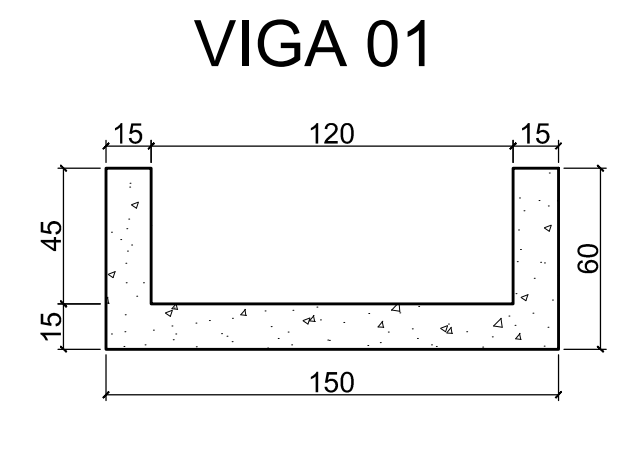
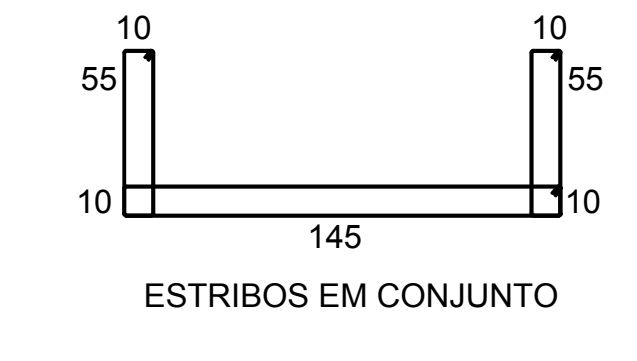
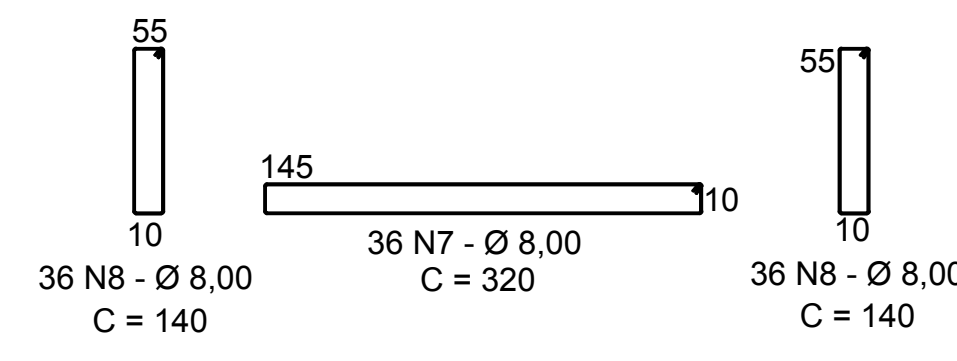
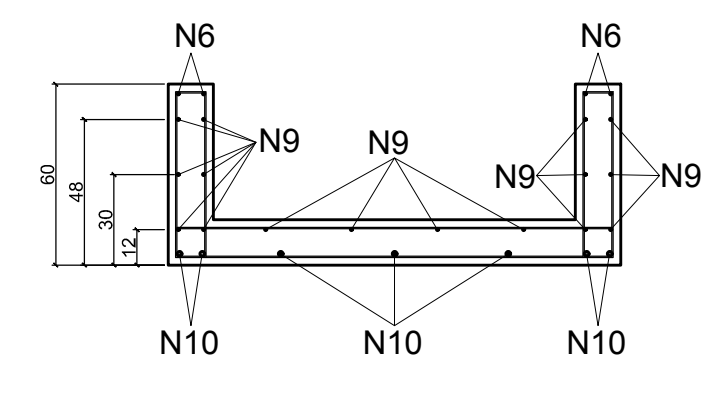
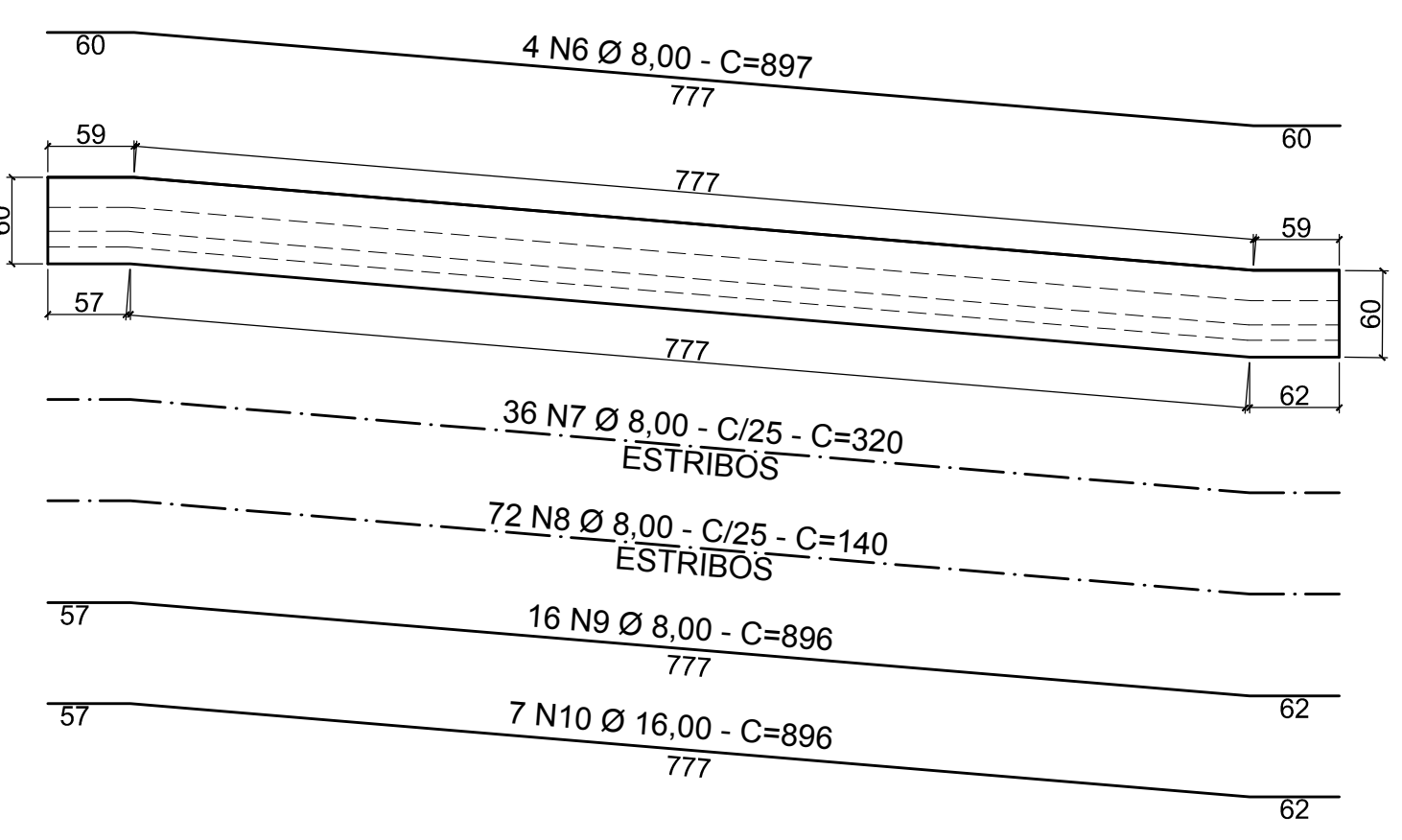
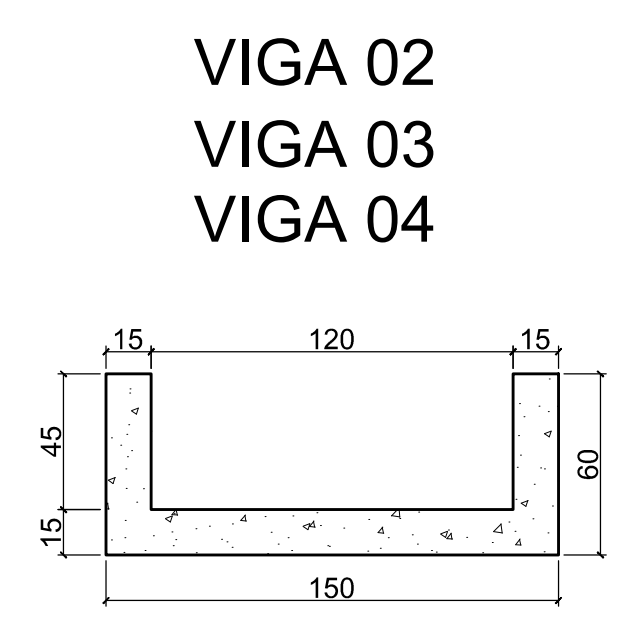


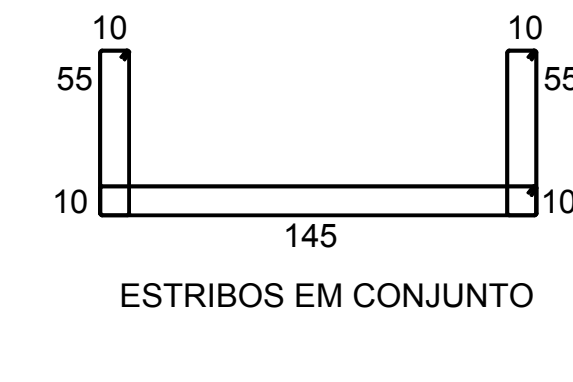
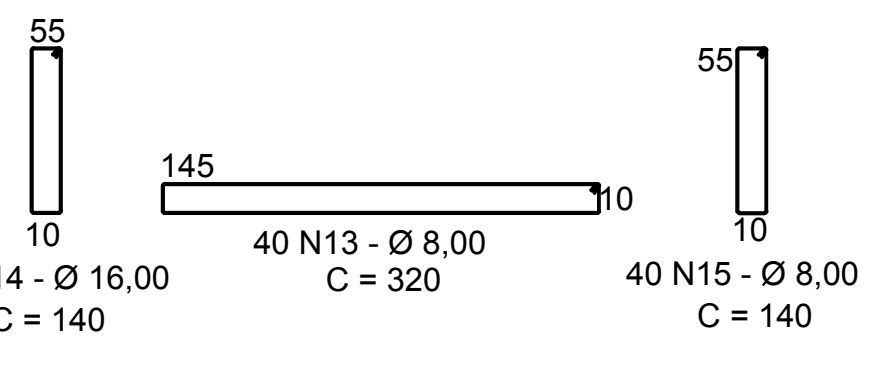
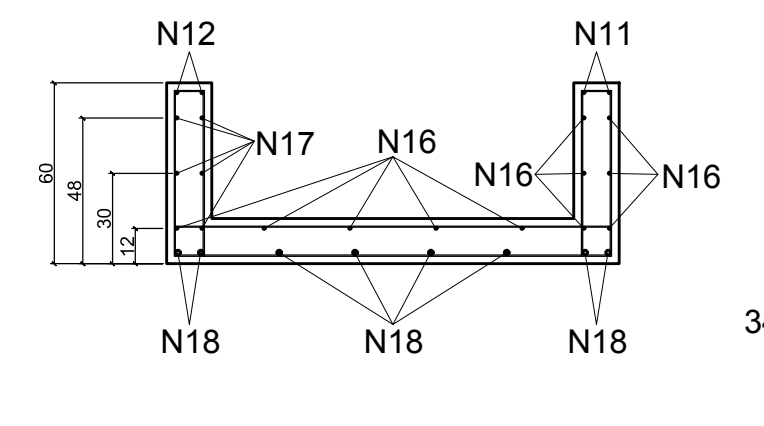
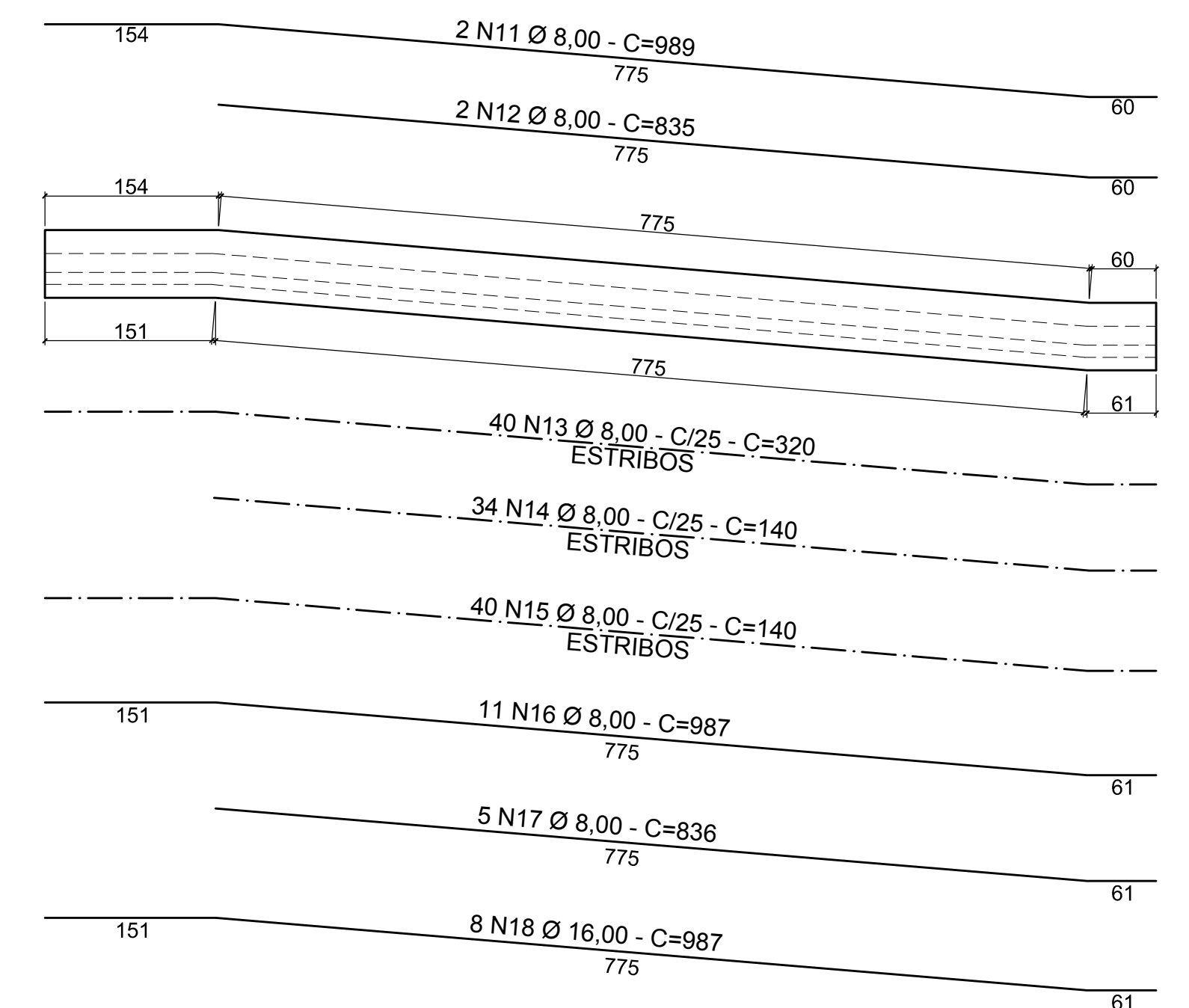
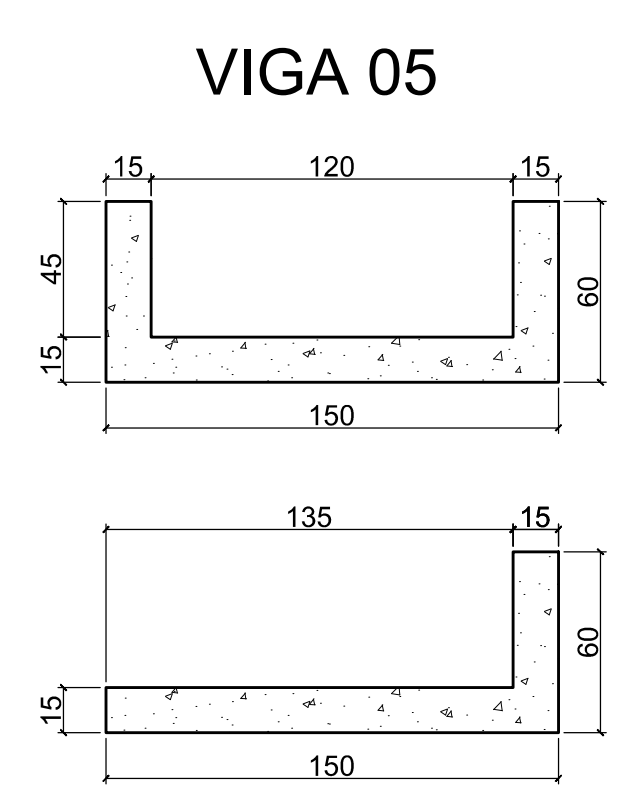
- ① - LANCE 01
- ② - LANCE 02
- ③ - VIGA PRINCIPAL



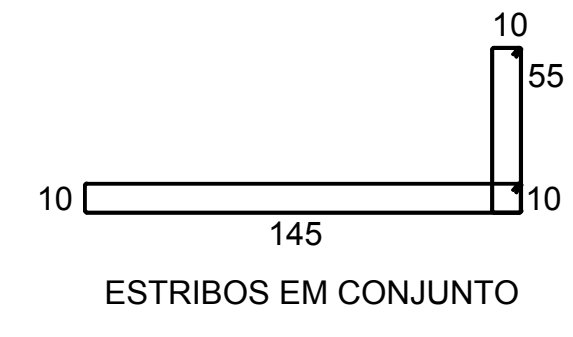
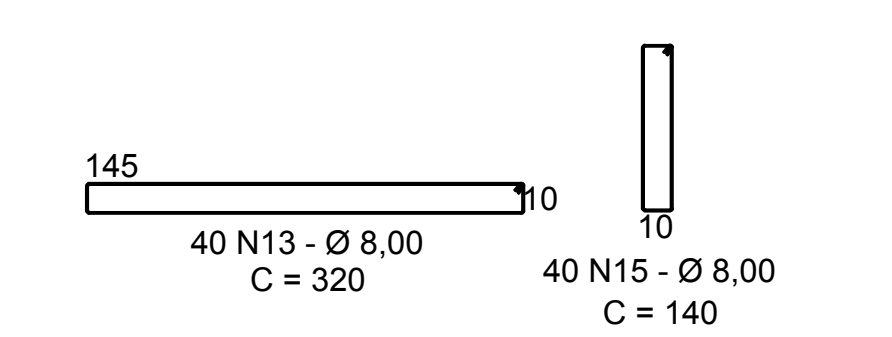
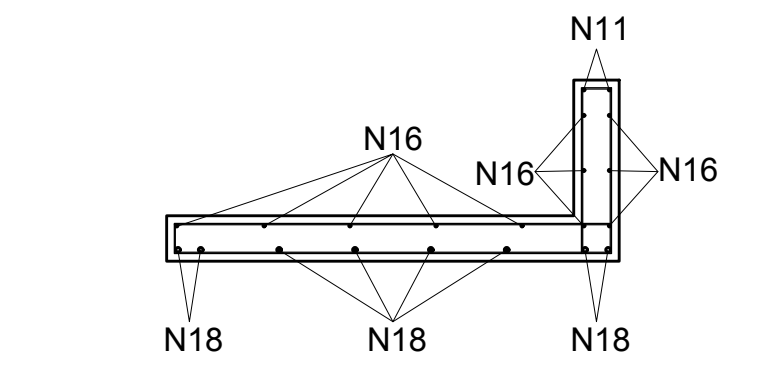
ESTRIBOS EM CONJUNTO



ESTRIBOS EM CONJUNTO



ESTRIBOS EM CONJUNTO



ESTRIBOS EM CONJUNTO

Viga	1	2	3	4	5
Contra Flecha (cm)	0,00	0,00	0,00	0,00	1,50

VIGA 01

IDENT.	QUANT (unid.)	COMP. (cm)	Ø(mm)	PESO (kg/m)	COMP. TOTAL (m)	PESO TOTAL (kg)
N1	4	839	8,00	0,395	33,56	13,26
N2	34	320	8,00	0,395	108,8	42,98
N3	64	140	8,00	0,395	89,6	35,39
N4	16	833	8,00	0,395	133,28	52,65
N5	6	833	16,00	1,578	49,98	78,87
AÇO (kg)						223,14
CONCRETO (m³)						3,02
FORMA (m²)						40,27

VIGA 02 = VIGA 03 = VIGA 04

IDENT.	QUANT (unid.)	COMP. (cm)	Ø(mm)	PESO (kg/m)	COMP. TOTAL (m)	PESO TOTAL (kg)
N6	4	897	8,00	0,395	35,88	14,17
N7	36	320	8,00	0,395	115,2	45,50
N8	72	140	8,00	0,395	100,8	39,82
N9	16	896	8,00	0,395	143,36	56,63
N10	7	896	16,00	1,578	62,72	98,97
AÇO (kg)						765,27
CONCRETO (m³)						9,69
FORMA (m²)						129,17

VIGA 05

IDENT.	QUANT (unid.)	COMP. (cm)	Ø(mm)	PESO (kg/m)	COMP. TOTAL (m)	PESO TOTAL (kg)
N11	2	989	8,00	0,395	19,78	7,81
N12	2	835	8,00	0,395	16,70	6,60
N13	40	320	8,00	0,395	128,00	50,56
N14	34	140	8,00	0,395	47,60	18,80
N15	15	140	8,00	0,395	21,00	8,30
N16	11	987	8,00	0,395	108,57	42,89
N17	5	836	8,00	0,395	41,80	16,51
N18	8	987	16,00	1,578	78,96	124,60
AÇO (kg)						276,06
CONCRETO (m³)						10,68
FORMA (m²)						141,51
TOTAL + 10% (LANÇE 01 x 2)						
AÇO (kg)						2781,85
CONCRETO (m³)						35,79
FORMA (m²)						477,21

NOTAS:
 1- MEDIDAS E NÍVEIS EM CENTIMETROS.
 2- MATERIAIS:
 .CONCRETO fck > 35MPa. e FATOR A/C < 0.5 PARA SUPERESTRUTURA;
 .CONCRETO fck > 25MPa. e FATOR A/C < 0.5 PARA INFRAESTRUTURA,
 MESOESTRUTURA, BARREIRAS RÍGIDAS E LAJE DE APROXIMAÇÃO;
 .CONSUMO DE CIMENTO MÍNIMO DE 350kg/m³;
 .CONCRETO fck > 10MPa. PARA LASTRO SOB AS ESTRUTURAS DE FUNDAÇÕES;
 .AÇO CA-50.
 3- VERIFICAR MEDIDAS E NÍVEIS NA OBRA;
 4- O CONCRETO APLICADO À OBRA DEVERÁ SER INERTE ÀS REAÇÕES ALCALIS-AGREGADO;



PROJETISTA:
 GUILHERME HENRIQUE CAZELATO MENDES
 RESPONSÁVEL TÉCNICO:
 ENG. GUILHERME MENDES

DIRETORIA DE ENGENHARIA
 ANTÔNIO DE FARIA
 UNIS-MG



DIRETORIA DE ENGENHARIA
 FISCALIZAÇÃO
 Engenheiro Diretor da DP

DEPARTAMENTO DE ESTRADAS DE RODAGEM DO ESTADO DE MINAS GERAIS
 RODOVIA: BR-491
 TRECHO: KM 239+335m - TRANSVERSAL
 PROJETO BÁSICO - ESTRUTURA DE CONCRETO
 DETALHAMENTO DAS VIGAS-LANÇE 01 (2x)