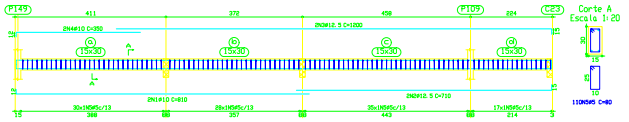
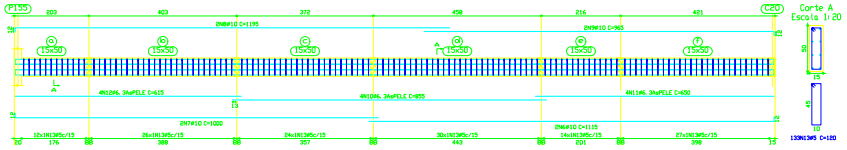
C89
Escala 1:50



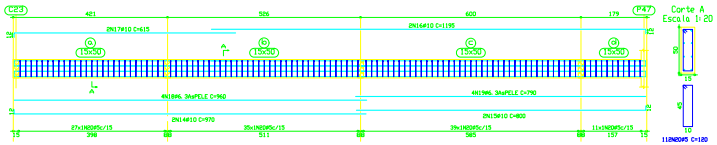
Corte A
Escala 1:20

C90
Escala 1:50



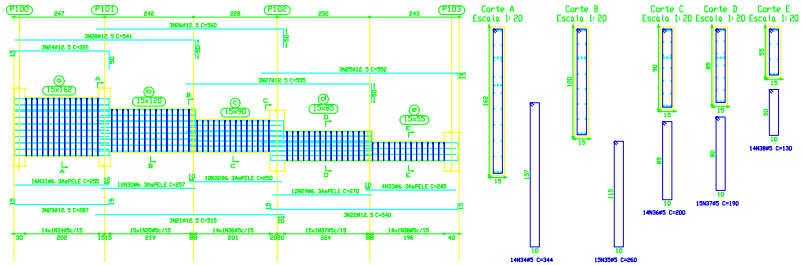
Corte A
Escala 1:20

C93
Escala 1:50



Corte A
Escala 1:20

C95
Escala 1:50



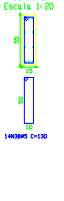
Corte A
Escala 1:20

Corte B
Escala 1:20

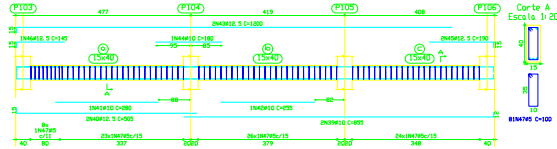
Corte C
Escala 1:20

Corte D
Escala 1:20

Corte E
Escala 1:20

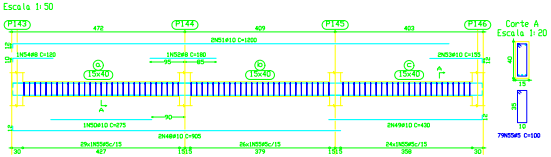


C96
Escala 1:50



Corte A
Escala 1:20

C98
Escala 1:50



Corte A
Escala 1:20

Elemento	Pos	Diam	Q	Dob (cm)	Reta (cm)	Dob	Comp (cm)	Tota (cm)	CA-50-A (kg)	CA-60-B (kg)
C89	1	#10	2	12	796		810	1620	10.7	
	2	#12.5	2		796	15	810	1640	15.6	
	3	#12.5	2		1185	15	1200	2430	23.1	
	4	#10	1	12	398		430	700	4.4	
	5	#5	110				80	8800		13.8
							Total+10%		57.3	15.2
C90	6	#10	2		1102	12	1115	2230	14.0	
	7	#10	2	12	988		1030	2000	12.6	
	8	#10	2	12	1183		1195	2390	15.0	
	9	#10	1		953	12	965	1930	12.1	
	10	#6.3	4		650		665	2660	6.9	
	11	#6.3	4		650		630	2520	6.5	
	12	#6.3	4		610		615	2460	6.1	
	13	#5	134				120	15960		25.1
							Total+10%		82.2	27.6
C93	14	#10	2	12	958		970	1940	12.2	
	15	#10	2		788	12	800	1600	10.0	
	16	#10	2		1183	12	1195	2390	15.0	
	17	#10	1	12	603		615	1230	7.7	
	18	#6.3	4		760		760	3040	7.8	
	19	#6.3	4		790		780	3120	8	
	20	#5	116				120	13460		21.1
							Total+10%		68.4	23.2
C95	21	#12.5	3		515		515	1545	15.2	
	22	#12.5	3	15	510	15	540	1620	15.9	
	23	#12.5	3	15	257	15	287	861	8.4	
	24	#12.5	3	15	257	50	332	996	9.5	
	25	#12.5	3		535	15	550	1650	16.2	
	26	#12.5	3		510	50	560	1680	16.5	
	27	#12.5	3		510	50	560	1680	16.5	
	28	#12.5	3		491	50	541	1623	15.9	
	29	#6.3	11		270		270	2700	6.7	
	30	#6.3	12		257		257	3084	7.6	
	31	#6.3	16		255		255	4080	10.1	
	32	#6.3	10		250		250	2500	6.2	
	33	#6.3	4		245		245	980	2.4	
	34	#5	44				344	4816		7.6
	35	#5	15				260	3900		6.1
	36	#5	14				300	2800		4.4
	37	#5	15				190	2850		4.5
	38	#5	14				130	1820		2.9
							Total+10%		161.6	28.1
C96	39	#10	2		843	12	855	1710	10.7	
	40	#12.5	2	15	490		505	1010	9.9	
	41	#10	1		280		280	280	1.8	
	42	#10	1		255		255	255	1.6	
	43	#12.5	2	15	1185		1200	2400	23.6	
	44	#10	1		180		180	180	1.1	
	45	#12.5	1		175	15	190	380	3.7	
	46	#12.5	1	15	130		145	145	1.4	
	47	#5	81				100	8100		12.7
							Total+10%		59.2	14.0
C98	48	#10	2	12	893		905	1810	11.4	
	49	#10	2		418	12	430	860	5.4	
	50	#10	1		273		275	275	1.7	
	51	#10	2	12	1188		1200	2400	15.1	
	52	#8	1		180		180	180	0.7	
	53	#10	2		143	12	155	310	1.9	
	54	#8	1	10	100		100	100	0.5	
	55	#5	79				100	7900		12.4
							Total+10%		48.4	13.6
							#5=	0.0		121.7
							#6.3=	76.6		0.0
							#8=	1.3		0.0
							#10=	183.4		0.0
							#12.5=	229.0		0.0
							Total=	490.1		121.7

TERREO - NIVEL +0,80
Recorte de vigas
Concreto C25, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

NORMAS

- NBR 6118 - Projeto de Estruturas de Concreto
- NBR 6120 - Cargas para o Cálculo de Estruturas de Edificações
- NBR 6122 - Projeto e Execução de Fundações
- NBR 6123 - Forças Devidas ao Vento em Edificações
- NBR 7187 - Projeto de Pontes de Concreto Armado e de Concreto Protendido - Método de cálculo
- NBR 7188 - Carga Móvel em Ponte Rodoviária e Passarela de Pedestre
- NBR 7480 - Barras e fios de aço destinados a armaduras para concreto armado
- NBR 8036 - Programação de sondagens de simples reconhecimento dos solos para fundações de edifícios - Método de ensaio
- NBR 8044 - Projeto Geotécnico
- NBR 8681 - Ações e segurança nas estruturas - Procedimento
- NBR 9062 - Projeto e Execução de Estruturas de Concreto Pré-Moldado
- NBR 9607 - Prova de carga em estruturas de concreto armado - Procedimento
- NBR 14931 - Execução de estruturas de concreto - Procedimento

MATERIAIS

CONCRETO

	VOLUME	SECÇÃO
Fundações, Superestrutura e Pré-moldados	fck	fck/fcm
Alvenaria estrutural	fpk	fpk/fvk
Blocos de pavimentação sextavado	35Mpa	fpk/fvk
Concreto magro de limpeza	fck	fck/fcm
Peças Semi-Pesadas Blocos	35Mpa	-

AÇO

Barras e fios	CA-50, CA-60
Telas soldadas	CA-60

LAJES

Tipo	Laje Maciça
Espessura	10cm
Concreto	fck=25 Mpa
Armação Positiva (Vão principal)	Conforme Planta
	Telas Nervuras: Q-92 (Malha 10x10)
Armação Positiva (Vão secundário)	Conforme Planta
	Telas Nervuras: Q-92 (Malha 10x10)

EXECUÇÃO DA ESTRUTURA

A execução da estrutura e de responsabilidade de empresa especializada e deverá seguir com a normalização da ABNT e as normas do contratante.

A fiscalização da obra deverá atender as responsabilidades da NBR6118 - Execução da estrutura de concreto.

CARGAS ADOTADAS PARA ESTE PROJETO

CARGAS ACIDENTAIS	Telhado	100 kg/m²
	Lajes	LAJE 1, LAJE 2, LAJE 3, LAJE 4, LAJE 5, LAJE 6, LAJE 7, LAJE 8, LAJE 9, LAJE 10, LAJE 11, LAJE 12, LAJE 13, LAJE 14, LAJE 15, LAJE 16, LAJE 17, LAJE 18, LAJE 19, LAJE 20, LAJE 21, LAJE 22, LAJE 23, LAJE 24, LAJE 25, LAJE 26, LAJE 27, LAJE 28, LAJE 29, LAJE 30, LAJE 31, LAJE 32, LAJE 33, LAJE 34, LAJE 35, LAJE 36, LAJE 37, LAJE 38, LAJE 39, LAJE 40, LAJE 41, LAJE 42, LAJE 43, LAJE 44, LAJE 45, LAJE 46, LAJE 47, LAJE 48, LAJE 49, LAJE 50, LAJE 51, LAJE 52, LAJE 53, LAJE 54, LAJE 55, LAJE 56, LAJE 57, LAJE 58, LAJE 59, LAJE 60, LAJE 61, LAJE 62, LAJE 63, LAJE 64, LAJE 65, LAJE 66, LAJE 67, LAJE 68, LAJE 69, LAJE 70, LAJE 71, LAJE 72, LAJE 73, LAJE 74, LAJE 75, LAJE 76, LAJE 77, LAJE 78, LAJE 79, LAJE 80, LAJE 81, LAJE 82, LAJE 83, LAJE 84, LAJE 85, LAJE 86, LAJE 87, LAJE 88, LAJE 89, LAJE 90, LAJE 91, LAJE 92, LAJE 93, LAJE 94, LAJE 95, LAJE 96, LAJE 97, LAJE 98, LAJE 99, LAJE 100, LAJE 101, LAJE 102, LAJE 103, LAJE 104, LAJE 105, LAJE 106, LAJE 107, LAJE 108, LAJE 109, LAJE 110, 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	Peso Próprio do Concreto	2500 kg/m³

RECOBRIMENTOS

Lajes Internas/externas	2,5*1,0 cm
Vigas	3,0 cm
Pilares	3,0 cm
Fundações	5,0 cm

FUNDAÇÕES

As estruturas enterradas e semi-enterradas deverão ser executadas de acordo com o projeto de fundações e as normas técnicas vigentes.

Todos os elementos estruturais deverão ser locados e executados de acordo com o projeto de locação.

Todos os elementos estruturais deverão ser executados de acordo com o projeto de arquitetura.

Todos os elementos estruturais deverão ser executados de acordo com o projeto de instalações.

REV.	DATA	ESPECIFICAÇÃO	APROV.

pc projetos

PROJETOS DE ESTRUTURA

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ESTRUTURA
ARMAÇÃO DAS CINTAS – PAVIMENTO TÉRREO (Parte 9/10)

ESC.	DESENHO	Nº DA OBRA	ARQUIVO
ESC.	DATA	PC-202259	15
ESC.	APROVAÇÃO		
ESC.	EXECUÇÃO		

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