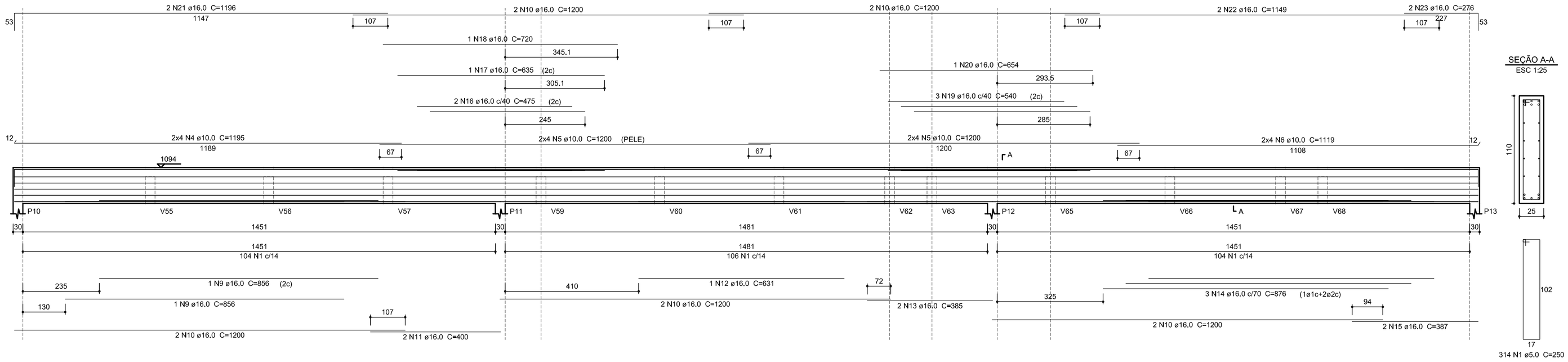
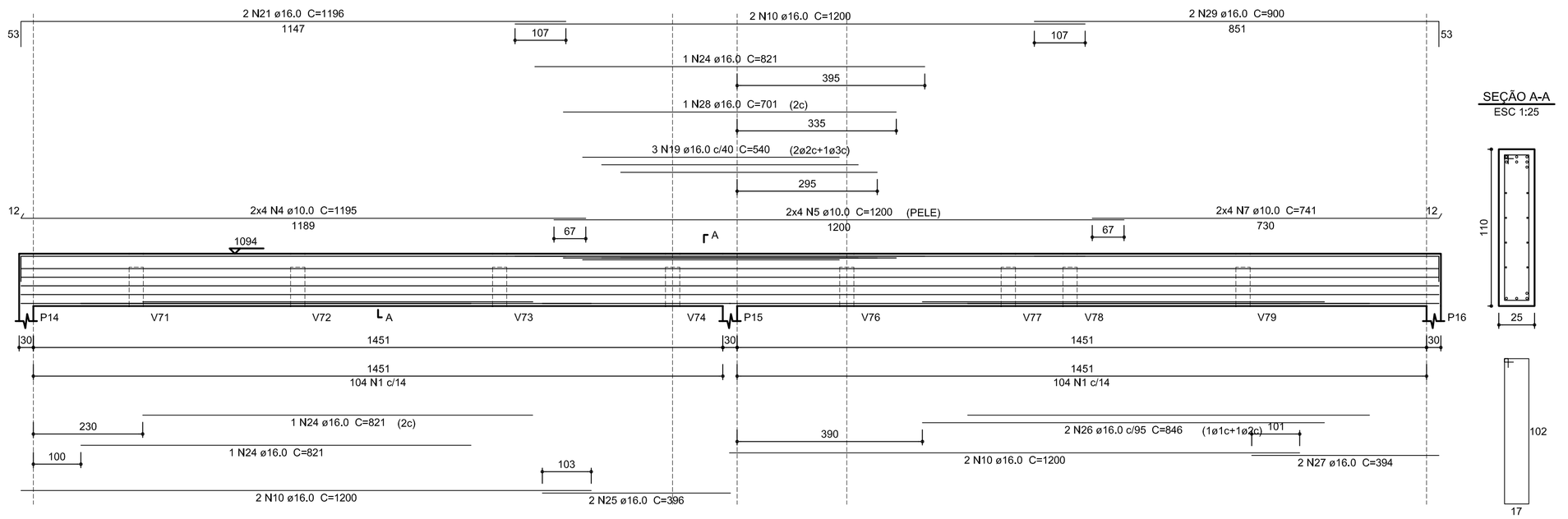
V5=V14 (25 x 110)

ESC 1:75



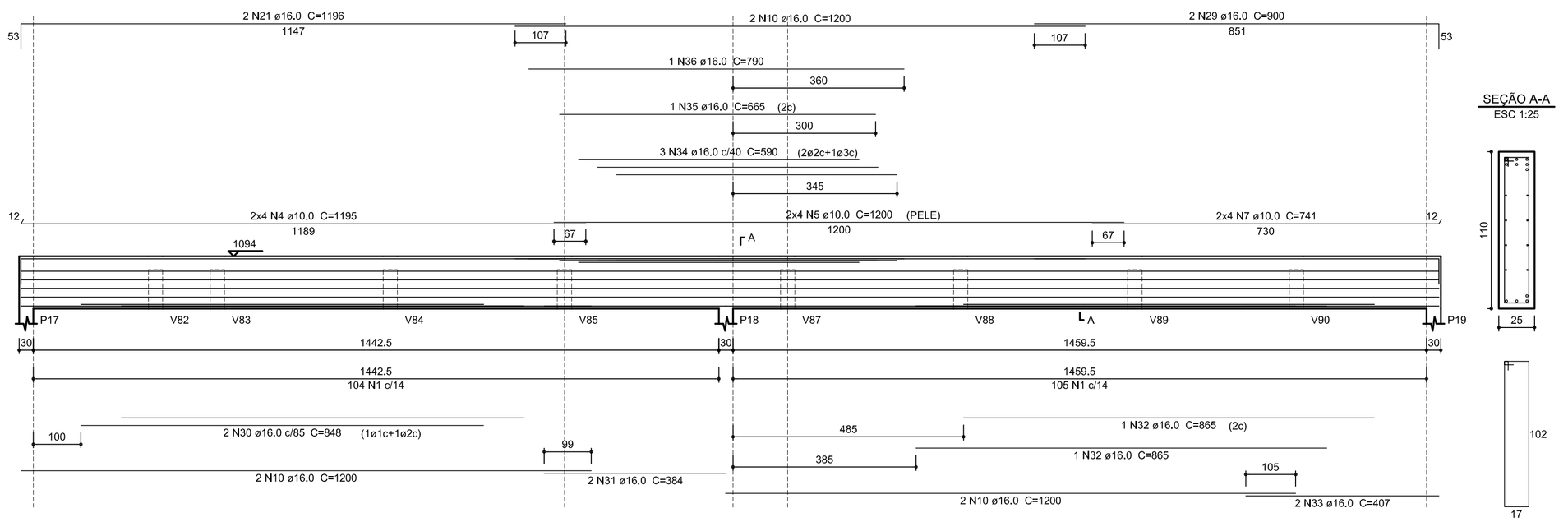
V6=V15 (25 x 110)

ESC 1:75



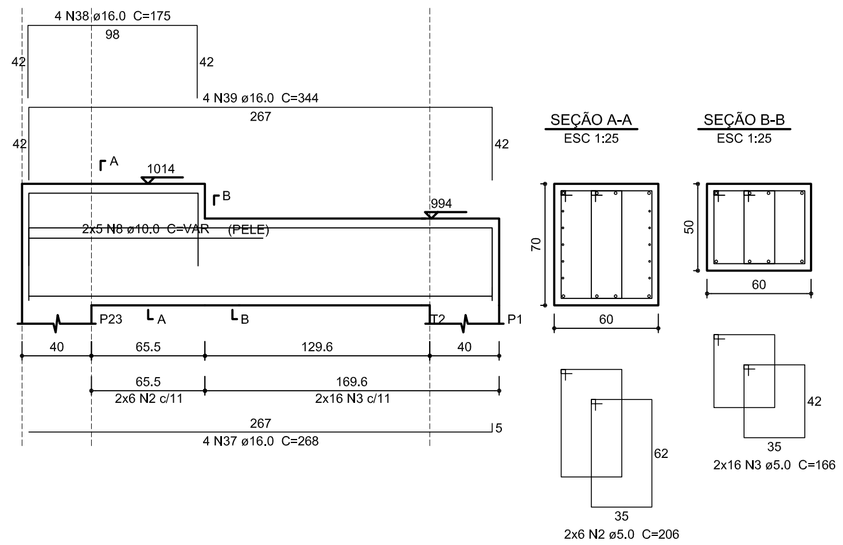
V7=V16 (25 x 110)

ESC 1:75



V20=V104 (var)

ESC 1:25



Relação do aço

2xV5 2xV6 2xV7
2xV20

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	1462	250	365500
	2	5,0	24	206	4944
	3	5,0	64	166	10624
CA50	4	10,0	48	1195	57360
	5	10,0	64	1200	76800
	6	10,0	16	1119	17904
	7	10,0	32	741	23712
	8	10,0	20	VAR	VAR
	9	16,0	4	856	3424
	10	16,0	44	1200	52800
	11	16,0	4	400	1600
	12	16,0	2	631	1262
	13	16,0	4	385	1540
	14	16,0	6	876	5256
	15	16,0	4	387	1548
	16	16,0	4	475	1900
	17	16,0	2	635	1270
	18	16,0	2	720	1440
	19	16,0	12	540	6480
	20	16,0	2	654	1308
	21	16,0	12	1196	14352
	22	16,0	4	1149	4596
	23	16,0	4	276	1104
	24	16,0	6	821	4926
	25	16,0	4	396	1584
	26	16,0	4	846	3384
	27	16,0	4	394	1576
	28	16,0	2	701	1402
	29	16,0	8	900	7200
	30	16,0	4	848	3392
	31	16,0	4	384	1536
	32	16,0	4	865	3460
	33	16,0	4	407	1628
	34	16,0	6	590	3540
	35	16,0	2	665	1330
	36	16,0	2	790	1580
	37	16,0	8	268	2144
	38	16,0	8	175	1400
	39	16,0	8	344	2752

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	10.0	1784.8	1100.4
	16.0	1427.2	2252.5
CA60	5.0	3810.7	587.4

PESO TOTAL (kg)	
CA50	3352.9
CA60	587.4

Volume de concreto (C-30) = 59,22 m³
Área de forma = 509,14 m²

REVISÃO	DESCRIÇÃO	DESENHO	VERIFICAÇÃO	APROVAÇÃO	DATA
01	REVISÃO CONFORME OF. CAIXA – CE1542/2019 – CE6107/2019 e CE2202/2020	IRUPE/DAIANE	IRUPE/DAIANE	COMUSA	30/03/2021

SERVIÇOS DE ÁGUA E ESGOTO DE NOVO HAMBURGO
COMUSA FAZ PARTE DA SUA VIDA

Serviços de Água e Esgoto de Novo Hamburgo – RS
Av. Cel. Travassos, 287
Fone/Fax: (51) 3587-1121

HIDRÁULICA ENGENHARIA LTDA.

Obra
SISTEMA DE RECALQUE E ADUÇÃO DE ÁGUA BRUTA DE NOVO HAMBURGO – RS

Responsável Técnico
AUTORIA: AMAURY AMARAL CALDEIRA DE ANDRADA
COAUTORIA: VITOR PEDRO WERLANG

Especificação
TRAVESSIA NO BANHADO DO RIO DOS SINOS
PROJETO ESTRUTURAL – ARMAÇÃO
VIGAS NIVEL ADUTORA – FL 02/03

Desenho	Escala	Unidade	Nome do arquivo	Data	Prancha
Eng. Vitor P. Werlang	Indicada	Centímetro	013-AG-PE-SAA-ES-009a013-R01.dwg	NOV/18	11/14

1 ARMAÇÃO DAS VIGAS NIVEL DA ADUTORA - FL 02/03
ESCALA INDICADA