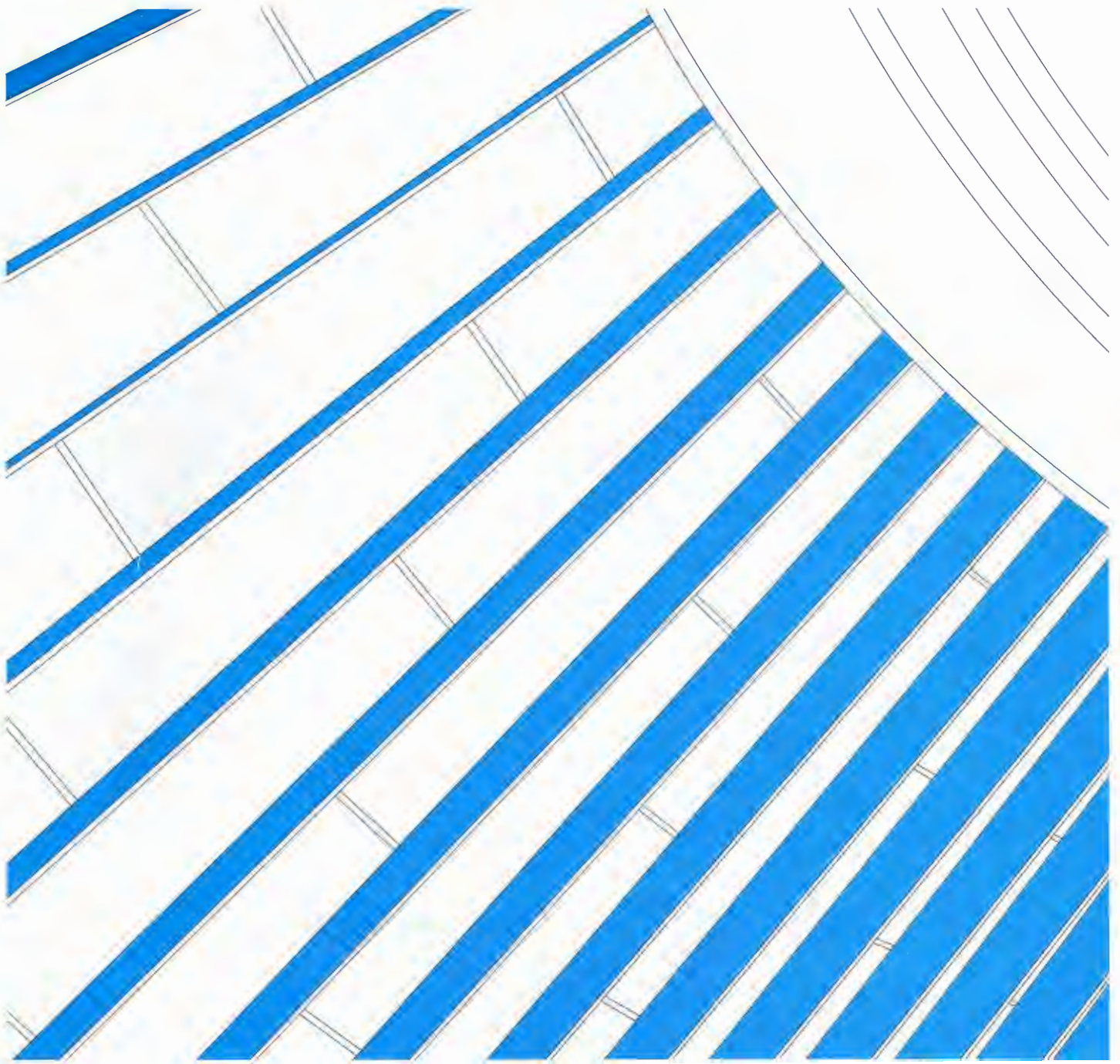


50  
years

English Edition

# DETAIL

Review of Architecture and Construction · Glass Construction · Vol. 2011 · 2



### Administration Building in Istanbul

Architects:

REX, New York

Team:

Erez Ella, Tomas Janka, Mathias Madaus,  
David Menicovich, Tsuyoshi Nakamoto,  
Joshua Prince-Ramus, Ishtiaq Rafiuddin,  
Tielu Wu

Structural engineers:

Büro Statik Mühendislik, Istanbul

Others involved in the project: see page 225

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[www.detail.de/plus\\_english](http://www.detail.de/plus_english)

At the Vakko Fashion Center in Istanbul, the eyecatcher is the X-shaped cambering on the surface of the glass facade. The concrete frame of a hotel building that was never completed served as point of departure for this building, which was redesigned and erected in just 23 months. The building now consists of two structurally independent parts. The two-storey structure on piloti, nearly square in plan with a hollowed-out centre – the result of the alterations to the existing building carcass – contains the conventional office space.

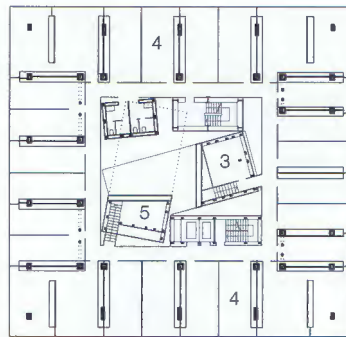
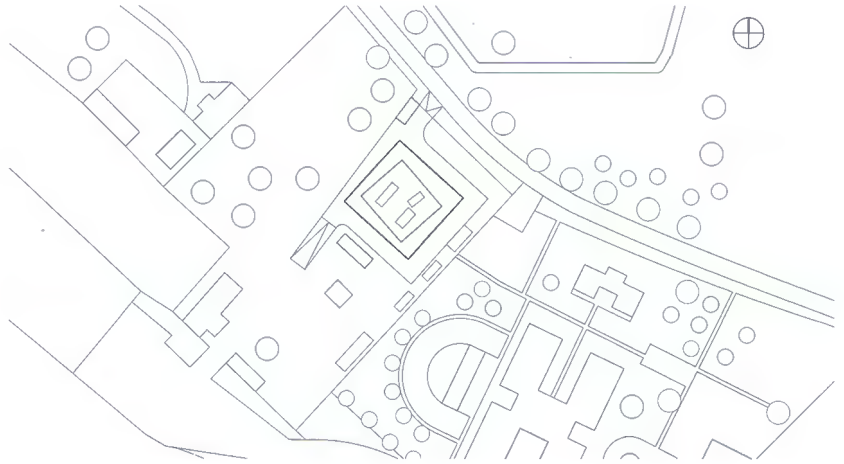
On the interior, a sculptural cuboid construction nearly five storeys high and constructed of steel trusses incorporates the

vertical circulation and auxiliary spaces, as well as exhibition and meeting zones. The uppermost storey, which is slightly rotated to the lower part of the building, accommodates the board rooms and cantilevers above the roof surface of the original building massing.

The glazed and mirrored surfaces in the atrium connecting the two parts of the building allow it to be perceived as kaleidoscope-like game of vistas and reflections. The glazed curtain around the two office levels is free of linear structural elements. The required stiffness of the 3.35-metre-high, double-glazed panes is attained by thermally shaping the respective outermost pane in the form of a



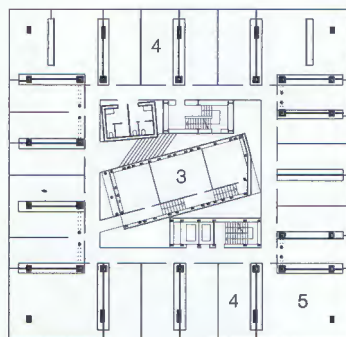
storey-high X. This figure was produced with a specially constructed oven in which the corresponding areas of the glass were heated on both sides with heating elements and allowed to camber 3.5 to 4 cm away from the surface. The structural effectiveness of this structural ornament was verified in a series of tests; the U-value of the double glazing, however, is slightly diminished. The use of relatively wide silicone seals between the panes is in response to the considerable earthquake risk in Istanbul. However, these seals do not disrupt the facade's extraordinary transparency, which is an apt metaphor for a fashion label, calling to mind a storefront's display windows.



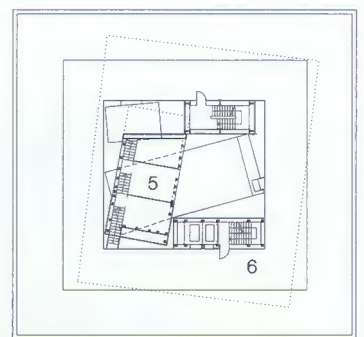
Second floor



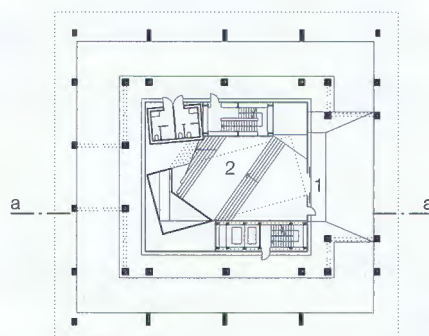
Fourth floor



First floor

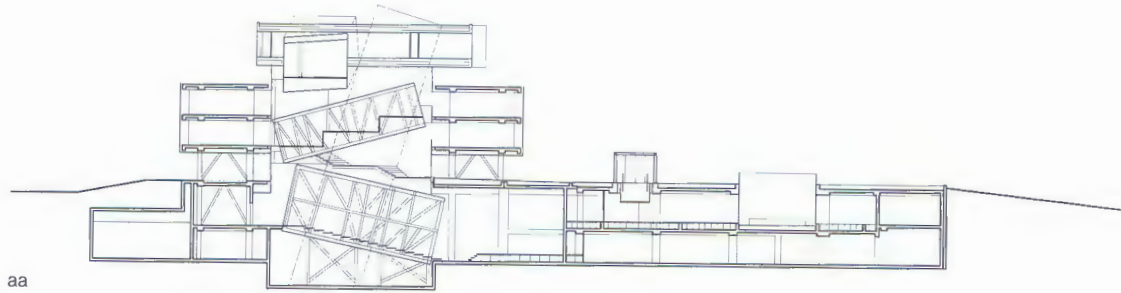


Third floor



Ground floor

- Site plan scale 1:3000
- Floor plans scale 1:750
- 1 Entrance
- 2 Foyer
- 3 Showrooms
- 4 Office
- 5 Meeting room
- 6 Terrace
- 7 Reception
- 8 Conference room



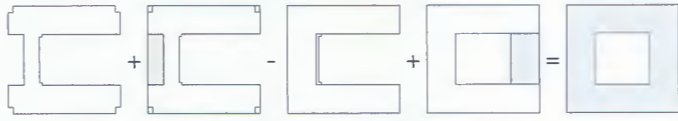
A To achieve a uniform geometry, the existing U-shaped building carcass was filled out and the edge of a ceiling deck removed; the fourth side was inserted to create a closed figure.

section scale 1:750  
Detail sections scale 1:20  
1 stainless-steel coping  
2 thermal glazing:  
6 mm toughened glass,

3 silver-coated + 17 mm cavity +  
2x 6 mm laminated safety glass  
post: extruded-aluminium profile  
4 anchor: steel, welded  
5 220 mm HEA steel section

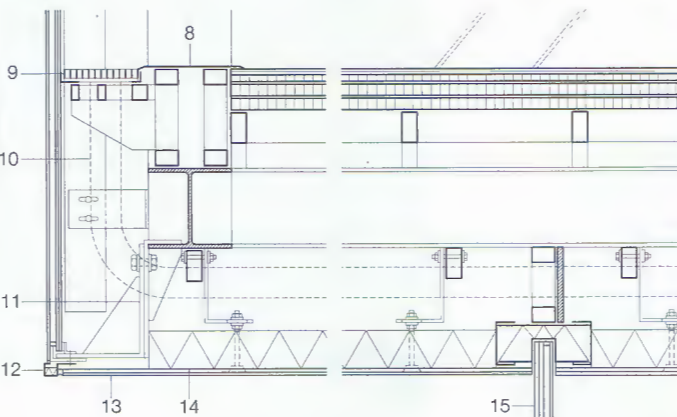
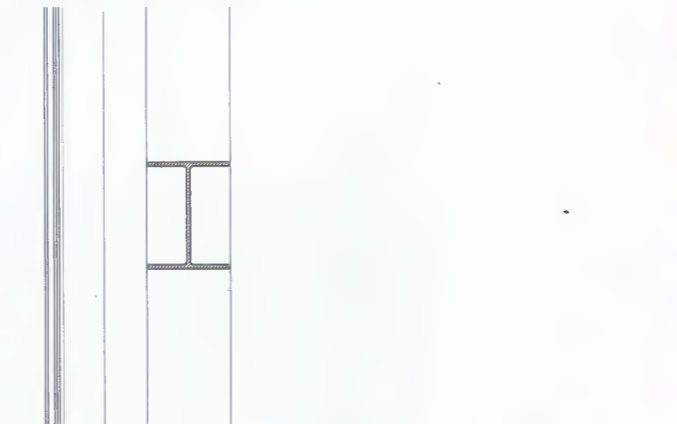
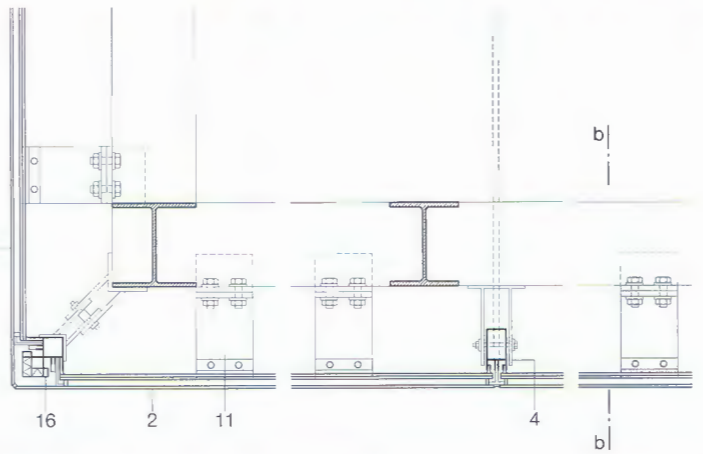
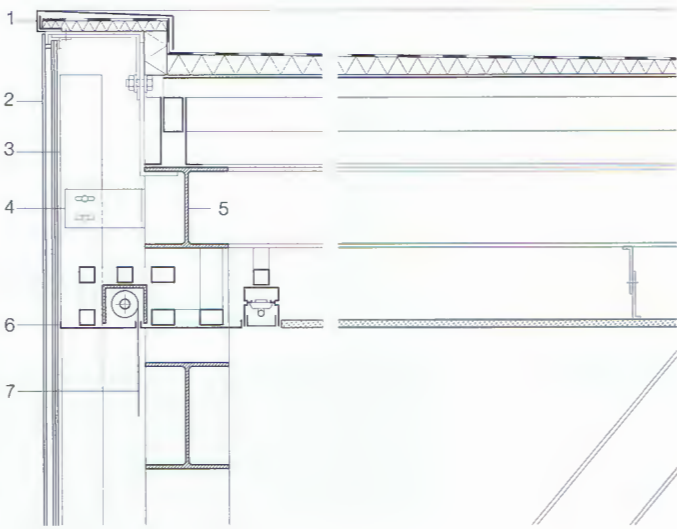
6 2 mm aluminium sheet, bent to shape  
7 sun protection, textile  
8 2 mm steel sheet  
9 air vent, stainless steel  
10 flexible ventilation duct, insulated



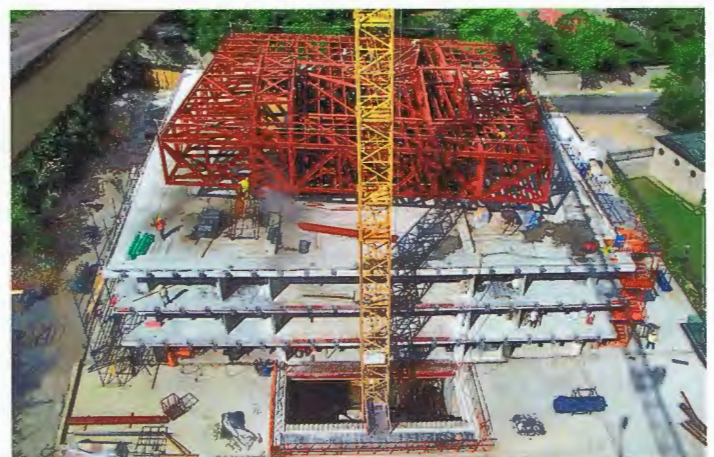


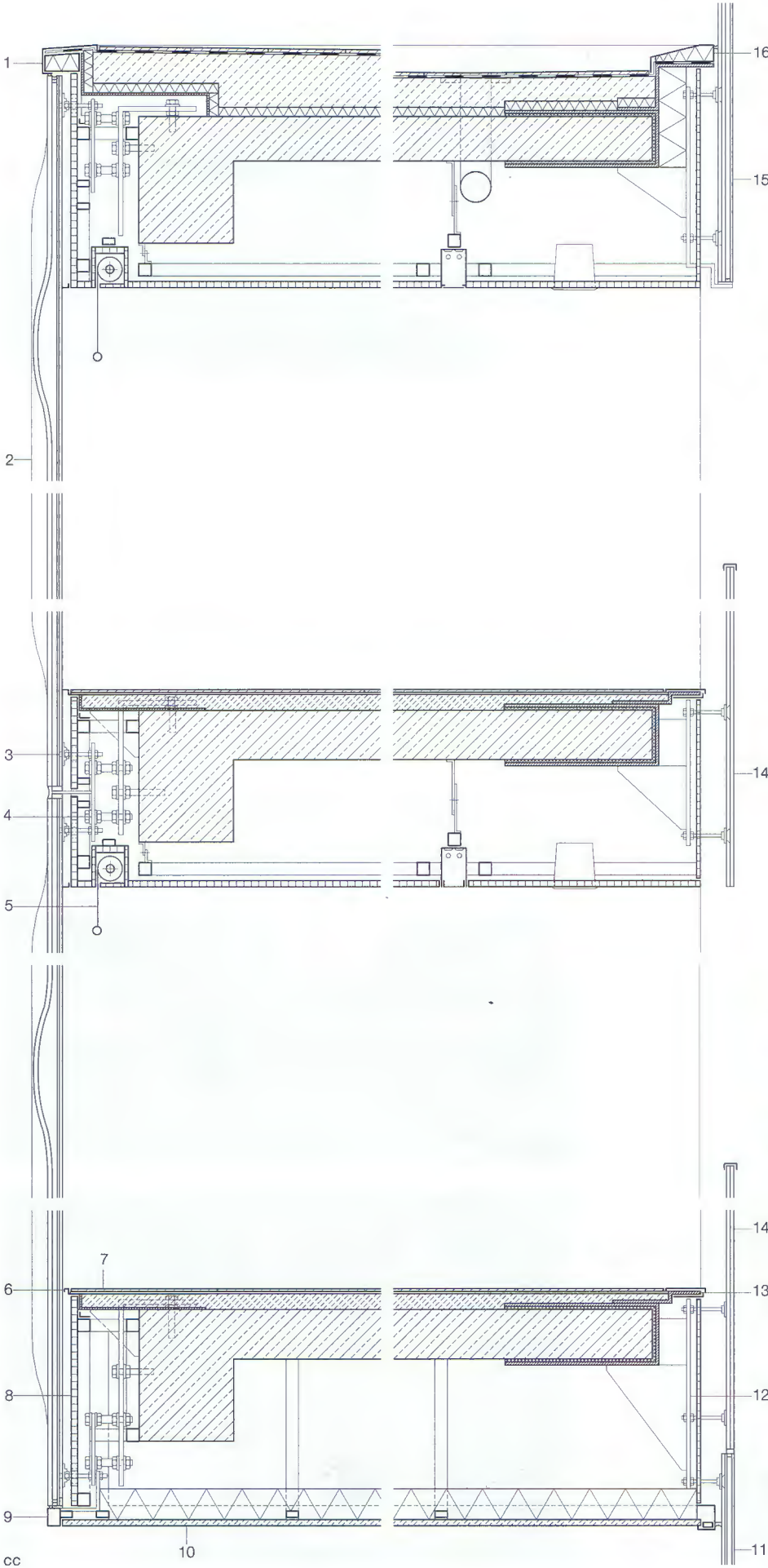
A

- 11 12 mm steel section, welded
- 12 stainless-steel sheet, bent to shape, polished, insulated
- 13 6 + 10 mm laminated safety glass, silver-coated, lacquered on back
- 14 100 mm rockwool mat
- 15 thermal glazing: 2x 12 mm laminated safety glass + 16 mm cavity + 6 mm toughened glass
- 16 post at corner: aluminium, insulated



bb



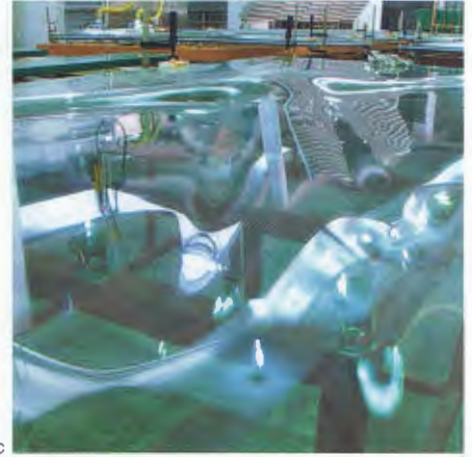


Vertical section  
Horizontal section  
Scale 1:20

- 1 anodized-aluminium covering, insulated
- 2 thermal glazing:  
12 mm hot-bent glass + 16–40 mm cavity +  
6 + 10 mm laminated safety glass with  
low-e coating,  $U = 2.0 \text{ W/m}^2\text{K}$ ,  $g = 0.67$
- 3 point-fixing with ball-and-socket joint
- 4 adjustable bracket: 15/10/8 mm steel flat, welded,  
stainless-steel screws
- 5 sun protection, textile
- 6 seam sheet: 2 mm aluminium, bent to shape
- 7 4 mm steel flat, welded



- a The glass panel is supported by adjustable brackets and point-fixing
- b The programmable heating elements can be seen in the X-shaped cut-out upon which the glass will be placed
- c The glass was heated under controlled conditions and allowed to camber under its own weight.



- 8 19 mm veneer plywood, white hard-facing
- 9 2 mm anodized aluminium sheet, insulated
- 10 15 mm cement-impregnated chipboard
- 11 double glazing:  
6 mm toughened glass + 16 mm cavity +  
6 + 10 mm laminated safety glass
- 12 bracket: 10 mm steel flat
- 13 6 mm steel flat, welded
- 14 balustrade:  
2x 12 mm laminated safety glass
- 15 thermal glazing:  
6 mm toughened glass + 16 mm cavity +  
2x 12 mm laminated safety glass
- 16 2 mm aluminium joining plate, bent to shape

