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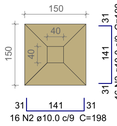
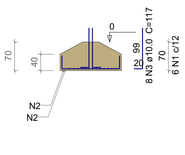
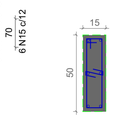
PLANTA
ESC 1:75



CORTE
ESC 1:75



DETALHE DO PILAR
ESC 1:20



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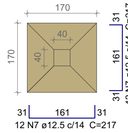
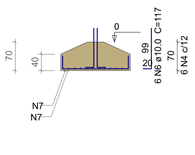
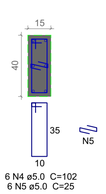
PLANTA
ESC 1:75



CORTE
ESC 1:75



DETALHE DO PILAR
ESC 1:20



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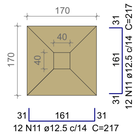
ESC 1:75



CORTE
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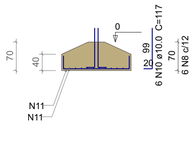
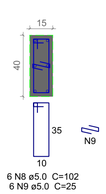


DETALHE DO PILAR
ESC 1:20



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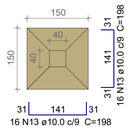

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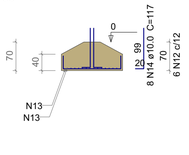
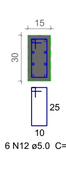


DETALHE DO PILAR
ESC 1:20



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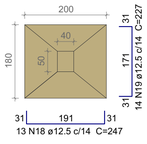
ESC 1:75



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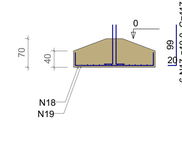

DETALHE DO PILAR
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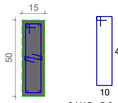

S6
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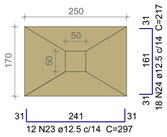
ESC 1:75



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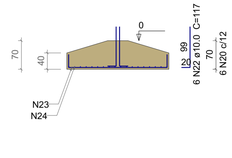

DETALHE DO PILAR
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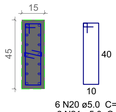

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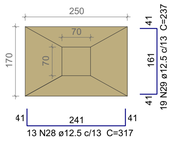

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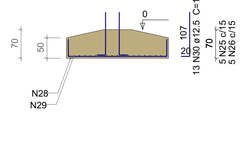

DETALHE DO PILAR
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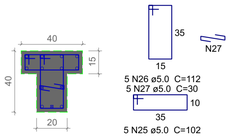

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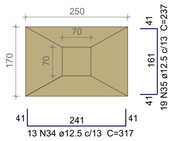
ESC 1:75



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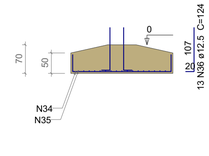

DETALHE DO PILAR
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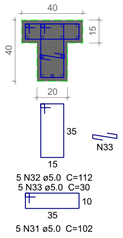

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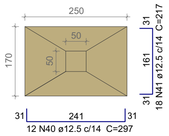
PLANTA
ESC 1:75



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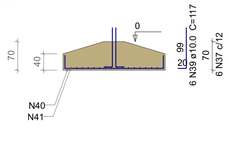

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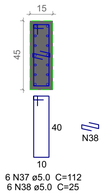

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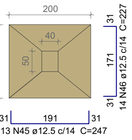

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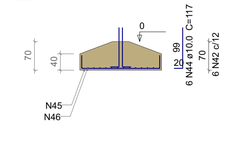

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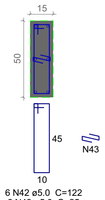

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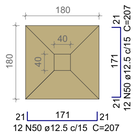
ESC 1:75



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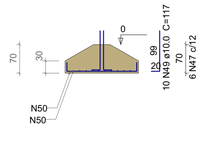

DETALHE DO PILAR
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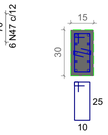

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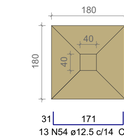

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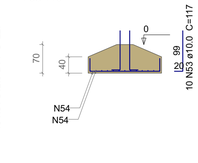

DETALHE DO PILAR
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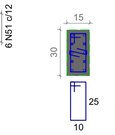

S27
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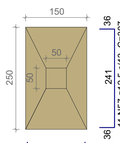
ESC 1:75



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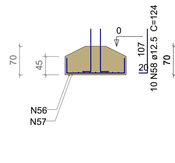

DETALHE DO PILAR
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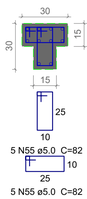
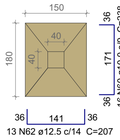


S28
PLANTA
ESC 1:75



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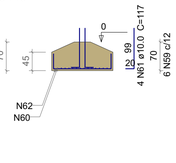

DETALHE DO PILAR
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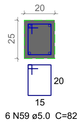
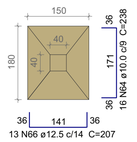


S29
PLANTA
ESC 1:75



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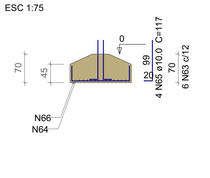

DETALHE DO PILAR
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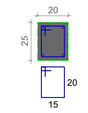

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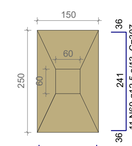
ESC 1:75



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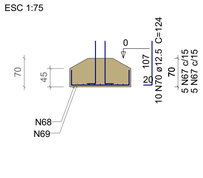

DETALHE DO PILAR
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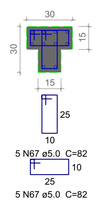

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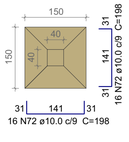

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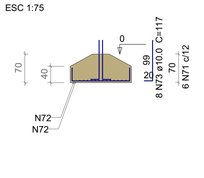

DETALHE DO PILAR
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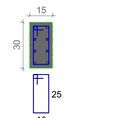

S32
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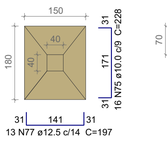
ESC 1:75



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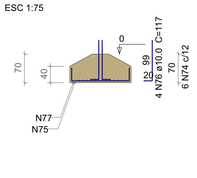

DETALHE DO PILAR
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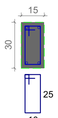

S33
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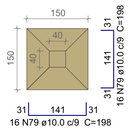
ESC 1:75



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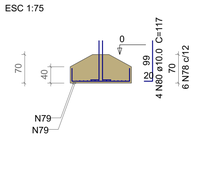

DETALHE DO PILAR
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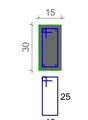
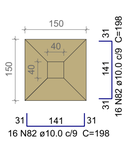
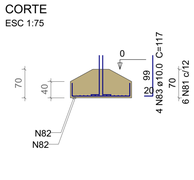


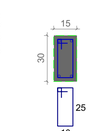
S34
PLANTA
ESC 1:75



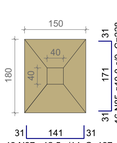
CORTE
ESC 1:75



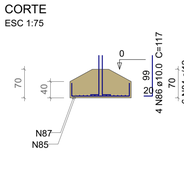
DETALHE DO PILAR
ESC 1:20



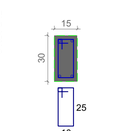
S35
PLANTA
ESC 1:75



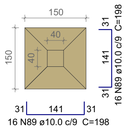
CORTE
ESC 1:75



DETALHE DO PILAR
ESC 1:20



S36
PLANTA
ESC 1:75



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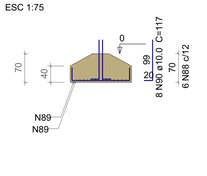

DETALHE DO PILAR
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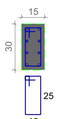

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
S1	CA60	1	5.0	6	82	492
	CA50	2	10.0	32	198	6336
	CA50	3	10.0	8	117	936
S2	CA60	4	5.0	6	102	612
	CA60	5	5.0	6	25	150
	CA50	6	10.0	6	117	702
	CA50	7	12.5	24	217	5208
S3	CA60	8	5.0	6	102	612
	CA60	9	5.0	6	25	150
	CA50	10	10.0	6	117	702
	CA50	11	12.5	24	217	5208
S4	CA60	12	5.0	6	82	492
	CA50	13	10.0	32	198	6336
	CA50	14	10.0	8	117	936
S5	CA60	15	5.0	6	122	732
	CA60	16	5.0	6	25	150
	CA50	17	10.0	6	117	702
	CA50	18	12.5	13	247	3211
	CA50	19	12.5	14	227	3178
S6	CA60	20	5.0	6	112	672
	CA60	21	5.0	6	25	150
	CA50	22	10.0	6	117	702
	CA50	23	12.5	12	297	3564
	CA50	24	12.5	18	217	3906
S7	CA60	25	5.0	5	102	510
	CA60	26	5.0	5	112	560
	CA60	27	5.0	5	30	150
	CA50	28	12.5	13	317	4121
	CA50	29	12.5	19	237	4503
	CA50	30	12.5	13	124	1612
S8	CA60	31	5.0	5	102	510
	CA60	32	5.0	5	112	560
	CA60	33	5.0	5	30	150
	CA50	34	12.5	13	317	4121
	CA50	35	12.5	19	237	4503
	CA50	36	12.5	13	124	1612
S9	CA60	37	5.0	6	112	672
	CA60	38	5.0	6	25	150
	CA50	39	10.0	6	117	702
	CA50	40	12.5	12	297	3564
	CA50	41	12.5	18	217	3906
S10	CA60	42	5.0	6	122	732
	CA60	43	5.0	6	25	150
	CA50	44	10.0	6	117	702
	CA50	45	12.5	13	247	3211
	CA50	46	12.5	14	227	3178
S23	CA60	47	5.0	6	82	492
	CA60	48	5.0	6	25	150
	CA50	49	10.0	10	117	1170
	CA50	50	12.5	24	207	4968
S26	CA60	51	5.0	6	82	492
	CA60	52	5.0	6	25	150
	CA50	53	10.0	10	117	1170
	CA50	54	12.5	26	227	5902
S27	CA60	55	5.0	10	82	820
	CA50	56	12.5	18	207	3726
	CA50	57	12.5	11	307	3377
	CA50	58	12.5	10	124	1240
S28	CA60	59	5.0	6	82	492
	CA50	60	10.0	16	238	3808
	CA50	61	10.0	4	117	468
	CA50	62	12.5	13	207	2691
S29	CA60	63	5.0	6	82	492
	CA50	64	10.0	16	238	3808
	CA50	65	10.0	4	117	468
	CA50	66	12.5	13	207	2691
S30	CA60	67	5.0	10	82	820
	CA50	68	12.5	18	207	3726
	CA50	69	12.5	11	307	3377
	CA50	70	12.5	10	124	1240
S31	CA60	71	5.0	6	82	492
	CA50	72	10.0	32	198	6336
	CA50	73	10.0	8	117	936
S32	CA60	74	5.0	6	82	492
	CA50	75	10.0	16	228	3648
	CA50	76	10.0	4	117	468
	CA50	77	12.5	13	197	2561
S33	CA60	78	5.0	6	82	492
	CA50	79	10.0	32	198	6336
	CA50	80	10.0	4	117	468
S34	CA60	81	5.0	6	82	492
	CA50	82	10.0	32	198	6336
	CA50	83	10.0	4	117	468
S35	CA60	84	5.0	6	82	492
	CA50	85	10.0	16	228	3648
	CA50	86	10.0	4	117	468
	CA50	87	12.5	13	197	2561
S36	CA60	88	5.0	6	82	492
	CA50	89	10.0	32	198	6336
	CA50	90	10.0	8	117	936

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10 % (Barras)	PESO + 10 % (kg)
CA50	10.0	660.4	61	447.8
	12.5	966.7	89	1024.3
CA60	5.0	152.2	-	25.8

PESO TOTAL (kg)	
CA50	1472.2
CA60	25.8

Volume de concreto (C-30) = 36.99 m³
Área de forma = 64.5 m²

LEGENDA:

YOSHITO DE SOUZA FUKUDA:07067083770

Assinado de forma digital por YOSHITO DE SOUZA FUKUDA:07067083770
Dados: 2022.04.07 01:40:25 -03'00'

Engenheiro Coordenador Nome: Daniel Pereira Silva Crea: ES-011430/D ART nº: Visto	**PREFEITURA MUNICIPAL DE COLATINA- SECRETARIA MUNICIPAL DE OBRAS** **PROJETO DE ENGENHARIA PARA OBRA DE EDIFÍCIO MULTIFAMILIAR** **PROGRAMA NOSSA CASA**
Responsável Técnico Nome: Yoshito de Souza Fukuda Crea: ES-0051381/D ART nº: Visto	**PROJETO: CONJUNTO DE DOIS EDIFÍCIOS RESIDENCIAIS MULTIFAMILIAR** **ENDEREÇO : MUNICIPIO DE COLATINA/ES** — Escala: INDICADA
REVISÃO Nº: -	**SERPENGE** — SERPENGE - SERVIÇOS E PROJETOS DE ENGENHARIA LTDA EPP — PROJETO ESTRUTURAL — Data: MARÇO / 2022 — Folha Nº: EST- 1 / 29