



# CASE STUDIES

At CCF we're proud of the work we do in conjunction with the Public Sector and with our products. In this section you will find Case Studies for you to read the practical examples of our expertise.

## EDUCATION

March 2009

### Witton Learning Centre, Blackburn

A Learning Centre with two teaching areas was unpopular with the teaching staff and pupils due to the excess noise created by bad weather. The ceiling had to be adapted to make it a more useable area, for a multiple of uses.

#### Situation

Witton City Learning Centre (WCLC), Blackburn, Lancashire has two teaching areas, the North and South suites, which were proving unpopular with the WCLC staff and students due to their noisy characteristics. Both suites are located on the upper floor of the building and the underside of the metal roof deck was serving as the ceiling, suspended from which were large 'service rafts' constructed from metal sections and plasterboard, containing the air handling units and other service items. The large volume of the rooms, together with the exposed metal soffit and plasterboard rafts were contributing to long reverberation times and poor speech transmission. During rainfall the acoustic climate deteriorated further.

#### Tests

RPS Gregory, the award winning consulting engineers and acousticians were asked to visit the site and take measurements to ascertain both the ambient noise levels and reverberation times. It was also agreed that after the installation of a new ceiling, RPS Gregory would visit and take measurements again in order for us to demonstrate the benefits of the installation.

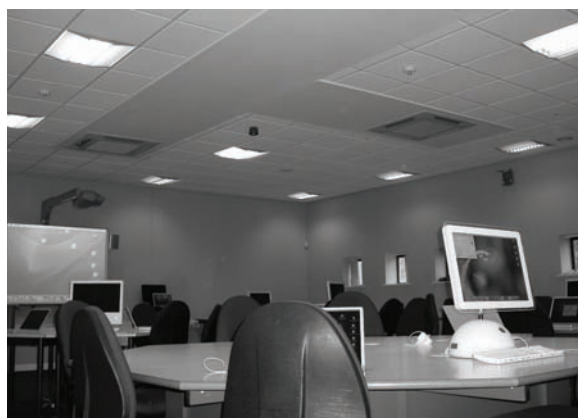
#### Solution

Treetex Acoustimax dB, a 20mm thick mineral fibre board, made from 'bio-wool' a unique purpose made fusion of rock, sand and recycled glass, which is capable

of providing both absorption and attenuation, was chosen as the best solution in this case.

In addition to the Treetex Acoustimax dB panels, OWA acoustic fireboxes were installed over the light fittings in order to ensure the passage of sound from above the ceiling was sufficiently blocked.

The results recorded by RPS Gregory were impressive! The reverberation time was reduced from 1.25 secs to around 0.8 secs, despite approximately 30% of the ceiling surface remaining as gypsum board. The ambient noise levels were also reduced from 45 L Aeq,T/dB to 37dB. A reduction of over 7dB. Mathematics aside, we were delighted to learn that the staff and students at Witton are very happy with the improvements at the WCLC.



## DRYWALL

June 2009

### The Zero-landfill Hospital Fit-out

#### Situation

When Astins, the Crawley-based interior specialists, set themselves a challenge, they don't compromise. In the case of Peterborough's Edith Cavell Acute Hospital, they decided that nothing would go to landfill, and that their fit-out waste would beat the absolute minimum.

#### Solution

Astins' first port of call was manufacturer, Knauf. They wanted to make sure that Knauf could supply metalwork and plasterboard ready-cut to Astins' waste-reducing specification, and in tune with their just-in-time delivery cycle.

Supply was not a problem for Knauf, so long as Astins could take deliveries in 25 tonne loads. For the most part, the answer was 'yes', but they still needed the stockholding and break-bulk help of Peterborough CCF to even out the peaks and troughs of day-to-day work. Staff at Peterborough CCF played an integral part in this just-in-time schedule. Whatever couldn't go direct in bulk to the hospital site - metalwork, plasterboard, insulation - went via the branch. From there, they fed in smaller deliveries on a cycle that helped keep the project exactly on track.

Between the two - Knauf and CCF - the flow of materials was smooth and efficient, while waste was indeed minimal. Anything that was left over was recycled, even when recycling was the more expensive option.

"None of this was in the project spec," explains Simon Drew, Astins' Senior Buyer. "We're doing it purely because we want to. We think it's the right thing to do." He adds: "CCF have been a great help. Our relationship with them is long-standing; we put a large proportion of our business their way simply because we get good service."

The zero-landfill team working on the Edith Cavell project includes three apprentices from the recently formed Astins Institute, a training facility set up in Battersea to bring more skills into the industry.

"We clearly need more skills," says Simon, "plus we want to encourage environmental responsibility. To that end we'll be introducing behavioural environmental training at the Astins Institute during 2010".



# SCREEDING

June 2009

## Super-hard landing at Dublin Airport

### Situation

Airport terminal floors tend to take a pounding, which is why the screeding spec for Dublin Airport's Terminal 2 included a named lightweight concrete and a strength of 35N. High Wycombe-based CSC Screeding knew they could lay a specification-beating floor more cost-effectively with other products.

Spencer Warner, Managing Director at CSC says: "Right now, Dublin Airport is probably Europe's biggest high-profile floor-screed project. To get the best result for Dublin, we decided to explore different avenues – to find a credible alternative to the specified product. We knew about Knopp products having used them on other high-profile screed systems, so we approached CCF, Knopp's UK distributor. In particular, we wanted to find out more about Knopp's Duremit 50 and its potential application on the new Terminal 2 construction and the large Pier E extension used for aircraft docking."

Duremit 50 is a product that's hardly known in the UK, but widely used throughout Europe. That made it difficult to find a local reference site with large exposed surface areas that would give CSC and their client, P J Hegarty & Sons, the technical data they needed. They wanted to see a live site featuring at least 10,000m<sup>2</sup> of Duremit 50 without any final floor finish being applied - not an easy request.

### Solution

Nikki Warburton of CCF's specialist flooring solutions division, SLBM, knew exactly what to do. She flew a team from CSC and

P J Hegarty out to Luxembourg to meet Knopp staff at a live site where they could run the BRE rebound and hammer tests on Duremit 50 at various stages of hardening.

The product passed the tests with ease, and CSC were chosen to screed around 56,000m<sup>2</sup> of the 90,000m<sup>2</sup> terminal floor area.

In practice, Duremit 50 performed even better than expected.

Spencer explains, "During the project, there were lots of independent tests - core samples and drop hammer tests - that showed we were achieving a strength of up to 55N. That meant, due to the performance and efficiencies of Duremit 50, the positive impact from an environmental perspective created a significant upside on sustainability, enabling us to reduce CO<sub>2</sub> emissions by approximately 1000 tonnes. This proved that once again the partnership between CSC, CCF, and Knopp are demonstrating their responsibility to the impact on our environment during construction processes."



# TLX GOLD MULTI-FOIL INSULATION

January 2010

## College warms to multi-foil insulation

### Situation

The College Ystrad Mynach, Hengoed, needed a modern solution for a failed slate roofing system and in keeping with current Building Regulations' rule that where 25 per cent or more of a roof is to be renovated, the thermal performance of the installation needed to be upgraded too.

Contractors, Glamorgan Services of Neath, were struggling to find a suitable solution as the building had 150mm of existing glass wool above a suspended ceiling - which was to remain in place during installation. TLX Silver was considered but with existing insulation at ceiling level, there was a risk of condensation.

### Solution

The manufacturers of TLX Silver - Web Dynamics - recommended TLX Gold, a combined multi-foil insulation and breather membrane installed in the same way as a standard roofing tile underlay. The 1.2m wide product vents moisture away from a roof structure.

By combining breathable reflective foil layers with a waterproof breathable upper surface it allows moisture vapour to pass through. The product is installed above existing insulation and can be used when upgrading or renovating a roof with no condensation risk.

The product has independent test certificates by BBA (British Board of Agrément); BTTG Fire Technology Services and High Performance Materials and the University of Salford's Thermal Measurement Laboratory. TLX Gold is also currently seeking European Technical Approval (ETA).

Web Dynamics supports the use of its products in combination with other insulation materials to achieve a better overall U-value rating. In this instance the approach enabled Glamorgan Services to meet current Building Regulations 2000 Part L1B. By installing the products externally, there was no need for access to the loft space.

More than 650 sq metres of TLX Gold, purchased from CCF in Cardiff was supplied directly to Glamorgan Services. Nick Elsmore, Contracts Director, Glamorgan Services, said: "We have used TLX Silver before but in this instance needed a breathable product. TLX Gold was a welcomed solution. CCF, who we use for many of our insulation needs including thermal, acoustic and fire protection requirements, were able to supply TLX Gold to our timescale and we found it just as easy to install as normal roofing felt".

"TLX Gold really beefed up the insulation. It is an impressive product and I've no hesitation in using it again - as they say, it does what it says on the tin", added Nick. CCF have the expert know how when it comes to Insulation and has a specialist Insulation Team set up to recommend products and applications to help customers meet Insulation regulations.

## DRY LINING AND PLASTERING

January 2010

Liverpudlian life expressed in sweeping curves

### Situation

Every so often a building comes along that's not just an architectural landmark, it's a cultural one too. When that building is on your home turf, it becomes a matter of professional pride to win the contract.

That was how Liverpool's Cull Dry Lining and Plastering felt when tenders were invited to install suspended ceilings and plaster the interior of the new Museum of Liverpool. As a project, it's a one-off - a grand statement of maritime, commercial, and social history expressed in sweeping architectural curves and spirals. The centrepiece is a spectacular circular atrium enclosing a three-story helical staircase. There's barely a flat surface in sight, yet everything has to be finished to a standard that does justice to Liverpudlian pride and the museum's prime waterfront location.

### Solution

Steve Williams, Cull's Commercial Director, was in no doubt that this would be a demanding project - and in no doubt that they were the team to do it if they had the right support. So they took the project to their local branch of CCF.

He says: "We needed materials from several suppliers - Knauf, Armstrong, and SAS - so everything had to be carefully co-ordinated. But CCF gave us the most competitive price, which was a huge help in winning the tender. All the materials arrived bang on time from CCF and the Manufacturers, so everything went like clockwork."

"It was a complex Project to manage. One of our Directors, Will Griffiths, was resident on site as our Project Manager. He liaised with Pihl/GallifordTry's Site Team and the Architects, who were also resident on site, on a daily basis co-ordinating not only the progress of the works with the other Trades but also developing numerous Design issues. Eric Cull, a fellow Director, was also instrumental in co-ordinating the handover of each area of the building to the Client."

"We finished the staircase with Knauf's MP75 projection plaster. That was a tricky operation. To reach all those spiralling curves, we needed birdcage scaffolding and scissor lifts. When the museum opens in 2011, we'll be immensely proud of it. It's a great one to have in our CV."



# ACOUSTIC AND THERMAL INSULATION

March 2010

From drawings to delivery schedule in just two weeks

## Situation

Cannons Wharf is a superb riverside development at Tonbridge. It consists of six blocks containing 226 premium apartments. From the first floor upwards, the building is timber frame. The apartments in the upper floors sit on a concrete podium deck which includes the ground-floor parking level.

Scheduling the delivery and installation of acoustic and thermal insulation materials for such a big project is quite a feat. What the developer, Redrow, needed was a partner who could offload some of the scheduling work, and deliver the materials exactly when required.

## Solution

Redrow has had a long and successful relationship with CCF, first as a customer of SLBM Systems and now as a client of our central sales team. Because the Redrow team knew they would get great service from CCF, they were happy to hand us the insulation specification for Cannons Wharf.

As Russell Dymott, Redrow Homes (Eastern) Procurement Manager, explains: "CCF have worked with us long enough to understand our way of working. So we gave them our drawings and proposed specification and asked them to investigate any alternative solutions in dealing with the project to make it more cost-effective."

Our central sales team delight in this type of major project. They can add value by finding the most appropriate materials and by making sure delivery schedules are in perfect sync with the customer's construction programme.

From Redrow's materials spec, drawings, and construction schedule, we produced our own schedule.

Within two weeks of starting work, we had a complete list of materials and fortnightly delivery dates for one of the Cannons Wharf blocks. That schedule then became the basis of a series of electronic orders that brought the insulation materials on to the site on the exact days they were needed.

"The big issue for us was the sheer quantity of deliveries to be handled in a small area," says Russell.

"But it all went smoothly. Blocks A, B, and D are complete. Just C, E, and F to go."



## DRY LINING AND PLASTERING

March 2010

### Walsall College wins plasterers' award for Horbury

#### Situation

Completing big and complex projects to tight schedules is always a challenge. However hard you plan, something unexpected always crops up. At Walsall College, however, Horbury Building Systems came through with an even stronger reputation than before. They overcame the complexities of the site and the restrictions of sharing it with other trades to finish on time and in style. The project won them the award for a Drylining Contract Over £1m at the 2009 FPDC Plasterers' Awards.

#### Solutions

At Walsall College, Horbury got off to a good start by inviting CCF to quote for supply of 9,000 linear metres of linings and partitions. As Andy Hewitt, Senior Contracts Manager for the Horbury Group, explains: "CCF won the contract pretty much on value for money. We already knew they'd be good for service and quality because we'd used them so many times before".

"Walsall was a tricky site from a health and safety point of view," he says. "Space was tight and we had to work to specific delivery time slots. So we split the job down to about 100 electronic orders which CCF delivered on time and in accordance with all health and safety standards."

The project grew even more complex towards the end. The last stage was the fantastic atrium, in which numerous trades were working to meet the fast-approaching completion deadline. The final push was worth it. At the FPDC Plasterers' Awards in February, the judges gave the award to Walsall College and Horbury for innovation and quality.

"The innovation was down to the architects," says Andy, "but we're absolutely delighted to take the credit for the quality." CCF has a record of support for top-quality projects undertaken by FPDC members. Last year they named CCF as the best distributor of ceiling and drywall materials. In an independently analysed survey of FPDC members, CCF came top overall and top in seven individual categories of service and supply.



## SCREEDING

August 2010

### Knopp accelerators keep ordnance survey on track

#### Situation

When Carlton Contracts took on the screeding project for the atrium of the new Ordnance Survey building in Southampton, they knew timings would be tight. But they didn't know just how tight until the lead contractor, Kier, called in all the subcontractors for a series of workshops.

To make sure the atrium was completed within the timescale, Kier wanted to iron out problems in advance so that every trade hand-over would be as smooth and as early as possible. When it came to the floors, it was clear there would be no time for the screed to dry before the tiling contractor came on site.

#### Solution

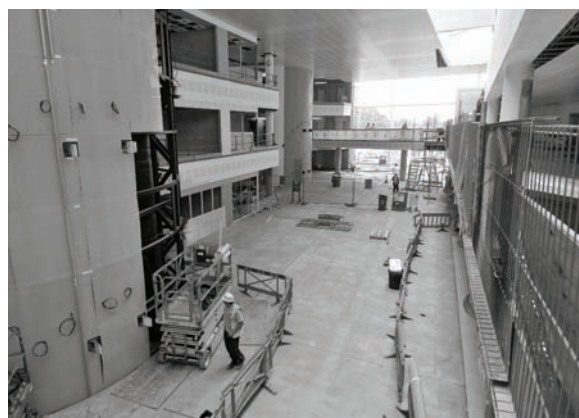
Luckily Carlton Contracts is a regular user of Knopp screeding additives. They knew that Knopp's Contopp 10 accelerator would do the trick.

"By coincidence, we'd used Contopp 10 on other successful screeding projects for Kier," says Richard Robinson, Contracts Director at Carlton Contracts. "It was a product that Kier already had confidence in. So they were happy for us to go ahead, confident that we would achieve the SR1 finish that was in the spec".

"We keep Contopp 10 in stock so that we can move quickly on projects of this kind. To complete all 1,200m<sup>2</sup>, we had to order in more from CCF – and of course it arrived on time for us to complete on schedule".

"When the tiler saw the finished screed, he was very pleased. He told us it was 'as good a screeding job as he's ever seen'," says Richard.

Did Carlton Contracts and Knopp help keep the project on schedule? Definitely. According to the ticking clock on the Kier website, practical completion is set for the morning of 13th September.



## SUPPLY CHAIN AGREEMENT

August 2010

Keeping Metnor's interior subcontractors on track

### Situation

When space is tight and the delivery diary is timed to the minute, you really do have to keep control of materials supply. At Metnor Construction's Winn Studios project (396-bed student accommodation) in Newcastle upon Tyne, the knock-on effect of delivery delays could be huge. The site is hemmed in by roads on all four sides, so every delivery has to be lifted in from one delivery location by a single crane situated in the central courtyard. And every subcontractor has to keep to schedule.

### Solution

Metnor decided to put their trust in CCF. They set up a supply chain agreement whereby we supply their interior specialists with the materials they need to work to Metnor's exacting deadlines. After that, all Metnor had to do was tell their subcontractors to come to us. We know who needs what and when. So we make sure they have it bang on time.

"The Winn Studio project is going well," says David Laidlaw, Metnor's Quantity Surveyor. "I've not had a single complaint from the subcontractors, which is always a good sign. The thing about CCF is that they're a one-stop shop. Their support is good and they're especially helpful on technical matters."

John C Wilkins is the acoustics subcontractor. They're installing the acoustic battens and chipboard for the acoustic subfloors. The two other subcontractors are Bill Mordue Interiors (Metsec steel framing) and Classic Excel (dry lining).

"It's a tricky site," says Wilkins's Contracts Manager, Peter Davis, "but we know CCF and what they can do. We've worked with them before on many other projects". Winn Studio is on track for completion in June 2011.



# INSULATION

August 2010

Insulation fill replaces eight weeks labour in an hour

## Situation

The 60 bungalows being renovated in St Helens by Helena Partnerships stood on unstable ground. The original builder overcame the landscape problems by digging deep foundations and laying suspended timber floors over the voids. Now those rotten floors had to be replaced with insulated solid floors. The trouble was, some of the voids were up to 2m deep. It was taking four men two weeks to barrow in the hardcore to fill each one. The project costs and schedule were beginning to slip.

Helena Propertycare, the operations arm of Helena Partnerships, approached Weber to see whether Weber Leca® insulation fill could do the job quicker. Weber contacted CCF, and Steve Foster, Sales Director of Flooring went to look at the site.

## Solution

CCF immediately saw that this was an ideal job for a lightweight aggregate like Weber Leca® insulation fill. Steve put a spec together that involved blowing it in from a single 55m<sup>3</sup> delivery truck.

Weber Leca® can be blown because it comes in the form of lightweight ceramic granules that have been treated to prevent them absorbing moisture. Each granule has a hard shell. In fact Leca is so hard, it's used to underpin roads and make blockwork.

Filling each underfloor void with Weber Leca® took less than an hour and involved just two men. It saved Helena weeks of delay, and about £6,000 in labour for each bungalow. Because Weber Leca® is itself insulating, there was no need for an insulation layer. After compacting, Helena covered the fill with a membrane, a steel mesh, and then pumped over with concrete.

The verdict from site project manager, Dave Williams, said it all: "I'll never use another piece of rubble to fill a void".



# CCF

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CCF offer a complete service to the interiors building industry specialising in ceilings, drywall, flooring, insulation, partitioning and fire protection. We hold comprehensive stocks of quality products and provide complete solutions for interior specialists, contractors and builders.

[www.ccf ltd.co.uk](http://www.ccf ltd.co.uk)

The logo consists of a white checkmark icon on the left, followed by the text "CCF know how" in a bold, sans-serif font, all contained within a white rectangular box with a slight shadow and a diagonal cut on the right side.