

Sustainability Strategy

NEWCASTLE INNER CITY BYPASS RANKIN PARK TO
JESMOND (RP2J)

ACKNOWLEDGEMENT TO COUNTRY

Fulton Hogan acknowledges the Awabakal People as the Traditional Owners of the land we are working on, and pay our respect to their Elders past, present and emerging.

We recognise their deep connection to Country and value the contribution to caring for, and managing the land and water.

We are committed to pursuing genuine and lasting partnerships with Traditional Owners to understand their culture and connections to Country in the way we plan for and carry out the delivery of the Works.



Document control

This is an e-copy of the Strategy and it interfaces with the other associated plans, which together describe the proposed overall project management system for the project.

The latest revision of this strategy is available on the Fulton Hogan server. If any unsigned hard copies of this document are printed, they are valid only on the day of printing.

The revision number is included at the bottom of each page. When revisions occur, the entire document will be issued with the revision number updated accordingly for each owner of a controlled copy.

Attachments/Appendices to this strategy are revised independently of this strategy.

Revision History

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Sustainability Strategy

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1.1. Background

Transport for NSW (TfNSW) are constructing the fifth section of the Newcastle Inner City Bypass between Rankin Park and Jesmond (RP2J). The Newcastle Inner City Bypass is part of TfNSW’s strategy to provide improved traffic flows across the western suburbs of Newcastle and connect key regional destinations such as Bennetts Green, Charlestown and Jesmond shopping centres, John Hunter Hospital, The University of Newcastle and the Pacific Highway.

In 2015, the NSW Government released the State Priorities to deliver infrastructure, grow the economy, and improve health, education and other services across NSW. The RP2J project will contribute directly to the States Priorities by creating safer communities, building infrastructure and providing better services.

The RP2J project has been assessed under Division 5.2 (State Significant Infrastructure) of the NSW Environmental Planning and Assessment Act 1979 (EP&A Act). The Department of Planning and Environment placed the ‘Newcastle Inner City Bypass – Rankin Park to Jesmond Environmental impact statement’ (RMS, November 2016) (EIS) on public exhibition from Wednesday 16 November 2016 until Friday 16 December 2016 (a total of 31 days). RMS prepared the ‘Submissions and Preferred Infrastructure Report Newcastle Inner City Bypass Rankin Park to Jesmond’ (RMS, April 2018) (SPIR) to respond to submissions and describe project design refinements.

The Minister for Planning granted project approval on 15 February 2019 (SSI 6888).

1.2. Project description

The RP2J Project is a Design and Construct (D & C) Project, which will involve the construction of about 3.4 kilometres of new four lane divided road between Lookout Road at New Lambton Heights and Newcastle Road at Jesmond.

Key benefits will include:

- Improved traffic flow for motorists
- Reduce travel times and congestion
- Improve connectivity
- Improve safety for all road users

Key features include:

- A northern interchange at Newcastle Road
- An interchange providing access to John Hunter Hospital precinct
- A southern interchange at Lookout Road
- Structures provided along the bypass to improve connectivity in the bushland for people and animals
- Off-road provisions for pedestrians and cyclists including a shared path bridge over Newcastle Road at Jesmond.

1.3. Compliance

The requirements of the Baseline Conditions and where they are met in this strategy are shown in Table 1.

► Table 1 Baseline Conditions for Sustainability Strategy

BC	Requirement	Reference
E61	A Sustainability Strategy must be prepared and submitted to the Planning Secretary for information before the commencement of	This Sustainability Strategy:

construction (except Bridge 7 works). The Sustainability Strategy must include:

- details of achieving an As Built rating under the Infrastructure Sustainability Council (ISC) infrastructure rating tool or other justified rating mechanism;
 - details of the sustainability initiatives which will be implemented; and
 - a description of how the strategy will be implemented for the SSI.
- Section 4
 - Appendix B, Opportunities Register
 - Section 2

1.3.1. Sustainability Strategy approval and distribution

The Sustainability Strategy must be provided to the Department of Planning and Environment for information prior to commencement of construction.

1.4. Fulton Hogan Construction

We see sustainability as the only way to do business. That’s why we invest in the communities we work in, bridging gaps and creating economic value. It’s our way of improving the world we’ll live in tomorrow

Our vision and purpose:

Being a successful and enduring infrastructure business – being in, caring for and connecting with communities.

As we deliver good work for our customers, we must meet the needs of the present, without compromising the ability of future generations to meet their needs. Our approach needs to create long-term value, by considering how we impact the ecological, social and economic environments in which we operate.

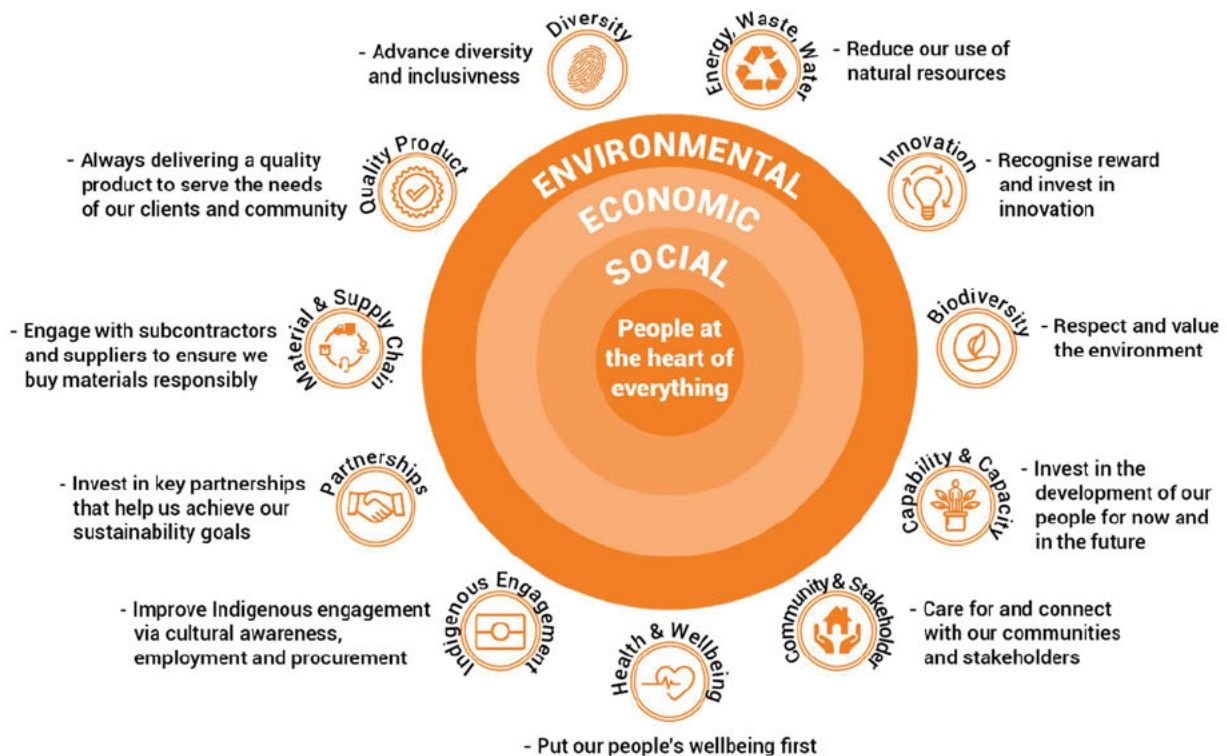


Figure 1 Fulton Hogan Construction Sustainability Framework

1.5. Infrastructure Sustainability Council

The Infrastructure Sustainability Council (ISC) is a member-based, not-for-profit peak body operating in Australia and New Zealand with the purpose of enabling sustainability outcomes in infrastructure. They do this in the following ways:

- With an Infrastructure Sustainability (IS) rating scheme for planning, design, construction and operations of infrastructure assets,
- Education, training and capacity building,

- Connecting suppliers of sustainable products and services with projects through ISupply,
- Bringing together experts to share knowledge and lift the community of practice,
- Recognition and rewarding best practice.

ISC will be used on the Rankin Park to Jesmond Inner City Bypass project to provide an independent sustainability rating. A minimum Design and As-Built score of 60 is being targeted under the ISC rating tool, Version 1.2.

2. Sustainability Approach

2.1. Sustainability Roles and Responsibilities

Fulton Hogan have demonstrated their commitment to achieve IS rating targets through the development and adoption of this Sustainability Strategy, and dedication of resources for its implementation. The following sections outline the team and roles that are responsible for the interaction and implementation to achieve the IS rating targets.

The sustainability management team will comprise of the Environmental and Sustainability Manager supported by an Environmental and Sustainability Advisor. An independent Sustainability Reviewer will monitor and review the overall sustainability performance of the Project. The Environmental and Sustainability Manager will report directly to the Project Manager who will report directly to the Project Director. Communication lines will generally reflect reporting and authority lines.

All project team members will have direct and full accountability for contributing to the delivery of sustainability objectives and targets, rather than making it the responsibility of the sustainability management team. The sustainability team will work collaboratively with the project team to provide certainty in the delivery of sustainability requirements, ensuring a proactive rather than reactive approach to sustainability management.

► Table 2 Roles and Responsibilities

POSITION	RESPONSIBILITIES
Environmental and Sustainability Manager	<ul style="list-style-type: none"> ■ Manage sustainability and the Infrastructure Sustainability (IS) rating for the RP2J Project. ■ Manage the development, implementation, assessment and verification of sustainability initiatives for the RP2J Project. ■ Provide specialist sustainability advice to the Project Director and other functional managers to facilitate design and construction. ■ Work in collaboration with the TfNSW Representative as required facilitating ongoing reporting, knowledge sharing and continual improvement. ■ Undertake or delegate weekly environmental and sustainability inspections on site.
Environmental and Sustainability Advisor	<ul style="list-style-type: none"> ■ Hold accreditation as an Infrastructure Sustainability Accredited Professional (ISAP) through the IS Council ■ Manage sustainability and the Infrastructure Sustainability (IS) rating for the RP2J Project. ■ Develop, review and continually improve the Sustainability Strategy. ■ Manage day to day activities required to execute the Sustainability Strategy. ■ Support and provide sustainability advice to guide the achievement of the IS Rating, sustainability considerations, initiatives, knowledge sharing, monitoring and reporting requirements. ■ Provide specialist sustainability advice to the Project Director and other functional managers to facilitate design and construction. ■ Work in collaboration with the TfNSW Representative as required facilitating ongoing reporting, knowledge sharing and continual improvement.

	<ul style="list-style-type: none"> ▪ Liaise with the Infrastructure Sustainability Council.
Design Manager	<ul style="list-style-type: none"> ▪ Ensure design activities prioritise sustainability ▪ Drive sustainable outcomes through design of the project ▪ Ensure whole of life environmental, social, and economic costs and benefits are considered in decision-making ▪ Provide data where required for sustainability reporting and monitoring
Project Director	<ul style="list-style-type: none"> ▪ Ensure the requirements of this strategy are fully implemented ▪ Endorse and support the project Sustainability Policy ▪ Participate and provide guidance in the regular review of this strategy and supporting documentation ▪ Provide adequate resources (personnel, financial and technological) to ensure effective development, implementation and maintenance of this strategy
Project Manager	<ul style="list-style-type: none"> ▪ Plan construction works in a manner that prioritises sustainability ▪ Ensure whole of life environmental, social, and economic costs and benefits are considered in decision-making ▪ Drive sustainable outcomes through construction of the project ▪ Provide data where required for sustainability reporting and monitoring
Specialist Consultants	<ul style="list-style-type: none"> ▪ Provide advice and guidance on an as needs basis to assist with the design, modelling, and reporting
Independent Sustainability Reviewer	<ul style="list-style-type: none"> ▪ Review project/asset sustainability performance ▪ Act independently and objectively, challenge conventional thinking and push for greater sustainability outcomes ▪ Make findings and recommendations from reviews and audits to guide greater sustainability outcomes

2.2. Inspections, Auditing, Reporting and Reviews

2.2.1. Environmental and Sustainability Inspection

Environmental and Sustainability inspections will be conducted at least weekly during construction, covering environmental and social aspects. These will be conducted by the Environmental and Sustainability Manager or delegate.

2.2.2. Monthly Progress Reporting

As part of the reporting required by section 24.1.1.10 of Appendix 24 of the Scope of Works and Technical Criteria (SWTC), the status of progress towards the targets in Section 3.1 of the Sustainability Strategy will be reported on monthly.

2.2.3. Quarterly Progress Reporting

The sustainability performance of the project will be reported at least once each quarter to the project (FHC and TfNSW) by the Environment and Sustainability Manager or delegate. The reports will include, at least:

- Fulton Hogan’s performance towards the each commitment, objective and target in the Sustainability Strategy and achievement of the IS Rating for the “Design” and “As-Built” stages
- Details of continuous improvement initiatives and actions undertaken by Fulton Hogan
- Summary of the most recent audits and the status of implementation of recommended actions based on the findings of previous audits

2.2.4. Quarterly Sustainability Meetings

As per G36 Clause 3.3(o), quarterly sustainability meetings must be organised and facilitated by the Environmental and Sustainability Manager.

2.2.5. Quarterly Sustainability Audits

An audit of the sustainability management system will be conducted within each quarter, with key findings distributed to the project (FHC and TfNSW). In the design phase, at least one external audit or review will be conducted. During construction, at least one audit will be conducted by an external suitably qualified auditor who is not part of the project team. Audits and reviews will cover the most material environmental, social, and economic aspects.

2.2.6. IS Rating Verification

Fulton Hogan will submit a self-assessment against the IS Rating Tool including all evidence to ISC. Independent Verifiers selected by ISC will assess the submission, before providing a Round 1 score and feedback. Fulton Hogan can then resubmit in Round 2 with any amendments and additional evidence required by ISC, and the Independent Verifiers will then provide an amended score, which will then be certified by the Technical Steering Committee and ISC. This process will occur for both the Design and As Built ratings, with the certifications/verifications provided to TfNSW once available.

2.3. Toolbox Talks, Pre-Starts

Toolbox talks will be one method of raising awareness and educating personnel on issues related to all aspects of construction including sustainability aspects. The Toolbox talks are used to ensure environmental and sustainability awareness continues throughout construction. Toolbox talk attendance is mandatory and attendees of toolbox talks are required to sign an attendance form. Records of Toolbox talk attendance will be maintained.

Toolbox topics may include:

- Energy conservation in construction
- Water conservation
- Prioritising non-potable water sources
- Being a Good Neighbour, positive community engagement
- Waste management in construction
- Leaving a positive legacy in the community

The Pre-start Meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

The environmental and sustainability component of pre-starts will be determined by relevant foreman and environmental personnel and will include any sustainability issues that could potentially be impacted by, or impact on, the day's activities. All attendees will be required to sign on to the pre-start and acknowledge their understanding of the issues explained.

2.4. Training and Awareness

Targeted environmental and sustainability awareness training will be provided to individuals or groups of workers with a specific authority or responsibility for management of activities that are relevant to sustainability requirements and targets.

Another way to inform construction personnel will be through the development and distribution of awareness notes. These will typically take the form of a poster, booklet or similar and will be distributed to engineers, leading hands, foremen and others with a responsibility for managing specific work locations or activities. This documentation will be used to inform the broader workforce at daily pre-start meetings or made available in worker crib sheds/ break facilities.

At least one Infrastructure Sustainability Accredited Professional (ISAP) will be engaged to provide sustainability advice through every phase of the project. ISAP training may be provided for additional individuals where appropriate.

2.5. Milestones

The below milestones will be tracked and monitored in the Quarterly Sustainability Reports (refer to Section 2.2.3).

▶ Table 3 Milestones

MILESTONE	TIMEFRAME	REFERENCE
Sustainability Strategy	Submitted to Planning Secretary for information before construction commencement	Exhibit E Planning Approval E61
IS Rating Agreement	Within 40 business days of the date of the deed	SWTC App.4 Section 4.34(d)
Initial Design Rating Score projection	Within 40 business days of the date of the deed	SWTC App.4 Section 4.34(d)
Initial As Built Rating Score projection	Within 40 business days of the date of the deed	SWTC App.4 Section 4.34(d)
Updated Design Rating report	Within 3 months of commencement of design	SWTC App.4 Section 4.34(d)
Updated As Built Rating report	Within 3 months of commencement of construction	SWTC App.4 Section 4.34(d)
IS Design Rating score certification	Within 6 months after the final SDD submission	SWTC App.4 Section 4.34(e)
IS As Built Rating Round 1	Within 2 months prior to date for Construction Completion	SWTC App.4 Section 4.34(f)
IS As Built Rating score certification	Within 6 months of the date of Construction Completion	SWTC App.4 Section 4.34(g)

3. Commitments, Objectives and Targets

The Fulton Hogan Sustainability Policy is provided in Figure 2. The policy includes commitments and objectives for environmental, social, and economic aspects. It is endorsed by the Group CEO and is publicly available through the Fulton Hogan website.



Doing the right thing now and for the long term

As we deliver good work for our customers, we must do our part to address climate change, loss of biodiversity within our environment, and to enhance social outcomes. Our approach to sustainability is consistent with our purpose of creating, connecting, and caring for communities, and our family values.

We will:

People

- Always put the health, safety and wellbeing of people first
- Value a performance culture, based on leadership, great people and personal development
- Live our REAL values (Respect, Energy & Effort, Attitude and Leadership) and behaviours to ensure we make sustainable decisions
- Harness and value diversity and inclusion

Planet

- Contribute towards and protect our natural environment
- Reduce our carbon emissions and impact on the environment in which we work and live, always actively seeking ways to minimise our environmental footprint
- Seek out and promote the use of products and services that use sustainable materials and reduce the carbon footprint
- Apply innovation, life-cycle thinking and effective planning to drive sustainable performance

Prosperity

- Provide long term value to our shareholders by building our reputation as a market leading business, whilst continuing to reinvest in the future growth of the company
- Share our sustainability journey with our partners, stakeholders and the broader community
- Through developing an understanding of their key priorities, build long term relationships with our communities and stakeholders
- Give back to the communities we live and work in



C W Bruyn
Managing Director

Figure 2 Fulton Hogan Sustainability Policy

https://www.fultonhogan.com/wp-content/uploads/2022/07/FH-Policy-Sustainability_June-2022.pdf

3.1. Objectives and Targets

The key sustainability objectives and targets for the design and construction of the RP2J Project are outlined below in Table 3, mapped against the Fulton Hogan Sustainability Policy commitments.

► Table 4 Commitments, Objectives and Targets

FH SUSTAINABILITY POLICY COMMITMENT	OBJECTIVE / TARGET	IS CREDIT/ SDG
<p>Always put the health, safety and wellbeing of people first</p>	<ul style="list-style-type: none"> ▪ At least 80% of FH employees trained in StaySafe ▪ Ensure a minimum of 2 FH employees are Mental Health First Aid Accredited ▪ All FH employees undertake the Mental Health is Everybody's Business awareness session ▪ At least 80% of FH employees competency trained in the Living Safely Leadership Programme ▪ Develop and implement a Mental Health Management Plan 	<p>IS: Inn-1 (Wfs-3) SDG: (3)Good Health</p>
<p>Value a performance culture, based on leadership, great people and personal development</p>	<ul style="list-style-type: none"> ▪ Build a sustainable culture to create and improve sustainable outcomes for the project 	<p>IS: Man-3, Inn-1, (Wfs-1, Wfs-2) SDG: (11)Sustainable Cities and Communities,</p>
<p>Live our REAL values (Respect, Energy & Effort, Attitude and Leadership) and behaviours to ensure we make sustainable decisions</p>	<ul style="list-style-type: none"> ▪ Design and construct the project to optimise environmental, social, cultural, governance and economic outcomes 	<p>IS: Man-1 SDG: (11)Sustainable Cities and Communities, (17)Partnership for the Goals</p>
<p>Harness and value diversity and inclusion</p>	<ul style="list-style-type: none"> ▪ Maintain the percentage of learning workers as 20% of the project workforce ▪ Maintain the percentage of female workers in non-traditional roles as 2% of the project workforce ▪ Ensure a minimum of 4.28% of the contract value is allocated to the Minimum Aboriginal Participation Spend ▪ Maintain the percentage of workers under the age of 25 as 8% of the project workforce 	<p>IS: Man-1, Inn-1 (Wfs-4) SDG: (4)Quality Education, (5)Gender Equality</p>
<p>Contribute towards and protect our natural environment</p>	<ul style="list-style-type: none"> ▪ Utilise opportunities that arise throughout design and construction to implement Beyond Compliance initiatives that promote, enhance and restore environment and community values for the long term ▪ Minimum 25% of the land used for the project is previously disturbed 	<p>IS: Lan-1, Lan-2, Eco-1, Eco-2 SDG: (12)Responsible Consumption, (14)Life Below Water, (15)Life on Land</p>

FH SUSTAINABILITY POLICY COMMITMENT	OBJECTIVE / TARGET	IS CREDIT/ SDG
	<ul style="list-style-type: none"> The ecological value of infrastructure site is maintained 	
<p>Reduce our carbon emissions and impact on the environment in which we work and live, always actively seeking ways to minimise our environmental footprint</p>	<ul style="list-style-type: none"> 33% of total water use is from non-potable sources (substituting for potable). Reduce water consumption by 10% compared to base case footprint as agreed with ISC Landfill diversion of >80% by volume of spoil Landfill diversion of >50% by volume of inert and non-hazardous waste Landfill diversion of >40% by volume of office waste material Reduction of >15% GHG emissions compared to base footprint as agreed with ISC Substitute non-renewable energy with 20% renewable sources across the asset lifecycle during the design and construction phase 	<p>IS: Wat-1, Wat-2, Was-1, Was-2, Ene-1, Ene-2</p> <p>SDG: (6)Clean Water and Sanitation, (7) Renewable Energy, (12)Responsible Consumption, (14)Life Below Water, (15)Life on Land</p>
<p>Seek out and promote the use of products and services that use sustainable materials and reduce the carbon footprint</p>	<ul style="list-style-type: none"> At least one material/product to have an ISC approved environmental label Incorporate environmental, social and economic sustainability considerations into procurement and purchasing decisions for the project 	<p>IS: Mat-2, Pro-1, Pro-2</p> <p>SDG: (9)Innovation and Infrastructure, (12)Responsible Consumption</p>
<p>Apply innovation, life-cycle thinking and effective planning to drive sustainable performance</p>	<ul style="list-style-type: none"> Identify, assess and implement appropriate adaptation measures to treat 25% of all medium priority climate change risks 15% reduction in materials lifecycle impacts compared to a base case footprint as agreed with ISC 	<p>IS: Cli-1, Cli-2, Mat-2</p> <p>SDG: (9)Innovation and Infrastructure, (12)Responsible Consumption, (13)Climate Action</p>
<p>Provide long term value to our shareholders, by building our reputation as a market leading business, whilst continuing to reinvest in the future growth of the company</p>	<ul style="list-style-type: none"> Develop sustainability best practices throughout all phases of the project to improve project sustainability performance Work with Fulton Hogan Infrastructure Services on innovative and sustainable products for the project and business 	<p>IS: Man-1, Hea-1, Wfs-2</p> <p>SDG: (8)Good Jobs & Economic Growth, (9)Innovation and Infrastructure, (17)Partnership for the Goals</p>
<p>Through developing an understanding of their key priorities, build long term relationships with our communities and stakeholders</p>	<ul style="list-style-type: none"> Establish excellent and proactive relationships with key stakeholders and the local community Ensure our stakeholders are well informed and have their concerns addressed 	<p>IS: Sta-1, Sta-2, Sta-3, Sta-4</p> <p>SDG: (11)Sustainable Cities and Communities, (17)Partnership for the Goals</p>

FH SUSTAINABILITY POLICY COMMITMENT	OBJECTIVE / TARGET	IS CREDIT/ SDG
<p>Share our sustainability journey with our partners, stakeholders, and the broader community</p>	<ul style="list-style-type: none"> Engage in knowledge sharing beyond the project and key stakeholder boundaries to the wider industry Ensure our knowledge sharing includes lessons learnt 	<p>IS: Man-1, Sta-1</p> <p>SDG: (11)Sustainable Cities and Communities, (17)Partnership for the Goals</p>
<p>Give back to communities we live and work in</p>	<ul style="list-style-type: none"> To leave behind a positive legacy for sustainability in the communities we work within. 	<p>IS: Man-1, Hea-1, Sta-1</p> <p>SDG: (11)Sustainable Cities and Communities, (17)Partnership for the Goals</p>

4. Sustainability Approach

The following sections summarise the approach Fulton Hogan will take to meet the target levels of each credit throughout design and construction of the asset. The approach outlined below aims to achieve an excellent Design and As Built rating of at least 60 under the IS Rating Tool v1.2. This is summarised in Figure 3, and the Scorecard is presented in Attachment A. Note that the credits and levels targeted and their described approaches may change as the RP2J Project develops.

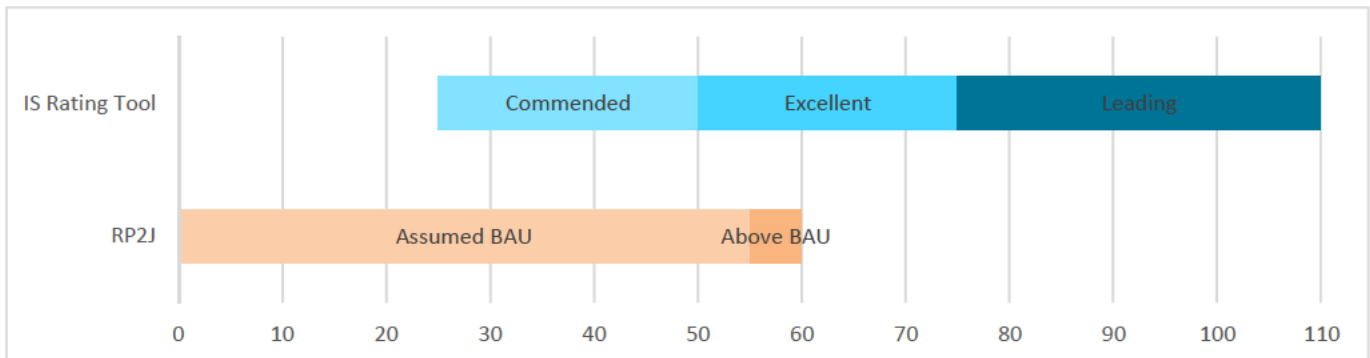


Figure 3 IS Rating Scores and Targeted Score

4.1. Base Case

The base case is used to model and measure improvements or reductions against business as usual processes, and capture advancements made in design and construction of the project. The base case design will be defined and the base case assumptions will be developed by the project team at the kick-off workshop with the IS Case Manager, and then submitted to ISC for approval in the early stages of the IS assessment process. Once approved, the same Base Case will be used consistently across the following credits:

- Ene-1 Energy and carbon monitoring and reduction (when targeting above Level 1)
- Wat-1 Water use monitoring and reduction (when targeting above Level 1)
- Wat-2 Replace potable water)
- Mat-1 Materials lifecycle impact measurement and reduction (when targeting above Level 1)

4.2. Management Systems

The team recognises that strong Management Systems are the backbone of sustainability implementation and to achieving the target IS rating score. The proposed strategy has maximised points to be achieved for the Management Systems IS credits and has made a commitment to implement the following delivery initiatives:

- Sustainability commitment through a publicly available policy [Man-1]
- Consider sustainability risks and opportunities throughout the design and construction phases [Man-2]
- Ensure a member of the Senior Leadership Team (SLT) has central responsibility for managing sustainability, and ensure an ISAP is engaged at all points of the RP2J Project [Man-3]
- Integration of sustainability into project inspections, audits, reporting and review across design and construction [Man-4, Man-5]
- Implement a knowledge sharing program across Fulton Hogan projects, industry and throughout the supply chain to share outcomes and lessons learnt [Man-6]
- Project decision making to include consideration of environmental, social, and economic risks and opportunities for significant issues. [Man-7]

► Table 5 Management Systems

CREDIT	REF.	LEVEL	RESPONSIBILITY
Sustainability leadership and commitment	Man-1	3/3	Project Director Environment and Sustainability Manager Environment and Sustainability Advisor
Risk and opportunity management	Man-2	2/2	Design Team Project Director Environment and Sustainability Manager Environment and Sustainability Advisor
Organisational structure, roles and responsibilities	Man-3	2/2	Human Resources Environment and Sustainability Advisor
Inspection and auditing	Man-4	2/2	Environment and Sustainability Manager Environment and Sustainability Advisor
Reporting and review	Man-5	2/3	Environment and Sustainability Manager Environment and Sustainability Advisor
Knowledge sharing	Man-6	2/3	Environment and Sustainability Manager Environment and Sustainability Advisor
Decision-making	Man-7	2/3	Design Team Project Director Environment and Sustainability Manager Environment and Sustainability Advisor

4.3. Procurement and Purchasing

Fulton Hogan’s commitment to sustainable procurement is demonstrated in the Sustainability Policy, which is provided on the company website and at Figure 2 within this strategy. Fulton Hogan will encourage a lasting supply chain legacy by influencing subcontractors and suppliers to consider and adopt more sustainable practices by:

- Comply with our Fulton Hogan Sustainability Policy and BS 8903 [Pro-1]
- Incorporate social, environmental and general sustainability criteria within pre-qualification criteria and supplier evaluations in the subcontractor selection process [Pro-2, Pro-3]
- Work with our suppliers and subcontractors to drive sustainability innovations and outcomes, and continue this through objectives and targets for applicable suppliers/contracts [Pro-3, Pro-4]
- Monitor supplier performance and compliance against sustainability contractual requirements [Pro-4]

▶ Table 6 Procurement and Purchasing

CREDIT	REF.	LEVEL	RESPONSIBILITY
Commitment to sustainable procurement	Pro-1	3/3	Procurement Manager
Identification of suppliers	Pro-2	2/3	Procurement Manager
Supplier evaluation and contract award <i>As Built Rating only</i>	Pro-3	2/3	Procurement Manager
Managing supplier performance <i>As Built Rating only</i>	Pro-4	2/3	Procurement Manager

4.4. Climate Change Adaptation

Fulton Hogan will assess the appropriateness and effectiveness of climate change risk and adaptation measures within our design and construction, to provide TfNSW and other stakeholders with a project that will withstand our changing climate. To achieve this, Fulton Hogan will:

- Undertake a climate change risk assessment for the construction and operational stages of the work, including a review of TfNSW assessments, in accordance with AS 5334-2013 (Climate change adaptation for settlements and infrastructure – A risk based approach) [Cli-1]
- Identify and implement adaptation measures to address all extreme and high rated risks, and at least 25% of identified medium rated risks [Cli-2]
- Comply with the TfNSW Climate Risk Assessment Guidelines [Cli-1, Cli-2]

▶ Table 7 Climate Change Adaptation

CREDIT	REF.	LEVEL	RESPONSIBILITY
Climate change risk assessment	Cli-1	2/3	Design Team Environment and Sustainability Advisor
Adaptation measures	Cli-2	2/3	Design Team Environment and Sustainability Advisor

4.5. Energy and Carbon

Fulton Hogan will look to reduce energy use, greenhouse gas emissions, and reliance on fossil fuels through construction and operation of the RP2J Project by:

- Identify, implement and quantify opportunities to reduce energy use and emissions throughout design and construction for the whole lifecycle of the asset, including but not limited to: [Ene-1]
 - Efficient construction practices including cut to fill, optimised program
 - Reuse of waste onsite
 - Retainment of vegetation where possible
 - Durable pavements minimising maintenance requirements
- Undertake a feasibility study to identify opportunities to implement renewable or alternative energy sources for the construction and operation of the asset, including but not limited to: [Ene-2]
 - Compounds and site offices
 - Plant and equipment
 - Permanent operational lighting

▶ Table 8 Energy and Carbon

CREDIT	REF.	LEVEL	RESPONSIBILITY
Energy and carbon monitoring and reduction	Ene-1	2/3	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Use of renewable energy	Ene-2	2/3	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor

4.6. Water

For this project, Fulton Hogan are intending to use as little water as possible, and what water is used will be sourced from non-potable sources wherever possible. To achieve the IS credits, we will:

- Conduct a water balance study to identify water demands and sources for construction and operation of the asset [Wat-1]
- Model and monitor water use, both potable and non-potable during construction [Wat-1, Wat-2]
- Investigate and implement opportunities to use as little potable water as possible, by: [Wat-1, Wat-2]
 - Investigating alternative water sources
 - Maximising the reuse of site water
 - Developing a culture within the team to minimise water use through construction efficiencies and materials

▶ Table 9 Water

CREDIT	REF.	LEVEL	RESPONSIBILITY
Water use monitoring and reduction	Wat-1	2/3	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Replace potable water	Wat-2	1/3	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor

4.7. Materials

Fulton Hogan will comply with the IS credits for materials by:

- Calculate total materials used for the project against base case design quantities in line with the Materials Calculator, while opting for efficiencies, reductions, products/mixes and locally sourced supplies where feasible with lower embodied energy and carbon [Mat-1]
- Explore opportunities to utilise products with recognised sustainability credentials or third party certified eco-labels where available, where they are compliant with Project specifications, and cost effective [Mat-2]

▶ Table 10 Materials

CREDIT	REF.	LEVEL	RESPONSIBILITY
Materials lifecycle impact measurement and reduction	Mat-1	2/3	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Environmentally Labelled products and supply chains <i>As Built Rating only</i>	Mat-2	2/3	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor

4.8. Discharges to Air, Land and Water

Fulton Hogan will continue their high standard of environmental management and align practices to the IS credits by:

- Utilise innovations and mitigation measures to prevent adverse impacts to the surrounding environment [Dis-1, Dis-2, Dis-3, Dis-4, Dis-5]

- Have a consistent and reliable monitoring system for air and water quality, and noise, vibration and light spill [Dis-1, Dis-2, Dis-3, Dis-4, Dis-5]
- Look for opportunities to improve existing baseline air quality, water quality, noise, vibration and light spill through our design and construction methods [Dis-1, Dis-2, Dis-3, Dis-4]
- Incorporate considerations to horizontal and upward light spill in our lighting design [Dis-5]

▶ Table 11 Discharges to Air, Land and Water

CREDIT	REF.	LEVEL	RESPONSIBILITY
Receiving water quality	Dis-1	1/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Noise	Dis-2	3/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Vibration	Dis-3	3/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Air Quality	Dis-4	3/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Light Pollution	Dis-5	1/1	Design Team Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor

4.9. Land

Managing land for the IS credits will require Fulton Hogan to:

- Put preference on utilising previously disturbed land through detailed design refinement [Lan-1]
- Conserve, beneficially reuse and look for opportunities to improve productivity of topsoil and subsoil [Lan-2]
- Consider sustainability outcomes when managing contamination and remediation [Lan-3]
- Design the project in a way that complements future flood projections and immunity [Lan-4]

▶ Table 12 Land

CREDIT	REF.	LEVEL	RESPONSIBILITY
Previous land use	Lan-1	1/3	Design Team

CREDIT	REF.	LEVEL	RESPONSIBILITY
Conservation of on-site resources	Lan-2	1/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Contamination and remediation	Lan-3	1/3	Construction Team Environment and Sustainability Manager
Flooding design	Lan-4	1/2	Design Team

4.10. Waste

Fulton Hogan will implement the following initiatives to reduce our waste generation and landfill totals in line with the IS credits:

- Develop a culture in the project that works in accordance with the waste hierarchy, avoiding waste in the first instance then finding opportunities for any waste generated to be reused and recycled [Was-1, Was-2]
- Work with our suppliers and waste contractors to divert as much waste from landfill to other uses as possible [Was-2]
- Design the road network in a way that allows for easy adaptability for future works within the precinct [Was-3]

► Table 13 Waste

CREDIT	REF.	LEVEL	RESPONSIBILITY
Waste management	Was-1	2/2	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Diversion from landfill <i>As Built Rating only</i>	Was-2	2/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor
Deconstruction/ Disassembly/ Adaptability	Was-3	1/3	Design Team

4.11. Ecology

Fulton Hogan will manage the IS credits on ecology by;

- Undertake an Ecological Impact Assessment (EclA) to determine whether the ecological value of the site is maintained or improved post construction [Eco-1]

- Comply with the SWTC requirements and revegetate in a manner that encourages enhancement of habitat connectivity within the project vicinity [Eco-2]

▶ Table 14 Ecology

CREDIT	REF.	LEVEL	RESPONSIBILITY
Ecological value	Eco-1	1/3	Design Team Environment and Sustainability Advisor
Habitat connectivity	Eco-2	1/3	Design Team Environment and Sustainability Advisor

4.12. Community Health and Wellbeing

Fulton Hogan will approach the Community Health and Wellbeing credits by:

- Look for opportunities where we can leave a positive legacy on the community we are working in, that will remain long after construction is complete [Hea-1]
- Design and manage site in a way that reduces crime and complies with Crime Prevention Through Environmental Design (CPTED) guidelines for design, construction and operation [Hea-2]

▶ Table 15 Community Health and Wellbeing

CREDIT	REF.	LEVEL	RESPONSIBILITY
Community health and wellbeing	Hea-1	2/3	Stakeholder Relations Team Environment and Sustainability Advisor
Crime prevention	Hea-2	2/2	Design Team Construction Team

4.13. Heritage

Fulton Hogan will take a proactive approach to heritage management on the project, by:

- Identify and implement measures to minimise adverse impacts and protect heritage values through construction and operation, and any opportunities to interpret or enhance these values [Her-1]
- Manage heritage appropriately through construction [Her-2]

▶ Table 16 Heritage

CREDIT	REF.	LEVEL	RESPONSIBILITY
Heritage assessment and management	Her-1	3/3	Design Team Environment and Sustainability Manager Environment and Sustainability Advisor

CREDIT	REF.	LEVEL	RESPONSIBILITY
Monitoring of heritage <i>As Built Rating only</i>	Her-2	2/3	Construction Team Environment and Sustainability Manager Environment and Sustainability Advisor

4.14. Stakeholder Participation

Fulton Hogan will maintain positive communications and relationships with our communities and stakeholders throughout the design and construction of the RP2J Project. To do this, we will:

- Develop a comprehensive Community Consultation Strategy in line with the IS requirements and have it independently reviewed [Sta-1]
- Engage with the community and stakeholders on negotiable issues [Sta-2]
- Ensure our community and stakeholders are provided with relevant, timely and meaningful information regarding the project, and that they feel any concerns are heard and responded to [Sta-3, Sta-4]

▶ Table 17 Stakeholder Participation

CREDIT	REF.	LEVEL	RESPONSIBILITY
Stakeholder engagement strategy	Sta-1	2/3	Stakeholder Relations Team
Level of engagement	Sta-2	2/3	Stakeholder Relations Team
Effective communication	Sta-3	1/2	Stakeholder Relations Team
Addressing community concerns	Sta-4	1/2	Stakeholder Relations Team

4.15. Urban and Landscape Design

Fulton Hogan will target the Urban and Landscape Design credits by:

- Engaging urban designers to develop an Urban and Landscape Design plan in line with the IS Requirements, and in response to the TfNSW Beyond the Pavement 2020 document [Urb-1]
- Implement the Urban and Landscape Design plan through construction ensuring compliance for operation [Urb-2]

▶ Table 18 Urban and Landscape Design

CREDIT	REF.	LEVEL	RESPONSIBILITY
Urban design	Urb-1	3/3	Design Team
Implementation <i>As Built Rating only</i>	Urb-2	2/2	Design Team Construction Team

4.16. Innovation

Fulton Hogan will target the Innovation credits by incorporating an innovation into the Project that is either:

- An innovative technology or process,
- A market transformation,
- Improves on credit benchmarks,
- Is an innovation challenge; or
- Improves global sustainability.

Currently innovation points are available for projects that trial credits from IS v2.1. The target level within the project for innovation is to be determined.

▶ Table 18 Innovation

CREDIT	REF.	LEVEL	RESPONSIBILITY
Innovation strategies and technologies	Inn-1	TBD	Entire project team

5. Review and continuous improvement

The RP2J Project management will review the environment and sustainability management system as outlined in this strategy, annually as a minimum, to ensure its continuing suitability, adequacy and effectiveness via the Fulton Hogan internal process: Management Review - Process - Au in collaboration with TfNSW.

Other triggers for update may include legislative change, approval change, client change, operational change, and incident or innovation improvement.

The Environmental and Sustainability Manager or delegate will revise this strategy as necessary to reflect any amendment to the Fulton Hogan Quality System or to capture identified areas of improvement.

6. Document control – documents, data and records

All documentation specifically relating to the management of environment and sustainability, including this strategy, are to be stored and maintained in accordance with the Fulton Hogan internal process: Control of Documents, Data and Records - Process - AU and the project specific requirements detailed in the Quality Management Plan.

Appendix A Scorecard



Category	Credit	Materiality Score	Score Possible	Target Level	Target Score
Management Systems					
Man-1	Sustainability leadership and commitment	2	0.77	3/3	0.77
Man-2	Risk and opportunity management	2	0.77	2/2	0.77
Man-3	Organisational structure, roles and responsibilities	2	0.77	2/2	0.77
Man-4	Inspection and auditing	2	0.77	2/2	0.77
Man-5	Reporting and review	2	0.77	2/3	0.51
Man-6	Knowledge sharing	2	1.73	2/3	1.15
Man-7	Decision-making	2	2.50	2/3	1.67
	Sub-total		8.07		6.40
Procurement and Purchasing					
Pro-1	Commitment to sustainable procurement	2	0.96	3/3	0.96
Pro-2	Identification of suppliers	2	0.96	2/3	0.64
Pro-3	Supplier evaluation and contract award	2	0.96	2/3	0.64
Pro-4	Managing supplier performance	2	0.96	2/3	0.64
	Sub-total		3.84		2.88
Climate Change Adaptation					
Cli-1	Climate change risk assessment	4	3.84	2/3	2.56
Cli-2	Adaptation options	4	3.84	2/3	2.56
	Sub-total		7.68		5.12
Energy and Carbon					
Ene-1	Energy and carbon monitoring and reduction	3	10.37	2/3	6.92
Ene-2	Use of renewable energy	3	1.73	2/3	1.15
	Sub-total		12.10		8.07
Water					
Wat-1	Water use monitoring and reduction	1	1.73	2/3	1.15
Wat-2	Replace potable water	1	0.96	1/3	0.32
	Sub-total		2.69		1.47
Materials					
Mat-1	Materials footprint measurement and reduction	2	4.61	2/3	3.07
Mat-2	Environmentally labelled products and supply chains	2	0.77	2/3	0.51
	Sub-total		5.38		3.59
Discharges to Air, Land & Water					
Dis-1	Receiving water quality	2	1.83	1/3	0.61
Dis-2	Noise	3	2.74	3/3	2.74
Dis-3	Vibration	1	0.91	3/3	0.91
Dis-4	Air quality	4	3.65	2/3	2.43
Dis-5	Light pollution	3	1.15	1/1	1.15
	Sub-total		10.28		7.85
Land					
Lan-1	Previous land use	2	1.92	1/3	0.64
Lan-2	Conservation of on site resources	2	0.77	1/3	0.26
Lan-3	Contamination and remediation	2	1.54	1/3	0.51
Lan-4	Flooding design	3	1.73	1/2	0.86
	Sub-total		5.96		2.27
Waste					
Was-1	Waste management	2	1.54	2/2	1.54
Was-2	Diversion from landfill	2	2.69	2/3	1.79
Was-3	Deconstruction/ Disassembly/ Adaptability	1	0.58	1/3	0.19
	Sub-total		4.80		3.52
Ecology					
Eco-1	Ecological value	4	11.53	1/3	3.84
Eco-2	Habitat connectivity	4	4.61	1/3	1.54
	Sub-total		16.14		5.38
Community Health, Well-being and Safety					
Hea-1	Community health and well-being	2	1.92	2/3	1.28
Hea-2	Crime prevention	2	1.92	2/2	1.92
	Sub-total		3.84		3.20
Heritage					
Her-1	Heritage assessment and management	4	3.84	3/3	3.84
Her-2	Monitoring and management of heritage	4	3.84	2/3	2.56
	Sub-total		7.68		6.40
Stakeholder Participation					
Sta-1	Stakeholder engagement strategy	3	1.44	2/3	0.96
Sta-2	Level of engagement	3	1.44	2/3	0.96
Sta-3	Effective communication	3	1.44	1/2	0.72
Sta-4	Addressing community concerns	3	1.44	1/2	0.72
	Sub-total		5.76		3.36
Urban and Landscape Design					
Urb-1	Urban design	3	4.61	3/3	4.61
Urb-2	Implementation	3	1.15	2/2	1.15
	Sub-total		5.76		5.76
Innovation					
Inn-1	Innovation	2	10.00	0/10	-
	Sub-total		10.00		-
	Grand-total		110.00		65.3

Score **65**

Rating **EXCELLENT**

Appendix B Opportunities and Innovation Register

Opportunities and Innovation Register - Rankin Park to Jesmond

No.	Scope	Initiative Description	Current Action	Phase <small>(design, construction, operation)</small>	Project Area <small>(office, site etc.)</small>	Ranking	Responsibility	Time Frame	IS Credit	Status	Documentation Reference
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3											
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