

Technical drawing of a building floor plan showing structural layout, dimensions, and reinforcement details.

**Dimensions and Layout:**

- Overall width: 41.0
- Overall length: 82.8
- Section cut symbols: 14/40, 14/73, 14/45, 14/45, 14/45
- Reinforcement details:
  - Top left: 2 P1  $\phi$  12.5 C=509
  - Top right: 2 P2  $\phi$  8 C=1015
  - Bottom left: 2 P3  $\phi$  10 C=185
  - Bottom center: 2 P4  $\phi$  10 C=410
  - Bottom right: 2 P5  $\phi$  10 C=935
- Other labels: V110, P20, P15, P13, P6, (cozinha), 2x3 P8  $\phi$  8 C=332

Technical drawing of a reinforced concrete slab (P21) showing dimensions, reinforcement details, and section markers.

**Plan View Dimensions (m):**

- Overall width: 14.40
- Overall length: 14.40
- Section markers: A-A, B-B, C-C
- Reinforcement bars: P21, P14, P11
- Reinforcement details: 15 # 5/20 (121), 15 # 5/20 (125), 17 # 5/20 (121), 17 # 5/20 (125), 17 # 5/20 (121), 17 # 5/20 (125), 17 # 5/20 (121), 17 # 5/20 (125)
- Reinforcement bars: 2x3 P11 # C=344
- Reinforcement bars: 2 P21 # 10 C=215

**Section View (A-A):**

- Section markers: A-A, B-B, C-C
- Reinforcement bars: P21, P14, P11
- Reinforcement details: 15 # 5/20 (121), 15 # 5/20 (125), 17 # 5/20 (121), 17 # 5/20 (125), 17 # 5/20 (121), 17 # 5/20 (125), 17 # 5/20 (121), 17 # 5/20 (125)
- Reinforcement bars: 2x3 P11 # C=344
- Reinforcement bars: 2 P21 # 10 C=215

**Corte A**

2 PI ± 5 C=160

2 ± 5

20 ± 10

7 ± 5 C=150

VIII

VII

7 P3 ± 5 C=103

20

25

20

25

20 ± 10 C=210

	50	2	12.5	2	509	1018
	50	2	8	2	1015	2030
	50	3	10	2	185	370
	50	4	10	2	410	820
	50	5	10	2	935	1870
	50	6	6.3	4	104	416
	50	7	5	10	2335	169
	50	8	5	44	113	4972
	50	8	5	6	332	1932

	50	1	8	2	448	880
	50	2	10	2	629	1258
	50	3	12.5	2	572	1144
	50	4	12.5	2	385	770
	50	5	10	2	937	1874
	50	6	10	2	215	430
	50	7	10	2	430	860
	50	8	5	44	103	4532
	50	8	5	17	159	2703
	50	10	8	7	106	742
	50	11	5	6	344	2064

	50	1	5	2	160	320
	50	2 <td>10 <td>2 <td>210</td> <td>420</td> </td></td>	10 <td>2 <td>210</td> <td>420</td> </td>	2 <td>210</td> <td>420</td>	210	420
	50	3 <td>5 <td>7</td> <td>163</td> <td>327</td> </td>	5 <td>7</td> <td>163</td> <td>327</td>	7	163	327

	50	1	10	2	853	1306
	50	2 <td>10 <td>2</td> <td>165</td> <td>330</td> </td>	10 <td>2</td> <td>165</td> <td>330</td>	2	165	330
	50	3	12.5	3	348	1044
	50	4	12.5	3	425	1275
	50	5	5	12	169	2028
	50	6	5	15	159	2385
	50	7	8	6	545	3270

	50	1	12.5	2	380	760
	50	2	10	4	572	2288

Technical drawing of a reinforced concrete slab (P16) showing top and side views, and cross-sections A-A and B-B.

**Top View:**

- Overall dimensions: 543 (width) x 25 (depth).
- Reinforcement: 2 P1  $\phi$  10 C=853.
- Section lines: A-A (width 14/73), B-B (width 14/68).
- Grid lines: 12  $\phi$  5 C/20 (P24), 15  $\phi$  5 C/20 (P29).
- Other labels: P16, P25, V109, P16.

**Side View:**

- Overall dimensions: 25 (width) x 16 (depth).
- Reinforcement: 3 P3  $\phi$  12.5 C=348.
- Section lines: A-A (width 12/252), B-B (width 12/384).
- Other labels: P16, P25, V109, P16.

**Cross-Section A-A:**

- Width: 14/73.
- Reinforcement: 2 P1  $\phi$  10 C=853.
- Section lines: A-A (width 14/73), B-B (width 14/68).

**Cross-Section B-B:**

- Width: 14/68.
- Reinforcement: 2 P1  $\phi$  10 C=853.
- Section lines: A-A (width 14/73), B-B (width 14/68).

**Detail Views:**

- Corte A:** Shows reinforcement details with dimensions: 2  $\phi$  10, 3x2  $\phi$  8, 3  $\phi$  12.5.
- Corte B:** Shows reinforcement details with dimensions: 2  $\phi$  10, 3x2  $\phi$  8, 3  $\phi$  12.5.

Technical drawing of a bridge structure, showing various sections and dimensions. The drawing includes a plan view of the bridge deck with sections A-A, B-B, C-C, and D-D. It also shows cross-sections of the bridge piers and abutments. Dimensions are given in meters (m) and centimeters (cm). Key dimensions include: 345 m for the main span, 480 m for the approach span, 215 m for the pier span, and 21 m for the pier width. The drawing also shows the bridge piers and abutments with their respective dimensions and section labels.

Technical drawing of a bridge structure, showing a plan view and two cross-sections (Corte A and Corte B).

**Plan View Dimensions:**

- Top section: 354, 2 P1  $\varnothing$  6.3 C=389, 84, 2 P2  $\varnothing$  12.5 C=475, 152, 1 P3  $\varnothing$  13.5 C=210 (1  $\varnothing$  20 C=80), 64, 2 P5  $\varnothing$  8 C=180, 14/45, 14/40, 14/40.
- Bottom section: 27  $\varnothing$  5 C/20 P3 (337), 7  $\varnothing$  5 C/20 P10 (137), 19  $\varnothing$  5 C/20 P10 (371), 573, 2 P6  $\varnothing$  10 C=620, 618, 2 P7  $\varnothing$  10 C=646.

**Corte A and Corte B:**

- Corte A:** 305, 2 P4  $\varnothing$  8 C=337, 2  $\varnothing$  10, 27 P9  $\varnothing$  5 C=113.
- Corte B:** 305, 2  $\varnothing$  10, 26 P10  $\varnothing$  5 C=103.

**Other Labels:**

- Supports: P30, P26, V110, V107.
- Section markers: A-A, B-B.
- Dimensions: 10, 15.

Technical drawing of a bridge structure, showing various sections and dimensions. The drawing includes a plan view at the top and a side elevation below it.

**Plan View (Top):**

- Section 1: 2 P1  $\phi$  8 C=349, length 314.
- Section 2: 2 P2  $\phi$  12.5 C=702, length 610.
- Section 3: 2 P3  $\phi$  10 C=205, length 46.
- Section 4: 1 P4  $\phi$  12.5 C=400, length 368. Includes a note (1  $\phi$  20CAM).

**Side Elevation (Bottom):**

- Section A: 1 A 4/40, length 23.8  $\pm$  1.5/20 (122).
- Section B: 1 B 4/68, length 18.8  $\pm$  1.5/20 (103).
- Section C: 1 C 4/40, length 17.8  $\pm$  1.5/20 (103).
- Section D: 2 x 3 P10  $\phi$  8 C=386, length 828.
- Section E: 1 P6  $\phi$  10 C=345, length 14.
- Section F: 2 P7  $\phi$  10 C=305, length 295.
- Section G: 2 P5  $\phi$  10 C=919, length 828.

The drawing also includes various structural details and annotations, such as "1/10" and "1/20" indicating specific dimensions or ratios.

**Corte A**

283  
2 P1  $\varnothing$  8 C=315

2 P2  $\varnothing$  16 C=530

67  
143  
2 P3  $\varnothing$  6 C=175

25  
25

25  $\varnothing$  5 C=20  
38 (178)

18  $\varnothing$  5 C=20  
38 (167)

V113

P22

P17

325  
2 P4  $\varnothing$  12.5 C=560

400  
2 P5  $\varnothing$  10 C=420

25

42 P6  $\varnothing$  5 C=103

[illegible]

Technical drawing of a bridge structure, showing various components and dimensions.

**Plan View Dimensions:**

- Top section: 198, 2 P1 ø 8 C=230
- Middle section: 2 P2 ø 12.5 C=730, 126, 1 P3 ø 12.5 C=260 (1 ø 250xN)
- Bottom section: 25 ø 5 C/20 P6 (486), 19 ø 5 C/20 P6 (371), 525, 2 P4 ø 10 C=555, 405, 2 P5 ø 10 C=430
- Vertical dimensions: 32, 10, 10

**Component Labels:**

- V113, V110, V107

**Cross Section (Corte):**

- Shows the internal structure and reinforcement.
- Labels: 44 P6 ø 5, 2

608  
2 P1 ø 16 C=640  
393 (1 ø 3øC=4M)  
1 P2 ø 16 C=425  
14/73  
18 x 3.5/20  
P5 (347)  
74  
12 x 3.5/20  
P8 (225)  
14  
V101  
P5  
14/40  
305  
P3 ø 10 C=315  
393  
2 P4 ø 10 C=480  
Corte A  
Corte B  
12 P6 ø 5 C=103  
18 P5 ø 5 C=169

[illegible]

	ACO	POS	BIT	QUANT	COMPRIMENTO	UNIT	TOTAL
				(mm)	(m)	(m)	(m)
V116	50	1	12.5	2	509	1018	
	50	2	8	2	1015	2030	
	50	3	10	2	1370	2740	
	50	4	10	2	1410	2820	
	50	5	6.3	4	935	1870	
	50	7	5	15	189	2355	
	50	8	5	10	413	1710	
V117	50	1	8	2	440	880	
	50	2	12.5	2	238	476	
	50	3	12.5	2	572	1144	
	50	4	12.5	2	385	770	
	50	5	10	3	187	374	
	50	6	10	2	215	430	
	50	7	5	44	103	4532	
V118	50	1	8	5	159	159	
	50	10	8	7	106	742	
	50	11	8	6	344	2064	
V119	60	1	5	2	103	206	
	60	2	5	2	120	240	
	60	3	5	7	183	721	
	60	5	5	10	103	515	
	60	7	5	10	103	515	
V120	50	1	8	2	360	720	
	50	2	12.5	4	572	2288	
	50	3	16	2	340	680	
	50	4	16	2	335	670	
	50	5	12.5	2	14	1828	
	50	6	10	3	355	1065	
	50	7	10	2	225	450	
	50	8	10	2	216	432	
	50	9	5	29	103	2987	
	50	10	5	11	159	1590	
	50	11	5	4	169	676	
V121	50	1	12.5	4	13	327	
	50	2	12.5	8	632	1992	
	50	3	6.3	2	369	738	
	50	4	12.5	2	475	950	
	50	5	12.5	2	210	420	
	50	4	8	2	337	674	
	50	6	10	2	360	720	
V122	50	1	10	2	646	1292	
	50	2	10	2	325	650	
	50	3	5	27	113	3551	
	50	10	10	3	203	1015	
	50	1	8	2	349	698	
	50	2	12.5	2	702	1404	
	50	3	10	7	205	1404	
V123	50	4	12.5	5	219	1095	
	50	5	10	2	119	1338	
	50	6	10	2	345	690	
	50	7	5	32	305	813	
	50	8	5	33	103	3505	
	50	9	5	19	159	3021	
	50	10	6	2	356	2316	
V124	50	1	8	2	315	630	
	50	2	16	2	106	1060	
	50	3	12.5	2	220	440	
	50	4	12.5	5	130	1625	
	50	5	16	1	435	435	
	50	6	10	2	194	920	
V125	50	1	10	1	325	325	
	50	2	10	1	325	325	
	50	3	10	1	325	325	
	50	4	10	1	325	325	
	50	5	34	103	3502		
	50	10	5	11	159	1590	
	50	11	8	6	382	2292	
V126	50	1	8	2	230	460	
	50	2	12.5	2	730	1460	
	50	3	10	2	260	520	
	50	4	10	2	255	510	
	50	5	10	2	255	510	
	50	6	5	44	103	4532	
V127	50	1	16	2	640	1280	
	50	2	16	1	425	425	
	50	3	16	1	425	425	
	50	4	10	2	480	960	
	50	5	10	2	480	960	
	50	6	5	12	103	1236	
	50	7	8	6	380	2280	
V128	50	1	8	2	210	420	
	50	2	12.5	5	205	1025	
	50	3	12.5	1	205	205	
	50	4	8	1	215	215	
	50	5	8	1	215	215	
	50	6	10	2	215	430	
	50	7	10	2	215	430	
	50	8	10	2	215	430	
	50	9	10	2	215	430	
	50	10	11	1	870	870	
	50	12	5	51	103	5253	
V129	50	1	6.3	2	280	560	
	50	2	10	2	905	1810	
	50	3	10	2	905	1810	
	50	4	10	2	905	1810	
	50	5	6.3	2	385	770	
	50	6	10	1	325	325	
	50	7	10	1	325	325	
V129	50	9	12.5	2	555	1110	
	50	10	12.5	2	555	1110	
	50	11	5	76	103	7828	
	50	1	6.3	2	220	440	
	50	2	10	2	470	940	
	50	3	10	2	470	940	
	50	4	8	2	448	896	
V130	50	5	10	2	448	896	
	50	6	10	1	235	235	
	50	7	10	1	235	235	
	50	8	10	2	670	1340	
	50	9	10	2	670	1340	
	50	10	10	2	670	1340	
	50	11	5	76	103	7828	

RESUMO AÇO CA 50-60			
AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60	5	785	121
50	6,3	62	15
50	8	270	107
50	10	387	239
50	12,5	191	184
50	16	66	104
Peso Total		60 =	121 kg
Peso Total		50 =	648 kg

NOTAS:

1) CONFERIR INFORMAÇÕES DA TABELA ACIMA (TABELA DE FERRAGEM) NA OBRA ANTES DA COMPRA DAS ARMADURAS.

PROPRIETÁRIO - PREFEITURA SANTANA DO IPANEMA

RESPONSÁVEL - DIEGO DE VASCONCELOS GONÇALVES FERREIRA  
PROJETO Eng. Civil - CREA: 020930945-8

5			
4			
3			
2			
1			
REV	DATA	AUTOR	ASSUNTO



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EMPREENDIMENTO/LOCAL: CENTRO PARTO NORMAL
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TÍTULO: ARMAÇÃO DAS VIGAS DA COBERTA  
V116 / V117 / V118 / V119 / V120 / V121 / V122 / V123  
V124 / V125 / V126 / V127 / V128 / V129

ESCALA:Indicada	DATA:24/09/2017	ENGENHEIRO:DIEGO VASCONCELOS CREA REG.:020930945-8
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CLIENTE:  
PREFEITURA  
SANTANA DO  
IPANEMA

Nº DE	06
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REVIS  
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ENCELOS

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