



Tender Addendum

March 2024

Steel & Tube Reinforcing
113 Savill Drive, Ōtāhuhu
Auckland 2024
E-mail: reo.sales@steelandtube.co.nz

Steel & Tube is proud to offer our Clients a full range of products and services to meet the requirements of their projects. From the floor under your feet to the roof over your head, and the nuts and bolts in between - we have been building New Zealand from the ground up since 1953.

We are a proud New Zealand company - locally owned by every day New Zealanders - and staffed with passionate kiwis that really care for this country and all we stand for. Our people are our greatest strength - the steel backbone of our company. We're passionate, innovative, capable and proud of what we do.

We have expertise right across the construction industry - and love nothing more than helping our partners to create better projects and build better outcomes. Like the rest of the country we have been through the wringer at times - but we have worked hard to come out stronger and better equipped to create a positive future. Now we are in a great position - and we believe that New Zealand is too.

As a listed company we have strong governance and we're on a sound financial footing. We have an amazing team of people and truly believe that we are stronger when we all work together. We have brought together a group of experts and capabilities from brands that you may have known for a long time - all under one roof with a reach right across the country.

Refer to **Appendix G** for a brochure on all the capabilities and products that S&T can offer NZS in addition to the Reinforcing material for this project. Examples of where opportunities could exist include:

- Steel
- Roofing & Cladding
- Mesh & Reinforcing
- Stainless Steel
- ComFlor
- Pip & Cable Support
- Hurricane Rural & Fencing
- Fastenings
- Chain & Rigging
- Plumbing & Drainage

We would be happy to discuss how leveraging these other items could provide financial benefits to your project. You can view the full S&T product range at <https://steelandtube.co.nz/products>.

ABOUT THIS ADDENDUM

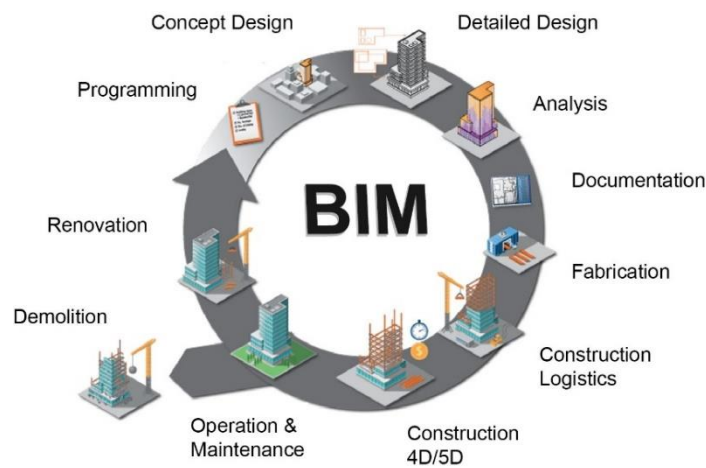
- APPENDIX A - 3D BIM MODELLING CAPABILITIES
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APPENDIX A – 3D BIM MODELLING CAPABILITIES

Steel & Tube have recently heavily invested in 3D modelling software. The generation of a 3D model allows the identification of any clashes and design errors and also identifies cast-in components, penetrations and services upfront.

We have undertaken a significant revolution on how reinforcing detailing is approached and managed internally and we are now moving towards implementing a full 3D BIM modelling process for the reinforcing detailing which will add significant value and support to our projects from the estimation phase through to site installation.

We believe 3D BIM modelling will minimize detailing mistakes and clashes at site, reduce the need for urgently ordering replacement bars (which in turn helps to avoid budget overruns) and will assist the important reinforcing trade to keep up with the construction programme.



The Benefits of a 3D Model for Your Project

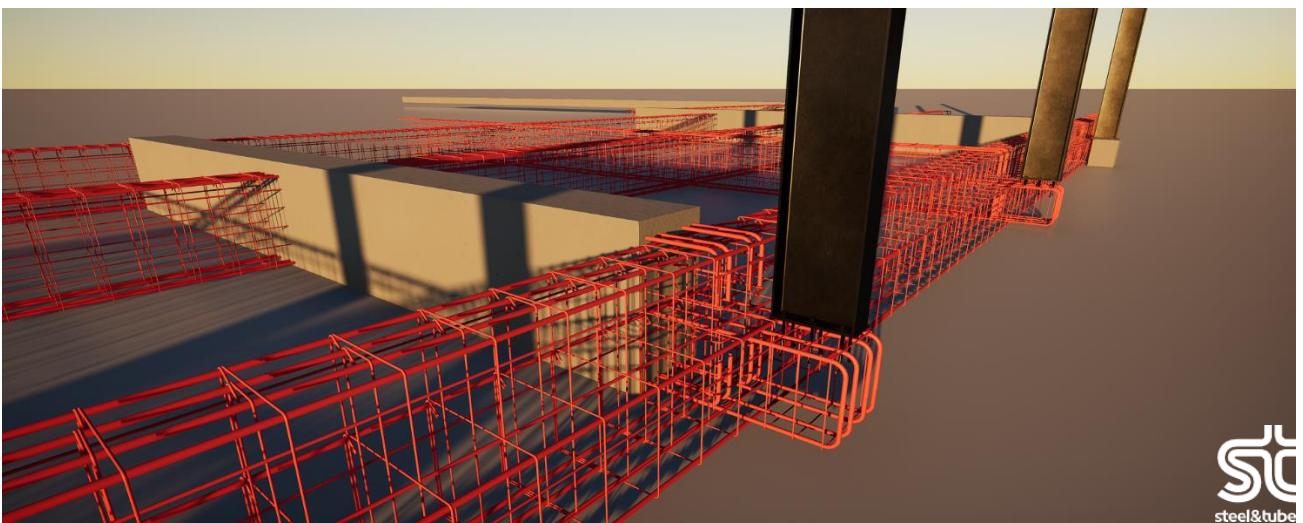
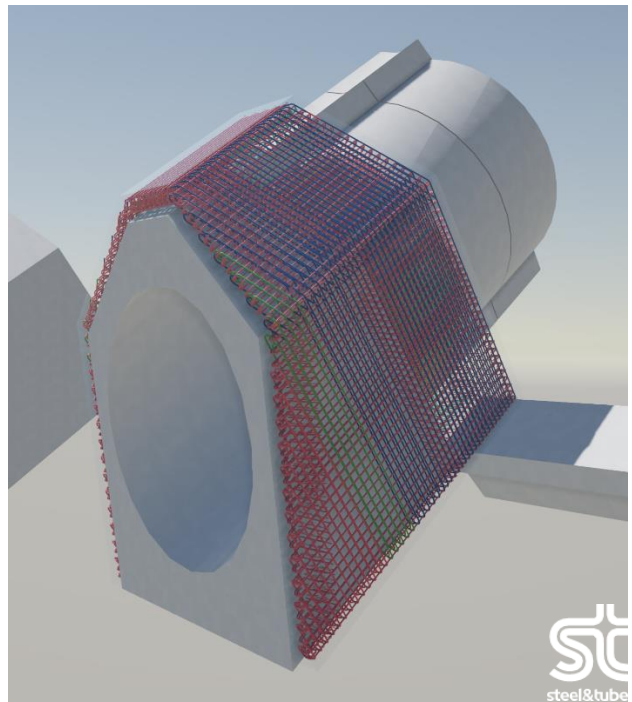
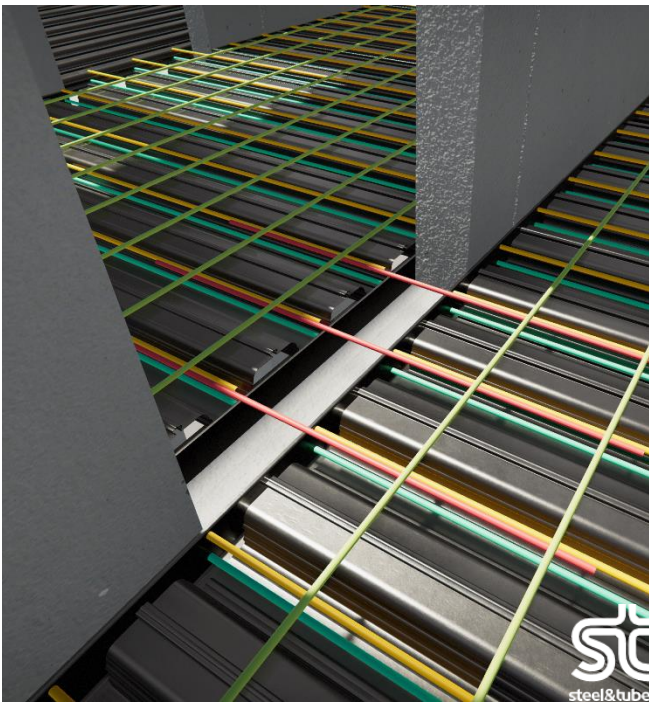
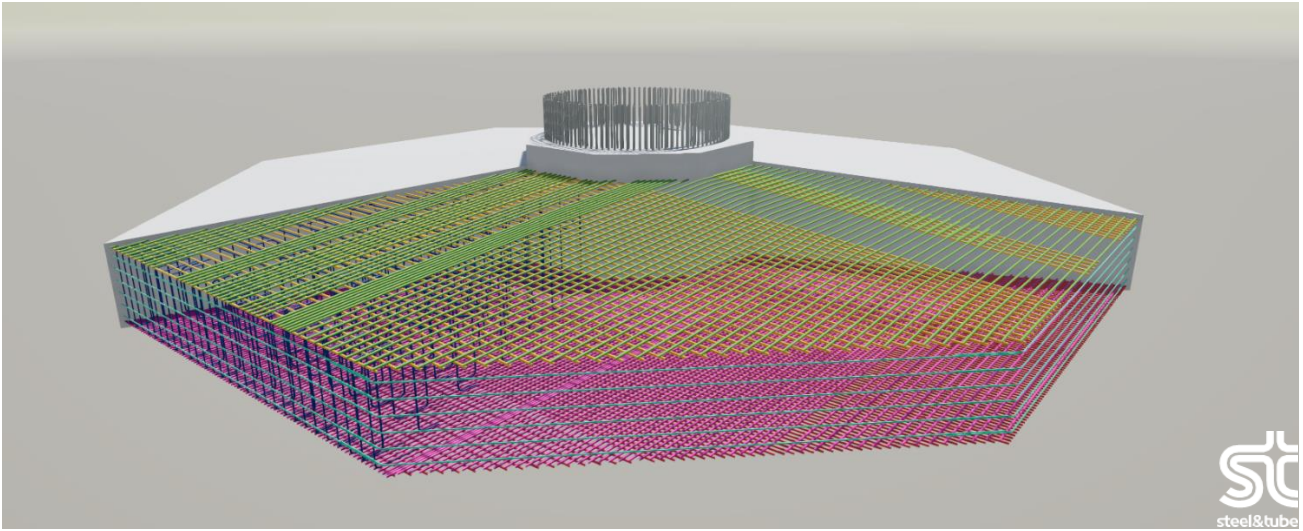
A 3D BIM model will not only provide the standard information usually contained in a drawing but will also create a central internal database containing all the reinforcing information related to the project and will interface with our production teams and machinery to guarantee the final product 100% matches the 3D model, minimizing human error and maintaining a consistent level of accuracy.

Our ability to seamlessly integrate with other BIM software, to share the 3D model in various formats and the ability to load external models from other disciplines, allow us to run inter-trade clash checks before any of the materials are manufactured, resulting in significant savings in time and cost for the project on site.

Due to its parametric nature, once the 3D model is created it is simple to adjust the geometry based on the “for construction issue” drawing set and having the model updated accordingly without the need to fully remodel the reinforcing. Complex shapes, curves and challenging reinforcing geometries will no longer be a problem, with 3D visualization simplifying the process and highlighting issues from the start.

Early steel detailer involvement and digital modelling is bringing clear cost and time advantages to some of our recent projects. As reinforcing specialists, we can add real value by modelling the steel during developed design. It allows the whole team to front foot issues, improve co-ordination, buildability and sequencing.

3D modelling allows us to tackle any type of project, from a small private residential job to a multistorey building or a large highway bridge structure, making it the perfect tool to answer our Clients’ needs, maximize our efficiency and deliver projects with consistent confidence.



The generation of a 3D BIM model gives us the capacity to streamline the entire manufacturing process and adds value in many different areas, including:

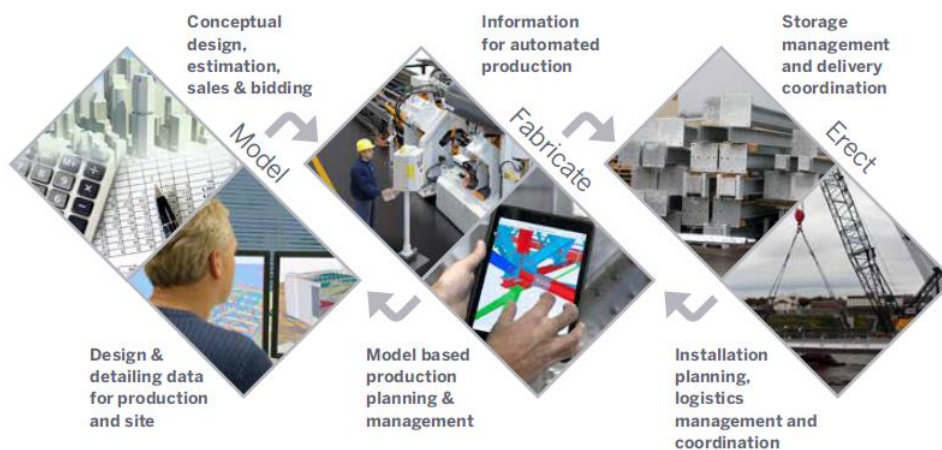
- Consultation during the design process with designers/consultants
- Fast and accurate generation of detail sheets and shop drawings
- Accurate forecast of final tonnage early on in the process
- Less errors during fabrication of materials in the workshop
- Identification of opportunities to prefabricate materials in the workshop and at site
- Assisting the installation team at site with visualisation of the reinforcing in 3D on a tablet or other device

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Why 3D BIM Modelling?

- One single model from Design to Final Construction
- Possibility to share information and models with other trades
- Coordination with other disciplines/trades
- Minimize errors
- Change management undertaken reliably and efficiently
- Optimization of production, prefabrication and on-site installation

Powerful in Every Step



3D Modelling During the Estimation Phase

For some of our key projects, the 3D modelling commences during the estimation phase, evolves with the project and tracks all changes, providing full confidence on the final quantities and includes:

- The ability to model any part of the project, down to small details including accessories and consumables, provides better control of the project and inventory
- Generation of preliminary material reports directly from the model
- Interfacing with aSa estimation and manufacturing software
- Creation of a preliminary 3D.IFC model for information sharing with other disciplines

3D Modelling During the Detailing Phase

- Full model completed and updated based on “for construction” drawings
- Changes and variations can be tracked and implemented in the model
- Clash checks to avoid issues on site
- Dimensional checks for transport to site
- Pre-fabrication planning based on the generated model
- Creation of final 3D .ifc model

3D Modelling During the Production & Prefabrication Phase

- Interface between 3D Modelling software and aSa for production and management purposes
- Information from the model is sent to the CNC machines for production
- 3D .ifc final model is distributed to the Client, Prefabricator and Production Team
- GA drawings are created for site final installation

Project Type and Size

- Any size of project can be undertaken from small foundation slabs to multi storey units, warehouses along with infrastructure such as bridges and tunnels

Expertise

- Our detailing services are available in our main locations: Auckland, Hamilton, Palmerston North, Wellington and Christchurch
- Training is continuing across all our offices to ensure all our detailers and estimators are utilising this leading-edge modelling software to the best of its abilities

APPENDIX B – ENVIRONMENTAL & SUSTAINABILITY

Our focus is on delivering what our customers want, in a profitable manner that has a positive impact on our people, communities and the planet, while continuing to grow our business and deliver value to shareholders.

Sustainability Focus

Our focus is on delivering what our customers want, in a profitable manner that has a positive impact on our people, communities and the planet, while continuing to grow our business and deliver value to shareholders.

Sustainable Steel

Steel is one of the world’s most essential and sustainable building products – permanent, forever reusable and the most recycled substance on the planet. On a cradle-to-cradle basis, steel’s environmental performance compares favourably to other materials such as concrete and timber. In New Zealand, it is estimated that 85% of steel from demolition sites is returned to steel mills for recycling. Extending the life of a structure enables more value to be extracted from the resources invested to build, operate, and maintain it. Steel’s thermal mass properties keep buildings cooler in summer and warmer in winter, reducing the reliance on air conditioning and heating. For many construction applications, steel is the only choice.

However, we are mindful of the greenhouse gas emitted during steel’s production. We are closely monitoring new technologies to decarbonise steel but are conscious these are still in the very early stages. In the meantime, we are focusing on initiatives to control our operational emissions, optimise energy consumption and minimise waste. Our investment in technology is an important enabler of our progress towards reducing our carbon footprint. We are also actively looking for sustainability progress with our key vendors.

FY22 Highlights

<p>Operational & Supply Chain Excellence</p> <ul style="list-style-type: none">• Resource efficiency and waste reduction• Financial performance and corporate governance	<ul style="list-style-type: none">• Fortress IT operating group integrated into the group• Enhanced supply chain, inventory management and pricing disciplines• Initiated battery recycling programme• Commence programme to replace lights with LED bulbs at all operating sites for an expected 20% reduction of Scope 2 emissions• Utilising telemetry in vehicles to improve driving behaviour and optimise routes, thereby reducing fuel consumption and GHG emissions	<ul style="list-style-type: none">• Achieved Gold certification from Sustainable Steel Council• Continued to develop expertise in low carbon infrastructure e.g. windfarms, solar energy farms• Carbon offset ability for customers on reinforcing steel• Recycled 98.3 tonnes of material destined for landfill and 2,630 tonnes of scrap steel• Renewed Environmental Choice New Zealand certification through NZ Steel for a number of Roofing products
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ESG Profile

“We have partnered with ESG World to generate a real-time cross-section of our business practices across all Environmental, Social and Governance factors. Our long-term aim is to operate our business in a way that is financially rewarding for our shareholders and positive for our people, our customers and our planet. Adopting ESG World will ensure that our stakeholders can easily and objectively review our sustainability performance.”



Please click the following link to access our Steel & Tube ESG Profile: [Steel & Tube ESG Profile](#)

Sustainability Timeline

FY22 Completed	FY23	FY24
<ul style="list-style-type: none">• Invested in dedicated resource to act on Steel & Tube's climate goals• Completed design phase of ESG system: Accelerate2Zero• Initiatives undertaken to support Steel & Tube's sustainability goals• Board director appointed to champion sustainability	<ul style="list-style-type: none">• Verify material topics with external stakeholders• Integrate sustainability and strategy into one framework• Deployment of Accelerate2Zero underway• Identify climate related risks and opportunities for Steel & Tube• Validate approach to Climate-related Disclosures and reporting framework• Continue with initiatives undertaken to support Steel & Tube's sustainability goals• Set ambitious carbon-reduction targets in line with Science-based target setting	<ul style="list-style-type: none">• Integrate management of climate related risk and opportunities into risk framework• Implement external assurance process in respect of GHG emissions• Commence Climate-related Disclosures reporting• Continue with initiatives undertaken to support Steel & Tube's sustainability goals• Show progress against carbon-reduction targets on an annual basis

Steel & Tube have further identified focus areas that will help us to meet our goal of doing business in a way that is financially rewarding for our shareholders and positive for our people, our customers and our planet. In the next few months, we will be surveying key stakeholders to take into account their views. We will share the outcome of this work at the end of FY23.

Resources

- [Sustainable Steel Council Certification](#) (99.7 KB)
- [Sustainability Policy](#) (105.64 KB)
- [Environmental Policy](#) (182.25 KB)
- [Environmental Choice certification](#) (1.24 KB)
- [SCNZ Chartered Bolt Importer](#) (466.71 KB)
- [SCNZ Chartered Distributor](#) (752.01 KB)
- [Community Involvement initiatives](#)

Steel & Tube maintains a strong focus on the reduction and elimination of waste going to landfill (we recycle paper, printer cartridges, steel off-cut, timber). All product that is shipped from our facility at Savill Drive is:

- bundled and pre-slung with reusable strops
- if the components are small, they are placed in reusable containers and or bags
- secured to truck decks with reusable ties that remain with the truck
- All reinforcing that is left over after the project is sent to recycling or repurposed for another project.

Apart from the specifics mentioned above, please refer to the [Sustainability section at our website](#) for a full Sustainability Overview detailing the wider journey S&T has embarked on as far as sustainability is concerned.

APPENDIX C – HEALTH & SAFETY

Zero Harm is of critical importance to S&T and as a company we firmly believe that accidents are preventable. S&T have an overriding commitment to creating a safe and healthy workplace, as well as encouraging environmental responsibility and supporting sustainable developments within our company and our clients' projects.

At the end of a long, hard work day it is our goal to ensure that all our staff return to their families safely.

As such our team will be focused on providing our Clients with service that meets OH&S (Work Wise) legislative requirements and industry best practice for safe project execution.

Our dedication and philosophy to Health & Safety are applied to all our projects and as such our Clients can be confident that the reinforcing trade is safe in the capable hands of a company that prioritises Health and Safety above anything else.

Apart from the specifics mentioned above, please refer to the [Health & Safety section at our website](#) for a full overview detailing our H&S journey. Please also use the link to find the certificates at our website.

APPENDIX D – QUALITY

S&T has an effective Quality Management System (QMS) in place which is used to manage the quality of the supplied products or service to the agreed standard with our Clients.

The Quality Management System used by Steel & Tube is designed to specifically meet the objectives of our Clients. The system is flexible, focused, easy to use and encourages innovation. Our approach to quality is to intensively manage key areas of risk.

Steel & Tube places high emphasis on ensuring quality is proactively managed in a manner that simplifies the process for all the stakeholders. Examples include:

- The manufacturing process from raw material supply to delivery of finished goods on site.
- The process for inspection during prefabrication and installation.
- S&T uses the Procore software tool to digitise the QA process to eliminate waste time manually recording and uploading QA paperwork.

Apart from the specifics mentioned above, please refer to the [Quality section at our website](#) for a full overview detailing our commitment to quality.

APPENDIX E – PAST PROJECTS

Below is a list of projects that demonstrate S&T's capability to competently supply the reinforcing for your project.



Project

Te Kaha Stadium Substructure

Customer

Besix Watpac

Description

1,600t of in-situ substructure works

Project Duration

2022-2024



Project

Harapaki Windfarm

Customer

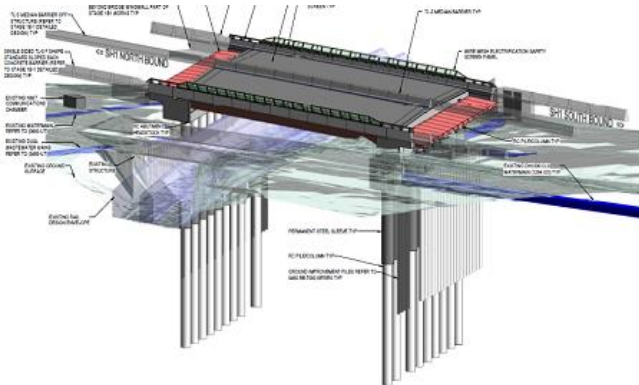
Spartan

Description

3,650t of wind turbine bases and pile cages

Project Duration

2022-2024



Project

NIMT Bridges

Customer

Fulton Hogan

Description

461t of bridge deck, abutments, and in-situ walls

Project Duration

2022-2023



Project

Nelson Wharf Upgrade

Customer

McConnell Dowell

Description

870t of in-situ slabs and pile cages

Project Duration

2020-2021



Project

Foundation Precinct 1

Customer

Kalmar

Description

644t of foundations and floor slabs

Project Duration

2020-2021



Project

CRL C1

Customer

Downer & Soletanche Bachy JV

Description

1,500t in-situ works

Project Duration

2019-2021



Project

UoW The Pa

Customer

Hawkins

Description

520t in-situ works

Project Duration

2020-2021



Project

Massey University

Customer

Southbase Construction

Description

713t in-situ works

Project Duration

2020-2021



Project
Napier Wharf 6
Customer
HEB
Description
1,900t of piles (400 piles)
3,100t in-situ deck works
Project Duration
2020-2022



Project
Mangere Pumping Station
Customer
Ghella Abergeldie JV
Description
1,500t of in-situ & prefabricated segments
Project Duration
2020-2021



Project
SH1 Papakura to Drury Improvements
Customer
Fulton Hogan
Description
585t of bridge deck, abutments, piers, pile cages,
and in-situ walls
Project Duration
2021-2022



Project
Puhoi to Warkworth Motorway
Customer
Fletchers Construction & Acciona JV
Description
2,100t of in-situ bridge deck
320t of pile cages
Project Duration
2018-2020



Project
Arras Tunnel - Wellington
Customer
HEB
Description
2,000t pile cages, raft slabs, and in-situ walls
Project Duration
2014-2015

APPENDIX F – COMMUNITY INVOLVEMENT INITIATIVES & SOCIAL OUTCOMES

Actively supporting the communities where we live and work is important to S&T and to our people.

Our support includes donations made to a myriad of worthy causes including the Common Unity Project Aotearoa, Koru Care Charitable Trust, Ronald McDonald House, the Westpac Rescue helicopter and Burns Support – but hands on help to raise both funds and awareness for organisations which make a real difference to people's lives is key for the business and many of our staff.

- A. S&T have signed up with Tapu Toa (attached Partner Agreement) a charitable trust whose purpose is to increase diversity of Maori & Pasifika representation in business, community and leadership roles in NZ. We recognise this is a huge opportunity which can only be viewed as mutually beneficial.

In Taranaki, S&T have been actively involved with the Western Institute of Technology in providing insights and exposure to students wanting to consider engineering as a future pathway.

- B. S&T is also connected with MBIE in SWEP (Sector Wide Engagement Programme) and in particular Papakura High School. The school will select students to come and spend 1 day a week across our sites and rotate across the different business units.

Edvance is a workplace literacy programme designed to provide developmental opportunities for staff. S&T implemented this programme early in 2019 (7 staff based in Avondale). S&T seized the chance to build on the continued success by engaging 12 staff from 3 different sites (where 9, 75% of this cohort) are Pasifika and Maori staff.

- C. Collaboration with Local Communities & Training Providers:

- Stand in the Gap:
 - Health & Safety workshop seminars "Stand in the Gap – Building a Safe Culture in the Workplace" are delivered by Wiremu & Marsella Edmonds.
- Mates in Construction:
 - S&T was also pivotal in being part of "Mates in Construction" which was launched in October 31st, 2019, with an aim to improve awareness of the significance of suicide to help mates in construction.
 - S&T is proud to have taken the role as a founding member.
- Victoria University:
 - In association with Victoria University, S&T Roll forming has been part of the latest 3rd year design student project and supported a prototype for X Frame which is designed to be a new way of building with minimal waste. S&T donated both consultation time and roofing to this project.



Please refer to the [Supporting Our Communities](#) section section at our website for more details about the worthy causes we support. Please also find below further information about Social Outcomes proudly supported by Steel & Tube.

APPENDIX G – STEEL & TUBE PRODUCT RANGE

Please refer to the following brochure on all the capabilities and products that S&T can offer for your project. Examples of where opportunities could exist include:

- Steel
- Roofing & Cladding
- Mesh & Reinforcing
- Stainless Steel
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- Pip & Cable Support
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