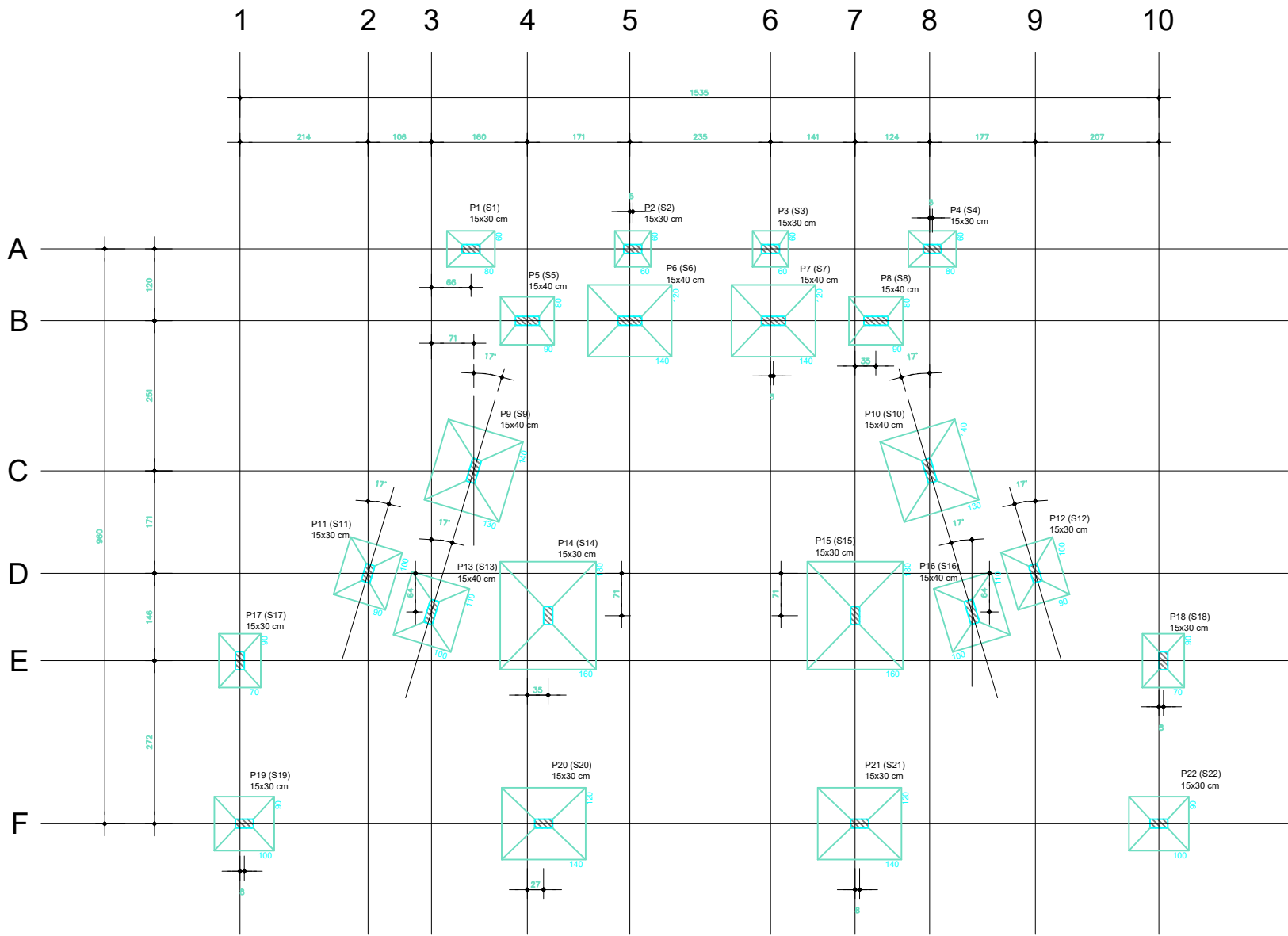
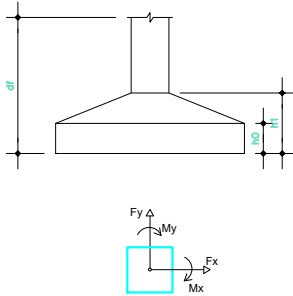


LOCAÇÃO PILARES E FUNDAÇÃO

ESC: 1/50



| Nome | Seção (cm) | Carga Máx. (tf) | Carga Min. (tf) | Pilar             |          |                   |          | Pilar          |          |                |          | Pilar             |          |                   |          | Pilar          |          |                |          |
|------|------------|-----------------|-----------------|-------------------|----------|-------------------|----------|----------------|----------|----------------|----------|-------------------|----------|-------------------|----------|----------------|----------|----------------|----------|
|      |            |                 |                 | Mx Máximo (kgf.m) |          | My Máximo (kgf.m) |          | Fx Máximo (tf) |          | Fy Máximo (tf) |          | Mx Máximo (kgf.m) |          | My Máximo (kgf.m) |          | Fx Máximo (tf) |          | Fy Máximo (tf) |          |
|      |            |                 |                 | Positivo          | Negativo | Positivo          | Negativo | Positivo       | Negativo | Positivo       | Negativo | Positivo          | Negativo | Positivo          | Negativo | Positivo       | Negativo | Positivo       | Negativo |
| P1   | 15x30      | 3.4             | 2.2             | 0                 | -300     | 0                 | -300     | 0.0            | -0.2     | 0.3            | 0.0      | 0                 | -300     | 0                 | -300     | 0.0            | -0.2     | 0.3            | 0.0      |
| P2   | 15x30      | 2.0             | 1.2             | 100               | -100     | 100               | 0        | 0.3            | 0.0      | 0.2            | 0.0      | 100               | -100     | 100               | 0        | 0.3            | 0.0      | 0.2            | 0.0      |
| P3   | 15x30      | 1.2             | 0.7             | 100               | -100     | 200               | 0        | 0.1            | -0.1     | 0.2            | 0.0      | 100               | -100     | 200               | 0        | 0.1            | -0.1     | 0.2            | 0.0      |
| P4   | 15x30      | 3.8             | 2.4             | 0                 | -200     | 200               | 0        | 0.2            | -0.2     | 0.4            | 0.0      | 0                 | -200     | 200               | 0        | 0.2            | -0.2     | 0.4            | 0.0      |
| P5   | 15x40      | 8.1             | 3.7             | 100               | -100     | 100               | -100     | 0.0            | -0.2     | 0.2            | 0.0      | 100               | -100     | 100               | -100     | 0.0            | -0.2     | 0.2            | 0.0      |
| P6   | 15x40      | 12.9            | 9.9             | 100               | -100     | 100               | -100     | 0.1            | -0.1     | 0.2            | 0.0      | 100               | -100     | 100               | -100     | 0.1            | -0.1     | 0.2            | 0.0      |
| P7   | 15x40      | 12.5            | 8.7             | 100               | -100     | 200               | 0        | 0.3            | 0.0      | 0.2            | 0.0      | 100               | -100     | 200               | 0        | 0.3            | 0.0      | 0.2            | 0.0      |
| P8   | 15x40      | 6.3             | 3.8             | 100               | -100     | 200               | 0        | 0.2            | 0.0      | 0.2            | 0.0      | 100               | -100     | 200               | 0        | 0.2            | 0.0      | 0.2            | 0.0      |
| P9   | 15x40      | 14.2            | 10.4            | 300               | -200     | 200               | 0        | 0.3            | 0.0      | 0.3            | -0.4     | 300               | -200     | 200               | 0        | 0.3            | 0.0      | 0.3            | -0.4     |
| P10  | 15x40      | 16.2            | 11.7            | 300               | -200     | 0                 | -300     | 0.0            | -0.3     | 0.2            | -0.3     | 300               | -200     | 0                 | -300     | 0.0            | -0.3     | 0.2            | -0.3     |
| P11  | 15x30      | 5.5             | 4.0             | 400               | -100     | 100               | -200     | 0.1            | -0.1     | 0.1            | -0.5     | 400               | -100     | 100               | -200     | 0.1            | -0.1     | 0.1            | -0.5     |
| P12  | 15x30      | 6.8             | 4.9             | 500               | -200     | 200               | 0        | 0.2            | 0.0      | 0.0            | -0.7     | 500               | -200     | 200               | 0        | 0.2            | 0.0      | 0.0            | -0.7     |
| P13  | 15x40      | 8.8             | 5.2             | 300               | -400     | 100               | -200     | 0.1            | -0.2     | 0.3            | -0.2     | 300               | -400     | 100               | -200     | 0.1            | -0.2     | 0.3            | -0.2     |
| P14  | 15x30      | 20.0            | 10.6            | 400               | 0        | 0                 | -300     | 0.0            | -0.3     | 0.0            | -0.4     | 400               | 0        | 0                 | -300     | 0.0            | -0.3     | 0.0            | -0.4     |
| P15  | 15x30      | 20.0            | 10.6            | 400               | 0        | 300               | 0        | 0.2            | 0.0      | 0.0            | -0.4     | 400               | 0        | 300               | 0        | 0.2            | 0.0      | 0.0            | -0.4     |
| P16  | 15x40      | 9.0             | 5.3             | 300               | -400     | 100               | 0        | 0.2            | 0.0      | 0.3            | -0.2     | 300               | -400     | 100               | 0        | 0.2            | 0.0      | 0.3            | -0.2     |
| P17  | 15x30      | 4.3             | 2.8             | 100               | -400     | 100               | 0        | 0.1            | -0.2     | 0.3            | 0.0      | 100               | -400     | 100               | 0        | 0.1            | -0.2     | 0.3            | 0.0      |
| P18  | 15x30      | 4.3             | 2.8             | 100               | -400     | 100               | 0        | 0.1            | -0.2     | 0.3            | 0.0      | 100               | -400     | 100               | 0        | 0.1            | -0.2     | 0.3            | 0.0      |
| P19  | 15x30      | 5.8             | 3.9             | 100               | -200     | 100               | -300     | 0.0            | -0.4     | 0.1            | -0.2     | 100               | -200     | 100               | -300     | 0.0            | -0.4     | 0.1            | -0.2     |
| P20  | 15x30      | 11.5            | 7.4             | 200               | 0        | 100               | -100     | 0.1            | -0.3     | 0.0            | -0.1     | 200               | 0        | 100               | -100     | 0.1            | -0.3     | 0.0            | -0.1     |
| P21  | 15x30      | 11.5            | 7.4             | 200               | 0        | 200               | -200     | 0.2            | -0.2     | 0.0            | -0.1     | 200               | 0        | 200               | -200     | 0.2            | -0.2     | 0.0            | -0.1     |
| P22  | 15x30      | 5.8             | 3.9             | 100               | -200     | 300               | 0        | 0.3            | 0.0      | 0.1            | -0.2     | 100               | -200     | 300               | 0        | 0.3            | 0.0      | 0.1            | -0.2     |



OBSERVAÇÃO:

1.0 - TAXA DO TERRENO:  $\rho = 0.8 \text{ kgf/cm}^3$ . SONDAGEM DE REFERÊNCIA: PERFUSOLOS. RELATÓRIO 232/2023.

|                                                                                                                                                |                |                       |                                                                                 |
|------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|---------------------------------------------------------------------------------|
| Revisão:                                                                                                                                       | Data:          | Descrição:            | Verificado Por:                                                                 |
|                                                                                                                                                |                |                       |                                                                                 |
| Aranha & Sério<br>PROJETOS ESTRUTURAIS<br>End: Av. Senador Lemos, N° 4013 (Júlio) - Belém - Pa<br>CEP: 66120-002, E-mail: aranhaseio@yahoo.com |                |                       | OBRA<br>01/3217<br>PRANCHAS<br>E-01/12                                          |
| ASSUNTO<br>PRAÇA AÇAÍ LAR<br>ROD. PA-151, S/N<br>IGARAPE-MIRI - PA<br>LOCAÇÃO PILARES E FUNDAÇÕES                                              |                |                       | ENG.º<br>FRANCO SÉRIO P. - CP 15034855-0<br>GRANDHY ARANHA JR. - CP 150334549-8 |
| DATA<br>MARÇO/2028                                                                                                                             | ESCALA<br>1/50 | CAD<br>FERNANDO BALTI | CÁLCULO<br>VISTO                                                                |