

WINTER 2023

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D&H MAINTAINS POSITIVE OUTLOOK

More than three years after COVID first arrived on the scene, D&H Steel remains quietly confident about its position in the steel construction industry, despite some ongoing rolling challenges. With Early Subcontractor Involvement, D&H is in a strong position to support its customers to navigate the reduced but ongoing uncertainty in the market.

Using the pre-COVID landscape as a benchmark, the cost and reliability of shipping have almost returned to normal. As a result, our supply chain, which was heavily disrupted by the pandemic, has largely recovered. And while the world steel price is still variable, the effect of improved shipping on our New Zealand pricing is a reduction in material costs in some cases.

Despite our commitment to training, sourcing workers was arguably the greatest challenge confronting local businesses during COVID. Unprecedented high demand for labour coupled with record low unemployment meant that companies were vying for a dwindling pool of talent that, in turn, accelerated wage inflation. That pressure has eased somewhat now that our borders have reopened. D&H, like many other businesses, has quickly tapped into the global labour market to bring welcome new talent on board.

That said, it is only providing short-term relief.

Skilled migrant workers in the structural steel industry are presently only eligible for a three-year work visa. With no pathway to residency, New Zealand struggles to compete with other destinations that have

more attractive immigration settings. The upshot is that there are fewer talented candidates to choose from. Our immigration framework warrants a rethink if we want to attract and retain high-quality employees.

Positively, the overheated market has cooled to a more temperate pace. There has also been a noticeable shift in the type of work: smaller jobs – modest retail and office spaces – are drying up while residential work, including apartments, has largely ground to a halt. Meanwhile, the big jobs are getting bigger. We are happy to report that we have a series of sizable, good-quality projects ahead of us.

Escalating labour and overhead costs remain a constant challenge for our business, despite signs of cooling down. For one thing, the cost-of-living crisis continues to fuel wage inflation.

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STEEL CONSTRUCTION

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And in the past few months we've been hit by a series of large increases on other fronts – carbon dioxide, transport, rent and electricity supply.

For the latter, our provider has hiked its rates by a massive 30 percent. This affects our operating cost and charge-out rate.

We recognise, too, that our customers are facing challenges. Early Subcontractor Involvement (ESI) remains the most powerful tool for combating ongoing market uncertainty and alleviating budget pressures, particularly for large-scale projects. ESI is about working smarter, together, sooner – smarter with design, smarter with procurement and smarter with the programme. It's a collaborative model that allows customers to take full advantage of our knowledge and experience to provide value engineering and mitigate cost increases. It's a win-win.

Wayne Carson, Managing Director
D&H Steel Construction

INNOVATION INSPIRES AT US CONFERENCE



In other news, D&H Steel attended the American Institute of Steel Construction's conference in North Carolina, USA, during April. The event, which catered to some 6,000 delegates, is the first overseas event the business has attended since before COVID.

The three-day event featured an exhibit hall packed with 250 innovations, and 200 lectures on topics from environmental sustainability and health and safety to detailed engineering design and quality.

D&H was impressed with the advances the structural steel industry has made in that time. So much so that D&H will likely adopt some of the innovation on display.

"It's clear that, internationally, the steel construction industry remains very strong and very progressive," says D&H Steel Managing Director Wayne Carson.



A BLOODY GOOD CAUSE

Like every other Kiwi, the D&H Steel team was deeply shocked by the devastation caused by Cyclone Gabrielle, especially to the Hawke's Bay communities. And, like so many others, the company resolved to throw its support behind the recovery effort.

D&H's aim was to support initiatives that would have a positive long-term effect on employment in the area.

"When our research led us to the Evergreen Foundation, we knew we'd found the perfect match," says D&H Steel

Managing Director Wayne Carson.

The Foundation established the Cyclone Relief Fund to aid the recovery of the region's vital agriculture and horticulture industries – by far the two biggest local market sectors, and employers, affected.

"We were pleased to be able to donate much-needed funds to support this worthy cause," says Carson.

"We've been supporting those most in need in the horticultural and agricultural sectors and the generous donation from D&H Steel gave a welcome boost

to our fund as the need continues to far outweigh the funds available," says Evergreen Foundation Marketing and Communications Manager Lisa Nairne.

Nairne says the Foundation has received some amazing feedback from families who have received assistance over the past three months and its key initiatives are continuing to focus on making a tangible difference on the ground.

"We know it is a long road ahead but with support such as D&H's, we can show our primary producers a little bit of light at the end of the tunnel," says Nairne.



SYLVIA PARK BTR: SIMPLE AS ABC

D&H Steel has a well-earned reputation for maintaining performance in the face of change. It proved its ability to adapt at pace on Kiwi Property's build-to-rent (BTR) project at Sylvia Park.

This project will be one of the first BTR developments in New Zealand and presents a new direction for multi-residential dwellings. BTR is a form of medium-to-high-density residential apartment development, specifically built to provide long-term rental housing.

This BTR project consists of three towers, rising out of a central podium structure: one 12-storey building, 'B', and two nine-storey buildings, 'A' and 'C'.

"I describe them as B, A and C because that's the sequence in which we hand over the buildings at the end of the project," says Naylor Love Project Manager Chris Bourke.

All three buildings comprise structural steel, Comflor, in situ shear walls and double-T precast floor units. The hybrid structures require more subcontractors, more shop

drawings and more coordination. What's more, they each have different geometry.

"We almost have three separate buildings with twice as many subcontractors as usual involved in the superstructure," says Bourke.

D&H worked on the shop drawings as the structural steel design was being developed. This meant it could get well ahead of the curve and adapt its programme – from site deliveries to on-site erection – to suit Naylor Love's requirements and keep the project running.

"Together, we anticipated the risks and managed them well. Through regular meetings and good, open communication, we teased out as much as we could in the shop drawing process. The result was little, if any, issues on site," says Bourke. "When we identified opportunities to get ahead, D&H was on board, able to adapt to help us maximise each opportunity."

The staggered build sequence presented its own difficulties, which were amplified

Steel columns and beams are brought to site and immediately installed in the structure; there is no space on site to store the steel.

by the act of building three towers concurrently using just two tower cranes on a confined site. There were many moving parts.

Construction was split into multiple work packages that required precise delivery dates to be met, some of which were planned well in advance. As there was limited lay-down space for the steel, D&H worked closely with Naylor Love to stage deliveries to suit the dedicated areas set aside for the steelwork before it was erected – for every level of each building.

"Once the plan is in place, that's half the battle won. While things change, you just need to keep each other updated, adapt as needed and keep it moving," says Bourke.

Completion of the superstructure is expected in the next few months when work will begin on fitting out the 295 apartments. The D&H team progressing the project include Site Manager Kevin Deane, Site Supervisors Heneliko Taimovai and Brett Carroll, and Quantity Surveyor Edna Bondoc.

FIRST STEEL COLUMN CELEBRATION AT AUCKLAND INTERNATIONAL AIRPORT

"D&H are very conscious this is an operating airport and they understand the challenges of working in this unique environment."

*Mark Tracy-Inglis, Project Director
Terminal Enabling, Auckland
International Airport*

The erection of the first steel column for the construction of Auckland International Airport's new East Baggage Hall was recent cause for celebration. The column was fabricated, delivered and installed in line with the programme where the date was locked in a year in advance. Successfully hitting this target is proof of the power of collaboration and Early Subcontractor Involvement.

The first steel column is a significant milestone in a suite of terminal integration enabling projects and will allow the following stages to progress on time. When complete, the integration project will see a new domestic jet terminal located adjacent to the international terminal, facilitating seamless travel between international and domestic.

D&H has a long history of working at the Airport, largely alongside Hawkins. To date, it has delivered the bulk of structural steel contracts for projects at the site near Māngere.

Below: D&H Steel team on site at Auckland International Airport celebrates the first steel column milestone with the wider project team.



D&H TEAM EARNS SAFETY AWARD

D&H Steel is proud to report that its site team for Auckland International Airport earned Hawkins' Site Safety Award for May. Hawkins Project Manager Peter Hewitt thanked the D&H team for its ongoing commitment to the safety scheme.

"It has been great to see the effort the [D&H] team has put in. The works have been really well controlled. Karl Muller and the team should be really happy with the well-deserved award."

Right: D&H Steel site crew (L-R): Darren Prinsloo (Hawkins), Ian Bueza, Mariano David, Michael Torrente, Bernard Manalo, Karl Muller, Quintus Slabber (Hawkins).





CRUSHING WASTE

D&H Steel is a chartered member of the Sustainable Steel Council. This membership, with its 'broader outcomes' lens, recognises D&H's efforts towards improving the sustainability of its operations – financial, social and environmental.

A recent example relates to the company's waste mitigation and management measures, which focus on eliminating, reducing, recycling or reusing waste items.

D&H produces around 100 empty 20L paint cans per week. The waste filled a 4.5m skip every three-four weeks, which was then sent to the recyclers with the steel scrap value only offsetting the cost

of transport. But the recent acquisition of a can crusher has had a massive impact.

The can crusher has greatly decreased the volume of empty cans and the number of trips to the recycler to two-three times a year. More, it has greatly reduced the number of truck movements, congestion in the yard and CO₂ emissions. It also now generates revenue from the recyclable steel scrap, rather than only offsetting the cost of transport.



HOTEL GRAND CHANCELLOR

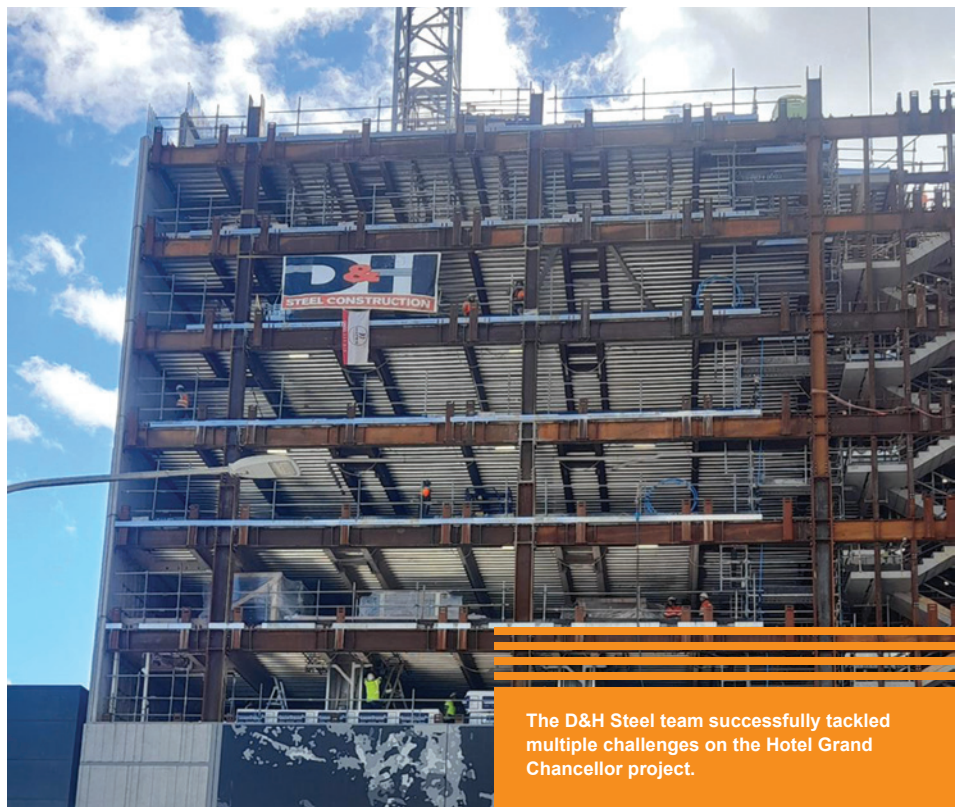
D&H Steel overcame plenty of challenges to deliver the steelwork for what will soon be Auckland city's latest hotel offering.

Hotel Grand Chancellor is a new 12-storey, 191-room development under construction in central Auckland. Spread across 10 levels, the 10,050sqm hotel will sit on a two-level podium and include a central 'green' courtyard. The hybrid structure features a structural steel core attached to precast shear walls.

Ask D&H Steel Site Supervisor Jimmy Noble what the biggest challenges were and he'll name a few. Top of the list was the weather and its impact on deliveries. With the construction market operating at its peak, D&H partnered with Christchurch-based structural steel contractor John Jones Steel. The logistics were thrown time and time again by the series of ferry breakdowns in the Cook Strait. The team had to adjust the sequencing multiple times in response.

"Things would just begin to settle down and Mother Nature would throw us another curveball," says Noble. To avoid any downtime, D&H reserved areas of the site unaffected by delays "so that the boys could keep working all the time".

Another challenge facing the site team was the requirement to have 100 percent of the welds tested on site. All of the cleats that fixed the steel to the concrete panels had to be tested prior to the steel being erected.



The D&H Steel team successfully tackled multiple challenges on the Hotel Grand Chancellor project.

"It dictated how the building went together," says Noble.

The site is enclosed on three sides, with one street-facing façade.

"And it's a wind tunnel," says Noble, relating another challenge. Once again, the team had to adapt to the conditions. "The way we put

things up had to change slightly; we couldn't just fully erect all the columns. We had to box it out, which meant erecting four columns, tying in the beams and repeating."

The D&H team successfully rose to each challenge that presented itself. The hotel is slated for completion later this year.



ALL EYES ON NEW WAREHOUSE

A new warehouse and office space is taking shape at Auckland Airport's Landing Drive business park. It will stand out from the rest with striking feature steel 'eyelashes'.

Working with Q Construction, D&H Steel is providing the structural steelwork for Reece Plumbing's new premises. With an overall footprint of close to 16,000sqm, the main warehouse is 72m wide by 221m long, 13m high at the knee and 16m at the apex.

The project marks the first CWB warehouse structure designed by D&H engineer Jikun Yin that will be built. Yin has enjoyed the entire process from designing the steelwork

to project managing its on-site erection. "It's exciting to see a design I've worked on come out of the ground."

To achieve the wide span, the main warehouse structure is being constructed with Custom Welded Beams, which are designed and manufactured in-house by D&H. The solution facilitates large open spaces, uninterrupted by columns, allowing the end user to adapt the space to its needs.

"We design a bespoke Custom Welded Beam solution for each different project," says Yin. "It means that the steel is used optimally, saving on weight and reducing the carbon footprint."

The building will include more than 700sqm of office space. JWA Architects has included exposed steel as a feature in the design. Sections of large, curved steel plate will be combined with vertical steel sections to create an 'eyelash' effect, which will adorn the street-facing elevation.

"They are big arches, which look very beautiful on paper," says Yin. "A big part of our job is to take the architect's imagination and bring it to life by ensuring that it is buildable."

D&H's work on site is due to conclude in September.

D&H NOTCHES UP ANOTHER ESI SUCCESS



D&H Steel workshop and office employees enjoy a field trip to view the completed steelwork structure on site.

The primary steel structure for Tōtara Haumaru, a four-storey hospital being built for Te Whatu Ora's North Shore campus, has been successfully completed by D&H Steel.

The Early Subcontractor Involvement (ESI) project features 2,200t of structural steel. Hawkins Project Lead Phillip Helleur has enjoyed working with the D&H team, which he says is always raising the bar in the structural steel space.

"D&H's input to the modelling and the BIM process has been the most valuable part of this project. The team that delivered the front end of the job really laid the platform for success," says Helleur.

When complete at the end of the year, the facility will provide eight operating theatres, an endoscopy unit, five 30-bed inpatient wards and a 'healing garden' set in an interior courtyard.

"Hawkins has a long-standing relationship with D&H and, together, we have delivered some iconic projects – this will be another of them," says Helleur.

The steelwork was overseen by D&H Steel Site Supervisor Dean Rafferty, and involved Project Manager Sam Wells, Detailers Wayne Peachey and Wendy Sang, and Quantity Surveyor Jamie Moxon.



Left and above: 28m-long pool rafters delivered to site full length, ready for easy installation.

Below: D&H Steel General Manager Richard Hine (left) shakes hands with Project Director Steve Ritchie on site.



JOB DONE: D&H COMPLETES UOA CAMPUS PROJECT

D&H Steel's work on the primary structural steel for the University of Auckland's new Recreation and Wellness Centre is complete. It was engaged in an Early Subcontractor Involvement (ESI) capacity and has continued to work closely with main contractor Hawkins.

"I've been in the industry for 40 years and it is the most collaborative job that I've worked on," says Hawkins Project Director Steve Ritchie. "It is also the most complex job I've ever done, particularly in terms of all the steel sizes and the complexity of all the connections."

While the large diagrid frame dominated the early phase of the superstructure's construction, the massive 33.5t roof trusses and 18t pool rafters completed it. These items were among the last big elements to come to site.

Measuring 36m long by 6m deep, the roof trusses for Sports Halls 1 and 2 were made in three sections in D&H's workshop and brought separately to site on special

transporters. The trusses were bolted together on the slab below. The floor wasn't designed for such a high load so D&H assembled the trusses vertically on a completed slab on steel beams and over existing columns to spread their weight. The trusses for Sports Hall 2 were able to be fully assembled and were installed with a tandem lift using the two tower cranes. For Sports Hall 1, the first section of truss was installed and supported while the other two sections were connected on the slab below and then lifted into position.

D&H also identified it was more efficient to attach the metal decking safety nets to the trusses while they were being assembled at low levels on the slab. This was done by slinging the nets over the top cord of the truss just before final lifting and enabled the use of standard access equipment rather than tying up D&H's specialist machines that their erectors were using to install the trusses into their final position. This approach saved valuable time.

Meanwhile, the awkwardly shaped pool rafters presented their own challenge.

Measuring 28m long and up to 5m wide at one end, they, too, were fabricated off site at D&H's workshop. It eliminated any propping required to hold them up in the air over the pool void and reduced the amount of on-site welding required.

But the approach posed a transportation challenge. D&H sourced the only two trailers in New Zealand sufficiently large to bring the cumbersome sections to site.

"D&H are very proactive. If there's a problem, they'll fix it," says Ritchie. "Collectively they can think outside the box to come up with the right solution."

The Centre is scheduled for completion in 2024.

The project was in good hands under D&H General Manager Richard Hine and with Project Manager Sam Wells leading the team, which was overseen on the ground by Site Supervisors Kyle Finch, Matt Sinclair and Bruce Miller, and supported in the office by Quantity Surveyor Shabbir Rajkatwala, and Detailers Guy Jamison, Wendy Sang and Sue Lemmens.

- + Project Management
- + 3D Modelling & Shop Drawings
- + Fabrication
- + Protective Coatings
- + Site Management & Erection

D&H was the first steel constructor in NZ to be awarded this International Quality Accreditation. We comply with ISO 3834 for the benefit of our clients.



ISO 3834 Part 2
Certificate No. 001NZ/2014

We were also the first to acquire Steel Fabrication Certification - a quality management system under the auspices of the IIW (International Institute of Welding).



We manufacture all the commonly specified welded beam and column sections and provide a free design service for optimised, tapered portal frames. Our custom welded beams are made from G350 steel and welded on both sides.



GAS: BULK SUPPLY DRIVES SAVINGS

Argon/CO₂ mix, which is used for welding, was supplied to D&H Steel in a 'manpack' – 15 gas cylinders supported in a steel frame. Three truck visits per week were required to pick up the empties and replenish the stock levels.

By switching to bulk liquid Argon/CO₂, only one truck visit per week is necessary, generating a 20 percent cost saving. It's a win-win all round.



D&H STEEL: A LEAGUE OF THEIR OWN

If you missed out on a copy of *A League of Their Own*, the book D&H Steel commissioned to mark its 50-year anniversary, or if you'd like to recommend it to someone else to read, you'll be pleased to know you can now access it online. Simply visit the 'Our History' page on D&H's website and click on the link at the bottom of the page.

D&H: PROUD HOODIE SPONSOR

Welder Rod Allen's son RJ plays junior rugby for a West Auckland club and D&H Steel is proud to be the team's hoodie sponsor. The Massey J5 Blue team has started the season well with two wins and one loss.



NEW STARTERS



Workshop supervisor **Allan Gidman** joins D&H Steel with 47 years' industry experience. On weekends, there is nothing Allan enjoys more than heading down to Waihi to relax and enjoy a beer with his mates.



Stefan Lidderd moved to New Zealand from South Africa in 2022 with his wife and two sons. With 13 years of drafting experience he is a welcome addition to D&H's detailing team. He is passionate about rugby; no longer playing the game, he coaches his son's team instead.



Phone one of our team today. We'd love to hear from you.

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