# A POLISHED FINISH

## Richards Partington has used carefully detailed cladding to set its industrial sheds apart from the norm. *Hattie Hartman* reports

For its White Hart Triangle project for a business park in south-east London, Richards Partington Architects (RPA) looked for a cladding system that would distinguish otherwise ordinary industrial sheds. 'We looked for the shiniest finish we could find', says director Jim Richards. The practice settled on 3mm-thick profiled metal cladding from CA Building Products with a polyvinylidene flouride (PVDF) finish.

The project, located over 21ha near Greenwich, includes three completed buildings with another set to go on site next year. The client, Tilfen Land, claims the park may grow to house up to 20 buildings. Early on in the project, the team went on a tour of industrial parks around the UK to determine design priorities, and decided to include in their project: a splash of colour to differentiate buildings; flush exterior detailing; and clear signage.

RPA chose to stick with the standard form of the industrial shed, and to focus on the envelope. The ubiquitous composite panelling found on most industrial estates was rejected in favour of the thin profile and flexibility of built-up metal cladding. The system chosen allows the cut ends of the panels to be concealed with flush details at window and door openings. Richards refers to the system as a picture-frame approach. The cladding also allows for coloured feature panels to be used as part of the envelope, rather than being fitted over the surface, as would be required with the composite panels.

RPA used horizontal corrugation in the profile of the panels to make the building appear lower to the ground. With a built-up system, the inner sheet of the cladding system was fitted vertically, so that the external sheet can be fitted horizontally. Composite panels must span opposite to the supporting structure and would require an additional layer of vertical supporting rails to apply the cladding horizontally. The next building at the White Hart Triangle, going on site in 2008, will be 22m-high and features alternating vertical and horizontal bands of cladding to address the planners' concern about reducing the mass of the building.

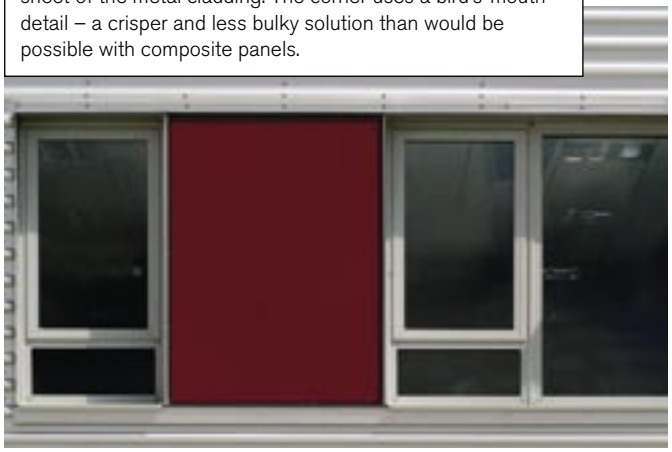
'The starting point for the detailing of the cladding was to physically express the jointing of the material', says Richards. The sheds are based on 6m structural bays, reflected in the exterior by a T-joint between cladding panels which creates a vertical rhythm along the elevations. Each bay >>

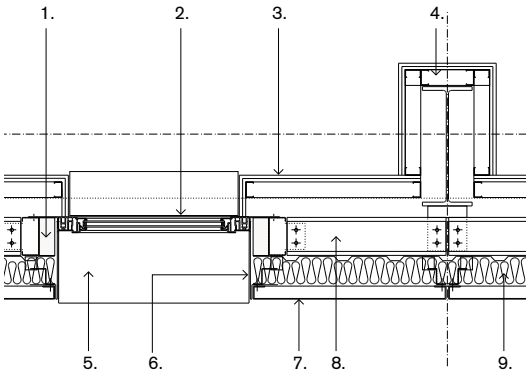
## FLUSH DETAILS

Loading bay doors were incorporated into the cladding with a flush head detail. Windows allow ocupants to see deliveries without having to open the doors, while stainless-steel bollards protect the delicate cladding from delivery vehicles.

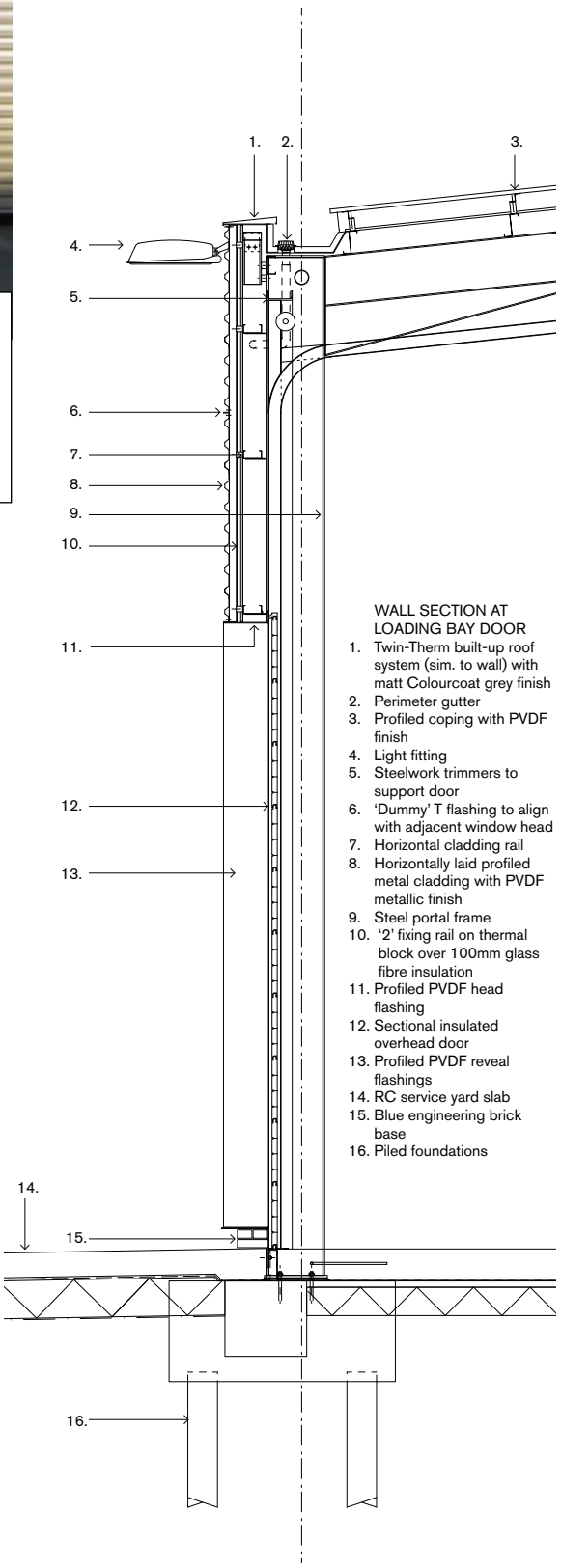
## A SPLASH OF COLOUR

Coloured metal panels can easily be substituted for the outer sheet of the metal cladding. The corner uses a bird's-mouth detail – a crisper and less bulky solution than would be possible with composite panels.





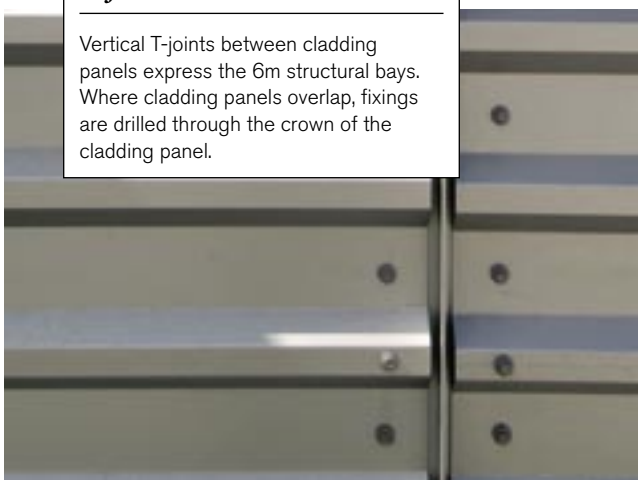

PLAN DETAIL AT WINDOW
1. 60mm rigid insulation
2. Polyester-powder-coated aluminium window
3. Internal plasterboard finish to offices
4. Structural column
5. Profiled cill with PVDF colourcoated finish
6. Profiled reveal flashing
7. Polyester-powder-coated flat metal panel fixed back to '2' rail and thermal block
8. Cladding rail
9. 110mm-thick glass-fibre insulation




WALL SECTION AT LOADING BAY DOOR
1. Twin-Therm built-up roof system (sim. to wall) with matt Colourcoat grey finish
2. Perimeter gutter
3. Profiled coping with PVDF finish
4. Light fitting
5. Steelwork trimmers to support door
6. 'Dummy' T flashing to align with adjacent window head
7. Horizontal cladding rail
8. Horizontally laid profiled metal cladding with PVDF metallic finish
9. Steel portal frame
10. '2' fixing rail on thermal block over 100mm glass fibre insulation
11. Profiled PVDF head flashing
12. Sectional insulated overhead door
13. Profiled PVDF reveal flashings
14. RC service yard slab
15. Blue engineering brick base
16. Piled foundations

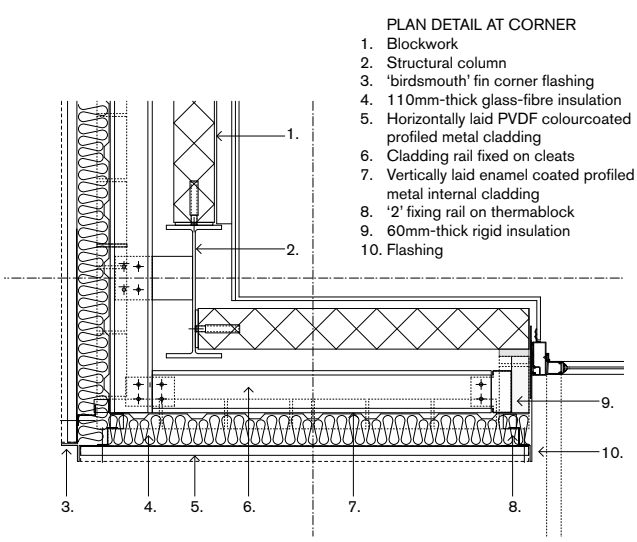
## T-JOINTS

Vertical T-joints between cladding panels express the 6m structural bays. Where cladding panels overlap, fixings are drilled through the crown of the cladding panel.



## BIN STORES

The cladding is used on small-scale detailing such as the bespoke bin stores near the entrances to the units.




could incorporate a kit of parts, transforming the space into an office entrance, loading-bay door, or a mezzanine office with the option of a ground floor room built in.

Because the project was constructed with a Design and Build contract, RPA was keen to determine as much of the detailing as possible in advance. About 50 per cent of the key details were included in the tender documents. When RPA was novated, the remaining details were worked out with FK Roofing Services, the licensed installer. The architect agreed with the subcontractor that all cuts would be through the trough of the cladding rather than the crown, enabling cleaner cuts and neater flashing.

To install the cladding, horizontal rails were fixed to the portal frames, with the inner sheet fixed so the troughs run vertically. Insulation was fixed into place with a plastic block, creating a thermal break between the internal structure and the outer fixing rail. Vertical Z-bars which support the exterior sheet were fixed to the plastic blocks. External sheets were attached with steel fixings drilled through the troughs with concealed flashing behind. A bed of mastic provided a secondary seal.

This simple system, with its carefully considered detailing, could easily be used in comparable industrial sites. It's an easy way to make what would otherwise be a plain industrial shed stand out. ■

## KIT OF PARTS

The 6m bays are assembled as a kit of parts depending on user requirements: office, entrance, windows, loading bay door. Large numbering and signage makes unit addresses legible from a distance.