Application for an enforceable undertaking

June 2019

Part 4, Health and Safety at Work Act 2015

The commitments in this application are offered to WorkSafe New Zealand by

Name of entity or, partnership or individual applying for this undertaking McConnell Dowell Constructors Limited



New Zealand Government

Application for an enforceable undertaking

Part 4, Health and Safety at Work Act 2015

The commitments in this application are offered to WorkSafe New Zealand by

Name of the person or persons who will be signing this undertaking in section 4:

Fraser Wyllie

On behalf of:

McConnell Dowell Constructors Limited

Name of the entity giving this undertaking (if an individual or sole trader, leave blank - complete in all other cases)

McConnell Dowell Constructors Limited

This enforceable undertaking is given on the day and date that it is accepted and signed by WorkSafe. The undertaking and its enforceable terms will operate as a legally binding commitment on the part of the person from the date it is given.

Do not refer to the victim by name in this document. Please refer to the victim/worker/employee/volunteer/or other term as appropriate.

WorkSafe respects your privacy and is committed to protecting personal information. The information provided in this document is for the purpose of an undertaking given to WorkSafe under Part 4 of the *Health and Safety at Work Act 2015*. This information will be managed within the requirements of both the *Privacy Act 1993 and the Official Information Act 1982*.

There is an expectation that WorkSafe will generally publish the undertaking in full on its website.

TERM	DEFINITION
Contravention	An action which offends against the <i>Health and Safety at Work Act 2015</i> and/or any Regulations made under it. It includes both health and safety contraventions. A contravention also includes an alleged contravention.
HSMS	A Health and Safety Management System.
Person	An individual who or a legal entity which has a duty under the <i>Health and Safety at Work Act 2015</i> and can give a written undertaking. The term includes individuals, each partner in a partnership, corporations, trustees of trusts, and crown organisations.
Health and Safety legislation	Health and Safety at Work Act 2015 and associated regulations.
Enforceable undertaking	An enforcement pathway that allows a duty holder to voluntarily enter into a binding agreement with WorkSafe. The agreement outlines actions the duty holder will undertake to address the contravention. It is expected to deliver activities which benefit workers, the wider industry or sector and/or the community as well as acceptable amends to any victim(s).

1. General information

1.1 Details of the person/persons/entity giving the undertaking

Name of person(s) making this undertaking: (in all cases complete with the name(s) of those who are signing this undertaking under Section 4)

Fraser Wyllie

Name of entity: (if applicable, leave blank if an individual)

McConnell Dowell Constructors Limited

Type of legal entity: (complete in all cases, for example individual, sole trader, partnership, trust, company, etc)

Incorporated company

Nominated contact person: (the same person listed above/one of those listed above)

Fraser Wyllie

Physical address:

McConnell Dowell Constructors Limited 510 Mount Wellington Highway Mt Wellington Auckland 1060 Description of the products and services provided by the business or undertaking:

McConnell Dowell Constructors Limited (McConnell Dowell) is a multi-disciplinary construction and infrastructure contractor delivering complex projects across a variety of sectors including transport, energy, resources, water and wastewater.

McConnell Dowell provides specialist construction services in New Zealand and the Pacific nations including:

- tunnels and underground works
- · marine and port works
- roads and bridges
- pipelines
- mechanical and process engineering
- structural steelwork fabrication
- · general civil engineering works.

Comments:

At the time of the incident outlined in section 1.3 below (Incident) McConnell Dowell and Downer New Zealand Limited (Downer) were joint venture partners undertaking a large-scale infrastructure project for Waka Kotahi involving extensions to the Christchurch southern motorway network (CSM2 Project).

Postal address: (if different from physical address)

McConnell Dowell Constructors Limited PO Box 2758 Shortland Street Auckland 1140

Work phone: 09 252 0137

Mobile phone: 0276 025 340

Email: fraser.wyllie@mcdgroup.com

Industry: Civil construction and infrastructure

Workers (enter numbers):

Full-time: 450 Part time: 6 Casual: 5

1.2 Detail of the contravention

McConnell Dowell has been charged with one offence under sections 36(2), 48(1) and 48(2) of the Health and Safety at Work Act 2015 in relation to an incident on 30 October 2019 on Springs Road, Christchurch.

WorkSafe New Zealand (WorkSafe) alleges that McConnell Dowell, being a Person Conducting a Business or Undertaking (PCBU) and having a duty to ensure so far as reasonably practicable that the health and safety of members of the public was not put at risk by work carried out as part of the business or undertaking, namely construction works as part of the CSM2 Project, did fail to comply with that duty and that failure exposed members of the public, including the Victim, to a risk of death or serious injury.

WorkSafe says there were two practicable steps that McConnell Dowell could and should have taken to ensure the health and safety of members of the public:

• Maintained safe and effective temporary traffic management for cyclists using Springs Road, in particular by maintaining a minimum one metre usable shoulder for cyclists as required by the Traffic Management Plan; and

· Provided adequate information, instruction, and supervision specifically in relation to traffic management operations.

WorkSafe has made identical allegations against Downer.

1.3 Detail the events surrounding the contravention

On 30 October 2019 the Victim, a cyclist, was fatally injured in a collision with a concrete truck delivering concrete to the CSM2 Project. McConnell Dowell and Downer had entered into an unincorporated joint venture for the purposes of tendering for and contracting to perform the CSM2 Project. The construction phase of the work on the CSM2 Project began on 26 September 2016.

The incident scene was located on the Greenfields portion of the CSM2 Project site, also known as Separable Portion 2 (SP2). It involved the construction of an 8.4 kilometre four-lane median separated motorway and supporting bridges. During construction of an overpass bridge, a temporary road was in place at Springs Road. There were a number of site access points off Springs Road, including Gate 57, which provided access to the construction site.

At about 8am on 30 October 2019, the Victim was travelling northbound along Springs Road towards Halswell Junction Road on her bicycle.

At the same time, a truck driver driving a concrete truck was proceeding north on Springs Road towards the CSM2 Project site entrance at Gate 57, in order to make a delivery of concrete to the project.

As the driver began to turn left into the site access driveway at Gate 57, the Victim approached the same location, travelling along a temporary pedestrian pathway separated from the road. The Victim and the truck collided. The Victim sustained very serious injuries and died at the scene.

1.4 Detail any enforcement notices issued that relate to the contravention as detailed in term 1.2

DATE	NOTICE TYPE	NOTICE NUMBER	CONTRAVENTION OR PROHIBITED ACTIVITY	ACTION TAKEN IN RESPONSE TO NOTICE
1/	None	N/A	N/A	N/A
/ / .	- 49 			
//	:			

1.5 Detail the rectifications to the workplace or work practices made as a result of the contravention (1.2), events (1.3) and the enforcement notices issued (1.4)

As a result of the contravention, McConnell Dowell and Downer together took the following remedial steps to address the work practices which WorkSafe has alleged were deficient:

Review and make improvements to traffic management provisions for cyclists and pedestrians:

•The joint venture undertook a complete review of all traffic management onsite. This included confirming that all sign and cone placement and traffic management layouts were installed as per the approved traffic management plans.

•The joint venture completed a review of all pedestrian walkways and cycle paths on the CSM2 Project. This was to ensure that it was clear to pedestrians and cyclists which path to use, and all road shoulders were adequate for all cyclists to use. As a result:

- Additional signage was installed to ensure all pedestrians and cyclists were notified of the correct pathway to use.

- The existing road sweeper was engaged to continuously sweep the road and cycle paths to ensure they were clear of debris and safe for use by cyclists.

•A regular formal inspection focused on the cycling and pedestrian pathways was created. This was completed in addition to the two hourly checks that were completed by the Site Traffic Management Supervisor.

Site access improvements:

•Following the Incident, Gate 57 was closed and alternate access was created to ensure that this area was controlled until an investigation was completed by the joint venture.

•Whilst the incident was being investigated, the joint venture consulted with all truck drivers associated with site at the time (both joint venture drivers and contractors) to obtain their views on site access-ways and how they could be changed to avoid similar accidents. This resulted in a number of Site Access Gates (including Gate 57) being closed as they were no longer required and operational Site Access Gates being manned with a Gate Controller.

Communication to workers:

•The CSM2 Project completed a site wide toolbox meeting to discuss the Incident and the immediate actions that had been undertaken to address the risks involved. Workers were reminded to ensure vigilance around the traffic management installations across the CSM2 Project, and to take particular care to consider the presence of cyclists and pedestrians.

1.6 Total amount of money spent on rectifications

The direct costs of the rectifications undertaken by McConnell Dowell and Downer following the Incident are not able to be quantified.

1.7 Detail the injury sustained or Illness suffered by victim(s) or other(s) as a consequence of the contravention or, (as applicable) the *potential* for fatal injury or future fatal illness

The Victim suffered serious head and pelvic injuries and died at the scene. McConnell Dowell extends its deepest sympathies to the family of the Victim.

1.8 Detail any offer of amends or payments made to the victim(s) who sustained injury or suffered illness (the total monetary amount here is also to be included in the table at 3.12.3)

Describe the victim(s) relationship to you/the entity in question; (eg employee(s)/shareholder/director/family member/contractor, etc. If the relationship has more than one dimension, for example a family member who is also an employee and a director and/or shareholder of the business, or an employee who is a shareholder (etc) - then please describe this)

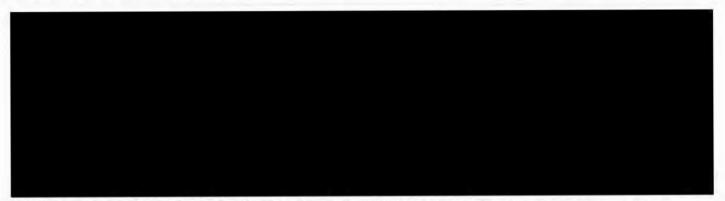
The Victim was a member of the public and had no connection to McConnell Dowell or Downer.

Detail offer of amends or payments:

On the day of the accident, the joint venture team on site were advised that a family liaison had been appointed by the Victim's family and were provided with the family liaison's details. Initial contact was made with the family liaison by a representative of the joint venture to express the joint venture's condolences and advise that the joint venture was available if the family wished to meet or discuss the accident. The family was later contacted to invite them to a blessing that had been arranged at the site. The blessing was attended by the family and senior members of McConnell Dowell and Downer and project staff.

CONTINUED IN APPENDIX A

1.9 Detail any consultation with the victim(s) as to their views on whether an enforceable undertaking would be an acceptable alternative to prosecution



1.10 Detail any consultation with unions/sector/industry as to their views on whether an enforceable undertaking would be an acceptable alternative to prosecution

Downer and McConnell Dowell have worked together collaboratively as joint venture partners to develop the enforceable undertakings they are each submitting. The focus has been to ensure the activities each business takes are not only relevant to their businesses, industry and support the wider community, but are also complimentary of each other ensuring the benefits of the activities reach as many people as possible.

In developing this application McConnell Dowell has discussed the proposed initiatives it intends to undertake (individually and jointly with Downer) with Downer and various industry groups, cycling organisations, and regulators that have an interest in this matter.

CONTINUED IN APPENDIX A

DATE	DESCRIPTION OF SUPPORT	COMMENTS
· / 184 / 364	SEE APPENDIX A	
- / 200 / VEAL		
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1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
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/ 111/ 11		
115/110		
1/1.1/ YEAP		

1.11 Detail the support provided or proposed by the person to the victim(s), other(s)

1.12 Detail any current HSMS implemented and maintained by the person

Describe how health and safety risks are managed, including types of procedures or policies or standards:

The McConnell Dowell Management System (MMS) is an integrated management system that includes a comprehensive suite of policies and procedures designed to control risk activities consistently across all McConnell Dowell's operations.

The MMS provides a comprehensive system for health and safety which is driven by the company's Workplace Health and Safety Policy and supported by procedures setting out processes and requirements for planning, risk management, consultation, communication and coordination of risk controls and responsibilities, induction and training, performance monitoring including inspection and audit, and performance reporting and review.

Construction risk management

Construction project risks are managed in the MMS by the development of project Health, Safety, and Environment Risk Registers, detailed Construction Execution Plans (CEPs) that are subjected to risk reviews, and the use of Job Safety and Environmental Analysis (JSEA) by work delivery teams.

McConnell Dowell aims to address risks at each stage of a construction project, including:

- · Project selection
- Tendering
- Project execution
- Project close out

Once McConnell Dowell has selected a project to pursue, a detailed risk review matrix (Tender and Project Risk Register (TP Risk Register)) is prepared during tendering.

If the project is won and proceeds to execution, a Project Risk Register is developed from the TP Risk Register and includes a detailed Health, Safety, and Environment Risk Register. This is maintained for the project and forms the basis for ongoing risk management.

During a project, CEPs are prepared for each key activity. For each CEP, there is a corresponding Construction Risk Assessment Workshop. This is a facilitated meeting to identity, risk assess, and plan controls for risks relevant to the scope of the works covered by each new CEP.

The MMS includes various Standard Operating Procedures (SOPs) which give specific instructions and minimum requirements on managing a number of common key critical risks. SOPs are supported by Safe Work Instructions, which are short instruction sheets on how to undertake tasks safely.

JSEA documents are prepared for all activities. These are prepared by the supervisor and work team, with input from McConnell Dowell's Health, Safety, and Environment staff. The JSEA will break a section of works down to individual steps, identifying risks and controls.

Where new hazards and risks are identified or there are changes to the CEP, the supervisor and team are required to follow a "Stop, Think, Assess, Review and Talk about it" (START) process. START cards are used to identify and manage the risks resulting from changes to the CEP.

All workers are also encouraged to report hazards on site using "See Say Do" cards. Hazards reported using "See Say Do" cards are addressed immediately wherever possible or are escalated to supervisors and project management for formulation and implementation of control measures. This is measured in a ratio metric which the project must achieve a 120:1 otherwise it is raised at project reviews which happen monthly.

Management oversight of health, safety, and environmental performance

Project dashboards are the key means of reporting to senior management on health and safety performance in a project, and include monthly reporting on project risks and health, safety, and environmental performance.

Project incidents, statistics, and lessons learned are reported in a Project Closeout Report.

Standards compliance

The MMS incorporates risk management principles aligned to the expectations in ISO 45001:2018. McConnell Dowell's MMS is certified by Bureau Veritas as compliant with this standard and is subject to regular audit to maintain this accreditation.

CONTINUED IN APPENDIX A

1.13 Detail the level of auditing undertaken on the HSMS, including compliance audits and audit frequency

The management of health and safety on McConnell Dowell's project sites and facilities is tested by regular internal and external audits.

Internal audits

Internal audits are conducted within the first 3-4 months after a project commences or at the 25% completion milestone (whichever occurs first). Time intervals for future audits are determined by the initial audit results, up to a maximum of 12 months.

In addition, health and safety inspections are carried out onsite weekly as part of standard project operations. Any corrective actions from the inspections are recorded in the CMO compliance management system, and are tracked to ensure that sufficient evidence is provided to close out the action. Overdue actions are escalated to the Senior Leadership Team and communicated to the Group Executive General Manager for Health, Safety, Environmental and Quality.

External audits

McConnell Dowell uses a number of external audits to independently verify its performance and compliance. In particular:

• Project Start-up/Peer Review Audits are conducted at about 20% completion and include health and safety. Start-up Audits seek to ensure that projects have been started effectively. These are completed by qualified internal auditors with reports collated by the National Manager of HSEQ.

• Audits of the MMS are completed by Bureau Veritas Quality Assurance (BV). The current BV schedule involves 39 auditing days per year allowing a sample of project sites and offices to be audited as part of a rolling surveillance audit program that underpins McConnell Dowell's three-yearly certification against AS/NZS45001:2018.

The results of these external audits are added into the CMO compliance management system. Corrective actions are tracked and monitored, and results are reviewed and discussed by the Senior Leadership Team.

CONTINUED IN APPENDIX A

1.14 Detail the consultation undertaken or proposed to be undertaken, in relation to this undertaking

As discussed in sections 1.9 and 1.10 above, McConnell Dowell and Downer have consulted with the Victim's family, and other relevant industry parties on this enforceable undertaking and the various activities proposed to be completed by McConnell Dowell and Downer as part of it.

In addition, McConnell Dowell has undertaken the following consultation in relation to this enforceable undertaking:

• Consulted with the McConnell Dowell's senior leaders to seek their views and support for the proposed activities. All parties are extremely supportive of the proposed activities to improve the safety of all those that are exposed to the risks in construction activities.

• Sought input from McConnell Dowell's internal Health and Safety Committee which represents the workers of the organisation. Feedback was gained about what would improve site traffic management and, in particular, the risks posed to vulnerable road users interacting with project sites. This meeting was facilitated by McConnell Dowell's Health and Safety Advisors and Senior Health and Safety Managers.

2. General terms

The person acknowledges and commits to the general terms set forth in the sub-terms below.

2.1 Acknowledgement that WorkSafe alleges a contravention occurred as detailed in term 1.2

McConnell Dowell acknowledges that WorkSafe alleges that McConnell Dowell has contravened sections 36(2), 48(1) and 48(2)(c) of the Health and Safety at Work Act 2015. McConnell Dowell has taken this incident and WorkSafe's allegations seriously. This is reflected in the investigation undertaken by McConnell Dowell and Downer into the circumstances of the incident and the implementation of the remedial steps outlined in section 1.5 above to prevent recurrence of the incident.

2.2 Statement of regret that the contravention occurred

McConnell Dowell deeply regrets the Incident and acknowledges the pain and suffering caused to the Victim's family and friends as a result of losing their loved one. McConnell Dowell and Downer have engaged with the Victim's family and apologised directly to them for what occurred.

McConnell Dowell is committed to making changes to its practices in the hope that no similar event occurs in the future. This enforceable undertaking is intended as a tangible demonstration of that commitment.

2.3 Statement of the reasons why, on balance, the person considers this undertaking is the most appropriate response to the contravention

McConneil Dowell and Downer acknowledge that WorkSafe generally considers enforceable undertakings to not be suitable when a fatality has occurred. In this case, however, McConnell Dowell and Downer consider that an enforceable undertaking is the most appropriate response to the contravention, and that it will provide a significantly better outcome for all parties (WorkSafe, the Victim's family, the roading construction industry, McConnell Dowell and Downer) than a court imposed penalty would.

This is because this enforceable undertaking will facilitate investment by McConnell Dowell and Downer in a number of key initiatives that will have a significant impact in the roading industry and the broader community beyond mere compliance with existing requirements, especially (but not limited to) in Christchurch where cycling is common. This enforceable undertaking provides a practical opportunity for work to be completed that can raise standards and help prevent similar incidents occurring in the future.

Cyclists are exposed to risk in their interactions with motorists every day. This risk is exacerbated when traffic is moving through road works. McConnell Dowell and Downer are seeing an increase in the number of cyclists using the roads as their main mode of transportation. With these numbers increasing, the number of interactions between vehicles and cyclists is intensified too. Unfortunately, the practices the roading industry is using to manage temporary traffic management situations has not keep up with the changes in transportation modes.

Roading construction is constantly evolving and the opportunity here is for this enforceable undertaking to help build the capability of the temporary traffic management designers and site traffic management supervisors who need to identify the risks in roading work and then control them. This enforceable undertaking will ensure that clear guidelines exist for temporary traffic management with a minimum standard of protection for cyclists and vulnerable road users.

CoPTTM is heavily focussed on compliance and relies heavily on-site traffic management supervisors to implement the traffic management plan with the best intentions. Working with the industry, McConnell Dowell and Downer would like to improve the way in which risks associated with temporary traffic management are assessed and managed, so that going forward there is greater awareness of the impacts of decisions for all road users, especially vulnerable road users.

By contrast, any penalty imposed by a court will likely be of limited duration and see a simple monetary penalty imposed. It will not necessarily result in the wider benefits for the industry and cyclists generally proposed by this enforceable undertaking. Together, McConnell Dowell, Downer and the Victim's family believe that this enforceable undertaking will be a better outcome than a court imposed fine (and reparation, which is also part of this enforceable undertaking).

2.4 Statement of commitment that the behaviour, activities and other factors which caused or led to the contravention has ceased and will not reoccur

McConnell Dowell commits that the behaviour, activities, and other factors which caused the alleged contravention have ceased. McConnell Dowell commits to undertaking the activities described in this undertaking so that, so far as is reasonably practicable, those circumstances will not reoccur.

2.5 Acknowledgment of the policy published by WorkSafe for the acceptance of an undertaking

(write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

has read and understood the Enforcement Undertaking Operational Policy.

2.6 Acknowledgement that this undertaking will be published and publicised in fuli

(write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

acknowledges that the undertaking will, if accepted, be published on WorkSafe's website in full and referenced in WorkSafe material.

2.7 Statement of the person's ability to comply with the terms of this undertaking and meet the projected costs of the activities

(write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

has the financial ability to comply with the terms of this undertaking and have provided evidence by way of

(type of evidence provided)

McConnell Dowell can provide copies of its most recent financial statements to WorkSafe if required

with this undertaking to support this declaration.

In the event of impending receivership, liquidation or sale of the entity, (write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

will advise WorkSafe of the relevant circumstances and its capacity to comply with the outstanding terms of this undertaking.

2.8 Statement outlining any relationship between the person and any corporations, officers, employees, contractors, proposed beneficiarles of donations or scholarship or other recipient of financial benefit contained in this undertaking

McConnell Dowell has current relationships with the following entities or people proposed as beneficiaries in the undertaking:

- Current McConnell Dowell employees
- · CCNZ. McConnell Dowell is a current member of CCNZ

Aside from those relationships listed above McConnell Dowell is not aware of any other current relationships with the proposed beneficiaries outlined in this undertaking.

2.9 Statement regarding Intellectual Property

(write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

grants WorkSafe a perpetual, non-exclusive, worldwide and royalty-free licence to use, for any purpose, all Intellectual Property Rights in relation to any material developed as a result of this undertaking. This licence includes the right to use, copy, modify and distribute the materials.

2.10 Acknowledgement that the person may be required to provide a statutory declaration

(write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

acknowledges that it may be necessary for WorkSafe to obtain a statutory declaration outlining details of any prior convictions (safety related) outside of New Zealand and that it will provide such declaration if required by WorkSafe

2.11 Statement of commitment from the person to participate constructively in all compliance monitoring activities for this undertaking

- 1. It is acknowledged that responsibility for demonstrating compliance with this undertaking rests with the person.
- 2. Evidence to demonstrate compliance with the terms will be provided to WorkSafe by the due date for each term.
- 3. The evidence provided to demonstrate compliance with this undertaking will be retained by the person until advised by WorkSafe, that this undertaking has been completely discharged.
- 4. It is acknowledged that any failure to meet the due date for an enforceable term will result in the matter being escalated and may lead to enforcement action.
- 5. It is acknowledged that WorkSafe may undertake other compliance monitoring activities to verify the evidence and compliance with an enforceable term, and cooperation will be provided to WorkSafe.
- 6. It is acknowledged that WorkSafe may initiate additional compliance monitoring activities, such as inspections, as considered necessary at WorkSafe's expense.
- 7. It is acknowledged that details of all seminars, workshops and training conducted by a non-registered training provider must be notified to WorkSafe, by email, at least one week prior. Notification should include time, date, location and the trainer/facilitator.

(write the name of the person(s) or entity giving the undertaking)

McConnell Dowell

3. Enforceable terms

The person acknowledges all activities set forth in the enforceable terms below must be auditable and include a date for completion and an estimated cost for each activity.

The person commits to performing the activities below diligently, competently and by the respective completion date.

3.1 A commitment by the person to perform activities that will ensure the ongoing effective management of risks to health and safety in the future conduct of its business or undertaking

Detail the management strategies to be employed that will satisfy and demonstrate to officer/s of the person that this commitment is being met:

McConnell Dowell is committed to ensuring, so far as reasonably practicable, the ongoing effective management of risks to health and safety in all its future work activities. Specific actions intended to be taken by McConnell Dowell include:

- · Providing ongoing training and support to workers, particularly around the risks posed to vulnerable road users by construction activities.
- · Having ongoing and regular engagement with workers about health and safety issues, and promoting innovation in managing workplace risks.
- · Ensuring that learnings from health and safety incidents and near misses are shared to avoid recurrence.

• Continuing to promote and reinforce a positive workplace culture on all projects and work McConnell Dowell is involved in. This will involve reminding workers in toolbox meetings about McConnell Dowell's "See Say Do" programme for workers to provide anonymous feedback about issues and any concerns they may have.

• Regular and ongoing monitoring of McConnell Dowell's health and safety performance across its projects to ensure continuous improvement and learning in health and safety management.

3.2 A commitment by the person to disseminate information about this undertaking to workers, and other relevant parties

(this may include to work health and safety representatives and in the organisation's annual report, if applicable)

Dissemination will be achieved by doing the following:

McConnell Dowell is committed to sharing information about the Incident and this enforceable undertaking with its workers and other relevant parties. Dissemination will be achieved by doing the following:

• Holding a mandatory training session with all employees to discuss the Incident and the resulting commitments made in this enforceable undertaking.

· Posting a copy of this enforceable undertaking on the McConnell Dowell intranet site which is accessible by all McConnell Dowell employees.

 McConnell Dowell and Downer working together to produce an article to be published in the Civil Contractors New Zealand magazine "Contractor" explaining the learnings from the Incident and the changes that have been made. This article will also be placed on the McConnell Dowell intranet site.

• The Managing Director of New Zealand and Pacific for McConnell Dowell will provide updates on a quarterly basis for the term of the undertaking in McConnell Dowell Group meetings on progress implementing the commitments in this enforceable undertaking.

• A Safety Alert will be created and shared through all McConnell Dowell health and safety networks of industry partners (eg CCNZ and CHASNZ), consultants, and clients. This Safety Alert will discuss the circumstances of the Incident, the learnings resulting from it, and the various activities to be undertaken by McConnell Dowell as part of the enforceable undertaking.

3.3 Activities to be undertaken to promote the objectives of the health and safety legislation that will deliver benefits for workers and/or work and/or the workplace

ACTIVITIES Outline the activity and the expected outcomes	COST (\$)	TIMEFRAME
3.3.1 Initiate Riding through Temporary Traffic Management Set-ups	\$14,500	12 months
3.3.2 Develop virtual reality temporary traffic management simulator	\$200,000	18 months
SEE APPENDIX A FOR FURTHER DETAILS		
Total estimated cost of benefits for workers/others	\$ 214,500	

3.4 Activities to be undertaken to promote the objectives of the health and safety legislation that will deliver benefits for the wider industry or sector

ACTIVITIES	COST	TIMEFRAME
Outline the activity and the expected outcomes	(\$)	A
3.4.1 CHASNZ Scoping Study	\$60,000	15 months
3.4.2 CHASNZ Scoping Study Pilot	\$30,000	12 months
3.4.3 Creation of a National Good Practice Guide for the treatment of Vulnerable Road Users	\$17,050	18 months
3.4.4 Safety Alert	\$420	24 months
3.4.5 Webinar	\$1,050	24 months
3.4.6 Roadshow	\$9,900	24 months
3.4.7 Registration of the training program with NZQA	\$11,250	24 months
3.4.8 Creation of a "Train the Trainer" program	\$9,500	27 months
3.4.9 Creation of Training Fund	\$54,000	27 months
	-	

SEE APPENDIX A FOR FURTHER DETAILS

Total estimated cost of benefits for industry

3.5 Activities to be undertaken to promote the objectives of the health and safety legislation that will deliver benefits for community

ACTIVITIES	COST (\$)	TIMEFRAME
3.5.1 Develop BikeReady training content	\$55,000	18 months
3.5.2 Donation to Hagley Community College	\$20,000	1 month
SEE APPENDIX A FOR FURTHER DETAILS		
Total estimated cost of benefits for the community	\$ 75,000	

3.6 Where WorkSafe considers appropriate in the circumstances, undertaking a SafePlus Onsite Assessment

Further information about SafePlus can be found here: worksafe.govt.nz/about_us/who-we-are/our-priorities/safeplus/about-safeplus

3.6.1 The suitability of a SafePlus assessment will be determined by the Enforceable Undertakings Panel when your application is considered.

3.6.2 In addition to the total cost below (3.7) all costs of a SafePlus Onsite Assessment will be met by the person making this undertaking. The fee charged for an Onsite Assessment is a commercial matter between your business and the SafePlus Accredited Assessors that you commission.

3.7 Minimum spend

(write the name of the person(s) or entity giving the undertaking)

3.7.1 McConnell Dowell

commits to a minimum spend of \$ 601,374 for this undertaking.

(write the name of the person(s) or entity giving the undertaking)

3.7.2 McConnell Dowell

agrees to spend any residual amount arising from an original term not being completed or being less costly than estimated in this undertaking. Agreement on how to spend this residual amount will be sought from WorkSafe

(write the name of the person(s) or entity giving the undertaking)

3.7.3 McConnell Dowell

Acknowledges the minimum spend comprises of the:

TOTAL COST	MINIMUM SPEND
Financial amends paid to victims (if applicable)	\$118,704
Benefits to workers/others	\$214,500
Benefits to industry	\$193,170
Benefits to community	\$75,000
Estimated cost of the undertaking Plus GST (if any)	\$ 601,374

4. Execution 5. Acceptance Authorised representative of an organisation This undertaking is accepted by WorkSafe Undertaking given by (name of authorised representative) 01 day of (month) April On the (day) , 20 22 (year) Fraser Wyllie Signature of person accepting the undertaking: In my own right and in my capacity as (eg President, Charperson, etc) Managing Director of (eg organisation name) McConnell Dowell day of (month) Mcwch , 20 22 (year). On the (day) Name of WorkSafe representative: (General Manager WorkSafe (or delegate)) Dr Catherine Gardner Undertaking given before me: Mont full Undertaking given before me: Witness name. Cordell Weir Witness name: Witness addre Witness signature: Witness signatur

worksafe.govt.nz 0800 030 040 21/24

APPENDIX A – ADDITIONAL INFORMATION FOR ENFORCEABLE UNDERTAKING APPLICATION

Additional information in respect of relevant sections of McConnell Dowell's enforceable undertaking application is set out below.

1. GENERAL INFORMATION

1.8 Detail any offer of amends or payment made to the victim(s) who sustained injury or suffered illness (the total monetary amount here is also to be included in the table at 3.12.3)

As part of the preparation of this enforceable undertaking, McConnell Dowell and Downer engaged with representatives of the Victim's family and offered to pay the family the family for the contributed in recognition of the emotional they have suffered, and continue to suffer, as a result of Victim's death. McConnell Dowell is willing to contribute towards this payment. McConnell Dowell will make payment of its share of the reparation payment within 3 months of this undertaking being accepted.

In addition to this sum, McConnell Dowell and Downer have:

Shared the costs of the family's legal fees in engaging with them about this enforceable undertaking.

Agreed to reimburse the Victim's mother for special leave taken by her after the Victim's death.

Built/installed a memorial at a site chosen by the family, and a second tree memorial and plaque planted at
the actual accident site, following discussions with Waka Kotahi and the Selwyn District Council.

• Offered to attend a restorative justice conference with the family, if they wish to do so. The Victim's father has requested this occur and arrangements for the conference are underway.

In total, this support involves quantifiable payments of \$118,704.37 by McConnell Dowell.

1.9 Detail any consultation with the victim(s) as to their own views on whether an enforceable undertaking would be an acceptable alternative to prosecution

It is impossible to fix or agree an adequate sum of reparation by way of compensation or reparation for the family in relation to the loss of their loved one. The Victim's family do, however, support the concept and intent of enforceable undertakings.

In this case, the Victim's family have seen, taken independent legal advice on, and support the detailed enforceable undertakings being offered by Downer and McConnell Dowell as an acceptable alternative to prosecution, as the undertakings should result in wider benefits for the industry and cyclists generally.

In particular, the Victim's family supports the initiatives in respect of changes to the approach to temporary traffic management planning that will focus on all vulnerable road users using the roading network, including cyclists, and which should move the industry towards best practice and away from mere compliance.

1.10 Detail any consultations with unions/sector/industry as to their views on whether an enforceable undertaking would be an acceptable alternative to prosecution

Specific parties engaged with include:

- Civil Contractors New Zealand (CCNZ) an industry body which all major construction/infrastructure contractors/subcontractors (including McConnell Dowell and Downer) and clients are members of.
- Construction Health and Safety New Zealand (CHASNZ) an industry body focused on health and safety in the construction sector.
- Waka Kotahi the regulator for traffic management and author of the Code of Practice for Temporary Traffic Management (**CoPTTM**).
- BikeReady a national education initiative that focuses on delivering cyclist training.
- Watercare Services Limited one of McConnell Dowell's major clients, which has expressed an
 interest in supporting initiatives to address the risks posed by the interaction of site traffic and
 vulnerable road users.

All of these organisations are supportive of McConnell Dowell and Downer offering enforceable undertakings to WorkSafe. Many have expressed an interest in being involved in helping to improve health and safety around traffic management and vulnerable road users.

McConnell Dowell and Downer have not consulted directly with any union in relation to this enforceable undertaking as the Victim was a member of the public and not associated with any union(s).

1.11 Detail the support provided or proposed by the person to the victim(s), other(s)

In addition to the support and assistance detailed in section 1.8 above, McConnell Dowell and Downer have sought to provide further support to the Victim's family since the Incident as follows:

Date	Description of support	Comments
1 November 2019	Contact with a family liaison was established by the CSM2 Stakeholder and Communications Manager. A whakanoa was discussed and the family were invited to attend, if they wished.	
2 November 2019	CSM2 Stakeholder and Communications Manager spoke with the Victim's sister.	
2–3 November 2019	A planned full closure of the Springs Road area of the CSM2 Project took place over the weekend. Contact was made with the family liaison to let the family know that pedestrian and cyclist access was being maintained to the area so that they could attend the site if they wished.	
	Over the weekend, small groups of the Victim's family and friends attended the site. The CSM2 Stakeholder and Communications Manager was available to escort family and friends to the site. Work at the site ceased while the groups attended the site.	

4–6 November 2019	Correspondence was sent to the family liaison confirming the plans for the whakanoa.	
7 November 2019	Senior representatives of McConnell Dowell and Downer met with the family when the family came to the site.	
21 May 2021; 11 June 2021	An offer was made to pay for legal support for the family so they could have their own independent advisor to assist them to understand the legal process and answer any questions they had about the court and enforceable undertaking processes.	This offer was taken up by the Victim's family.
1 July 2021; 3 August 2021; 18 October 2021; 15 November 2021	An offer was made to assist with the provision of counselling support for the Victim's family to assist with the grief process.	This offer has been taken up by a member of the Victim's family.
19 October 2021	McConnell Dowell and Downer will make a payment to the Victim's mother to cover the unpaid sick leave/bereavement leave taken by her as a result of the incident.	McConnell Dowell paid its share of this payment on 19 October 2021.
14-15 February 2022	McConnell Dowell and Downer offered to assist the Victim's family to create a memorial to the Victim. This offer included facilitating discussions with Waka Kotahi and the Selwyn District Council and building/installing the memorial chosen by the family. Following consultation with the family and Waka Kotahi two memorials and sites were chosen.	The two memorials have been installed.

1.12 Detail any current HSMS implemented and maintained by the person

Describe how health and safety risks are managed, including types of procedures or policies or standards:

HSMS on the CSM2 Project

On the CSM2 Project, McConnell Dowell and Downer ran an integrated health and safety management system that incorporated elements of both joint venture partners systems. This included preparation of a Project Risk Register, which detailed health, safety and environmental risks and how they would be controlled. It formed the basis for ongoing risk management of the project.

Construction Packs were used on the CSM2 Project. In essence they were packs of documents that contained all of the necessary information for workers to safely complete a task. The packs included: developed that contained information about specific tasks, such as:

- Method statements A step by step methodology on how the work would be executed with reference to drawings and specifications, as required.
- JSEA A guide to how the work is to be completed safely without harming people or the environment. These are prepared by the supervisor and work team, with input from Health, Safety, and Environment staff. The JSEA will break a section of works down to individual steps, identifying

risks and controls.

Inspection and Test Plans – A plan that stated the inspections, tests and hold-points, and records
with reference to the drawings and specifications as required.

One a Construction Pack was developed by the supervisor, with input from the work team, it was forwarded to the HSE team to review the controls in the JSEA, before being provided to the Project/Construction Manager for approval. Site crews were briefed on how to perform a task based on the information set out in the approved Construction Pack and the crews signed on to the JSEA, acknowledging the risk controls that were in place. The Construction Packs would then be used to produce daily Crew Briefing Plans based on where the work team were up to in the job.

All workers were also encouraged to report hazards on site using "See Say Do" cards. Hazards reported using the "See Say Do" cards were addressed immediately wherever possible or are escalated to supervisors and project management for formulation and implementation of control measures.

The CSM2 Project also ran a health and safety committee, which had elected H&S representatives from the site crews. Representatives were available for all crews to discuss and raise any health and safety concerns on site.

1.13 Detail the level of auditing undertaken on the HSMS, including compliance audits and audit frequency

Auditing on the CSM2 Project

On the CSM2 project specifically, the site undertook regular ACC AEP Self-Assessments. Senior leaders were also engaged with safety. The total number of 'engagements' between management and workers was 1,353 over the course of the CSM2 Project (approximately 2.5 years).

In addition to audits of the site as a whole, temporary traffic management sites were the subject of regular external and internal audits. Audits were completed by Waka Kotahi, its representative on the project – AECOM and the joint venture project team to assess the sites for compliance with the approved temporary traffic management plan. These were on top of the daily pre-start review and 2-hourly site checks that are required to be undertaken by Site Traffic Management Supervisors by operation of the Code for Temporary Traffic Management, which governs the operation of temporary traffic management.

3. ENFORCEABLE TERMS

The person acknowledges all activities set forth in the enforceable terms below must be auditable and include a date for completion and an estimated cost for each activity.

3.3 Activities to be undertaken to promote the objectives of the health and safety legislation that will deliver benefits for workers and/or work and/or the workplace

ACTIVITIES Outline the activity and the expected outcomes	Cost (\$)	Timeframe
3.3.1 Initiate Riding through Temporary Traffic Management Set	t-ups	
Scope: While the number of cyclists on the road is increasing, McConnell Dowell is conscious that many workers are not aware of cyclists' experiences because it is not a mode of transport regularly used by them. To provide an aid to their assessment of sites,	\$14,500 in the first year, including management	Within 12 months

 McConnell Dowell will provide bikes and PPE to have temporary traffic management staff ride the site to get a perspective of how cyclists will be affected by the works. Delivery: McConnell Dowell will: Develop a Safe Work Method Statement for travelling through worksites on bicycles. Work with the McConnell Dowell plant team to develop and/or modify a rack on which bikes can be securely stored during transport to and from site. Purchase bikes and appropriate associated PPE. Train workers on how to securely stow and extract the bicycles, and the use of the new SWMS. Outcome: This will provide temporary traffic management workers with an alternate method for assessing temporary traffic sites with a secure of the new secure of the s	time, and then \$5,000 of management time each year thereafter	
focus on vulnerable road users, and will improve the safety of sites for cyclists.		
3.3.2 Develop virtual reality temporary traffic management simula	tor	
 Scope: To develop a digital solution that can simulate and rehearse the implementation of temporary traffic management plans in a virtual world before physical implementation on site. Delivery: McConnell Dowell plans to deliver the project using computational analysis and immersive technology applications, with an outlook of optimising the design and implementation of the temporary traffic management planning process. McConnell Dowell will undertake the work internally with support from industry experts to create the digital environment. This digital environment will host information related to real life conditions including traffic movement, cyclists, and pedestrians. Using several current and upcoming projects as testing environments, the temporary traffic management plans will be rehearsed in the digital environment before the physical implementation. The digital environment will run simulations to test different conditions at various times of the day and with different types and sizes of vehicles moving to and from the site, similar to the technology employed by freight services such as DHL. The computational output will identify the optimal pathway(s) for inwards and outwards vehicles to follow. Upon selecting a preferred choice, it will be possible to visualise the scenario in third person or experience it in the first person from the perspective of road users, logistics operators, cyclists or pedestrians. The first person view will enable the team to test the suitability of the solution generated by the computational analysis. 	\$200,000 (including management time)	Within 18 months
modelling around site entries will also be completed to review and identify areas of risk. All identified issues will be resolved in the digital environment to inform the physical implementation. Different scenarios will be		

 inputted such as high vulnerable user traffic and traffic flows to ensure that any weaknesses in the traffic management plan can be identified. Once a final plan has been confirmed an assurance process can be completed whilst using the digital versus real world scenarios to ensure that the implementation is correct Outcome: Using the platform allows for the testing of the intended plan and a review process before implementation – thus, removing risk to workers, vulnerable road users and general traffic. 		
A review process will be captured as feedback to temporary traffic management designers about what has been learned in the platform. Workers will be able to access the platform to visualise how the final plan should be implemented so the exacting requirements are met and the lessons learned from each scenario can be captured for input into future temporary traffic management plans. Learnings will be shared with our clients and CCNZ, This will be completed with sessions on the system and the industry body meetings such as at the CCNZ Conference, and in consultant and client engagement sessions.		
Total estimated costs of benefits for workers/others:	\$214,500	
3.4 Activities to be undertaken to promote the objective of t	the health and saf	ety legislation
3.4 Activities to be undertaken to promote the objective of that will deliver benefits for the wider industry or sector ACTIVITIES Outline the activity and the expected outcomes	the health and saf	ety legislation
that will deliver benefits for the wider industry or sector ACTIVITIES		
that will deliver benefits for the wider industry or sector ACTIVITIES Outline the activity and the expected outcomes		

formulated t	to date to cover the New Zealand position.	
Scope: McConnell Dowell and Downer propose to fund CHASNZ to undertake a scoping study to provide a better picture of how best to mitigate risks to vulnerable road users.		
Zealand situ	HASNZ will undertake a scoping study based on the New uation with comparisons to worldwide better practice, United Kingdom. The deliverables from the scoping e:	
1. Pro	blem definition:	
inte prol Zea revi	at is the current state analysis of both New Zealand and rnational incidents and causation (i.e. how bad is the blem and how much data exists evidencing it in New aland and overseas)? This work will include a literature iew and comparison data study to better define the rent state.	
2. Inte	ervention logic (option analysis):	
revi opti	at initiatives will make a difference based on literature lews and safety science? What, if any, international lons exist that could be implemented in whole or in part in w Zealand?	
3. Sta	keholder engagement:	
issu effe site invo	ill be particularly important to understand the current ues and challenges to providing for and maintaining active and safe solutions for cyclists around construction s. CHASNZ will need to determine: Who needs to be olved and who is impacted by this project? Who is best to lement and lead change?	
with Gov The indu and	anticipated that, at a minimum, CHASNZ will engage a Waka Kotahi, CCNZ, ACC, WorkSafe, Local vernment New Zealand, and the Cycling Action Network. a goal of the engagement is to identify and agree with the ustry on the minimum standards for the safety of cyclists I vulnerable road users that will be incorporated into any nework to be implemented on sites.	
	velopment of key components of framework (including analysis):	
sco is ir cyc CH/ imp	e information gathered from the first three stages of the ping study will be used to develop a draft framework that ntended to meet the needs of clients, contractors, and lists. Downer and McConnell Dowell will work with ASNZ to develop the detailed framework/protocols to be lemented at their sites, based on the research conducted tages 1-3.	
	anticipated that the framework will include several key nponents:	
imp veh cata	<i>curement</i> – Procurement requirements will be lemented, focusing on the standard of safety of heavy icles transporting material to sites. CHASNZ will create a alogue of multiple options for heavy vehicles with a imum standard or requirements to permit access to a	

project.

Transport impact risk assessment – The transport risk assessment will review the impacts of added construction traffic on the local network, including the potential impact and exposure to cyclists and pedestrians around the project.

Construction logistics plan – The construction logistic plan will support the communication with construction transport operators and agreed timing, routes, and entry to site operations.

Monitoring and validation – A monitoring and validation process will be implemented to ensure the agreed standards are adhered to, and appropriate records are maintained to facilitate a robust verification process.

5. Pilot study:

Once the draft framework/protocol has been developed, Downer and McConnell Dowell will each implement the framework (see the activity below in this section 3.2) over a 90 period on a site. This will enable CHASNZ to assess the effectiveness of the framework in practice. The measures of this will be the stepped implementation of the requirements. The information about the New Zealand practices and how the differing options or parts of them worked will be utilised in the benefits analysis.

6. Benefits analysis:

Data compiled from the pilot study will be assessed to determine the success or otherwise of the framework and the viability of adopting such a framework across all of New Zealand. This will include assessing: What will be achieved? What improvements do we expect to see from the proposed changes?

7. Expected return on investment:

An assessment of the benefits over the investment.

These areas of consideration will be collated into a business case that details the analysis and process for determining CHASNZ's recommendation of options for intervention, and a suggested funding model for implementation of the recommendations.

Outcome: Any initiative that intends to change industry practice across the country needs to be carefully structured and managed to ensure that the engagement with industry and impact on safety is achieved. The CHASNZ scoping study will produce a business case that sets out the deliverables referred to above and provides a high-level plan including timeframes and investment requirements for implementation of the recommended actions.

This business case will be presented to government and the industry for consideration/discussion, approval, and support. It is intended to support a long-term goal of the implementation of an industry lead, government backed initiative designed to improve the safety of vulnerable road users.

To support the CHASNZ scoping study, Downer and McConnell Dowell will work with CHASNZ to prepare the pilot materials required to inform and train workers and contractors accessing sites on the	Time costs: Unable to be quantified	Within 12 months
proposed protocol. Downer and McConnell Dowell will then implement the protocol across two of their operational sites in different regions with high volume cycling activity, the pilot being based on the preferred option CHASNZ establishes for New Zealand. It is anticipated, based on initial discussions with CHASNZ, that in addition to time to upskill and train workers and contractors on the framework, additional equipment will be required for vehicles which may include items such as mirrors for trucks, alarms and cameras. These additional pieces of equipment are anticipated based on the requirements of the United Kingdom's Construction and Logistics Cyclist Safety Scheme (CLOCS). During the pilot, records will be kept noting the number of cyclists moving through the sites, records regarding vehicle and pedestrian/cyclist interactions, engagement records with the community and workers/subcontractors, and any other data that CHASNZ seeks to be recorded.	Allowance for additional equipment: \$30,000 (This figure is based on upgrading vehicles componentry to include minimum equipment specified under the United Kingdom's CLOCS scheme and may be subject to change based on the outcome of the CHASNZ framework developed as part of the scoping study.)	
3.4.3 – 3.4.6 Creation of a National Good Practice Guide for the tra Scope: It is apparent that there is a lack of clear guidance on how to treat cyclists and other vulnerable road users at present. McConnell Dowell and Downer propose to develop, in conjunction with other	Development of Guideline: \$34,100 (Activity	le Road Users Activity 3.4.3 – within 18 months
industry participants and stakeholders, a good practice guideline for the treatment of vulnerable road users. We know that there are some limited guidelines available, such as the one produced by the Stronger Christchurch Infrastructure Rebuild	3.4.3) Development and issuing of Safety Alert: \$840 (Activity 3.4.4)	Activity 3.4.4. – within 24 months
	Development and	
Team (SCIRT). Now that SCIRT is no longer operating this important resource needs to be reviewed, updated, and adopted nationally by the Industry.	delivery of webinar: \$2,100 (Activity 3.4.5)	Activity 3.4.5 – within 24 months
Team (SCIRT). Now that SCIRT is no longer operating this important resource needs to be reviewed, updated, and adopted nationally by the Industry.	delivery of webinar: \$2,100	within 24

 Guideline by CCNZ, which will leverage its connections in the temporary traffic management area to ensure it is obtaining information that is not only technically accurate but also relevant to businesses experiences. CCNZ representatives will: Work with industry experts to workshop and develop the Guideline. Engage with Waka Kotahi regarding the need to produce the Guideline and how it will interact with CoPTTM and the new New Zealand Guide to Temporary Traffic Management which is currently being produced by Waka Kotahi. Engage with the relevant local bodies regarding the proposed Guideline. Engage with cycling group[s such as Cycling Action New Zealand and Share the Road regarding the proposed Guideline. Engage with cycling group[s such as Cycling Action New Zealand and Share the Road regarding the proposed Guideline and seek their input into it so that it incorporates controls that are supported by cyclists. Publish the Guideline. Develop a Safety Alert for industry which will be shared through CCNZ members to industry participants. Produce a webinar training session to educate industry on the content of the Guideline and how it operates. Run a national roadshow to CCNZ's nine branches to educate the industry. Outcome: Creation of a national document which provides best practice guidance on how to ensure the safe passage of vulnerable road users through temporary traffic management sites. McConnell Dowell and Downer will work together to support and promote the use of the Good Practice Guideline by clients and other industry participants, alongside CCNZ. 	Total McConnell Dowell spend: \$28,420 (including management time)	
3.4.7 Registration of the training program with NZQA		
 Scope: As part of its EU, Downer will develop a comprehensive training programme for industry, centred around Temporary Traffic Management Risk Management. With the award of a series of NZQA Unit Standards, these can be grouped into an NZQA-accredited micro-credential – awarding learners with a tangible recognised qualification upon completion of the training. Through the Infrastructure Industry Training Organisation (Connexis), McConnell Dowell and Downer will accredit and register a micro-credential attributed to completion of the aforementioned training package. Delivery: Alignment with both existing and new unit standards will allow the development of the micro-credential through Connexis' qualification development processes. Appropriate liaison and collaboration with NZQA, and the industry, will be required to ensure the need is clearly articulated and 	Cost of consultation, liaison, development and engagement with NZQA and vocational educational institutions (i.e. Connexis and the CIWDC): \$22,500 for external provider support; Downer and McConnell Dowell's costs are unable to be quantified.	Within 24 months

subsequently accommodated within the accredited micro-credential. McConnell Dowell and Downer will work together to gain the necessary support from the industry for the micro-credential. Outcome: Registration will ensure trainees who undertake the Risk Assessment and Decision Making in Temporary Traffic Management training package will subsequently be awarded formal Unit Standards, and an NZQA-accredited micro-credential within the New Zealand Qualifications Framework (NZQF).	Cost of registration of the training program with NZQA: This cost will be borne by Connexis. The cost of this activity is being shared with Downer Total McConnell Dowell spend: \$11,250	
 3.4.8 Creation of a "Train the Trainer" program To facilitate ongoing delivery of this training, Downer will work with an external expert to develop a "Train the Trainer" package and framework to embed this training and qualification across the industry and maximise industry-wide accessibility. These individuals will be able to take the training and run the programme within their own organisations to extend the capability of the TTM workforce. Together, McConnell Dowell and Downer will fund the delivery of the training sessions run by an external provider. An external provider will run four 2-day Train the Trainer sessions in Auckland (2 sessions), Wellington (1 session) and Christchurch (1 session). To ensure good uptake by the industry, McConnell Dowell and Downer will use their industry contacts to support and advocate for businesses to attend these sessions. As assessors, once qualified, will be able to train those in their organisations without significant cost, the intention is to extensively promote the training program with a particular focus on small contractors so that they can minimise training spend in this space. 	Cost of training industry assessors: \$19,000 external provider fee for delivery of training package, and estimated venue, catering and travel costs. The cost of training assessors is being shared with Downer. Total McConnell Dowell spend: \$9,500	Within 27 months
3.4.9 Creation of Training Fund		
McConnell Dowell and Downer wish to ensure that everyone who completes training is able to have it recognised through registration with NZQA. To ensure that this occurs, McConnell Dowell and Downer will jointly contribute to a fund so that all credits (associated with record of achievement reporting) can be recorded. It is intended that the fund will cover the costs of registration for one-thousand (1000) individuals across a wide-reaching cross-section of New Zealand's infrastructure and construction sectors (focussing on maximum regional spread with a specific focus on smaller contractors).	Registration fund: \$108,000 (This fund is based on registration of 18 credits, at \$6 per credit for 1000 trainees). The cost of this activity is being shared with Downer. Total McConnell Dowell spend: \$54,000	Within 27 months

Total estimated costs of benefits for industry:	\$193,170		
3.5 Activities to be undertaken to promote the objectives of the health and safety legislation that will deliver benefits for the community			
ACTIVITIES Outline the activity and the expected outcomes	Cost (\$)	Timeframe	
3.5.1 Develop BikeReady training content			
BikeReady is a national body that is funded by Waka Kotahi to provide cycling training for school students, adults, and drivers around cycling safety and blind-spot awareness. Scope: McConnell Dowell will partner with BikeReady to develop new training materials that focus on the risks associated with cyclist and site traffic interaction around construction sites. Once developed, the training materials will be available to be rolled out by BikeReady	\$55,000	Within 18 months	
to schools, community groups, and drivers. Delivery: The delivery of this initiative will be achieved through four key stages of work:			
Stage 1: Consultation with industry			
McConnell Dowell will arrange workshops with members of the construction and transport sectors (using its connections through CCNZ) in order to collate ideas and feedback about the key issues that need to be covered in any training programme to enhance cyclist safety around construction sites. This will explore issues around traffic management requirements, access and egress from project sites, site deliveries, alternative provisions for cyclists, and communications with the public.			
Stage 2: Development of training content			
The feedback obtained from McConnell Dowell's consultation workshops will be combined with intelligence from Waka Kotahi about how and when cyclists are using the roading network and the relevant concerns or issues raised about construction site risks. This collaboration will assist McConnell Dowell and Waka Kotahi to collectively develop the content for a training programme that can be rolled out to cyclists and also to drivers who may interact with cyclists during work on construction programmes.			
Stage 3: Trial of training programme and feedback			
McConnell Dowell will arrange for the training programme to be trialled on one of its major construction projects. All drivers working at or regularly attending the project site will be required to complete the training programme. This will be fully funded by McConnell Dowell to ensure the spread of the training is broad and meaningful.			
Once the training has been successfully provided to all project workers, McConnell Dowell will seek feedback from those that received the training in order to understand its effectiveness and areas where improvements or changes could be made.			

Stage 4: Product finalisation and promotion McConnell Dowell will use the feedback it receives from the programme trial to work with Waka Kotahi to finalise the form and content of the training programme. Once agreed, McConnell Dowell will assist Waka Kotahi in the development and released of promotional material to raise awareness within the community about the availability of the training resource. Outcome: To provide a practical and publically available training		
resource for workers and the community that raises awareness about the potential risks posed to cyclists by construction activities. Completion of the training programme is intended to give people the knowledge and skills to keep themselves and others safe when in the vicinity of construction sites.		
3.5.2 Donation to Hagley Community College		
The Victim attended the Hagley Community College while at secondary school. The Victim's family suggested a donation to this school, and McConnell Dowell will make a donation of \$20,000 in the Victim's name and memory.	\$20,000 to be paid within one month	
Total estimated costs of benefits for the community:	\$75,000	