

53º CONGRESSO DO IBRACON 2011

SEMINÁRIO GRANDES CONSTRUÇÕES

A COPA DE 2014

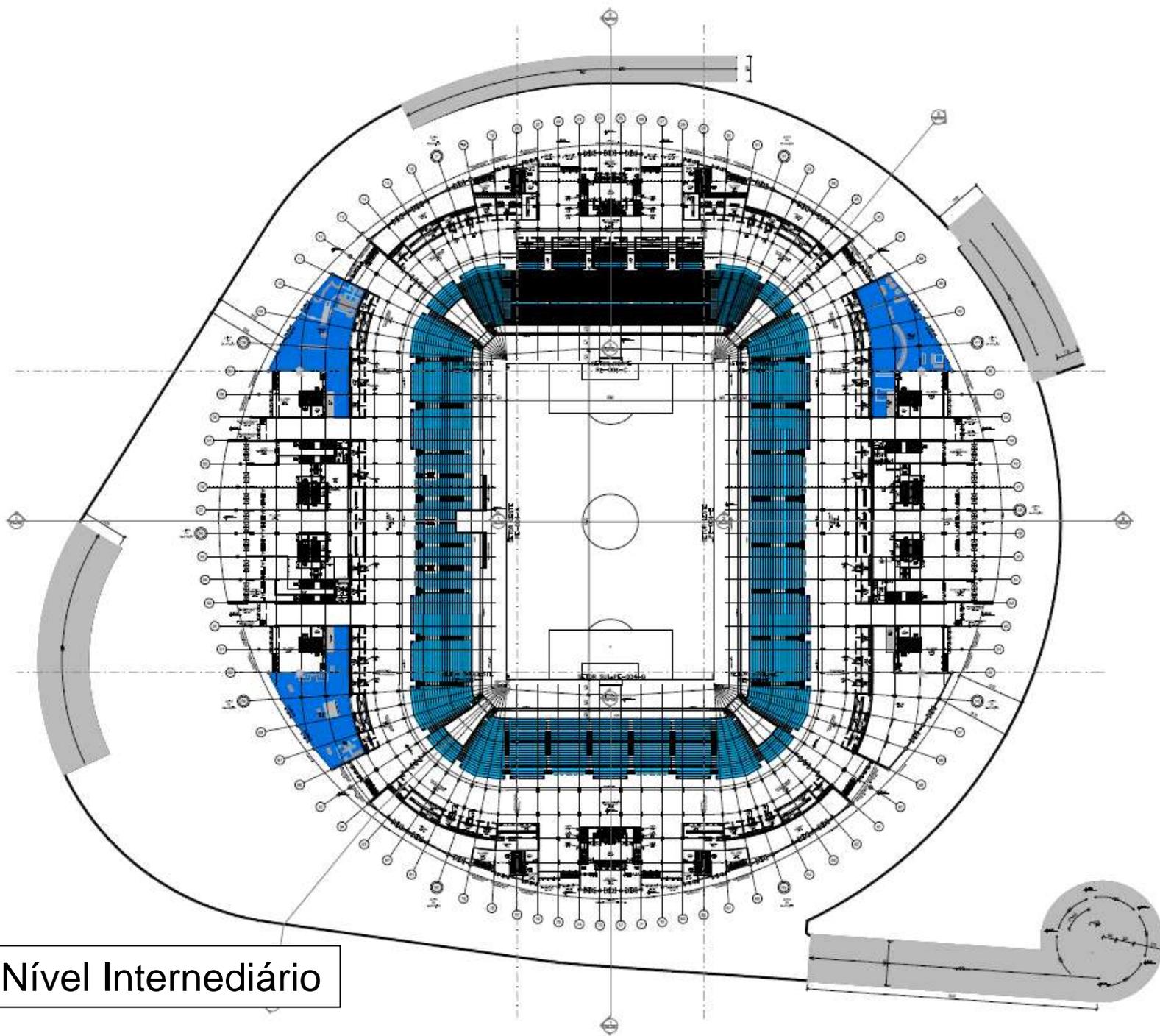
SIST. CONSTRUTIVOS COMO FERRAMENTA
PARA A CONSTRUÇÃO RÁPIDA DE
ESTÁDIOS, PORTOS, PONTES, ETC -2014

1. Avanços possíveis na Préfabricação
 - 1 - Exemplo das Arenas da Copa 2014
 - 2 - Exemplos de Portos e Pontes
 - 3 - Exemplos de Túneis e Valas

2. Avanços importantes ainda indisponíveis

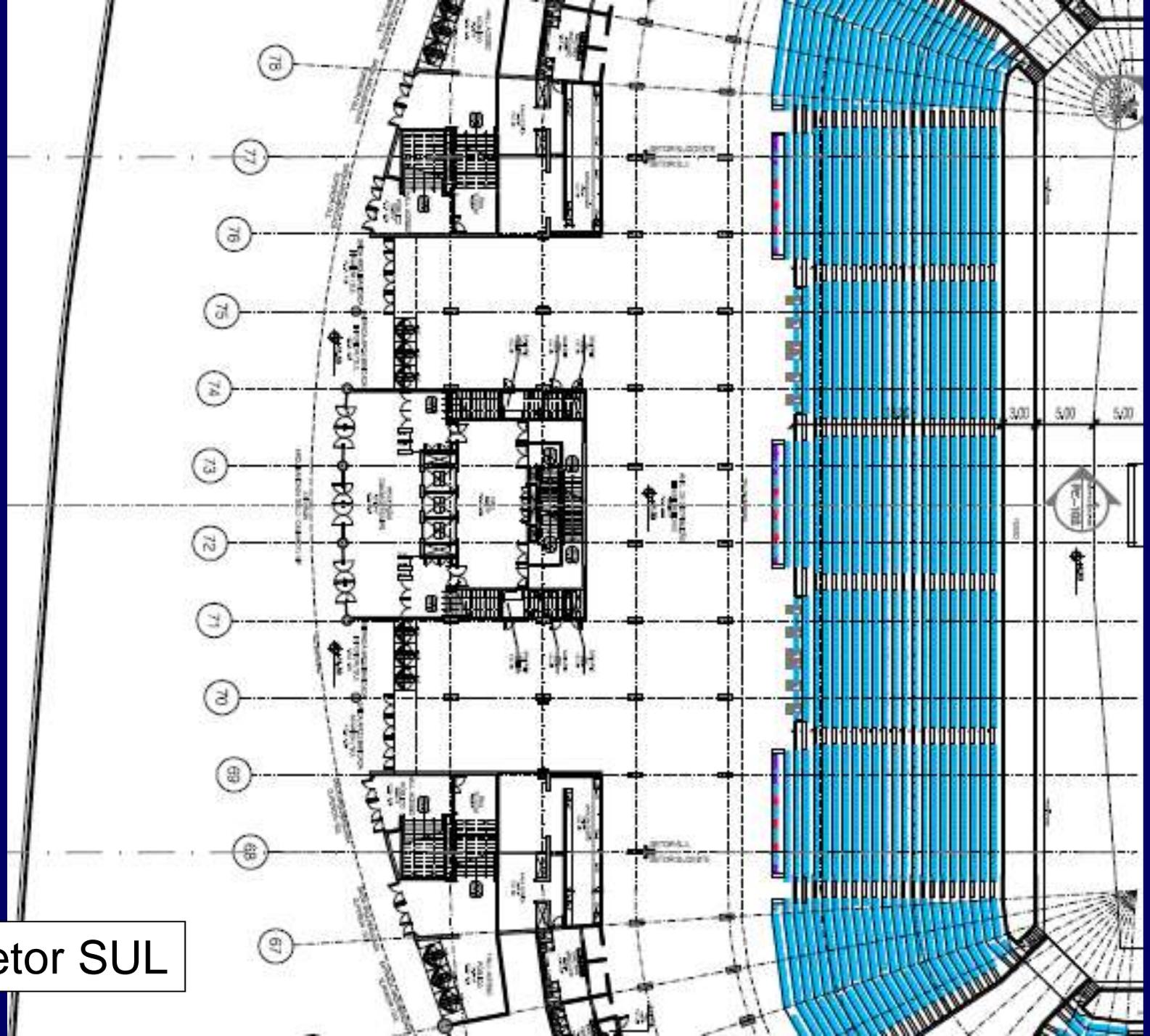
1.1.1 - Arena Grêmio



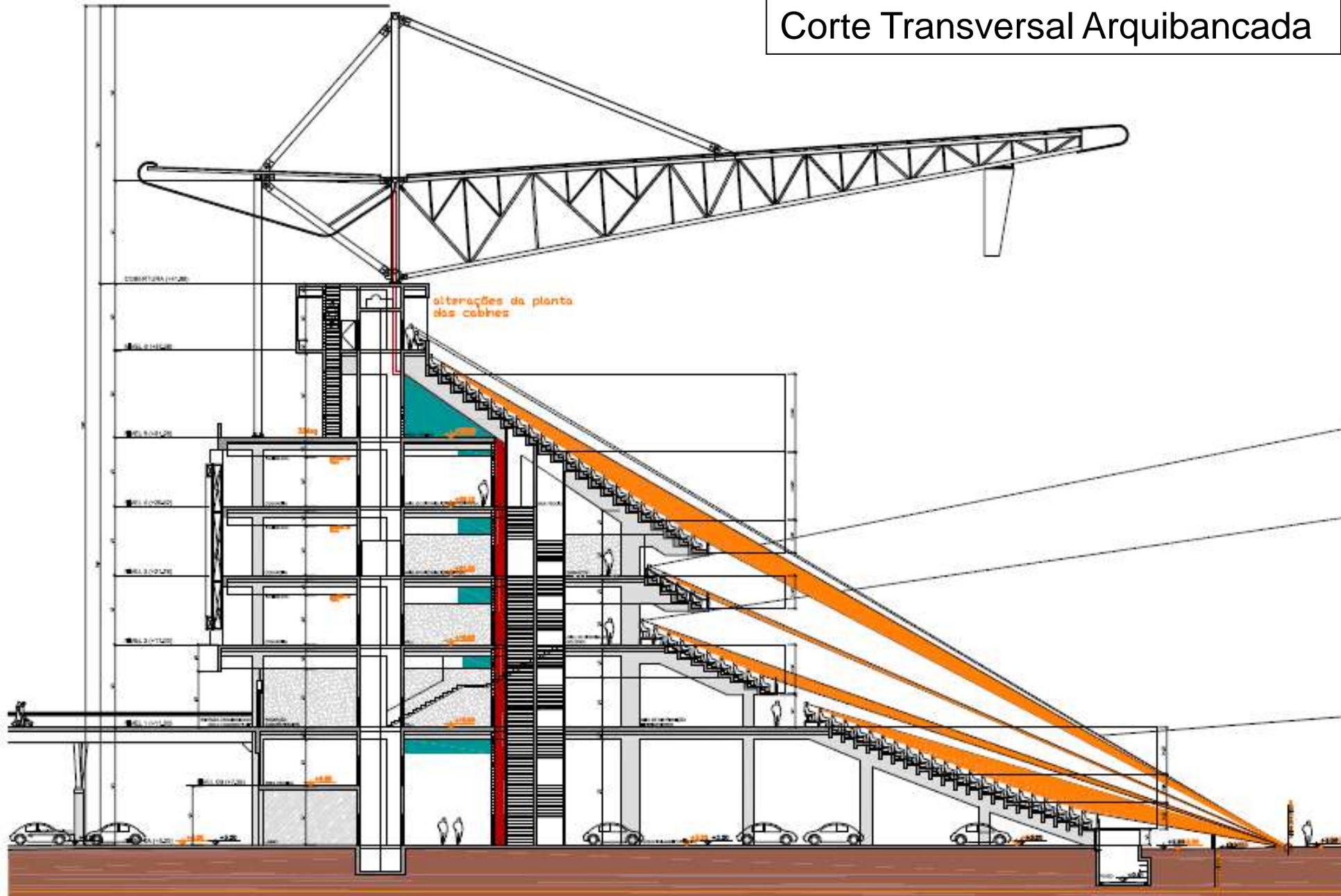


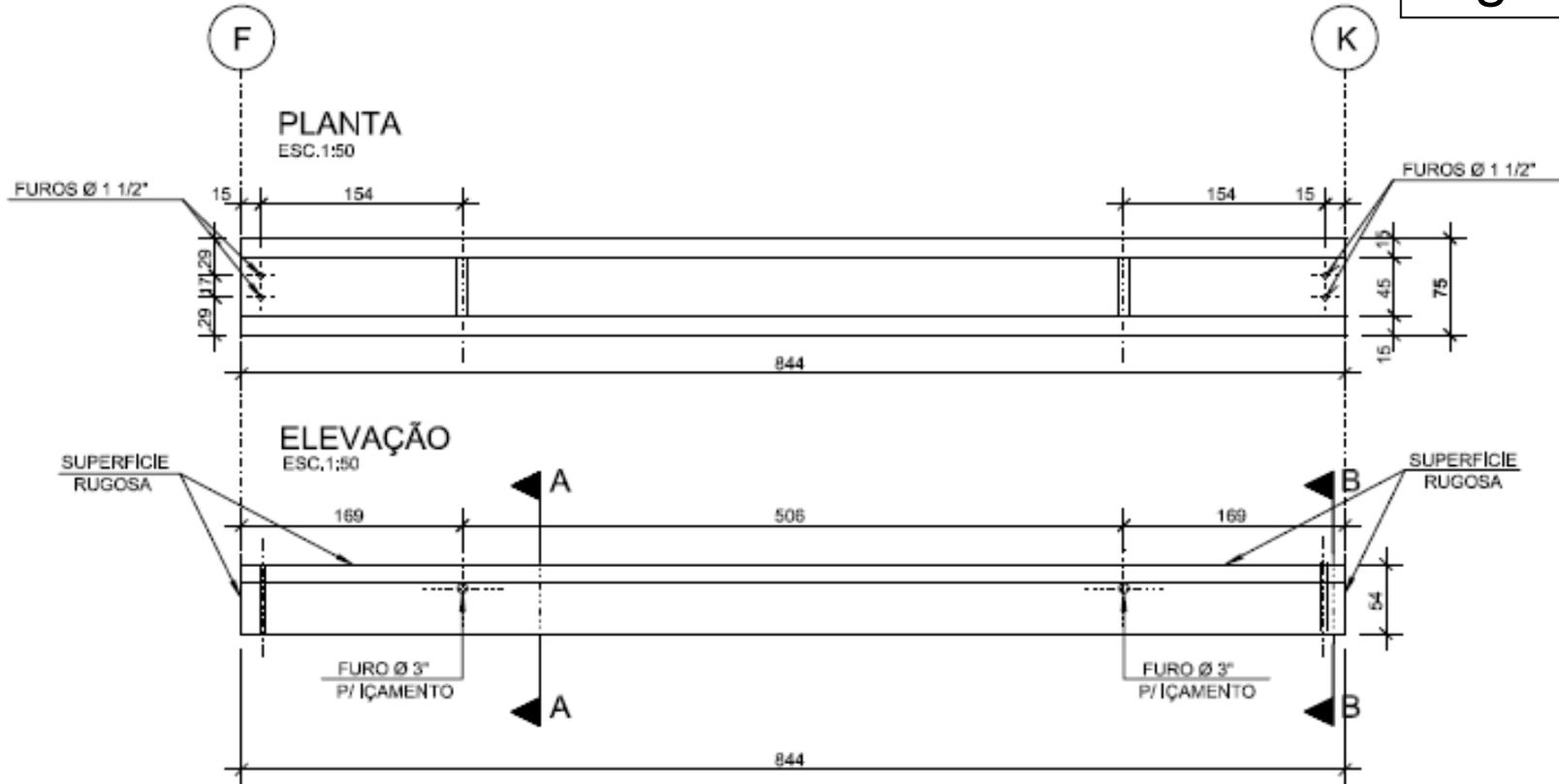
- Planta Nível Intermediário

Setor SUL

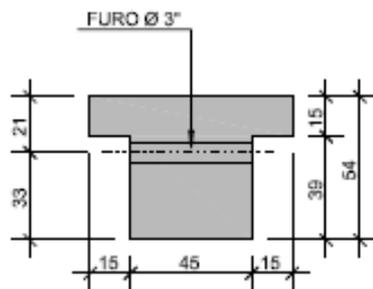


Corte Transversal Arquibancada

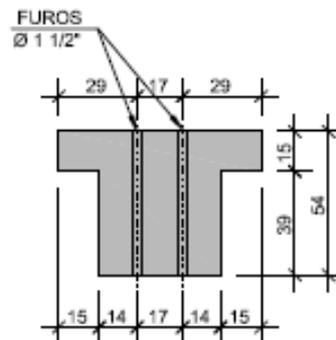




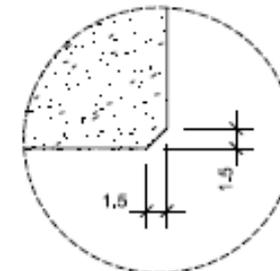
CORTE AA
ESC. 1:25



CORTE BB
ESC. 1:25

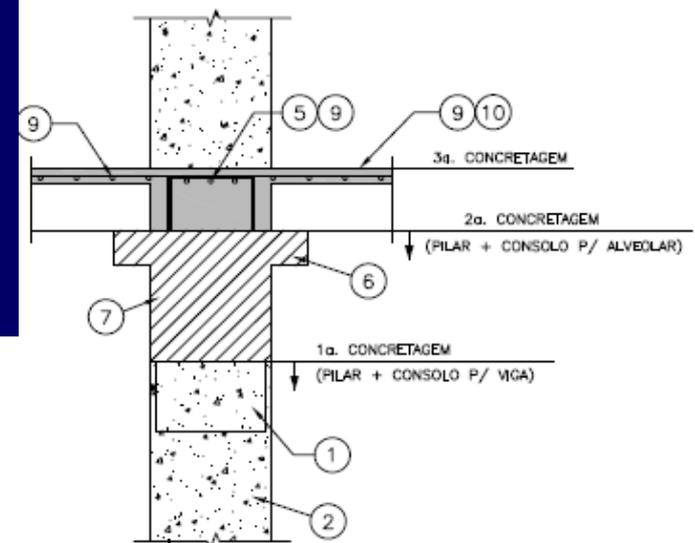


DETALHE TÍPICO DOS CHANFROS
ESC. 1:5

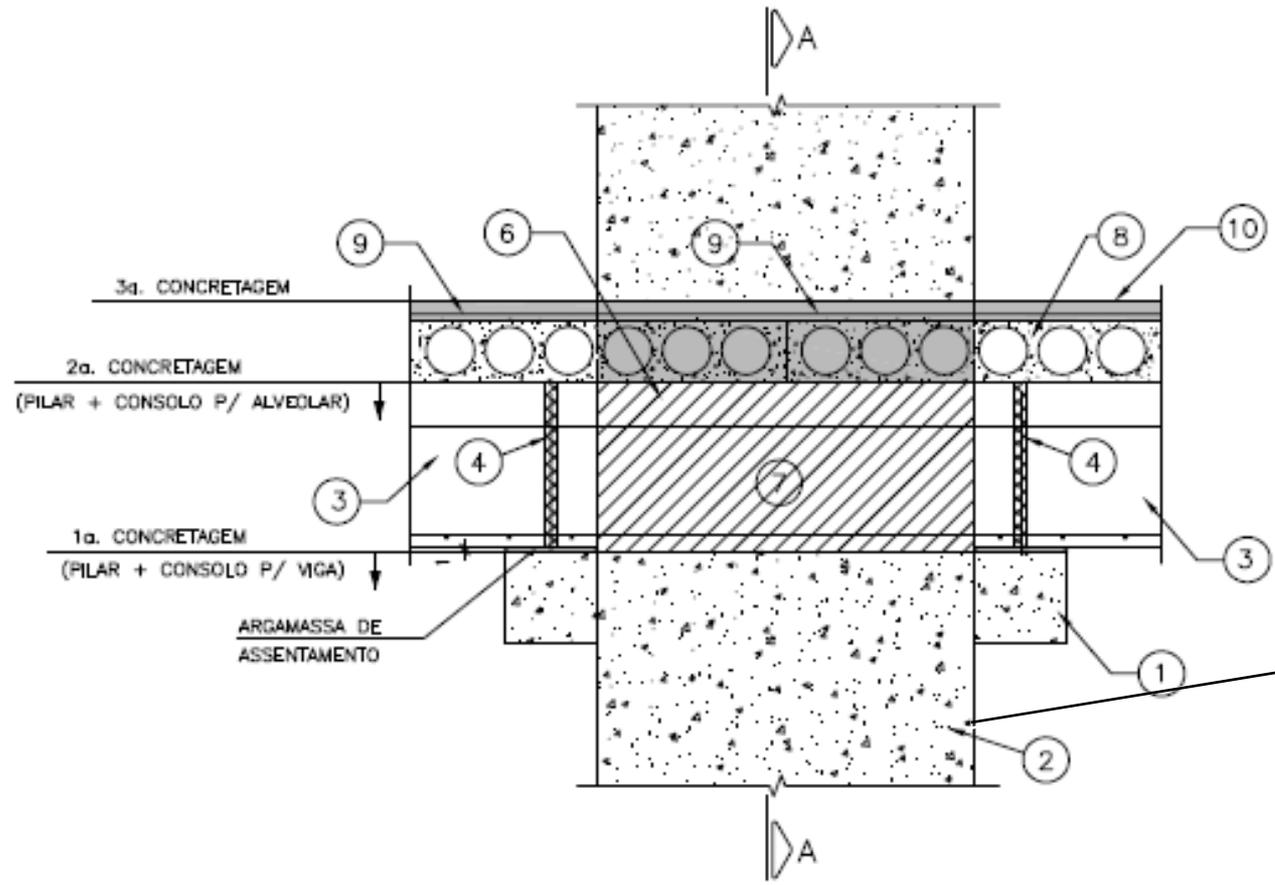


Apoio das lajes alveolares nas Vigas e delas nos Pilares

CORTE A-A
ESC. 1:20



ELEVAÇÃO PILAR CENTRAL
ESC. 1:20

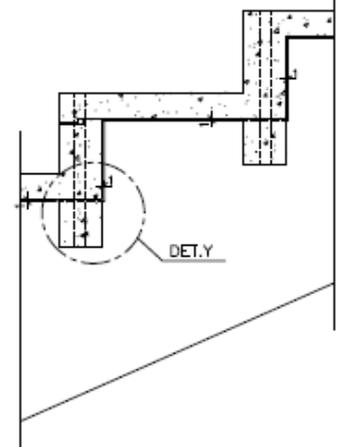
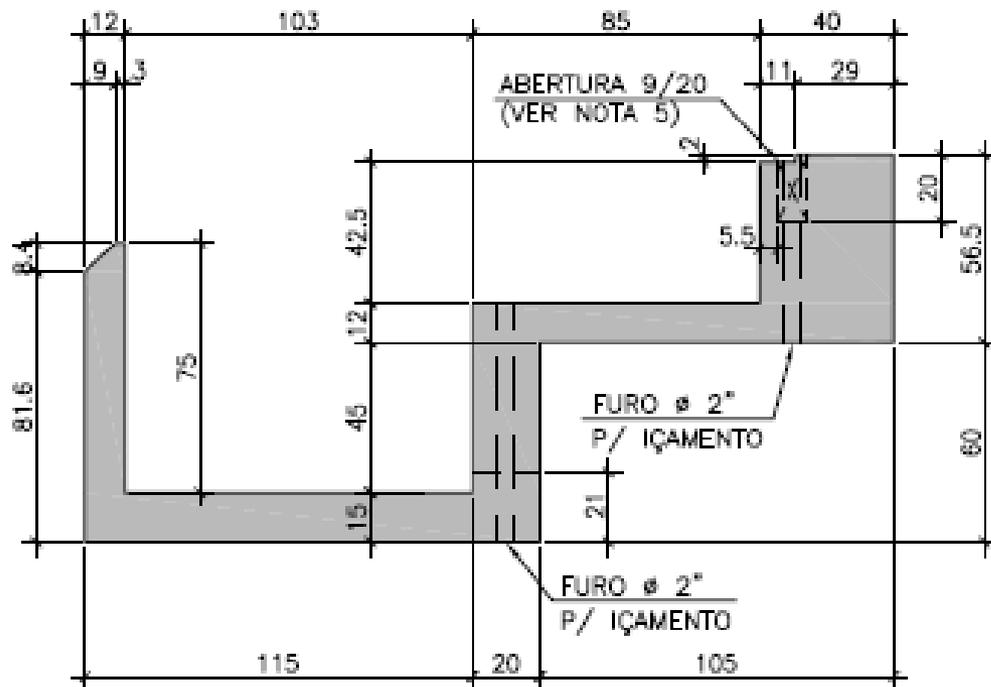


Pilares moldados in loco

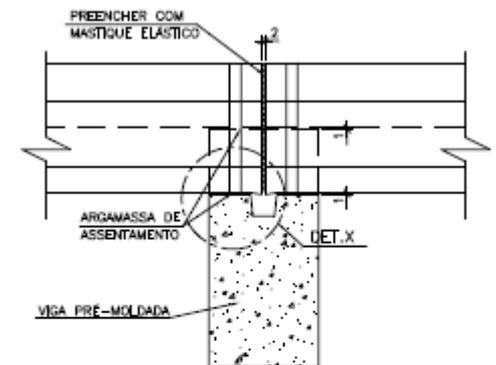
Degrau e ligação com Viga Jacaré

CORTE A-A

ESCALA 1:25

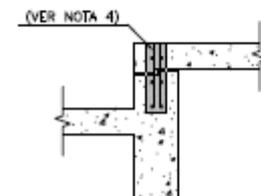


VISTA FRONTAL

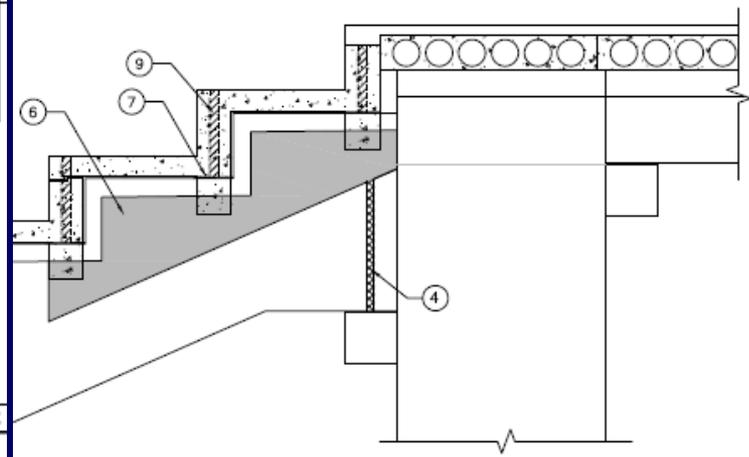
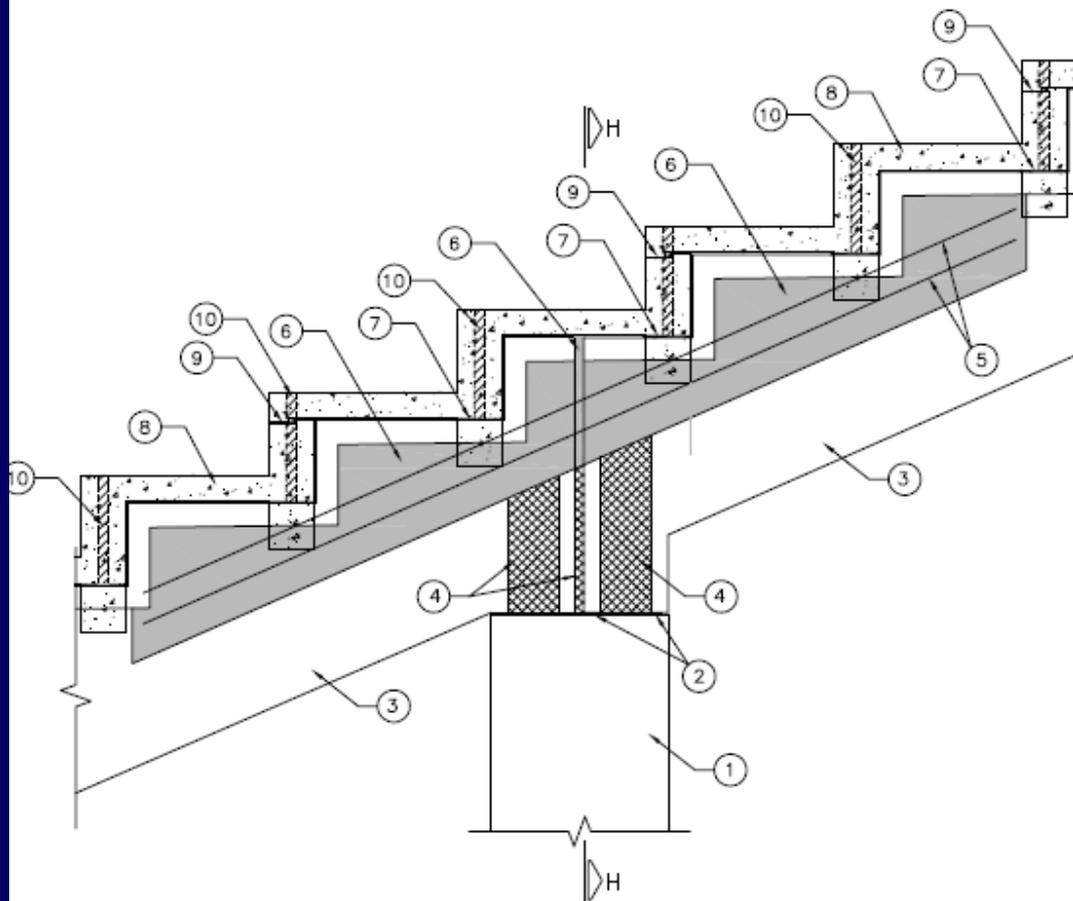


CORTE D-D

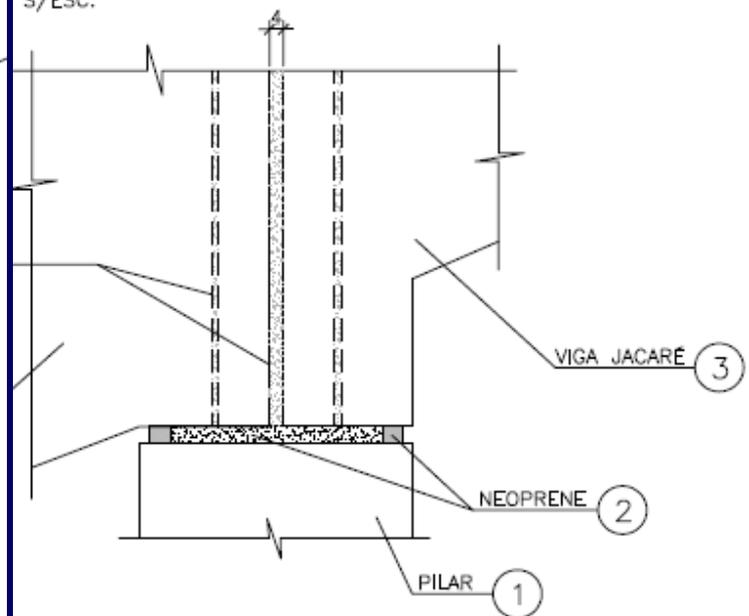
ESC. 1:20



Ligações Vigas Jacaré entre si e pilares

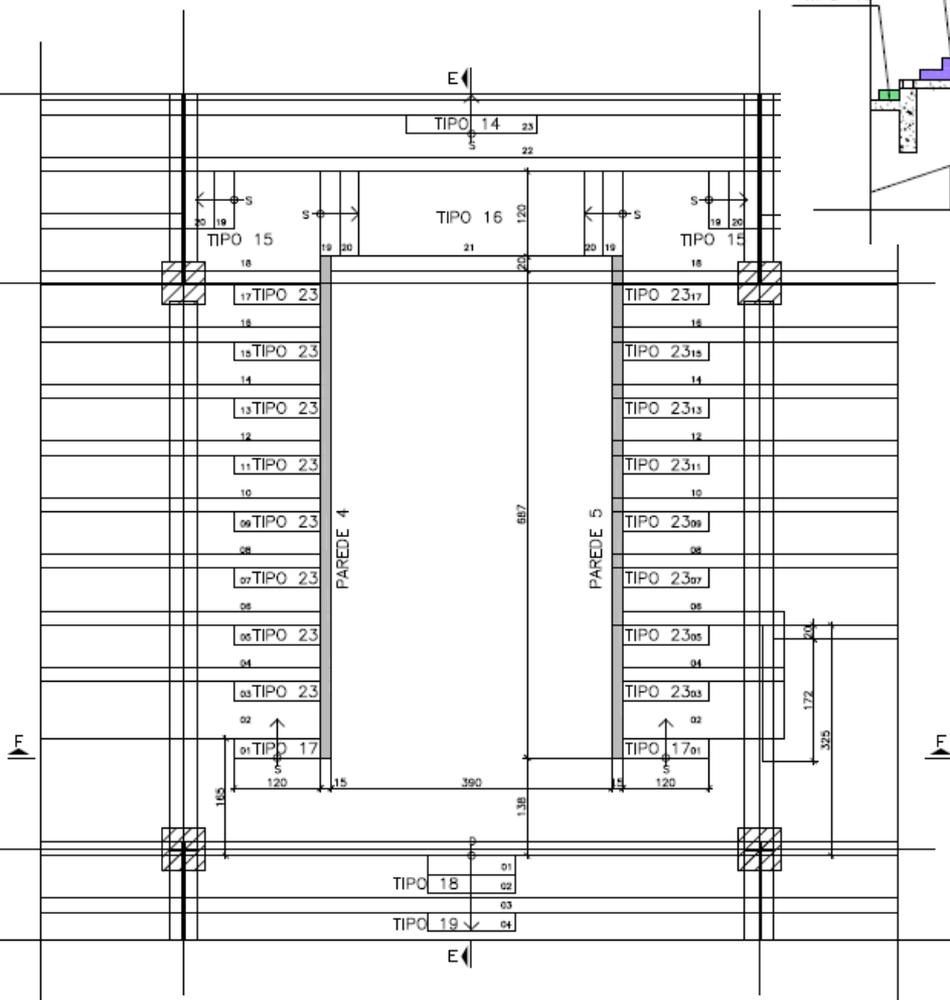


CORTE F-F (TÍPICO)
S/ESC.

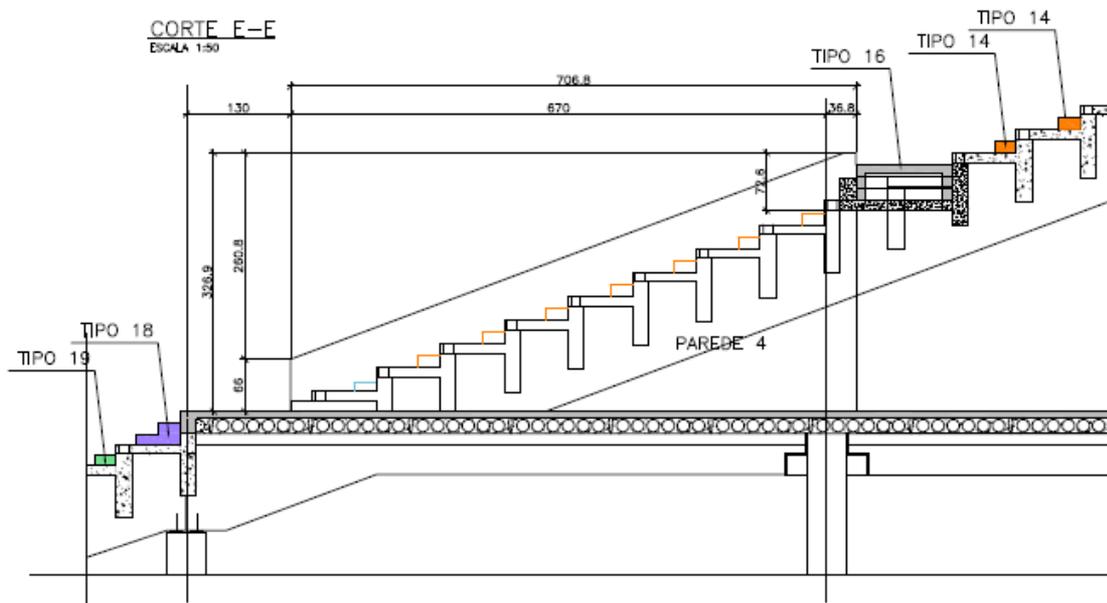


VOMITÓRIO 3 (17x)

PLANTA
ESCALA 1:50



CORTE E-E
ESCALA 1:50



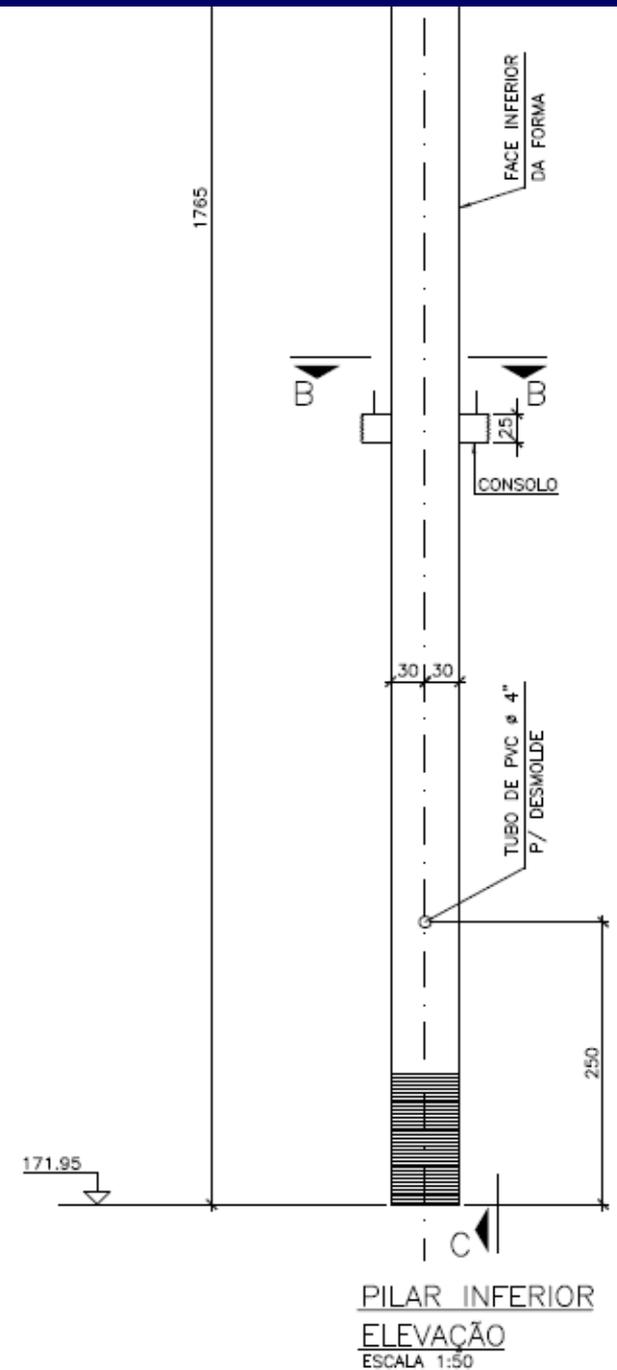
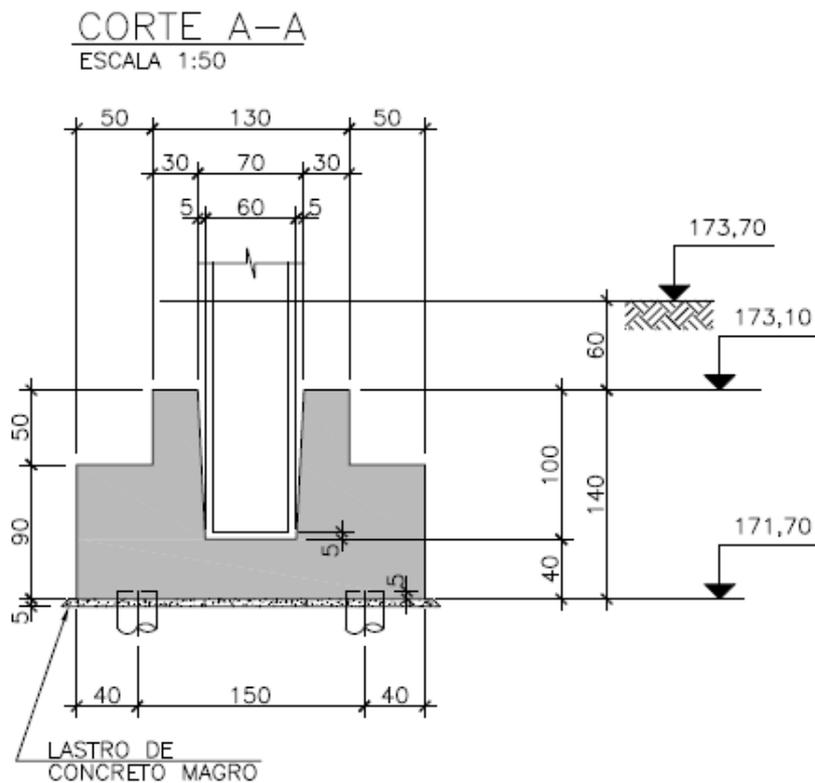
Vomitórios
Entrada do
Público



1.1.2 - Arena Cuiaba



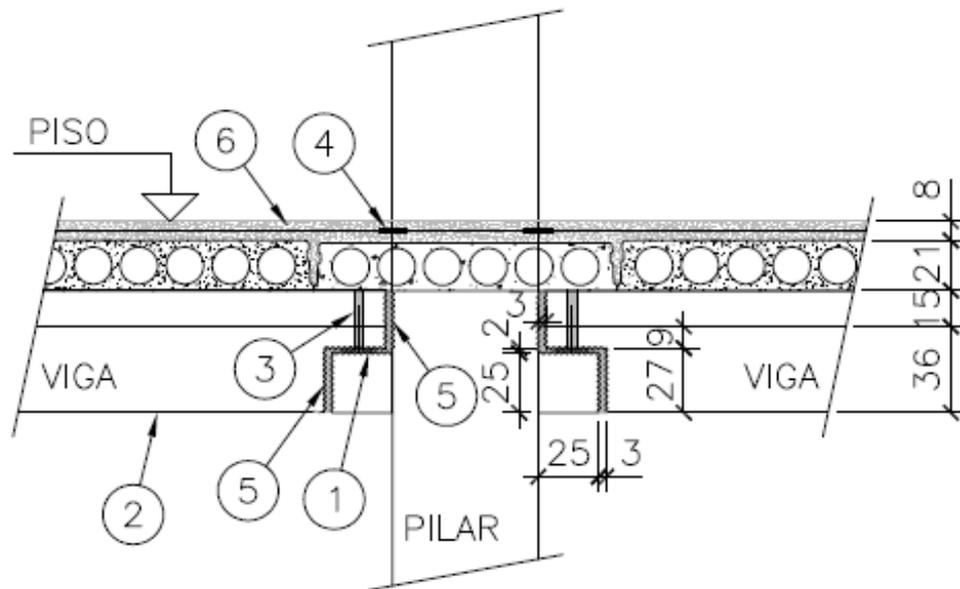
Blocos Cálice e Pilares



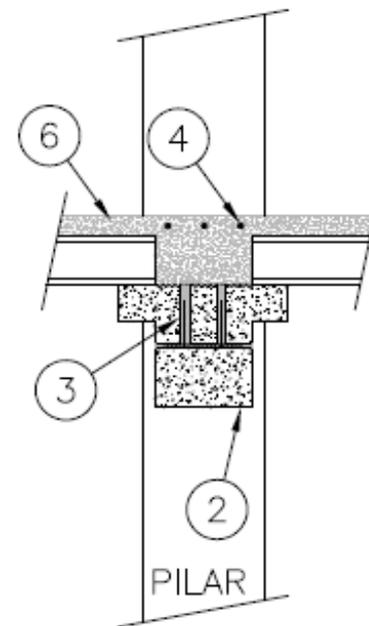
METODO CONSTRUTIVO

VIGA DO PISO

ESCALA 1:50



ELEVAÇÃO

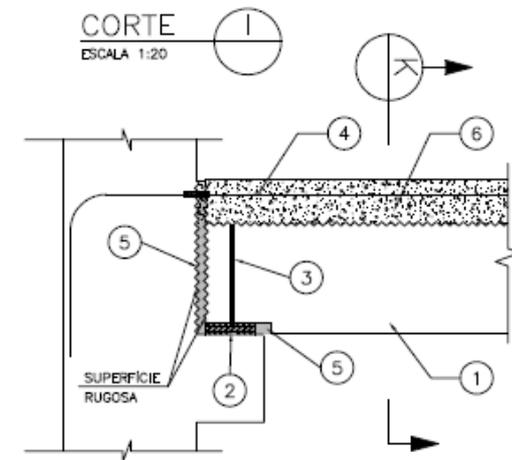
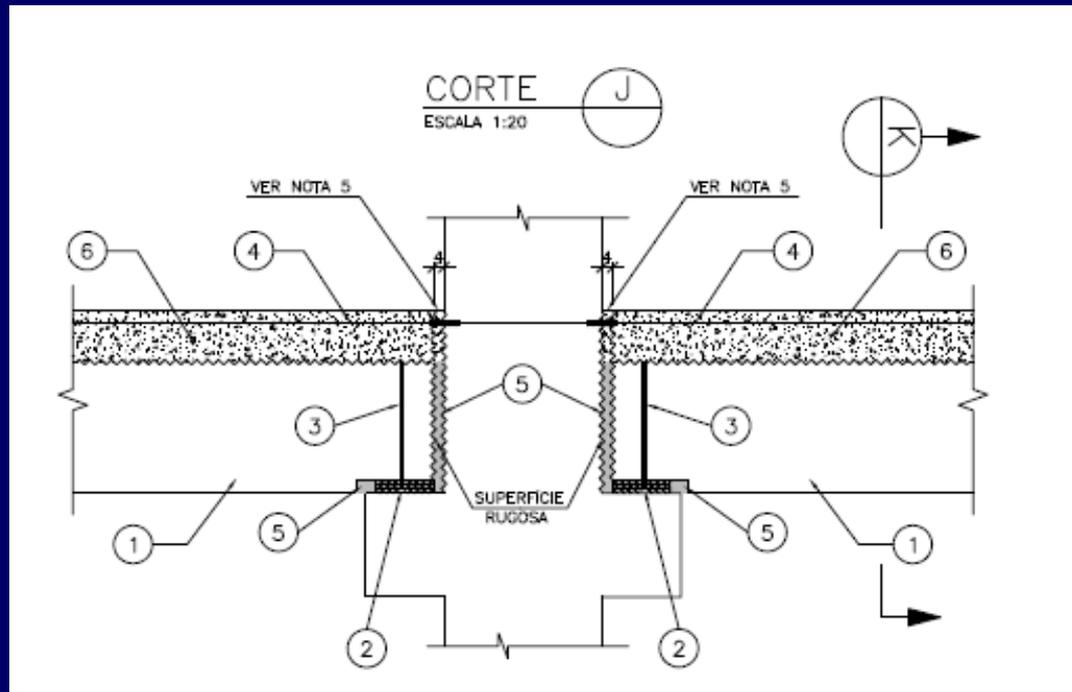
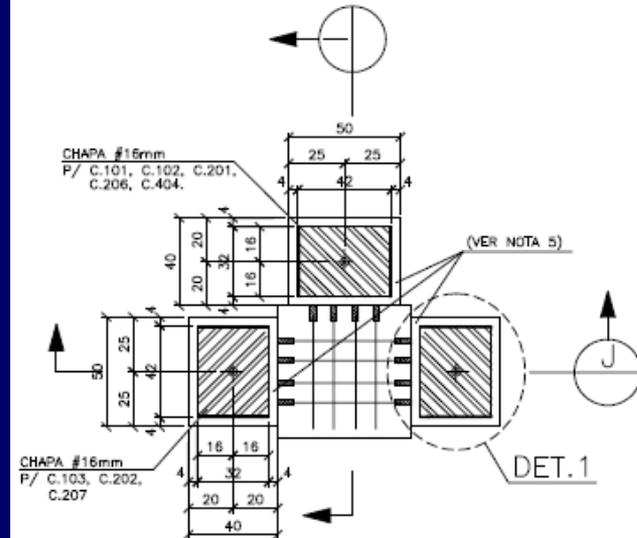


CORTE

Ligação pilar-viga pré-moldados

Ligação pilar-viga pré-moldados Com chapa de ligação inferior

PLANTA 2
(VIGAS LARG. 50 cm)
ESC. 1:20

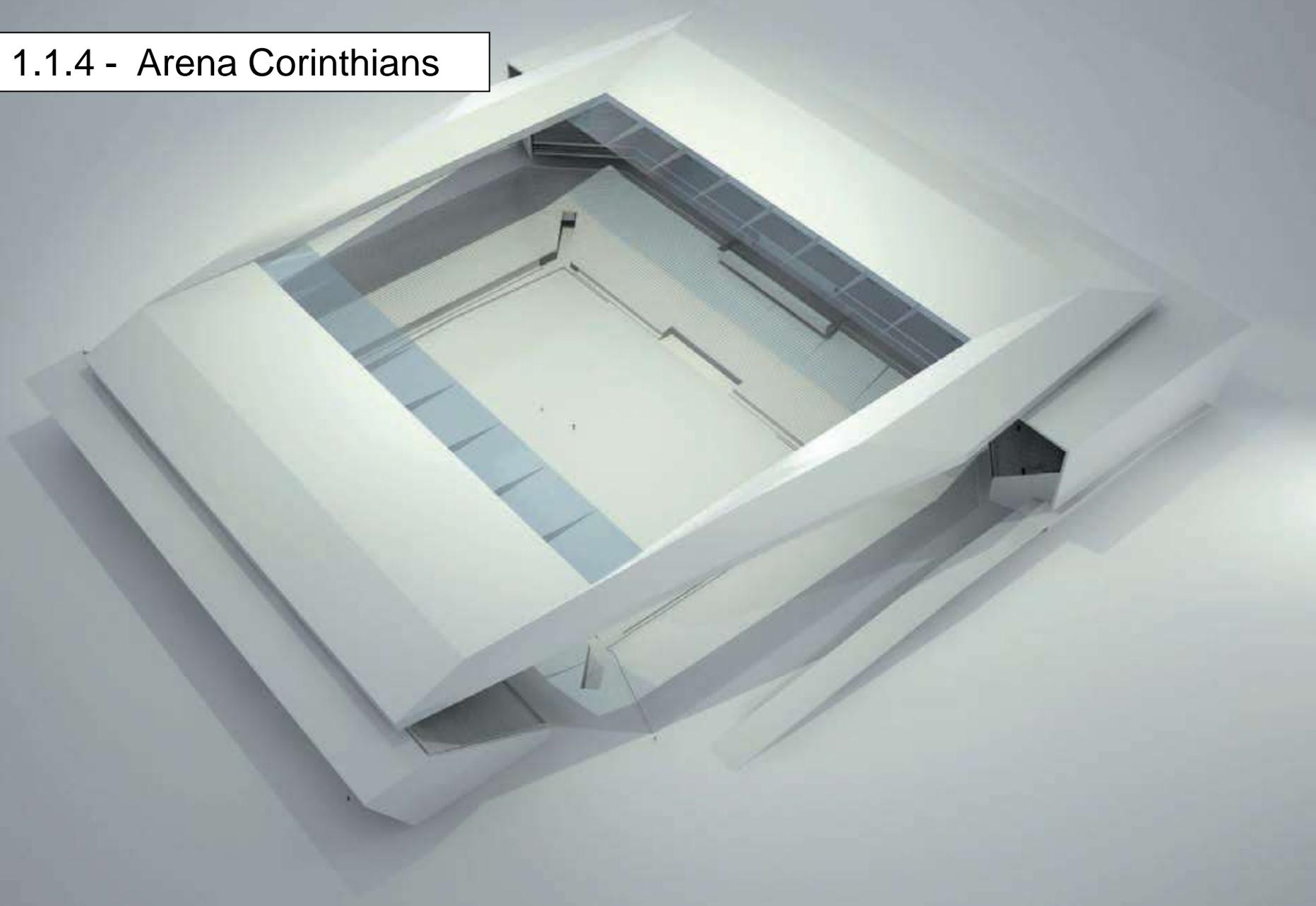


1.1.3 - Arena Recife





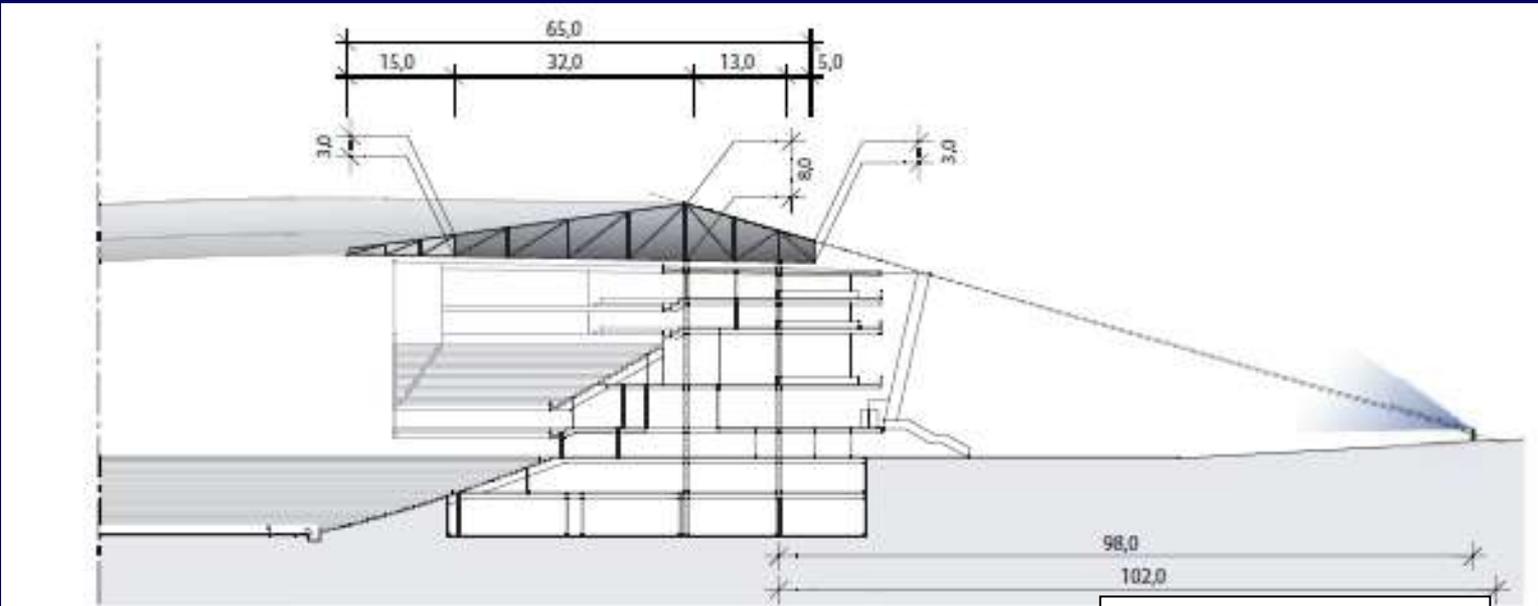
1.1.4 - Arena Corinthians



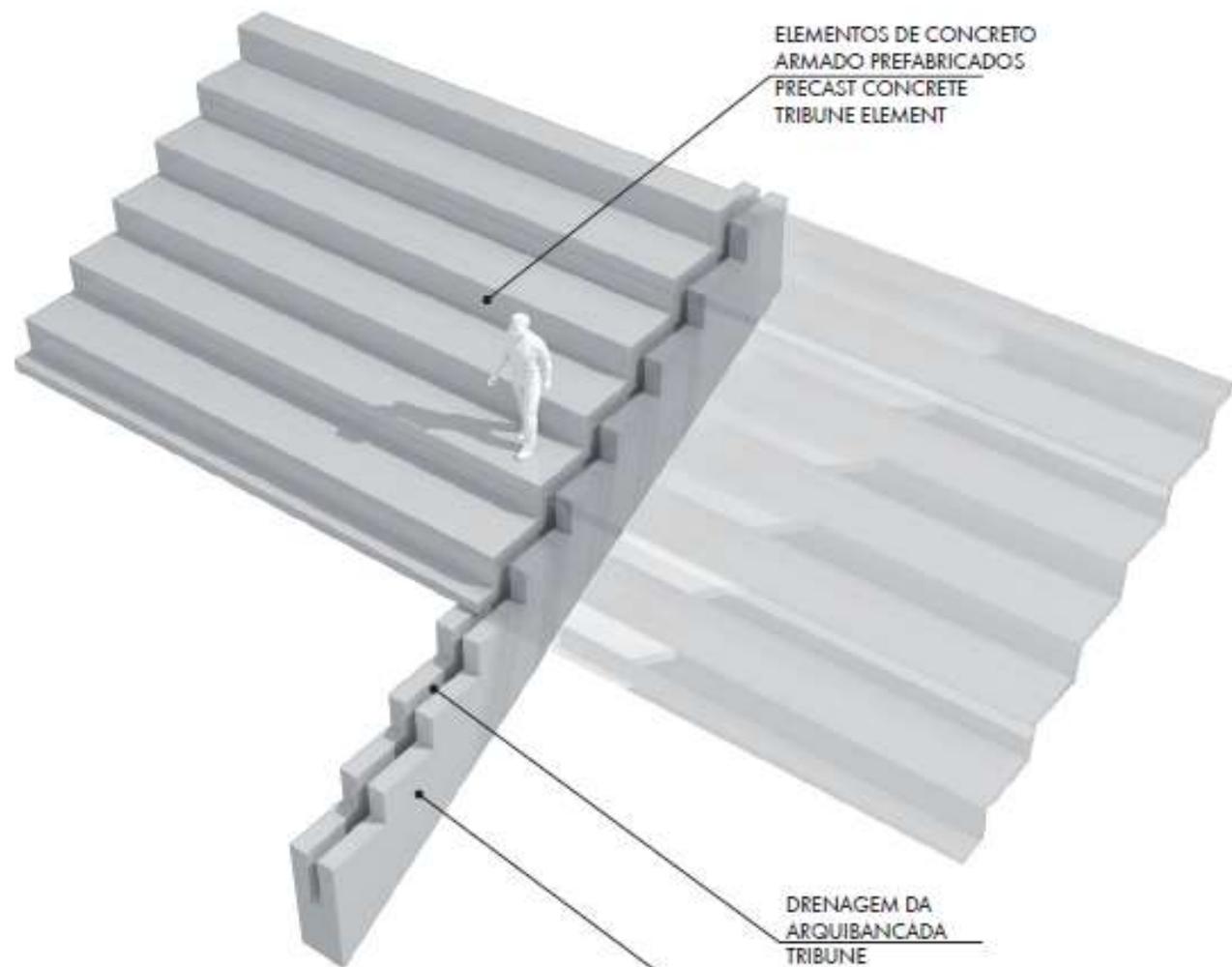


CORTE C - C
SECTION C - C

Corte Norte-Sul



Corte Oeste



ELEMENTOS DE CONCRETO
ARMADO PREFABRICADOS
PRECAST CONCRETE
TRIBUNE ELEMENT

ELEMENTO DA
ARQUIBANCADA

TRIBUNE
ELEMENTS

DRENAGEM DA
ARQUIBANCADA
TRIBUNE
DEWATERING

VIGA ESCADA
RAKER BEAM



1.2.1 – Portos – Santos-Brasil – Santos ou Imbituba

Estaqueamento



Forma, armação
e anel de emenda
da Estaca



Bolacha na
cabeça da
estaca









1.2.2 – Pontes

1.2.2.1 - Vigas pré-moldadas – Roaoanel



1.2.2.2 - Consolos Sucessivos pré-moldados Ponte do Rio Daule - Quayaquil





24 15:26

1. 2.2.3 - Consolos Sucessivos pré-moldados Ponte do Rio Guamá - Belém





2002 3 21

1.2.2.4 - Consolos Sucessivos pré-moldados Ponte da Billings no Rodoanel Sul



Aduelas não se encaixam,
Existe uma faixa moldada!



1.3.1 – Túneis em Schield



Cf Herrenknecht

Cf Herrenknecht



Cf Soletanche



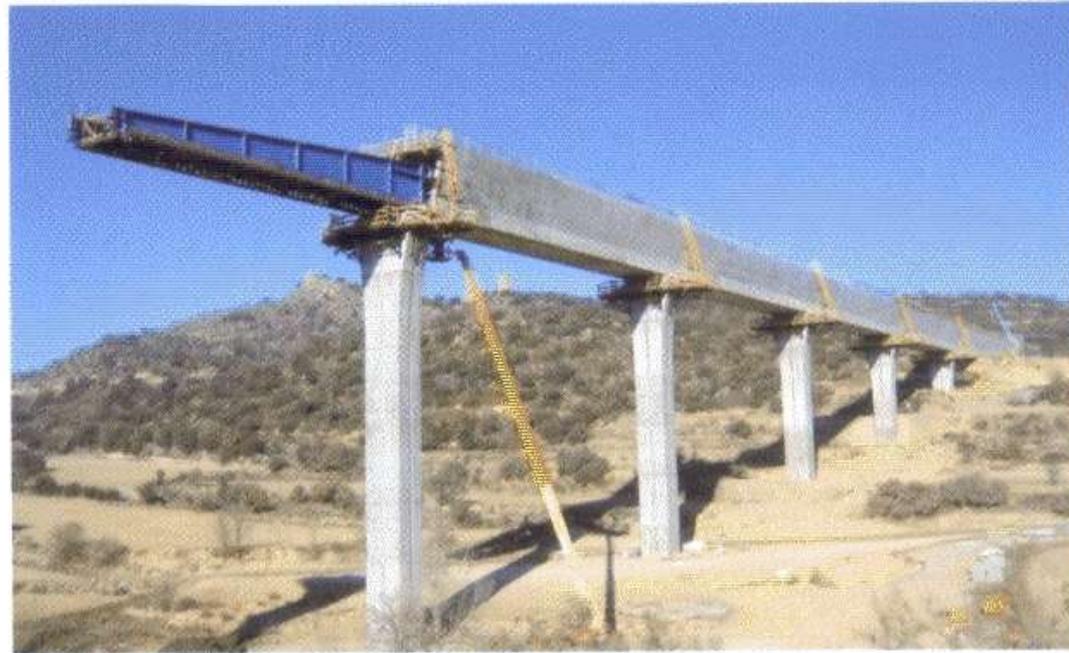
1.3.1 – Galerias em Diafragma pré-moldada

2. – Avanços importantes ainda indisponíveis

2.1 – Aqueduto Empurrado - Transposição do S. Francisco cf VSL

Aqueduct launch

→ **CTT Stronghold (VSL in Spain)** has successfully finished the launching and post-tensioning works of an aqueduct for the first phase of the new Segarra-Garrigues water channel in the north of Spain, 150km from Barcelona. The 390m-long aqueduct was built using the incremental launching method with friction jacks. The typical span is 40m long and the cross-section is 5.4m high. The deck was cast and launched in 20m-long segments, half the typical span length. Segments were cast to a five-day cycle. A total of 100t of PT was used. Design of the project



was by Carlos Fernandez Casado and the main contractor was a joint venture of Dragados and ACSA-Sorigué. ■ **Contact:**
pferrer@vslsp.com

2.3. Cimbramento deslocável com aduelas pré-moldadas

cf Freyssinet



Chantier du viaduc de San Antonio

2.4. Cimbramento deslocável para moldagem no local



Viaduto em Barcelona – Espanha – Enerpac - Cf Bridge

2.5. Pontes em Arco - Ponte na Auto estrada Oparno – República Checa – cf Bridge



2.6. Lançamento com super-dolles – cf VSL



Taiwan High Speed Rail C215- Taiwan
(2000-2004) 260,000m² of deck, 602 spans

Muito Obrigado pela atenção



Ponte de Aracaju