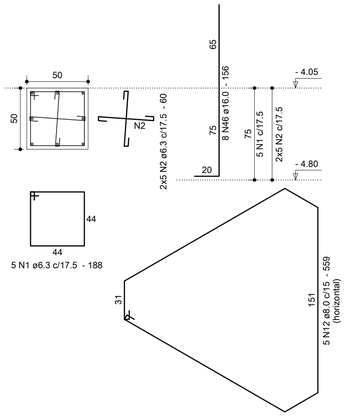
P246=P272 (2x)



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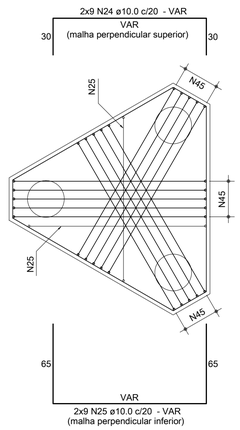
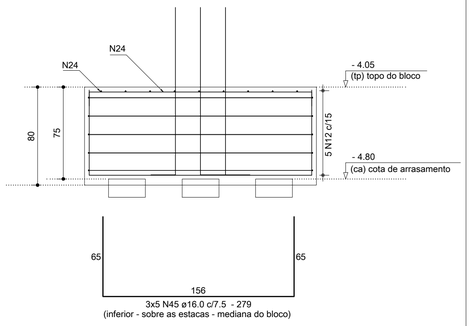
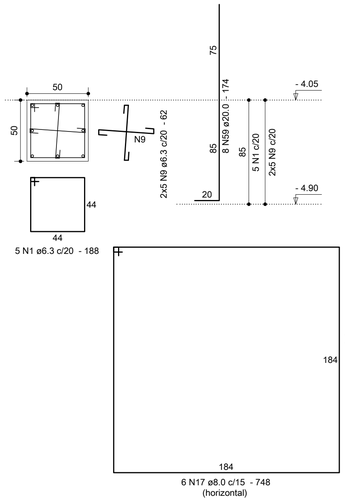
3ø30

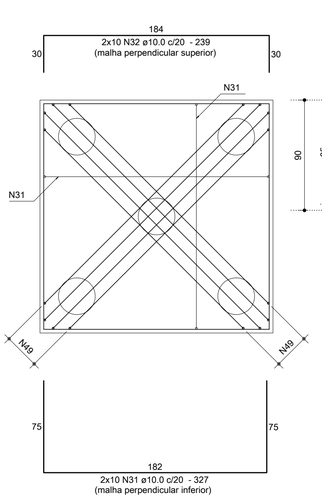


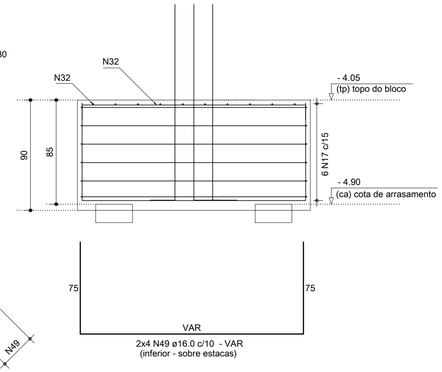


P244



B244
5ø30





Relação do aço (do desenho)

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	20	188	3760
	2	6.3	20	60	1200
	9	6.3	20	62	1240
	12	8.0	10	559	5590
	17	8.0	6	748	4488
	18	8.0	6	768	4608
	24	10.0	36	VAR	VAR
	25	10.0	36	VAR	VAR
	31	10.0	20	327	6540
	32	10.0	20	239	4780
	33	10.0	5	377	1885
	34	10.0	8	287	2296
	35	10.0	12	197	2364
	36	10.0	8	289	2312
	45	16.0	30	279	8370
	49	16.0	8	VAR	VAR
	50	16.0	12	285	3420
	59	20.0	16	174	2784
	60	20.0	10	370	3700

Resumo dos materias (do desenho)

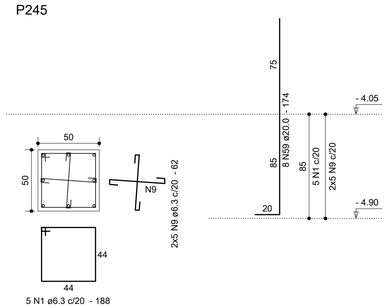
AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	62	15.2
	8.0	146.9	57.9
	10.0	356.6	219.8
	16.0	168.9	266.5
	20.0	64.9	159.9
PESO TOTAL (kg)			
CA50	719.4		

Vol. concreto = 9.60 m³
Área formas = 22.65 m²

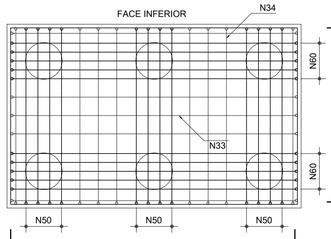
Relação total do aço
(desenhos de ARM 01-07 a ARM 01-16)

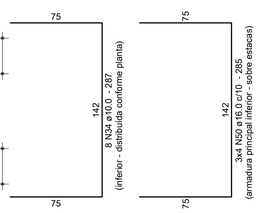
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	1239	188	232932
	2	6.3	2799	60	167940
	3	6.3	258	50	12900
	4	6.3	384	148	56832
	5	6.3	298	148	44104
	6	6.3	28	40	1120
	7	6.3	568	42	23856
	8	6.3	354	52	18408
	9	6.3	64	62	3968
	10	6.3	24	50	1200
	11	6.3	42	228	9576
	12	8.0	420	559	234780
	13	8.0	640	708	453120
	14	8.0	391	294	114954
	15	8.0	136	218	29648
	16	8.0	8	288	2304
	17	8.0	18	748	13464
	18	8.0	6	768	4608
	19	8.0	24	268	6432
	20	8.0	5	488	2440
	21	8.0	24	598	14352
	22	10.0	170	709	120530
	23	10.0	150	561	84150
	24	10.0	1512	VAR	VAR
	25	10.0	1512	VAR	VAR
	26	10.0	2268	297	673596
	27	10.0	1602	227	363654
	28	10.0	110	489	53790
	29	10.0	84	287	24108
	30	10.0	666	267	177822
	31	10.0	60	327	19620
	32	10.0	60	239	14340
	33	10.0	21	377	7917
	34	10.0	8	287	2296
	35	10.0	12	197	2364
	36	10.0	8	289	2312
	37	10.0	8	307	2456
	38	10.0	32	157	5024
	39	10.0	100	285	28500
	40	10.0	20	287	5740
	41	12.5	1278	296	378288
	42	12.5	1080	VAR	VAR
	43	12.5	98	286	28028
	44	16.0	758	201	152358
	45	16.0	1365	279	380835
	46	16.0	1304	156	203424
	47	16.0	345	289	99705
	48	16.0	65	285	18525
	49	16.0	24	VAR	VAR
	50	16.0	12	285	3420
	51	16.0	24	200	4800
	52	16.0	6	260	1560
	53	16.0	18	295	5310
	54	16.0	20	375	7500
	55	20.0	1296	VAR	VAR
	56	20.0	656	164	107584
	57	20.0	148	209	30932
	58	20.0	24	219	5256
	59	20.0	40	174	6960
	60	20.0	10	370	3700

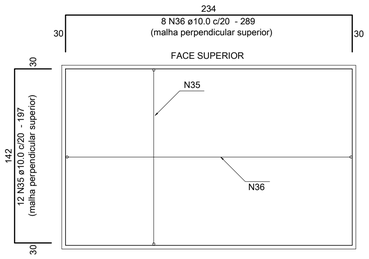
P245

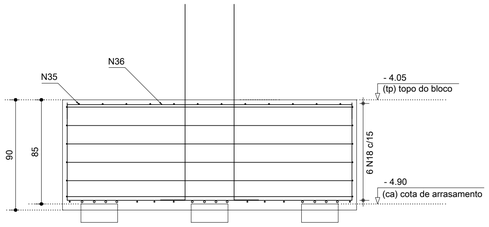


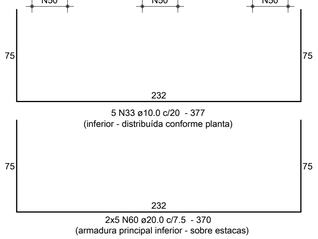
B245
6ø30

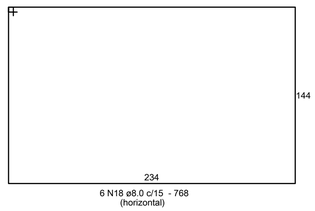












Resumo total do aço
(desenhos de ARM 01-07 a ARM 01-16)

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	5728.4	1401.8
	8.0	8761.1	3457
	10.0	22383.8	13800.4
	12.5	6752.4	6504.8
	16.0	8852.4	13972
	20.0	5302.8	13077.3
PESO TOTAL (kg)			
CA50	52213.3		

Vol. concreto = 655.60 m³
Área formas = 1682.43 m²

BLOCOS DO DESENHO:

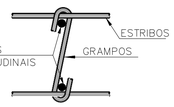
B244

B245

B246=B272 (2x)

Anotações:

Detalhe dos grampos:



DIÂMETRO (Ø) DOS PINOS DE DOBRAMENTO PARA GANCHOS
SEM ESCALA

BITOLA (Ø)	CA50	CA60
<20mm	5xØ	6xØ
≥20mm	8xØ	—
estribo ≤10mm	3xØ	3xØ

NBR-6118:2003 (itens 9.4.2.3 e 9.4.6.1)

Notas:

01 NBR6118:2007 – Classe de Agressividade Ambiental = II.
02 NBR6118:2007 – Concreto com fck=25MPa – Aço CA-50.
03 NBR6118:2007 – Cobrimento para arranques e blocos: 3,0cm.
04 Unidades: diâmetro do aço em milímetro; espaçamento e comprimento em centímetro;
05 Para definição de formas e níveis consultar planta geral das fundações (FOR 01).
06 Os desenhos de armações dos arranques de pilares e blocos, acompanham o posicionamento definido na planta de formas FOR 01.

REVISÃO	DATA	MODIFICAÇÕES	RESP.
00	05/05/12	Emissão inicial.	Dionísio

Proger Engenharia ltda
PROJETOS ESTRUTURAIS - CONSULTORIA - GERENCIAMENTO
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dionisio@dionisio.eng.br
http://www.progerengenharia.com.br

CLIENTE: PÁTIOMIX LINHARES SHOPPING CENTER SPE S.A.

DESENHO: 407_arm01_07_r0.dwg

OBRA: SHOPPING PÁTIOMIX LINHARES
Linhares – ES

ESCALA: 1:25

DATA – REVISÃO: 05/05/12 – R0

PROJETO ESTRUTURAL
ARRANQUES/BLOCOS – PILARES MOLDADOS "IN LOCO" – 01/10
BLOCOS DO SUBSOLO (ÁREA CENTRAL DO ESTACIONAMENTO)
ARMAÇÕES

PROJETO: E407

ARM01-07