

Peeling back the layers of this unusually large block in inner-city Sydney allowed Co-Ap Architects to challenge the norms of Australian residential architecture and test new ideas of materiality.

Words **Micky Pinkerton** Photography **Ross Honeysett**

RIBBONS OF STEEL

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ARCHITECT Co-Ap Architects
PROJECT Annandale House
LOCATION Sydney, New South Wales



block – it’s 12 metres at its highest point – and the architects had to think outside of several boxes to solve these site dilemmas. Co-Ap created a number of physical models as part of this process, eventually arriving at a design for the extension where new floor levels hug the natural topography of the site, creating a series of split levels and pocket courtyards. Luckily the clients – one of whom works as a project manager in the construction industry and supervised the build – were open to new ideas and appreciated what the architects were trying to convey.

The design also afforded the opportunity for Co-Ap to work with steel in new ways, both internally and externally. “Usually we would express the steel structurally, and then the facade becomes a secondary element to the structure in that the facade is within the steel structure,” says Fung. “Whereas in this case the steel is recessive. It’s not obvious but it’s definitely there. The fine roof detailing is something we haven’t done before and that helped with reducing the bulkiness of the building, and so you are really just reading a facade element and the roof kind of disappears.”

This roof detail – a ribbon of metal made from 12mm-thick galvanised steel plate in the colour Manor Red® – weaves its way along the length of the addition and acts as a unifying element. It is allowed to subtly preside over the facade, as all guttering has been hidden within a parallel flange channel made from a range of 250PFC, 200PFC and 150PFC galvanised steel. The roof that ‘disappears’ beyond it is made from LYSAGHT Longline 305® and LYSAGHT CUSTOM ORB® profile roofing cladding made from ZINCALUME® steel.

The overall effect is one of a lightness-of-being, particularly along the hallway which opens onto the lawn courtyard. At this point the structure almost feels hand drawn, and stands in great contrast to the solidity of the heritage wall, opposite.

Internally the genius of the combination of the split levels, angled glass walls and garden insertions becomes apparent. You feel surrounded by nature ➤

The history of the site on which this Annandale residence is built sparks visions of a surreal film set. Don’t be fooled by the sedate Victorian Terrace at the front of the block – beyond it was once clustered a group of lean-tos and sheds which at various stages housed a Christmas decorations store, artists studios and a carpet warehouse. Then there’s an imposing heritage wall on one boundary, upon which the artists painted a rather large and very existential black square, and on the other side of that wall a hundred preening eyes look down from the converted piano factory apartments next door.

You half expect Fellini to arrive with a boisterous cast of showgirls, hermaphrodites and beatniks, but instead Will Fung of Co-Ap Architects greets you at the door, which is something of a relief. As the director of this show, he has taken on all that back-story and some major site constraints to produce a quiet, sophisticated and very liveable home for a young family.

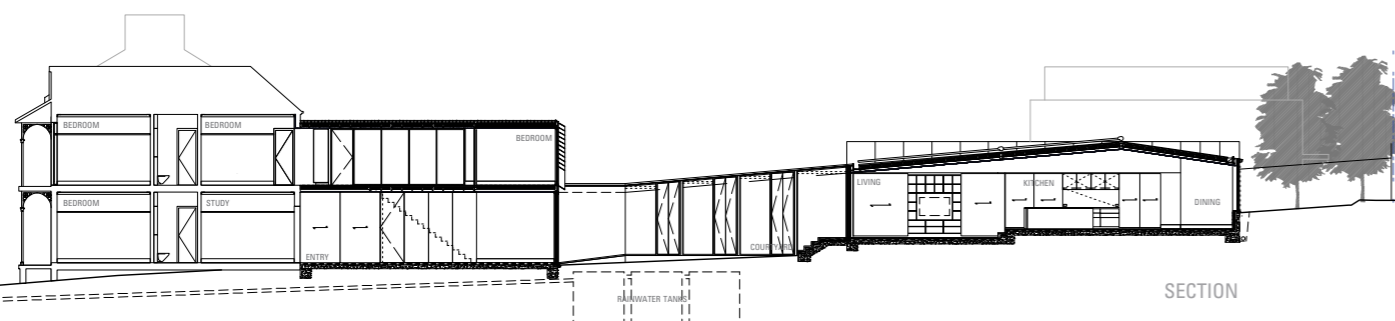
Located a few hundred metres from the bustle of Parramatta Road, the clients bought this exceptionally long and narrow block in 2009. Drawn to Co-Ap by the minimalist pedigree of Fung’s colleague, Tina Engelen, the clients’ initial brief hoped for a modernist ‘white box’ addition to the terrace. However, with residential units to the south-west such an approach would create over-shadowing issues, and would also have placed the living areas in full view of the apartments to the north. Add to that a sloping site requiring soil remediation, the imposing heritage wall casting its own significant shadow on the

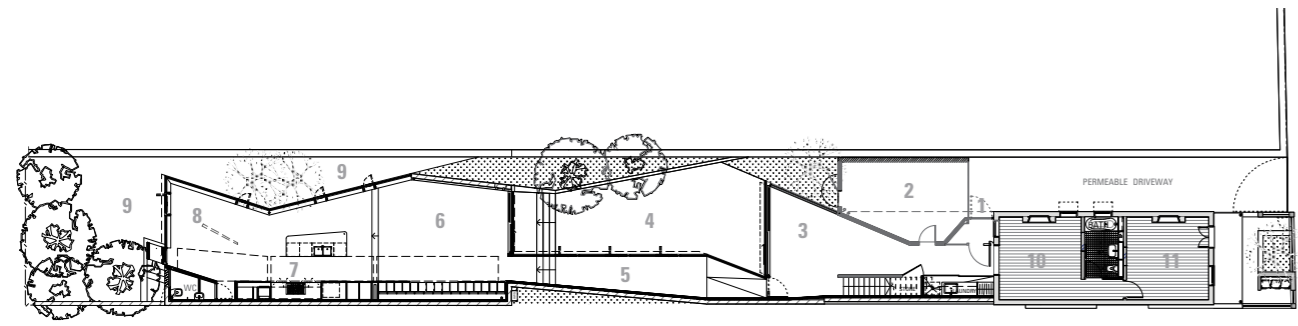


ABOVE: a heritage listed wall and overlooking apartments were only two of the several constraints the architects faced in the design and construction of this inner-city Sydney addition

“We flipped the idea of what people usually do with an Australian house in that we didn’t want to just open everything up with big glass sliding doors”

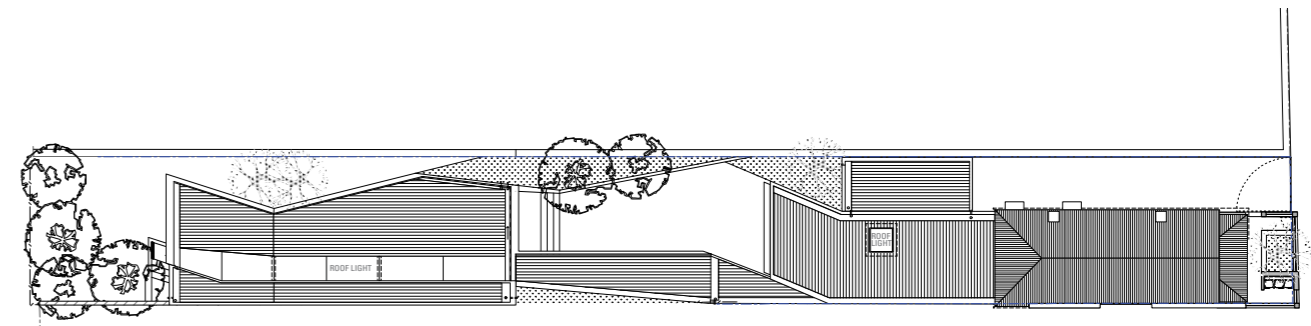
A lean, glazed hallway follows the topography of the site, linking the original terrace’s bedrooms and study to the new living areas at the rear





GROUND FLOOR PLAN

- LEGEND**
1. Entry
 2. Garage
 3. TV room
 4. Lawn courtyard
 5. Loggia
 6. Living
 7. Kitchen
 8. Dining
 9. Courtyard
 10. Study
 11. Bedroom



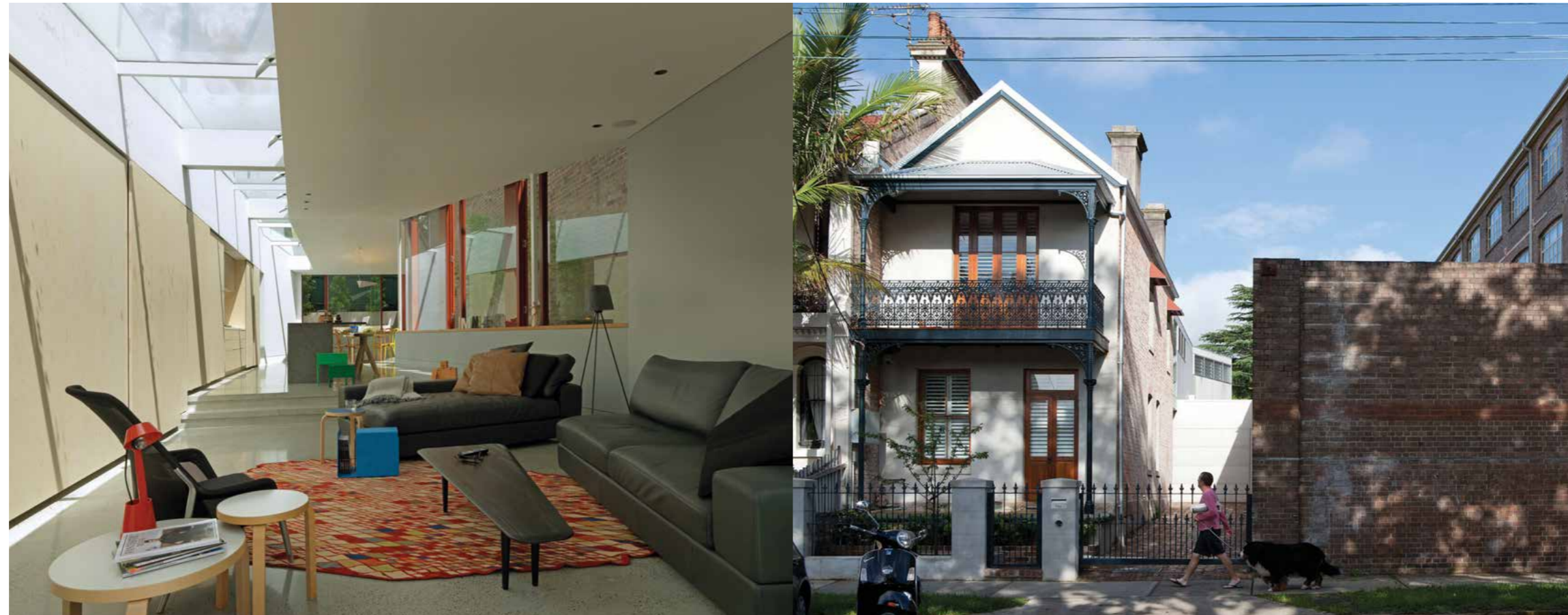
ROOF/SITE PLAN

and completely protected from the elements and the neighbours' sight-lines. In the kitchen/dining section of the house (partially set into the ground thanks to the soil remediation exercise) the opaque timber windows open out at ground height onto a narrow fernery. The owners' young children regularly escape up and out through these doors-cum-windows into the garden and run a delightful circuit around and through the house. Fung describes it as like being in a terrarium.

Steel was integral in achieving this, with 76CHS, 65CHS and 89SHS columns made from galvanised steel taking roof weight, to allow the window-walls to create a glasshouse feel.

"Because of the unusual geometry where we have windows meeting windows at corners, we couldn't just use regular SHS or CHS," explains Fung. "So the structural engineer had to invent a new section which is basically two plates of steel welded together to form an angled column. The project's best attributes would be the way that we handled the facades. The constraints ultimately allowed us to look differently at windows and doors, and how they open out to spaces."

When asked to nominate the single biggest site issue that shaped the design and material choice, Fung does not hesitate: "It's the wall. Because



PANEL SAYS

"This light alteration and addition to a 1880s terrace is like a stretched lean-to. The new work is respectful of the old, and delightful. The architects have resolved a range of challenging constraints and turned them into opportunities, with the resulting home showing an elegance and fineness of hand. This was a tough, long and narrow site, bordered by warehouse apartments and a high heritage wall. By unfolding the addition along the length of the site, and wrapping it around a courtyard, they've produced a delicate, light-filled series of spaces perfectly balancing and complementing the strength of the existing structure. This is a quiet, sophisticated and very liveable home."

OPPOSITE LEFT: The living areas feel protected and intimate, despite the overlooking apartments to the east and townhouses to the north west

ABOVE LEFT: The residence presents as a composed and classic terrace, with only the merest hint of the more contemporary geometry of the recent addition visible from the street

LEFT: The 'ribbon' hallway in construction



A sliver of ferns joins the two courtyards, creating a glasshouse effect. Various CHS and SHS columns made from galvanised steel structurally support the roof, allowing large glass panels to meet at unusual angles

it's so strong, so raw, so honest, everything we put in here had to be a response to it in some way. Even the FC sheet cladding at the front of the house; it's just got a clear sealer on it. We didn't want to paint or treat it. We wanted to keep it raw. That idea runs through the house, such as in the polished concrete floor and the plywood joinery. It's all fairly naked."

To acknowledge its significance and celebrate the site's history, Co-Ap proposed to leave the wall as is, including the big black canvas left by the artists, and the more recent concrete splatters left by subcontractors on this build. A further nod to the layering idea can be found in the colour that was chosen for the 'ribbon of steel' element, with its rusty hue deliberately reminiscent of primer paint. Eschewing more fashionable shades, it's a further example of the thoughtful approach that is so evident in every aspect of this project.

Ultimately, all architecture has to moderate the space between landscape, memory and materiality. This house is an exemplary example of achieving that aim. Turning constraints into opportunities, Co-Ap has provided an alternative model for updating the inner-city terrace house which will serve as a reference point for the profession for years to come. **SP**



PROJECT Annandale House **CLIENT** Robert & Susan Feltau **Architect** CO-AP Architects **PROJECT TEAM** Will Fung, Tina Engelen, Patrik Brau **STRUCTURAL & CIVIL ENGINEER** James Taylor & Associates **BUILDER** Owner-builder **STEEL FABRICATOR AND SHOP DRAWING CONTRACTOR** Rondalee **CLADDING CONTRACTOR** Citybuilt **LANDSCAPE CONTRACTOR** Bates Landscaping **PRINCIPAL STEEL COMPONENTS** Roofing: LYSAGHT® Longline 305 made from ZINCALUME® steel and LYSAGHT® CUSTOM ORB profile made from ZINCALUME® steel, 12mm-thick galvanised steel plate in the colour Manor Red®; Structural: 250PFC; 200PFC; 150PFC; 76CHS; 65SHS; 89SHS, 25mm plate used to form custom columns and edge plates for roofing **PROJECT TIMEFRAME** 16-month build. 20-month design & council approvals **AWARDS** 2012 Australian Institute of Architects NSW 2012 Awards Commendation, 2012 Houses Awards, Alteration & Addition over 200m² **BUILDING SIZE** 296.85m²