

Notes from the Accord Steering Group on the Infrastructure Strategy consultation document

Environment, sustainability and climate change

The construction and demolition (C&D) industry is one of the largest waste producing industries in New Zealand. C&D waste may represent up to 50% of all waste generated in New Zealand. Much C&D waste can be reduced, reused and recovered, dramatically decreasing the amount thrown away. The sector currently accounts for around 20% of New Zealand's carbon emissions, through the energy and materials used in buildings.

The Accord agrees with the change needed under Building a Better Future, including the preparation for climate change, and the transition energy infrastructure for a zero-carbon 2050. In late 2020, the Accord established the Environment Workstream to focus on improving environmental sustainability, and supporting the construction sector to prepare for changes to the way we build due to climate change.

By September 2021, the Environment workstream will identify short and long term goals and the role of the Accord to support the sector to meet its environmental goals. To date the workstream has acknowledged several factors for the construction sector, including waste. The workstream will ways in which the sector can minimise its impact on the environment throughout the construction and building cycle.

The workstream will also build on and support existing government initiatives already underway. This includes supporting the Government's carbon emissions goals and initiatives like the Building for Climate Change Programme (BfCC). BfCC is working on reducing emissions from buildings during their construction and operation, while also preparing buildings to withstand changes in the climate. This and other legislative reforms will help the sector prepare and adopt new practices that reduce carbon emissions.

The Accord agrees with the approach to require the application of the cost of carbon to benefit analysis and capital projects, and that infrastructure be subject to modelling to test for stress for shocks and impacts of climate change. We welcome the opportunity to partner with you on future zero carbon, green infrastructure, waste reduction and other sustainability initiatives, as part of the work under the Environment Workstream.

Pipeline and certainty of procurement

Industry needs a long-term, comprehensive and more certain pipeline of work to help plan and manage business investment decisions. Without a certain pipeline, firms don't invest and skills often depart New Zealand. The Accord considers that the Infrastructure Commission through its 30 year strategy has the opportunity to put in place processes that encourage certainty with the pipeline of work and that agencies are collaborating on programmes of work to plan and schedule projects that take supply and demand into account. Lack of agency co-ordination results in an uncoordinated pipeline of work and feeds the boom/bust cycles. Australia is cited as an example where industry has greater certainty and longer-timeframes for the pipeline of work. Learnings and potential co-operation with Australia could be considered in the strategy.

The Accord strongly advocates for a programme of work approach to infrastructure. There is an issue with shovel ready projects going to market before they are designed. New Zealand needs to take a programme approach to construction instead of a project approach. Government must build its scale and Infrastructure 30 year strategy has the opportunity to adopt this approach and take a holistic view rather

than a list of priority projects assessed in silos. Infrastructure needs to be connected with the wider construction eco-system and consider impacts on vertical/commercial and residential activities. Infrastructure strategy should also understand the global environment and how it can impact on New Zealand, including supply chains and transportation links to/from New Zealand and the world.

The Accord also views that there is some merit in creating a centre of procurement and delivery excellence that can deliver consistency and develop best practice across government agencies. This could possibly be based on high risk, high complexity projects to avoid the silos of corporate centre agencies creating delivery.

The Accord looks forward to the expansion and further development of the Pipeline.

Innovation, technology and digital change

The Accord agrees that technology and innovation in the industry is key to increasing productivity and the approach to increase uptake of technologies like BIM, use of new materials that reduce waste, save time and improve environmental outcomes. Over the past few years the construction sector's investment in research and development has been low. This reflects that the sector is slow to adopt technology which could be due to small-medium sized enterprises whose projects do not need them to engage with new technology.

The Accord recognises that technology has the potential to create new jobs and industries that can create further economic benefits. Since its establishment, the Accord has become the forum to discuss, test and trial new technologies and approaches that can help inform policy settings that can both enable and protect businesses.

The Accord is in the process of planning the second edition of the Transformation Plan, which is considering the role of technology in the sector. As members of the Accord, we encourage you to be a part of this discussion and help us identify any areas of collaboration that may benefit the future of New Zealand.

The Accord agrees that digital and technological change is an important driver in the sector and has widespread benefits including the ability to improve productivity. We also acknowledge that there are challenges and constraints with the adoption of technology. Ransomware and cyber-attacks on systems are reminders that any digital system needs to be secure. The sector is slow to adopt technology and is dominated by SMEs, the nature of their projects do not need them to engage with new technology. However there is increasing recognition that digital technologies can help run smart businesses.

The Accord is working with the Digital Boost programme to support small construction business owners to realise the benefits of digitalising their business, including greater use of digital tools and adopting digital business processes. Small construction businesses make up approximately 95% of construction businesses and developing the digital capabilities for this group could have large scale impact on productivity.

Many larger construction firms are embedding Building Information Modelling (BIM) into their practices and seeking to collaborate using BIM with other specialist trades and sub-contractors. The Accord agrees with your approach to increase uptake of technologies like BIM as it offers contractors the ability to coordinate the entire construction lifecycle.

Digital transformation could be a key area of focus for the Accord in future, with the aim of bringing efficiencies, improving coordination and collaboration across the supply chain to improve productivity. It could be the forum to test and trial new technologies and approaches that can help inform policy settings that can both enable and protect businesses. Technology has the potential to create new jobs and industries that can create further economic benefits.

We consider that Government as the largest procurer has the ability to directly impact practices for its own projects – incentivising and normalising use of technology and influence change in the private sector by sharing learnings.

Technology disruptors for construction can be opportunities to improve productivity, speed up delivery, help to meet sustainability goals, collaborate and reduce labour shortages. The infrastructure strategy needs to consider the use of technology in the future such as BIM, data analytics, 3D printing, Artificial Intelligence, drones, robotics, Virtual Reality, advanced materials, modular construction.

The Accord welcomes discussion with the Infrastructure Commission on technology for building and construction activity and its role in the 30 year infrastructure strategy.

Improving productivity and reducing the costs of delivering infrastructure and construction

The Accord is very supportive of the Resource Management Act reforms underway by the Ministry for the Environment and the potential positive changes this will have on the resource management system. The benefits of the proposed Strategic Planning Act will make significant progress to improving long term integrated national planning. We look forward to providing feedback on the draft legislation through the select committee process.

Productivity has slowed in the construction sector – contributing to price growth – and many levers contribute to productivity, including the costs and availability of materials, import/export and the impacts of COVID-19. Lack of supply of materials is also driving up prices. The Accord is currently researching the causes of the current supply chain issues, this research could be beneficial more widely and we will share information as we can.

We agree that a reduction in costs also requires a well-resourced and capable sector workforce. As mentioned the Accord is taking the lead to grow capability and capacity of the workforce through a number of targeted initiatives below.

Growing the capability and capacity of the workforce

With the Construction Skills Action Plan concluding in October 2021, the Accord is building a new Construction Skills Strategy for the sector. This aims to set the vision for how we will build toward the future workforce skills required for a more resilient and productive construction sector. This will be developed in consultation with stakeholders from industry, education providers and government.

The Accord is also working to identify skills shortages in the construction and infrastructure sector both in the short and long term, and will share this via the Long-term Workforce Plan. We are working with industry and agencies to identify further interventions to mitigate these skills shortages, as all indications are that the skilled workforce in NZ will not be enough to deliver to significant gaps nationally. These skills gaps are significant and industry is indicating that without skilled specialist trades immigrants the sector will not deliver on the public and private pipeline of work.

The Accord is also building workforce capability and capacity with:

- the *Infrastructure Skills Centre* pilot project in partnership with industry and government, launching in Christchurch in July and a second project in Auckland in September 2021
- Diversity Works NZ are benchmarking the construction and infrastructure sector against its Aotearoa Inclusivity Matrix™ and will create a *Roadmap toward Diversity, Equity and Inclusion* for the sector by the end of 2021.
- *Construction Skills Strategy* will be developed with industry, agencies, and the tertiary education sector and will look at how to grow talent within the sector and expects to also identify approaches to lift participation of Māori and Pasifika in leadership.

Increasing the participation and leadership of Māori

New Zealand's construction sector is ethnically diverse with a particularly high population of Māori and Pasifika workers compared to other industries¹, however the number of Māori and Pasifika workers in leadership roles is disproportionately low.

The Accord is aiming to increase the participation and leadership of Māori across the infrastructure and construction sector through the above mentioned Construction Skills Strategy and Supporting the Reform of Vocational Education – this work is ongoing and the Accord is a key partner in the Construction and Infrastructure Centre of Vocational Excellence that has key projects looking at innovation in vocational education in the sector, including career framework, career progression and diversity projects.

Comments on specific options:

Option S6.1 - Establish a major projects leadership academy

The Accord understands that there is some work underway with Auckland District Health Board and University of Auckland to develop a Project Management Masters specialising in Health construction Projects. There needs to be consideration of whether this could create a barrier for entrants in an already constrained market, given existing memberships and industry certifications available. Historically, leadership is developed through a combination of education and real project experience. The conversation needs to be widened to the sector to see how we can tap into existing systems to enhance this area e.g. professional certifications with specific routes to training in employment. Could a similar academy be established for procurement practitioners, and a similar requirement be made on major infrastructure projects?

Option S6.2 Revisit New Zealand's approach to market-led proposals (MLP)

This option references a market-led proposal policy from Western Australia, however we view that New Zealand is less equipped to centrally govern or maintain oversight on MLPs.

One reason for NZ's historic hesitation of MLPs is the potential for nepotism, corruption and bribery. Any system that allows unsolicited proposals must ensure that it is being applied correctly in an ethical and fair way. Currently government policy permits MLPs providing that they offer a unique solution that the market is not able to offer. However the main barrier to this is in government agencies feeling confident in managing these to avoid the potential issues noted above.

A central government agency or Cabinet/Treasury supported panel to procure and deliver infrastructure projects could address this issue.

New Zealand's current system of policy, guidance and rules is limited on its control and influence. In the future it may be worth visiting whether certain components of procurement can be legislated or further clarified in existing legislation.

Option S7.1 Measure and benchmark infrastructure cost performance

The Accord agrees that in principle that it would be beneficial to understand the wider cost performance of NZ's infrastructure and this would be of use to the construction sector. However it would be useful to understand what the benefits of having this information might be or if it would be widely available.

Could this be an add-on to the infrastructure pipeline functionality, in terms of being one source of truth for infrastructure and construction projects, adding the actual costs after the project has been finalised.

It could take some time to compile the information, by which point costs may have increased further.

¹ Infometrics, 2021; Ministry Business, Innovation, and Employment, 2015

Option S7.2 Standardise design

It is unclear whether this option is referring to a standardised approach to design or standardised designs.

It would be useful to understand how a 'standardised approach to infrastructure design that prioritises high productivity' would be developed as high productivity is an outcome of multiple levers.

The Accord supports in principle an option that allows for quality improvements and reduces the risk of systemic failure but more detail would be required before the Accord could submit further comment.

S7.3 Develop a planning system that is more enabling for infrastructure

The Accord supports the listed proposals along with the Resource Management Act reforms more generally.

We understand that the 'Strategic Planning Act' currently under development as part of the RMA reforms (aiming to be passed into law in 2023) will provide a long term approach to planning for development and new infrastructure including long-term spatial strategies. Some of the listed proposals may be better directed to Ministry for the Environment or the new Strategic Planning Reform Board.

The Toitū Te Whenua Land Information New Zealand online data service could possibly assist with a 'national GIS database to map national important resources', either in with capability or existing data.

Construction Sector Accord response for He Tūāpapa ki te Ora Infrastructure for a Better Future

2 July 2021

Tēnā Koe

Firstly the Construction Sector Accord (The Accord) would like to acknowledge the path that Te Waihangā Infrastructure Commission has led in starting the discussion for infrastructure strategy across Aotearoa in He Tūāpapa ki te Ora Infrastructure for a Better Future (the infrastructure strategy consultation document). The 30 year infrastructure strategy presents opportunities for the industry and regulators to come together to plan and launch a coordinated effort to build a more sustainable, economically viable and equitable future.

Infrastructure is the platform that enables a productive, resilient nation and economy as well as being a major contributing factor to productivity. Construction plays an important role in building and maintaining the infrastructure.

The Accord Transformation Plan is presently set to continue through 2022 and the opportunities that the Accord can seize will extend beyond this timeframe. The Accord is supportive of the focus areas outlined in the infrastructure strategy consultation document and welcomes a broader discussion with Te Waihangā Infrastructure Commission as a partner to the Accord, on the priorities and discussions outlined and how best to leverage the Accord to deliver on our shared vision of a high performing sector for Aotearoa.

Working together to create a high performing construction sector for a better New Zealand

The Accord is a joint commitment and platform for industry and government to work together to meet the key challenges facing the construction sector, and provides a lever to deliver shared Government priorities for a higher performing sector. The Accord aims to increase productivity, raise capability, improve resilience, and restore confidence, pride and reputation. We'd like to acknowledge the Commission's role as member of the Accord advocating for its goals and principles and the Commission's role in developing the pipeline that is giving the sector visibility of upcoming projects.

We are pleased to read that the vision, focus areas outlined in the Strategy are in alignment with those of the Accord. The Accord's submission focuses on areas that are particularly relevant to the Transformation Plan and goals. The strategy presents opportunities for the industry and regulators to come together to plan and launch and a coordinated effort to build a more sustainable, economically viable and equitable future.

The Accord partnership has established the leadership platform to identify issues and implement solutions that address long-standing and system-wide challenges. Through its three-year Transformation Plan 2020 to 2022, the Accord is driving behaviour change to lift overall performance and achieve a safer, better skilled and more productive industry and to share good practice across the sector.

The Transformation programme extends beyond procurement and project capability to also cover:

Building skills and diversity *in partnership with Diversity Works NZ, ConCOVE, Massey University, Fulton Hogan, BCITO, Te Waihangā Infrastructure Commission*

- actively supporting the New Zealand Government's Construction Skills Action Plan to increase workforce participation
- working alongside industry to develop targeted initiatives to fill current and predicted skills gaps
- creating a long-term workforce plan
- valuing and strengthening workforce diversity — women, Māori and Pasifika in construction

Fairer contracts *in partnership with Accord agencies and industry groups*

- promoting transparency in contracts including clarity on risks
- providing assurance of prompt payment and strengthening the retentions scheme

A comprehensive pipeline *in partnership with industry and Te Waihangā Infrastructure Commission*

- building a more comprehensive and more certain pipeline of construction work that includes both government and private sector projects

Influencing and improving construction procurement practice and capability

- promoting the New Zealand Government's Construction Procurement Guidelines
- setting up a procurement advisory panel
- providing information on running a successful business
- providing education and frameworks on dealing with risk

Improving consenting

- developing a more efficient model for providing assurance that buildings are durable and safe
- greater use of digital tools and technology to better meet regulatory requirements

Better health, safety and wellbeing

- supporting health and safety and mental health programmes
- promoting and adopting 'safety in design' principles
- creating a single health and safety prequalification standard

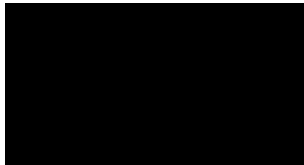
System change takes time and requires transformational partnerships

The Accord led response to COVID-19 and Transformation Plan progress has seen the Accord become the platform for NZ Inc discussions with participants from across the eco-system on emerging and sector-wide issues that impact on the Accord transformation goals.

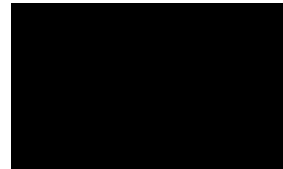
Much of the progress and successes to date have been contributed by government and agencies leading as clients and regulators to drive change across the system. To continue the transformation progress, the Accord is considering the next generation programme. The focus can build on the partnership platform to deliver better outcomes for communities, industry and mana whenua through greater collaboration, innovation and utilisation of big data, technology adoption and digitisation.

As an Accord partner and a member of the Accord Steering Group, we welcome a discussion with Te Waihanga Infrastructure Commission on the Strategy priorities and opportunities to better collaborate across the forward Accord transformation programme to deliver on our shared outcomes. We look forward to continuing the partnership dialogue and mahi with your team to ensure a connected system operating in genuine partnerships.

Ngā mihi



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