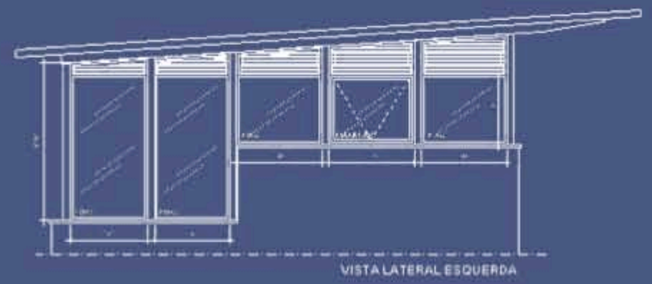
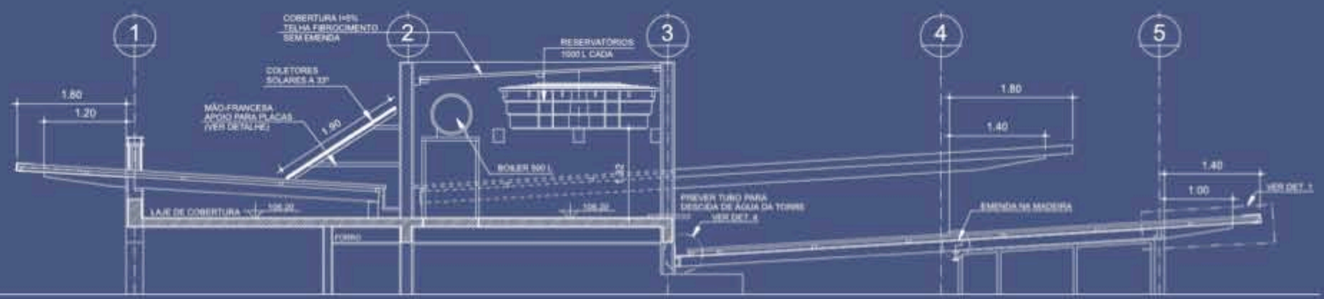
Xavier Simões House
Roofs

São Paulo, June 2004
with Nidia Freitas



Window Elevation - CAD drafting

Wood blinds and curtains protect against direct sunlight when it comes at angles not shaded by the overhangs



Roof section showing water reservoir and solar panels - CAD drafting

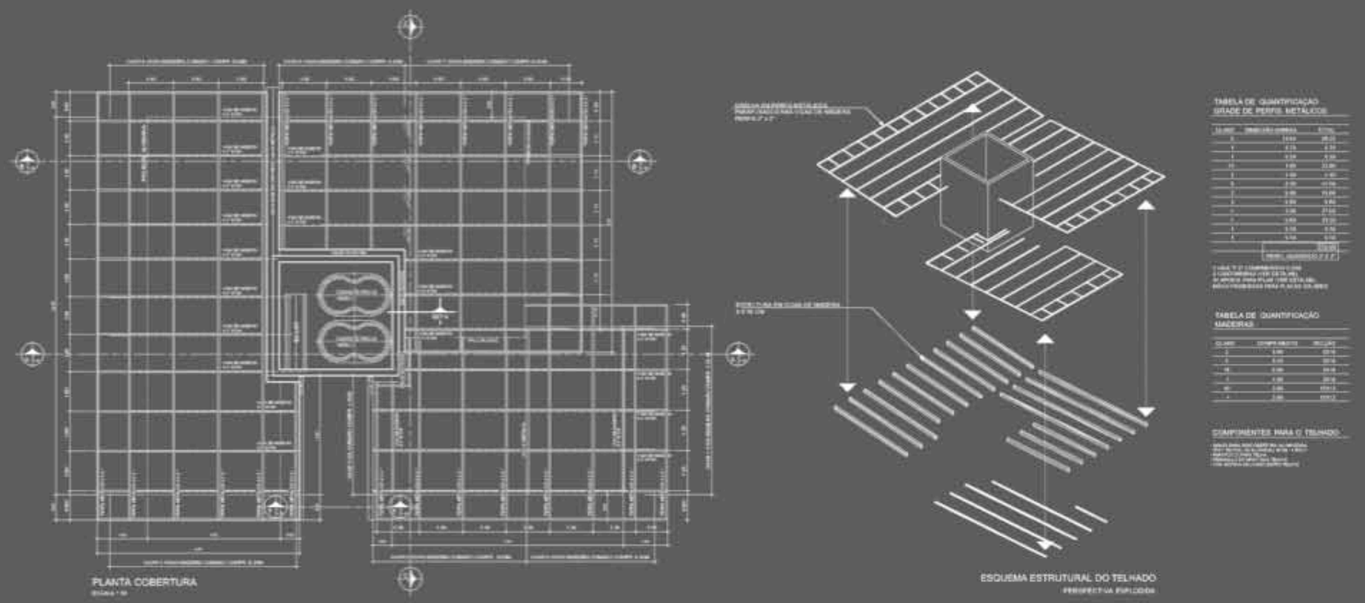
More about the Roof Details

The roof panels are metallic composites with a layer of asphalt on the top. This layer insulates and reduces the noise produced by the roof during a rainfall. A concrete slab is also built under most of the roofed areas to increase thermal and acoustic isolation

Butterfly roofs are becoming a trend again nowadays due to some of its eco-building features such as their ease to capture rainfall. The gull wing shaped portion of the roof on the Xavier Simões house captures rain and conducts it to an underground reservoir used for garden irrigation.

Additionally, if they had between 20° to 30° degrees they could also have supported solar panels that would be invisible from the street level (for this house they were installed on a separate structure, noted in the roof section on the top right)

A pitched roof also helps the house to blend in within the conventional pitched roof forms found in the neighboring houses. It reduces the formal contrast with its conservative surroundings without losing its innovative qualities.



Roof plan, exploded perspective and schedule - CAD drafting