TfNSW Transport Access Program 3 Tranche 3

Organisation Structure

Project Director — Andrew Bedwani

Construction Manager — Kevin Watters

Roseville	Wollstonecraft	Banksia	Canley Vale	Birong	Mascot
Project Manager — Vitor Reis	Project Manager — Andrew Gayed	Project Manager — Vlad Stanculescu	Project Manager — Sina Bigdeli	Project Manager — Jason Briscoe	Project Manager — Nicolai Clausen
Senior Project Engineer — James O'Neill	Project Engineer — Mustafa Mustafa	Project Engineer — Sairam Pilli	Project Engineer — Robel Chowdhury	Senior Project Engineer — Ali Kassab	Senior Project Engineer — Michael Fry
Project Engineer — Auel Malibiran	Site Engineer — Ryan Camilleri	Site Engineer — Sunny Lin	Site Engineer — Mohammed Al Shamri	Site Engineer — Ibrahim Adwan	Project Engineer — TBC
					Site Engineer — Christoff Guilbaud
					Grad Engineer — Ben Korkman

Site Superintendent — Ross Dean

Site Supervisor — Ian Falconer	Site Supervisor — Mark Silvia	Site Foreman — Joe Safalai	Site Supervisor — Mark Tadic	Site Supervisor — Paul O'Neill	Site Supervisor — Sean McCallion

Rail Safety Manager — Wayne Miller	Safety Officer — Matthew Swanson	Environment & Sustainability Manager — Gary O'Brien	Community & Stakeholder Manager — Julie Henderson	Senior Planning Engineer — Shadi Juma	
	Safety Officer — Nicole Collings	Sustainability Engineer — Shania Van Caylenburg	Community & Stakeholder Officer — Rachel Leet	Possession Planner — Marcus Summers	
	Safety Administrator — Laura Inglis	Environmental Graduate — Dannielle Graham	Community & Stakeholder Officer — TBC	Undergraduate Engineer — Harmesh Gill	

Engineering Assurance Manager — David Melling

- Assurance Engineer — TBC
- Digitial Engineering Manager — Quan Nguyen
- Quality Manager — Miller Missha

Electrical Systems Manager — TBC

- Electrical Systems Coordinator — Mal Wallis
- Design Coordinator Birrong & Wollstonecraft — Sharanya Iyer
- Design Coordinator Banksia & Roseville — Thomas Phillips
- Graduate Engineer Canley Vale — Brenden Lee

Project Commercial Manager — Amit Patel

Contract Administrator Roseville & Wollstonecraft — Elaine Yip	Senior PA/Doc Controller Roseville & Wollstonecraft — Laura Inglis
Contract Administrator Mascot & Banksia — David Hammond	Project Administrator Mascot & Banksia — Laima Karklins
Contract Administrator Canley Vale & Birrong — Ashish Ghandi	Project Administrator Canley Vale & Birrong — Sylvia Amarasingham
	Project Administrator Roseville & Wollstonecraft — Gloria Ng
	Junior Project Administrator — TBC

Downer
Relationships creating success

This is a subordinate management plan to be used in conjunction with the Project Management Plan

MCC - Transport Access Program – Easy Access Station Upgrades

Contract Number: ISD-15-4742-A

Document Preparation and Control	Document Review
Nathan Toomer - Project Manager	Dan Bains - Commercial Manager
Document Approval	**Signature**
Greg Barnes - Project Director	[redacted]

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1 PURPOSE

This plan defines the risk management principles, processes, procedures, systems, tools, and templates implemented for use throughout the duration of the project.

This plan is subordinate to the Project Management Plan (PMP) which has been developed to:

- Satisfy the requirements of the contract; and
- Support the Project Team in completing the requirements of the project.

2 DOCUMENT SCOPE

The scope of this management plan applies to Infrastructure Services and Engineering, Construction and Maintenance; and New Zealand, hereafter referred to as Downer.

This plan applies to all aspects of risk management for the project.

The target audiences for this plan are Project Managers, Project Commercial & Risk Managers, Risk Owners, Project Team Members, and any other relevant stakeholders.

Project Specific Requirements
This Management Plan has been developed by Downer in accordance with the requirements of Contract No. ISD-15-4742-A (the Framework Agreement), its subsequent station specific Managing Contractor Contracts (MCC), and associated specifications: TSR P - Project Administration, TSR S – Safety Management, TSR E – Environmental Management which describes the management of risks applicable to the undertaking of the Contractor's Activities on the project.

3 PROJECT MANAGEMENT FRAMEWORK

The Downer project management framework aligns and integrates the project functions which define the project's delivery methodologies and processes. The Project Management Plan (PMP), as a key element of the project management framework, is the integration document which identifies and details the standard Downer project management practices, structure, and execution methods and any project specific requirements for the project.

The PMP incorporates a number of subordinate management plans which provide the specific functional detail required to successfully delivery the project, as illustrated in the following figure.

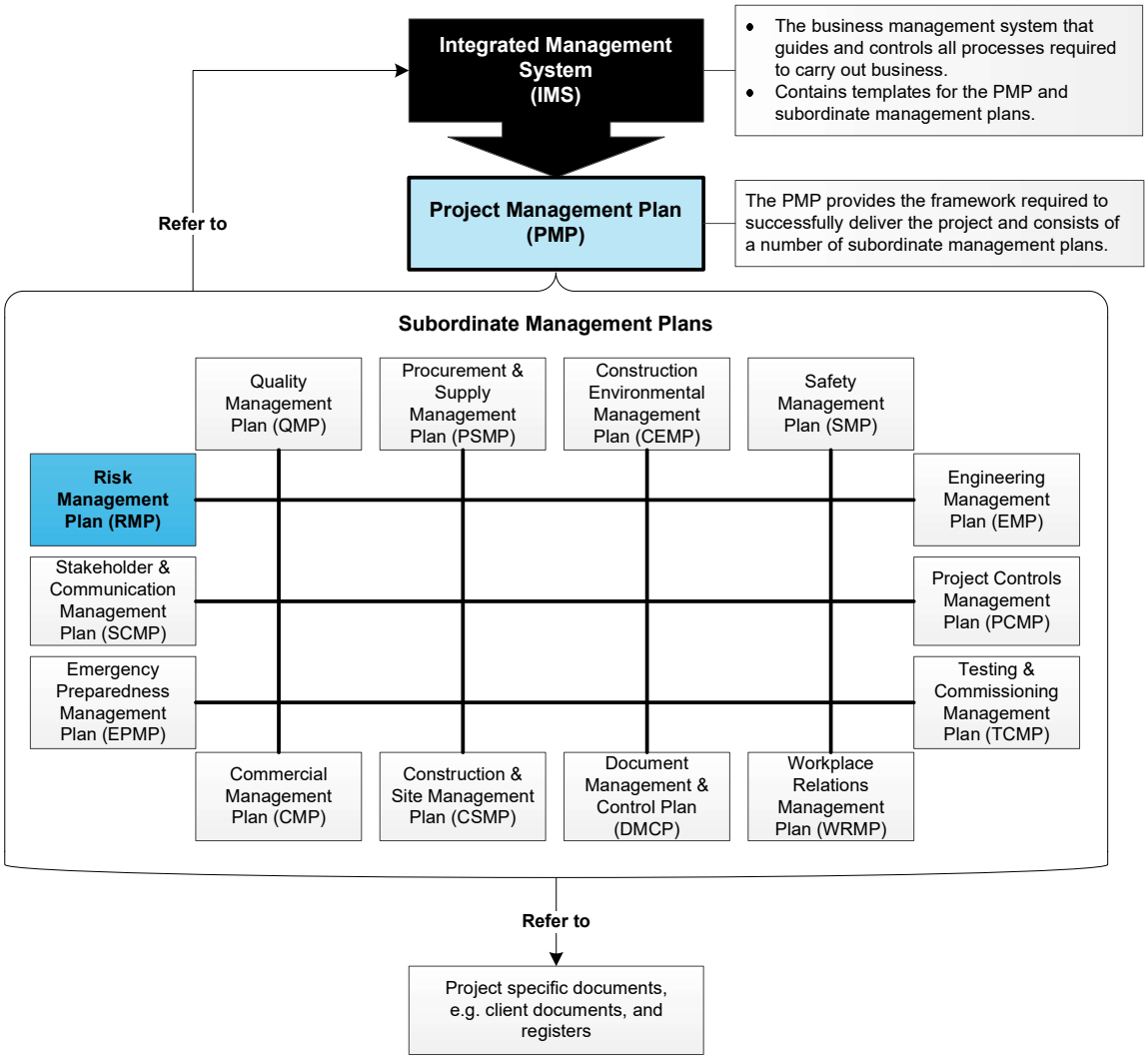


Figure 1: Project Management Plan Structure

The plans reference any IMS documents (including but not limited to, procedures, work instructions, and forms), client specific requirements, and project specific documents required to execute the project.

The PMP provides project specific details including, but not limited to, the following:

- Project information, i.e. background, project location, and project description
- Scope of work, i.e. scope of work narrative, basis of design, battery limits, and scope of services; and

- Project objectives and values, i.e. objectives, overarching principles, values, and key performance indicators (KPIs) for the project.

All positions in the Project Team have a clearly defined role and set of responsibilities that are included either in the PMP or relevant subordinate management plan. All project team members are made aware of and understand their responsibilities prior to commencing work on the project. Refer to *Annex A – Project Roles & Responsibilities* for the roles and responsibilities for risk management.

The PMP and subordinate management plans are audited throughout the duration of the project to maintain compliance, and updated as required. Updates to the PMP and subordinate management plans are subject to the document review and approval process detailed in the project's Document Management & Control Plan.

Project Specific Requirements
▪ TfNSW Standard Requirements (TSR's)

4 REFERENCED DOCUMENTS

IMS DOCUMENTS		**USE FOR PROJECT?** *If No, see project specific documents.*	
PROCEDURES			
DA-FN-PR008	Delegated Authorities Procedure	☒ Yes	☐ No
DA-ZH-PR028	Zero Harm Risk Management	☒ Yes	☐ No
DI-RM-PR002	Opportunity and Bid Risk Management	☒ Yes	☐ No
DI-RM-PR003	Project Risk Management	☒ Yes	☐ No
DI-RM-PR004	Conducting a Risk Assessment	☒ Yes	☐ No
REGISTERS			
DA-QA-RG001	Definitions Register	☒ Yes	
GUIDES			
DI-PM-GU026	Safe Design Guide	☒ Yes	☐ No

PROJECT SPECIFIC DOCUMENTS

PLANS	
150847-PLA-A-0003-0	Project (Contract) Management Plan
150847-PLA-A-0004-0	Document Management & Control Plan
150847-PLA-A-0005-0	Employee Relations Management Plan
150847-PLA-A-0006-0	Risk Management Plan (This Document)
150847-PLA-A-0007-0	Procurement & Supply Management Plan
150847-PLA-A-0008-0	Stakeholder & Communications Management Plan/Community Liaison Management Plan
150847-PLA-A-0009-0	Construction Environmental Management Plan
150847-PLA-A-0010-0	Commuter and Passenger Management Plan

150847-PLA-A-0011-0	Traffic Management Plan
150847-PLA-A-0012-0	Defect Management Plan
150847-PLA-A-0013-0	Property Management Plan
150847-PLA-A-0014-0	Project Work Health Safety Management Plan
150847-PLA-A-XXXX-0	Safety Assurance Plan
150847-PLA-A-XXXX-0	Commissioning Management Plan
150847-PLA-A-0017-0	Quality Management Plan
150847-PLA-A-0001-0	Engineering Management Plan

DOCUMENT

150847-SCH-A-XXXX-0	Project Schedule - Homebush
150847-SCH-A-XXXX-0	Project Schedule - Toongabbie

TfNSW Requirements

PROCEDURE

TfNSW Standard Requirements (TSR's)

TfNSW Chemical Storage and Spill response Guidelines

REGISTER

Generic Rail Safety Risk Register

PROCESS

Bushfire Environmental Assessment Code for NSW

Sydney Trains Possession Planning Process (incl. PACT)

5 DEFINITIONS

The following terms are used in this document and are included in ***DA-QA-RG001 Definitions Register***.

Cause	An event or reason that may lead to a risk occurring
Consequence	The impact of the risk occurring, typically considered against project objectives
Control	Existing processes, devices or practices that act to minimise negative risks or enhance positive opportunities

Control and Treatment Plan	Documents the series of actions needed to modify the risk profile, including specific tasks, task owners and completion dates.
Cost Risk Analysis	A quantitative risk analysis on an Estimate to Complete that evaluates the impacts of inherent uncertainties and discrete risk events through the application of Monte Carlo analysis techniques. It is used to establish contingency levels or to understand uncertainty in achieving forecast margins at completion.
Integrated Management System (IMS)	The documented management system for agreed operational arrangements for all support functions including Finance, Zero Harm, Quality, HR, Project Management. The IMS is designed to provide consistent process controls, meet the requirements of external standards, linking and integrate relevant core business processes.
Opportunity	Opportunities are treated in the converse manner to risks, i.e. instead of reducing the exposure to a risk the project may increase its exposure where an opportunity is present. Throughout this Risk Management Plan 'risk' can be substituted for 'opportunity', the difference being risks are negative, opportunities are positive and the purpose of risk management is to reduce exposure to risks and also to increase exposure to opportunities
Project Risk Register	An MS Excel based tool that captures the Risk Profile, applying the Project Risk Rating Matrix and is used for monitoring purposes. It includes information from all steps of the Risk Management Process.
Residual Risk	The level of risk remaining after implementing risk controls and taking into account risk control effectiveness.
Risk	The effect an uncertainty has on an organisation or project achieving its objectives. Note: Risk may have a negative or positive impact; positive impact is commonly referred to as opportunity.
Risk Control Effectiveness (RCE)	A relative assessment of the actual level of control that is present and effective.
Risk Profile	Description of any set of risks that relate to the business, part of the business, site or project. It is usually captured in the Project Risk Register.
Risk Treatment	Actions to be taken to modify the risk profile. Must include specific tasks, task owners and completion dates.
Subcontractor	An individual or organisation that signs a contract with Downer to perform part or all of the obligations of a Downer contract, including the performance of work, i.e. provision of labour and/ or labour services. Examples of subcontractors include contingent labour hire, independent contractors, consultants and cartage contractors.

6 STANDARDS & LEGISLATION

The following standards and/ or legislation relating to risk management apply to the project:

- AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines.

Project Specific Requirements
▪ Bushfire Environmental Assessment Code for NSW.

7 PROJECT DESCRIPTION

To avoid duplication refer to the Project Management Plan for the project details relevant to all subordinate management plans, including but not limited to:

The Easy Access Station Upgrades Managing Contractor Projects will be delivered under the Transport Access Program (TAP) by Transport for NSW. TAP is an initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

TAP aims to provide:

- Stations that are easily accessible to the disabled, ageing and parents with prams;
- Modern buildings and facilities for all modes that meet the needs of a growing population;
- Modern interchanges that support an integrated network and allow seamless transfers between all modes for all customers;
- Safety improvements including extra lighting, help points, fences and security measures for car parks and interchanges, including stations, bus stops and wharves;
- Signage improvements to more readily assist customers in the use of public transport and transfer between modes at interchanges; and
- Other improvements and maintenance such as painting, new fencing and roof replacements.

Project Specific Requirements
The scope will encompass the easy access train station upgrades to improve access to public transport for commuters with disabilities, the elderly and parents with prams, for the stations identified below, • Harris Park Station; • Homebush Station; • Panania Station; • Toongabbie Station; • Victoria Street Station (East Maitland), and • Any projects to be identified in the future and included under the Framework Agreement Generally the scope of Works at each station includes the installation of lifts, stairs, canopies, and other station features and facilities, and includes: • design for architectural, civil, structural and all associated services, • Installation of new passenger lift/s (17 person capacity) from interchange or concourse level to existing island or side platforms. • modifications to or new construction to concourse/footbridge, stairs, and platforms to facilitate functional and safe access to new lift location, canopies and waiting areas, surface drainage control, platform regrading, tactile ground surface indicators, • station building upgrades including toilets and staff amenity fit outs, reallocation and fit out of operational rooms, • rail and non-rail services protection or relocations, power supply transformers and isolations relevant to earthing and bonding, • new and modified M&E installations including lift power supply and shaft ventilation, new and altered lighting arrangement, PA and CCTV modifications. Relocation of some existing passenger services also station way finding signage, • works to external public domain interchanges to provide BCA and DDA compliant access and operational improvements, bike storage, and bus, taxi, and car zones, waiting area shelters and seating, and lighting, and • Boundary fencing.

8 RISK MANAGEMENT OVERVIEW

8.1 Risk Governance

Risk governance relates to project leaders and decision-makers establishing rules and procedures that define the actions, delegate authorities, and risk management performance for the project. Risk governance addresses the discipline that must be continually demonstrated when considering the factors that present both risk and opportunity to the project.

The attributes of effective risk governance include providing:

- a clear definition of the expectations relating to risk management across all levels of the project
- control and oversight of risk management activities within delegated responsibilities
- authorisation to efficiently manage risk at the appropriate level, e.g. by the Project Team; and
- a balance of risk management performance rights with appropriate reporting, supervisory and assurance checks.

The facilitation of effective risk governance is supported by, but not limited to, the following:

- risk forums, such as risk workshops and risk update/ review sessions
- risk management tools, including the Risk Register and risk management systems; and
- risk reports.

Project Specific Requirements
▪ Station Specific MCC – Exhibit B Works Brief – Interface Stakeholders ▪ Exhibit A TfNSW Standard Requirements – TSR P – Project Administration ▪ Exhibit A TfNSW Standard Requirements – TSR T – Technical Management

9 QUALITATIVE RISK MANAGEMENT

Qualitative risk management is completed using ***DI-RM-PR004 Conducting a Risk Assessment***, which is consistent with *AS/NZS ISO 31000:2009 Risk Management - Principles and Guidelines*.

In line with recognised risk management guidance and principles, successful execution of the project requires risk owners to consider and develop control and treatment plans that relate to the key risks faced. The application of qualitative risk management improves the likelihood of achieving the project's objectives by assisting the Project Team to:

- understand the risks associated with the delivery of the project
- comply with laws, policies, and regulations
- be proactive in how risks and opportunities are addressed
- be transparent in how risks and opportunities are identified and considered; and
- prioritise resources to activities that will best achieve the project's objectives.

Qualitative risk management includes completing the following six key steps, as illustrated in the figure below:

- Step 1 – Risk Assessment Planning, including establishing the context and arranging risk workshops
- Step 2 – Risk Identification
- Step 3 – Risk Analysis, including assessing the nature of risk
- Step 4 – Risk Evaluation
- Step 5 – Risk Treatment, including determining the activities to manage, control, and treat risk
- Step 6 – Monitoring and Review, including the introduction of new risks throughout the duration of the project.

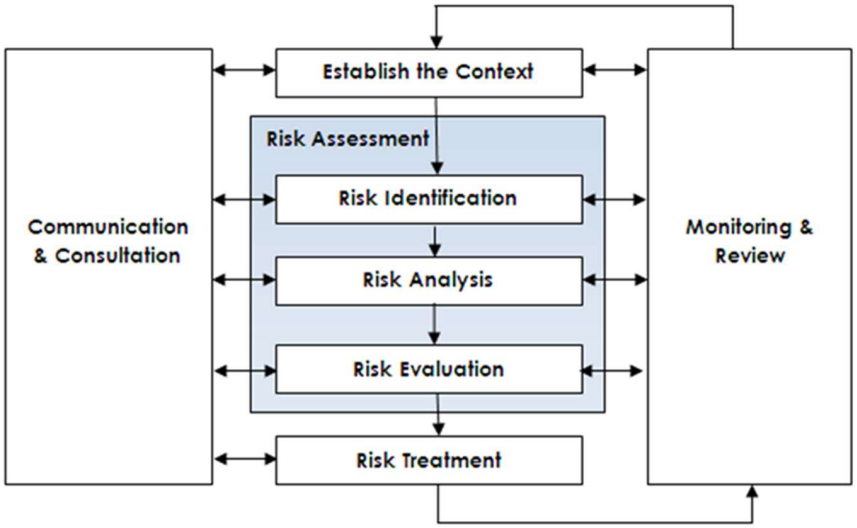


Figure 2: Qualitative Risk Management Steps

Communication and consultation is not a discrete step, but an ongoing, essential component of effective risk management that ensures relevant stakeholders are informed and consulted, as required and when completing the steps for qualitative risk management.

Project Specific Requirements

- A comprehensive and Site-specific property risk assessment in conjunction with the Contractor's construction personnel and in consultation with the Property Representative, shall be performed prior to the commencement of early works (including preconstruction works).
- Additional risk assessments as required shall include the following:
    a. Permanent and temporary worksite access requirements and timing.
    b. access to or across adjoining properties and timing;
    c. crane swings, air rights and impacts on neighbouring properties or the Rail Corridor;
    d. access to Services;
    e. any future subdivision, easements, other title interests or divestment requirements;
    f. any future commercial impacts of resultant works; and
    g. Site investigation and contamination;
    h. type Approval and procurement of major equipment; and
    i. community, interface contractors, possession and outage planning
- Targeted risk assessments will be completed for possessions, outages and commissioning works as part of the planning process

9.1 Step 1 – Risk Assessment Planning

9.1.1 Establishing the Context

At a minimum, risk assessments are completed:

- at the start of each phase of the project, i.e. Handover & Initiation, Planning, Start-Up, Execution, and Close-Out; or

- following the completion of key project milestones or scope items, i.e. at points where the project risk profile changes.

Risk assessments are required at the project and/ or work package level depending on the project's size, scope and complexity, as determined by the Project Manager.

In planning for a risk assessment, it is important to understand the circumstances surrounding the risk assessment, the objectives of the risk assessment, and the context in which the risk assessment is being undertaken. This includes establishing the:

- nature of the topic to be assessed, e.g. whole project, work package or activity
- scope of the risk assessment, i.e. any risks the Project Team can plan for and manage or treat to influence the project's objectives, taking into consideration that the scope may be influenced by the project elements to be included or excluded for that particular risk assessment (e.g. work package elements)
- objectives of the assessment, i.e. confirm the internal and external drivers and what is to be achieved from the risk assessment
- risk methodology to be applied; and
- stakeholders for the risk assessment, including participants/ contributors and all related parties.

As per ***DI-RM-PR004 Conducting a Risk Assessment***, the Risk Management Workbook provides guidance on the aspects to be considered when establishing the context of the risk assessment, and generates the applicable Project Risk Register for the project's category.

Project Specific Requirements
The concept design Project Specific Risk Register for each of the station sites, which is to be starting risk register for the detailed design will be developed following the CHAIR Workshop for each specific station site and can be found as a part of the design deliverable documentation (See Engineering Management Plan for further Details).

9.1.2 Risk Workshops

Risk assessments are performed in a workshop arrangement with a qualified and competent facilitator, such as the Project Manager, Project Commercial & Risk Manager, or external party. Risk workshops are designed to gain vital information and differing points of view from a suitable and diverse audience of the potential risks and opportunities to the project's objectives. Risk workshops encourage brainstorming, including open dialogue and discussion, and provide a more holistic view to risk management, by providing participants with a view of risks within project functions other than their own.

A typical agenda for a risk workshop includes:

- background and context to the risk assessment
- a description of the risk assessment methodology to be followed
- risk identification, including determining causal factors for each risk
- qualitative risk assessment, including identification of controls, and an assessment of the residual risk rating; and
- establishment of risk treatment plans.

Risk treatment plans are typically established in a separate workshop to focus on high-rated risks, or by risk owners outside of the risk workshop.

Project Specific Requirements
▪ Risk workshops will be held in the project MCC Offer phase to define risk registers (Including commercial, design, program, and safety risks) ▪ Risk registers will be reviewed on a monthly basis ▪ Targeted risk assessments will be completed for each possession, outage and commissioning event

9.2 Step 2 – Risk Identification

Risks are identified by exploring what events or uncertainties could impact the project's objectives, within the boundaries identified for the risk assessment. This includes events or uncertainties that have a positive or negative effect on objectives, i.e. opportunities and risks/ threats.

The first risk assessment for the project is completed by identifying risks from a 'blank sheet of paper'. Where previous risk assessments have been completed for the project, e.g. Front End Engineering Design (FEED), Front End Loading (FEL), or Detailed Feasibility Study (DFS) risk assessments, and the project risk profile hasn't changed substantially, the Project Team leverages off the previous risk assessments, including:

- identifying which risks are to be closed and which risks are to be maintained on the Project Risk Register; and
- revisiting the risks to be maintained on the Project Risk Register and updating them to reflect the current project phase, knowledge of the knowledge (e.g. expert judgement), or risk status.

If the project risk profile has changed substantially (e.g. major scope change or revised delivery model), the nature of the risk assessment has altered (e.g. from bid to execution), or the Project Team has materially changed, the risk assessment is re-completed from a 'blank sheet of paper'. Previous risk assessments are then be used as a review or check against the outputs of the risk assessment.

It is important to describe risks in a manner that identifies the source of uncertainty and the main effect on the achievement of the stated objectives. Examples of good risk and poor risk descriptions are included in the following table.

Example Type	Risk Description	Cause	Impact
Good	Design and approval process results in delays to design completion.	▪ Scope of design requirements is more than what was assumed in the bid. ▪ Cost optimisation process results in design rejection and re-work. ▪ No approved design plan and process in place.	▪ Delays to construction. ▪ Re-work and re-visit results in cost over-runs. ▪ Design cost forecast over-runs/ under-recovery of design costs.
	Under-recovery of variations and delay costs results in margin erosion.	▪ Onerous contract - time bars are short. ▪ Lack of understanding of rights and obligations. ▪ Process of getting information from field is difficult.	▪ Margin erosion. ▪ Disputes with the Client.
	Untimely delivery of client supplied materials results in delays and disruption to Downer.	▪ Material that Downer is installing is delivered late or out of sequence. ▪ Mismanagement of free issued materials or services delays construction.	▪ Delays to milestone dates. ▪ Disruption to direct labour and PF issues. ▪ Cost over-runs. ▪ Liquidated damages
Poor	White collar.	Obtaining all the required white collar resources for site.	Cost overrun.
	Client claim for injury or death.	Injury or death.	Client claim for injury or death.
	EBA.	Allow for greenfield agreement.	Uncompetitive if competitors do not allow for a greenfield agreement.

The Key Risk Elements in ***DI-RM-PR003 Project Risk Management*** are considered when identifying risks in the risk workshop.

Project Specific Requirements
▪ Nil

9.3 Step 3 – Risk Analysis

Risk analysis involves consideration of:

- possible causes and scenarios that may trigger the risk
- possible impacts (positive and negative), including the knock-on consequences or main effect of that particular risk e.g. cascading and cumulative effects; and
- the effectiveness of risk controls.

Understanding the causes and impacts of risks is vital for understanding the effectiveness of current controls, as well as developing appropriate risk treatment plans or responses.

Rating the Risk Control Effectiveness (RCE)

Risk control effectiveness requires that existing controls are identified, discussed, documented, and rated for overall effectiveness at modifying the risk or opportunity. Risk controls do one of the following:

- minimise the likelihood of occurrence by managing sources/ causes of risk (negative risks)
- mitigate potential impacts by implementing a layered system of alerts, automatic responses, and treatment plans to control potential consequences (negative risks); or
- maximise the likelihood of an opportunity being realised or its impact by taking proactive action to create and exploit opportunities.

Control strategies and processes may be related to any of the following:

- Substitution of a process, use of materials, or method of work
- Engineering solutions or reallocation of risk
- Specific policies, plans, systems, and procedures that detail day to day checks, verification of outcomes, and mandatory requirements such as sign-off protocols/ approvals, process and documentation content, templates, and tools
- Training and capability development
- Management reviews/ activities that monitor or assess performance or compliance
- Verification by third parties
- Contractual or commercial agreements with external parties
- Allowance of cost or time to accommodate the uncertainties effect.

Controls measures are documented in the Project Risk Register and revisited when considering additional measures to improve the control environment.

The ratings for RCE are defined in ***DI-RM-PR004 Conducting a Risk Assessment***.

Project Specific Requirements
▪ Nil

9.4 Step 4 – Risk Evaluation

Analysis of risks and opportunities requires a methodical assessment process. The assessment process incorporates the analysis and evaluation of the event and evaluates these in terms of the:

- extent of the potential impact or consequence should the risk or opportunity factor eventuate
- likelihood of the risk event occurring within the event or risk assessment's timeframe; and
- risk level according to the likelihood and consequence scales.

Rating the Consequence of the Risk

Consequence can be recorded as:

- financial value when a quantitative assessment is applied; or
- nominal rating when a qualitative assessment is applied.

The Downer Project Consequence Rating Table in ***DI-RM-PR004 Conducting a Risk Assessment*** is used to consistently rate the severity of a consequence to the project. Financial and schedule impacts are tailored by

applying the relevant percentages from the Downer Project Consequence Rating Table to the total project cost and duration respectively. Other qualitative measures are applicable to the project.

The following occurs when determining the consequence rating:

- the residual risk impact is evaluated by considering how existing controls and the RCE limit the potential impacts if the risk occurs, i.e. no measure is required for “risk without controls” or the “inherent risk”
- the most likely impact of the risk (given the information known) is identified, i.e. typically a range of potential impacts exist for each risk, ranging from minor to catastrophic, and for a qualitative assessment, only the most likely or typical impact is considered
- the impact descriptors in the Downer Project Consequence Rating Table are used to align the impacts to the consequence categories; and
- where more than one consequence category exists, the highest rated category is chosen as the consequence rating.

Likelihood of Occurrence

The likelihood of a risk event occurring is assessed by those participating in the workshop, and is evaluated:

- in alignment with the stated consequences of the risk, i.e. the most likely consequence; and
- by considering existing controls and their effectiveness, i.e. RCE.

When establishing an estimate of probability, participants ask the following questions:

- When was the last time this risk occurred with the stated consequence?
- Did the risk occur within Downer? Which country and industry did the risk occur?
- Is Downer exposed to similar circumstances?
- Has Downer done anything to limit the risk from occurring given the above knowledge?
- On what basis has the likelihood rating been determined? Is this justifiable?

Likelihood can be recorded as either a percentage or a rating. When a qualitative approach is applied, the Likelihood of Occurrence Rating Table in ***DI-RM-PR004 Conducting a Risk Assessment*** is used.

Residual Risk Rating

Once evaluated and verified, the stated causes/triggers and consequences of a risk, and the magnitude of residual risk shall be rated. Residual risk is a direct correlation of the likelihood and consequence ratings and is graded using the Residual Risk Matrix in ***DI-RM-PR004 Conducting a Risk Assessment***.

Residual Risk Exposure

The residual risk exposure rating quantifies the total plausible financial cost to the project should the risk occur. The residual risk exposure is not evaluated for those risks that don’t have a financial exposure, e.g. some reputational risks.

Current controls and their effect on the likelihood or consequence are considered when establishing the residual risk exposure.

Residual risk exposure provides a way of evaluating the risk/ reward balance of the current controls and potential treatments, i.e. does the cost of implementing the risk treatment plans provide sufficient benefit given the residual risk exposure?

Project Specific Requirements
The risk evaluation shall identify, manage and record risks/contingent liabilities, stakeholders, impacted adjoining land and assets.

9.5 Step 5 – Risk Treatment

It is typically unlikely that risks are eliminated entirely. Therefore effective risk management is fundamentally about reducing the exposure to risks to as low as reasonably practical and within tolerance levels. This is achieved through treatment plans that involve:

- continuous review of existing controls and their effectiveness; and
- development and implementation of treatment actions to further treat the risk over and above the existing control measures. This includes any actions identified to improve weaknesses within control measures. Once treatment actions are complete, they become control measures.

The need for additional treatment actions is highest for those risks where the RCE can be improved (i.e. is not "effective") or where the residual risk rating is at an unacceptable level.

9.5.1 Risk Treatment Options

There are four broad categories for treating risks, as per the following table, which are applied either in isolation or in conjunction with each other. The treatment plan should consider indirect and direct costs to implement the treatment plan and the potential benefits, to ensure the full impacts of implementing the treatment plan are understood and that an appropriate balance between risk and reward is achieved.

Option	Description
Reduce	Reduce the likelihood of the risk occurring and/ or its impact.
Transfer	Transfer the risk to a third party that is typically best placed to effectively control the risk.
Avoid	Avoiding the activity that leads to the risk event, e.g. choosing not to proceed with a particular course of action or scope item, or qualifying terms and conditions.
Retain	Retain the risk where: ▪ the residual risk fits within a tolerable level and it has effective controls in place to monitor and manage the risk likelihood and/ or impact; or ▪ in extreme circumstances, there is an intolerable risk exposure where the project has implemented effective controls but has no other risk treatment option available.

Project Specific Requirements
The risk treatment shall manage and mitigate those risks directly related to the potential damage of property as a consequence of the Works;

9.5.2 Develop Risk Treatment Plans

The Project Commercial & Risk Manager is responsible for developing and monitoring risk treatment plans with the applicable Risk Owner(s). All risk treatment plans include a:

- list of specific, discrete, and achievable risk treatment actions (e.g. "establish a process of management reviews" not 'management reviews")
- nominated owner for the Risk Treatment Plan (typically the Risk Owner)
- nominated person responsible for implementing each discrete task; and
- target date for the completion of each task as well as the overall Risk Treatment Plan, against which progress is measured.

Due dates for treatment tasks are secured during the review/ workshop and fit within the scope of the risk assessment. Ongoing dates are not preferred and indicate that an effective treatment plan has not been described. If a date is revised, a reason for the revision and approval is provided.

Project Specific Requirements
▪ Nil

9.5.3 Escalation

Risks are escalated according to their residual risk rating and RCE, which determines the requirements for sign-off, further action, and monitoring.

The Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment*** details Downer's project monitoring requirements, which align with ***DA-FN-PR008 Delegated Authorities Procedure***.

Project Specific Requirements
▪ Risks identified as 'extreme' or 'high' within the risk register shall be treated where possible to reduce the level of risk to an acceptable level. Where the risk is unable to be treated further and remains 'high' or 'extreme' then these risks will be reported to the Principal.

9.6 Step 6 – Monitoring & Review

9.6.1 Risk Monitoring

The ongoing and continual monitoring of risk exposures, including the effectiveness of the controls in place t positively manage the risk exposures, is an important component of qualitative risk management and provides the opportunity to test and refine the control activities as circumstances change.

The Project Risk Register is the main tool used to capture and report risk information, as per ***DI-RM-PR003 Project Risk Management***. The Project Risk Register is the central repository for all risk information.

As part of risk monitoring, the Project Risk Register, including risk treatment plans and tasks, is updated on a monthly basis (as a minimum). Individual risks with a high residual risk rating (e.g. Category A or B), or which are due to materialise or pass, are updated on a more frequent basis, at the discretion of the applicable Delegated Authority listed in the Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment***.

The Project Commercial Manager is responsible for facilitating and assisting with qualitative risk management, including overseeing the monitoring regime, which is primarily performed through regular (e.g. monthly) meetings with risk owners. Monitoring of risks involves:

- updating progress of risk treatment actions within risk treatment plans, including reviews of onsite activities (where considered appropriate) to validate actions reported, and reforecasting completion dates for activities, if applicable
- monitoring the effectiveness of risk treatment actions by exploring whether actions that have been performed are influencing the likelihood and/ or consequence of the risk event occurring
- reviewing the risk status, including:
  - ongoing challenge of assumptions and existing practices
  - considering whether changes to the internal or external environment have altered the likelihood and/ or consequence of a risk occurring and the identification of new causes to a risk; and
  - using the results of risk reviews and safe design reviews where the risk outcome has a material impact on the delivery of the project

- retiring risk events that have been effectively mitigated or passed, which requires approval by the applicable Delegated Authority listed in the Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment***; and
- identifying new or emerging risks by engaging the Project Team to understand:
  - how the project risk profile has changed
  - any issues or concerns; and
  - the next phase of the project.

The Project Commercial & Risk Manager is responsible for risk monitoring, maintaining the Project Risk Register, and developing risk reports, but not for the performance of risk treatment actions. The Risk Owner is responsible for ensuring these actions are performed.

Project Specific Requirements
▪ The Project Risk Register shall be available to the Principal upon request ▪ Details of key risks are to be included in the monthly report to the principal

9.6.2 Risk Reporting

Monthly risk reports are prepared by the Project Commercial & Risk Manager and identify or comment on:

- the project risk profile and key risks within the profile
- movements or trends in the project risk profile, including risks that have been retired (i.e. effectively mitigated or passed), risks that have changed in ratings, and/ or new risks
- the completion and efficiency of risk management actions contained within risk treatment plans; and
- other relevant matters relating to risk management that may arise throughout the duration of the project.

Project Specific Requirements
▪ Electronic copies of the Risk Register may be submitted in lieu of paper copies. ▪ Reports are to be provided each month that provide an overview of the full risk register (e.g. number of risks by category and rating, number of new risks identified and risks closed out during the previous month); ▪ Reports are to provide the status of; the associated controls and tasks, performance, results of risk audits and residual risk assessments.

9.6.3 Endorsing the Risk Registers

The Project Manager endorses the Project Risk Register following the initial risk assessment and upon the completion of each monthly update. The Project Board endorses risks categorised as A and B as per the Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment***.

Project Specific Requirements
▪ Details of the status, implementation, operation and effectiveness of the Risk Management Plan shall be reported for risks deemed ‘extreme’ or ‘high’ within the risk register.

9.7 Communication & Consultation

Communication and consultation includes:

- communicating the Project Risk Register with the Project Team, Client, suppliers and subcontractors, as applicable
- conducting regular risk forums and meetings, including monthly risk update meetings and workshops; and
- communicating with local communities and other affected stakeholders on key risk management activities.

Project Specific Requirements
▪ Risk considerations shall include: adjoining properties, approvals and community issues (including media, commuters, residents and councils.) ▪ Risks identified by the principal for inclusion in the risk register shall be assessed as per the requirements of Qualitative Risk Management. ▪ Project risk workshops will be held throughout the project with a range of stakeholders including TfNSW, ST, suppliers and other external stakeholders as required

9.8 Risk Management throughout the Project Phases

Qualitative risk management remains the same throughout all phases of the project however the focus of risk management activity differs to some extent within each phase. Key elements of the process by project phase are outlined in the following table. Refer to ***DI-RM-PR003 Project Risk Management*** for more information.

The project risk profile is assessed at the commencement of each project phase.

Project Phase	Activities & Key Focus
Handover & Initiation	▪ Review of opportunity and bid risk assessments at the handover meeting involving the Project Board, and bid and project teams. ▪ As part of the Project Delivery Plan, the Project Manager completes an initial review of the opportunity and bid risk assessment reports in order to re-assess risks and their ratings, identify new risks, develop treatment plans for Category A and B risks, and assess contingency allowances.
Planning	▪ Completing risk assessments and establishing risk treatment plans from a “clean sheet of paper” (with the Opportunity and Bid Risk Assessment used as a cross-check). ▪ Setting up appropriate project specific risk governance procedures and project roles and responsibilities. ▪ If required, completing a cost risk analysis to calculate contingency as per section *10 Quantitative Risk Analysis & Contingency*.
Start-Up	Allocating risks and contingency to budgets and schedules.

Project Phase	Activities & Key Focus

Execution	▪ Managing project risks and treatment plans, including monthly reviews, updates, and reporting.
	▪ Assessing the adequacy of the approved and remaining contingency against the risk profile and estimate to complete which may involve completing a basic cost analysis or cost risk analysis as per section *10 Quantitative Risk Analysis & Contingency*. This will be completed by reviewing the risk register and determining the most likely contingency required to treat the remaining risks.
	▪ Each month the contingency will be adjusted based on the outcome of the forecast cost to complete.
	  ▪ Where the project forecast indicates a movement in the month which produces a surplus or saving to the TBE, this saving will be added to the contingency.
	  ▪ Where the project forecast indicates a movement in the month which produces a loss or budget deterioration, this loss will be drawn from the contingency.
	▪ Retiring risks as they are passed or treated.
	▪ Signing risk assessments to be included in monthly reports.

Close-Out	▪ Ensuring that risk treatment plans have been fully implemented, where relevant, and closing-out of project risks. ▪ Identifying residual or remaining risks which may materialise after Practical Completion and allocating resources to manage and monitor the risks. ▪ As applicable, transferring the Project Risk Register, including any residual or remaining risks and controls (e.g. any noted operational risks), to the Client. ▪ Retaining risk information, including mitigation strategies, and communicating/ sharing lessons learned for future projects or other applicable projects within Downer.

Project Specific Requirements
▪ Additional considerations shall include: safety in design (HAZID & HAZOP), construction, operation and maintenance.

9.9 Specific Risk Assessments

Issues arise throughout the duration of the project that require a specific risk assessment to gain a deeper understanding and establish the most effective course of action.

Specific risk assessments required for the engineering and design phase of the project are detailed in the project's Engineering Management Plan and more specifically in ***DI-PM-GU026 Safe Design Guide***.

Specific risk assessment required for site activities are detailed in the both the project's Safety Management Plan and Construction Environmental Management Plan, and more specifically in ***DA-ZH-PR028 Zero Harm Risk Management*** .

Key risks identified in specific assessments that will have a material effect on the project's objectives are elevated to the Project Risk Register.

Project Specific Requirements
▪ Additional considerations shall include: asset operability, durability, reliability, availability and maintenance. ▪ A program including the specific risks to be managed during the Track Possessions, outages and commissioning events will be developed in accordance with the requirements of TSR P and the project Deed

9.10 Risk Assessment Considerations

The items in the following table are considered when completing the steps for qualitative risk management.

Item	Considerations
Risk Identification & Qualitative Assessment	1. Has the context of the assessment been established and agreed with project leaders and relevant authorised business managers? 2. Are external parties/ stakeholders that can influence the project's success identified? 3. Has input been sought on risks facing the project, function, or work package from: ▪ a sufficiently broad group of project team members, internal/ external stakeholders, and subject matter experts; and ▪ an appropriate variety of information sources? 4. Have risks been analysed by their type and across all elements (as appropriate)? 5. Have risks and opportunities been described sufficiently, i.e. explaining an uncertainty and its impact on a project objective? 6. Have risks been allocated to appropriate individuals according to their title, role, or function? 7. Have existing controls and their effectiveness on mitigating the risk been identified? 8. Have the individual risks been assessed for likelihood and consequence with consideration of existing controls and their effectiveness? 9. Is there a manageable and prioritised set of risks, and are they grouped together or consolidated (where possible)? 10. Where applicable, has a more detailed quantitative risk assessment been completed, considering likelihood and a range of impacts? 11. Is there a process to escalate material risks, and has this been followed? 12. Does the overall project risk profile make sense intuitively, when viewed holistically and relatively?

Item	Considerations
Risk Management & Treatment	1. Are the risk response measures commensurate with the risk level and do they provide value-for-money? 2. Are accountabilities for the management and monitoring of the risk/ opportunity identified? 3. Have timelines been set against risk treatment actions? 4. Where management actions have not been directed to an identified risk or opportunity, should they be established (considering the risk rating and the RCE)? 5. Are plans/ measures/ metrics in place to monitor risks? 6. Have risk and control monitoring activities been integrated with existing project activities? 7. Has the project identified who will be responsible for providing risk and control information to facilitate required reporting, i.e. a Project Commercial & Risk Manager? 8. Are risk reporting requirements understood and resources appropriately allocated? 9. Is there stakeholder support for the activities outlined in the risk treatment and control plan, and sign-off/ approval of the plan?

Project Specific Requirements
▪ Nil

10 QUANTITATIVE RISK ANALYSIS & CONTINGENCY

10.1 Quantitative Risk Analysis

As per ***DI-RM-PR002 Opportunity and Bid Risk Management***, risk quantification first occurs during the bid phase to establish project contingency amounts using the following methods, as applicable:

- Basic cost analysis, as per section *10.2 Basic Cost Analysis*
- Cost risk analysis through applying the Monte Carlo technique to the estimate, as per section *10.3 Cost Risk Analysis*; and/ or
- Schedule risk analysis through the applying Monte Carlo technique to the Project Schedule, as per section *10.4 Schedule Risk Analysis*.

Analysis of uncertainty in the project's estimated costs and schedule includes:

- inherent uncertainty in the project cost estimate and estimated project schedule durations
- inherent uncertainty in project execution costs and durations; and
- discrete risks that may impact the project's costs or schedule.

A Monte Carlo risk analysis is completed for cost and schedule at the start of each project phase and is updated on a regular basis (e.g. monthly).

The key benefits of completing a quantitative cost and schedule risk analysis is to:

- improve forecasting of the final project costs and completion dates

- improve the accuracy of forecasts by evaluating contingency needs for remaining works and remaining durations
- assist in the early identification of issues/ possible overruns
- provide additional rigour in the evaluation of risk mitigation or treatment strategies, i.e. cost-benefit
- inform decisions regarding the release of contingency to margin; and
- aid the prioritisation of project management activities by better identifying those factors most likely to influence project outcomes, which may not be apparent from performing single point qualitative assessments.

Where Monte Carlo analysis is not performed, basic cost analysis is completed and updated throughout the duration of the project.

Project Specific Requirements
▪ Nil.

10.2 Basic Cost Analysis

The basic cost analysis uses the Quantified Project Risk Register in the Risk Management Workbook, which includes the columns in the following table that are additional to the Project Risk Register.

Column	Purpose/ Description
Most Likely Cost Impact	The residual risk value as per the qualitative risk assessment.
Worst Cost Impact	If the risk occurred, the worst/ highest cost impact that could be expected.
Best Cost Impact	If the risk occurred, the best/ lowest cost impact that could be expected.
Basis of Estimate	An explanation of the residual risk value.
Likelihood (that the risk will occur)	A single percentage value from within the likelihood range established during the qualitative risk assessment.
Current Assessment of Risk	The likelihood multiplied by the most likely cost impact.

The basic cost analysis is completed as part of the risk assessments or workshops conducted as per section *9 Qualitative Risk Management*. The basic cost analysis is facilitated by an experienced facilitator such as the Project Manager, Project Commercial & Risk Manager, or an external party. The same personnel involved in qualitative risk management are involved in basic cost analysis, along with project controls and estimating representatives.

The current assessment of risk is the total exposure for risk items and is compared against the remaining project contingency amount. Refer to section *10.5 Contingency & Estimate to Complete* for further information.

Project Specific Requirements
▪ The risk register shall consider cost control

10.3 Cost Risk Analysis

Cost risk analysis involves applying Monte Carlo analysis to the project estimate to complete (ETC). Monte Carlo is an analytical technique in which single point inputs (e.g. estimate values) are substituted for a range of outcomes (e.g. uncertainties) which are expressed as distributions. Monte Carlo analysis runs a large number of simulations that applies random sampling of each defined distribution to provide probabilistic outcomes for the project outcomes. For project costs, Monte Carlo analysis provides a view of the likelihood of achieving the project's budget, as well as a range of probabilistic outcomes above and below the project's budget.

Cost risk analysis is completed to assist in determining the required remaining contingency amount, and involves establishing ranges of uncertainty/ variation against all items in the project ETC, as well as the inclusion of discrete risk items which may impact on project cost outcomes.

Each MCC Offer will include a detailed risk register identifying issues and risks encountered and concerns raised by stakeholders in developing the MCC Offer, and showing how each risk or issue has been satisfactorily considered and addressed or will be addressed during the balance of the Works. The P50 output from this register will be included in the Target Budget Estimate (TBE).

Uncertainty or variation for specific cost, schedule or risk items involves establishing possible outcomes, as per the following table and figure.

Possible Outcome	Description
Optimistic case (P10)	Positive outcome that 1 in 10 projects would achieve, i.e. 10% confident the project can be delivered to the amount or less.
Likely (P50)	The expected outcome, as likely to be above the value as below, i.e. 50% the project can be delivered to the amount or less. This is the nominated value that will be determined from the project specific risk register and adopted for all MCC offers as part of the TBE.
Pessimistic case (P90)	Adverse outcome that 1 in 10 projects would face, i.e. 90% confident the project can be delivered to the amount or less.

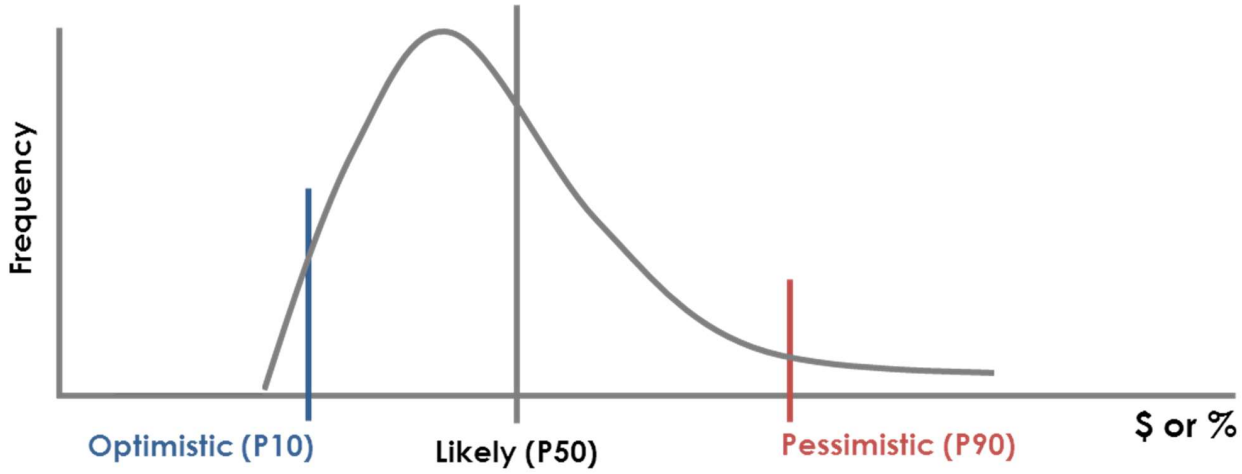


Figure 3: Risk Distribution

Typical areas of uncertainty or variance include:

- material, plant, and equipment rates and quantities
- labour productivity

- schedule (refer to section *10.4 Schedule Risk Analysis* for further information)
- project management and site supervision resource levels and rates
- subcontracts
- discrete risk items, i.e. individual risks from the Project Risk Register; and
- travel, induction/ training, accommodation rates, and quantities.

Downer's cost risk analysis methodology is to establish:

- the key drivers within ETC items at a summary level; and
- 3 point ranges for the key drivers as per *Figure 3 – Risk Distribution*.

For example, a forecast cost for materials will have separate drivers for the quantity of material required and rates ($). The evaluated risk ranges for these drivers will be applied to the ETC within the Monte Carlo model. Some key drivers, e.g. labour productivity and schedule, will impact multiple ETC items, including direct and indirect costs.

Establishing uncertainty and variance values is undertaken through a workshop facilitated by an experienced facilitator such as the Project Manager, Project Commercial & Risk Manager, or an external party. The same personnel involved in qualitative risk management are involved in cost risk analysis, along with project controls and estimating representatives.

Cost risk analysis is completed using Palisade's @ Risk for Excel, as per ***DI-RM-PR002 Opportunity and Bid Risk Management***. The updated cost risk analysis is used to compare remaining contingency in the budget against forecast requirements from the analysis.

Project Specific Requirements
▪ Nil

10.4 Schedule Risk Analysis

Schedule risk analysis is performed at the discretion of the Project Manager, as per ***DI-RM-PR002 Opportunity and Bid Risk Management***. Schedule risk analysis is completed on either the complete project schedule or a summary schedule. If applied to a summary schedule, the summary schedule is prepared by the Planner/ Scheduler and:

- includes all of the work scope to be completed
- is a fully logically linked critical path method (CPM) schedule that reflects the sequence of works
- includes the major activities carrying schedule risk, e.g. procurement of long lead items or specialist plant
- includes critical and near critical paths; and
- isolates key project milestones and contractual dates.

Schedule risk analysis is essentially the same as cost risk analysis process in that 3 point estimates are still obtained through workshops for line items and discrete risk events and a Monte Carlo analysis is completed to model the variability. The difference between schedule risk analysis and cost risk analysis is that the Monte Carlo analysis is completed on the project schedule and the uncertainty ranges are applied to activities rather than cost line items. The schedule risk analysis is completed using **Acumen Risk**.

The schedule risk analysis output is used:

- in the cost risk analysis to determine the prolongation effect on estimated costs as well as to understand exposure to liquidated damages; and
- to compare the likelihood of achieving key project milestones against reported forecast completion dates.

Project Specific Requirements
▪ The risk register shall consider the following: ○ Construction Program and Key Timing Constraints consideration ○ Construction Access consideration ○ Constructability considerations ○ Interface considerations and interface contractors ○ Type approval ○ Community interface ○ Possessions, outages, commissioning events

10.5 Contingency & Estimate to Complete (ETC)

The Project Manager reviews the outputs of the risk quantification analyses, i.e. cost risk analysis and schedule risk analysis, for remaining project scope or work against remaining contingency, the ETC, and forecast completion dates. Key principles considered include:

- Risk Burn-down, i.e. the reduction of risk exposure throughout the duration of the project; and
- Risk Draw-down, i.e. the draw-down of the contingency as a result of a risk, or a release to margin as the risk burn-down occurs.

If there is discrepancy between the risk quantification outputs and forecast cost and schedule values, the Project Manager takes corrective action, such as implementing appropriate risk mitigation strategies or escalating to the Project Board.

Project Specific Requirements
▪ Additional considerations shall include: Design, technical, quality, environmental, and safety issues associated with delivery.

ANNEX A – PROJECT ROLES & RESPONSIBILITIES

The Project Director works with the relevant functional managers and human resources personnel to ensure adequate resources are in place for the project, as per the project's Workplace Relations Management Plan.

The Project Director ensures that the specific roles, inter-relationships, and lines of reporting for the project are defined in the project's organisational structure, and may assign:

- an individual to a specific role
- the accountabilities for the specific role to themselves; or
- the accountabilities for the specific role to other project team members.

Refer to the PMP for further information.

CEO/ COO/ EGM Responsibilities

Responsibilities

- Defining the project risk profile, including objectives and commitment to risk management.
- Establishing and maintaining a risk management function, including tools and procedures to support the project.
- Delegating sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring) to the Project Board.

Project Board Responsibilities

Responsibilities

- Ensuring alignment of project risk management procedures with Downer's policy.
- Endorsing the Project Risk Register following risk assessments at the commencement of each project phase.
- Addressing (including review and approval) any risks and risk mitigation plans with the potential to have major implications to the success of the project, i.e. delegated sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring).
- Reporting to key stakeholders or other forums on risk status and issues, including escalation of risks as per Group requirements, as required.

Project Director Responsibilities

Responsibilities

- Reporting and escalating risks to the Project Board in line with the delegated sign-off for risks, as per the Project Level Risk Priority Table (Project Monitoring).
- Reviewing and approving risk ratings and treatment plans in line with the delegated sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring).
- Reviewing and approving monthly risk reports.
- Facilitating risk assessment workshops (or delegating to the Project Commercial & Risk Manager or external party, as applicable)

Project Manager Responsibilities

Responsibilities

- Managing the overall project risk management.

- Implementing the approved Risk Management Plan and ensuring the currency of the risks and treatment plans in the Project Risk Register is maintained.
- Regularly checking project risks for changes to the project's contractual, budgetary, and/ or physical situation.
- Reviewing and approving risk ratings and treatment plans in line with the delegated sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring).
- Reporting and escalating risks to the Project Director in line with the delegated sign-off for risks, as per the Project Level Risk Priority Table (Project Monitoring).

Project Commercial Manager Responsibilities

Responsibilities

- Maintaining the Risk Management Plan, Project Risk Register and risk treatment plans.
- Monitoring and reporting of the project risk profile, including but not limited to, risk status, trends, and changes.
- Monitoring and reporting of risk treatment plans, including status of actions and efficiency of risk treatment plans.
- Providing training and guidance to personnel on risk management principles and processes.
- Assisting and guiding the Project Team to identify, analyse, evaluate, and treat risks, including developing risk treatment plans.
- Monitoring the status and performance of the project risk management and developing monthly risk reports.
- Regularly checking that risks reflect the project's contractual, budgetary, and physical situation.
- Escalating risks to the Project Manager and/ or Project Board, as required.
- Preparing residual risk and mitigation plans for handover to the Client at project close-out.
- Maintaining compliance with Downer's risk management procedures.
- Coordinating and/ or facilitating risk assessment workshops, as required.
- Assessing adequacy of the approved and remaining contingency against the project risk profile and ETC.
- Modelling of cost and/ or schedule risk analysis by applying Monte Carlo techniques.
- Representing the risk function at project forums, as required.

Risk Owner Responsibilities

Responsibilities

- Continuously identifying potential risks and opportunities.
- With assistance from the Project Commercial & Risk Manager, assessing, evaluating, and agreeing on treatment actions to address risks in commercially sensible ways.
- With approval from the Project Manager, assigning resources to manage, review, and report on risks.
- Developing appropriate metrics to monitor progress.
- With assistance from the Project Commercial Manager, reviewing project risks at appropriate intervals.
- Assisting the Project Commercial Manager to prepare and maintain the Project Risk Register, risk treatment plans, and risk status reports.
- Working with personnel from other functional teams to address complex risks that cross functional boundaries.

- Communicating and (where necessary) escalating risks.

Project Team Responsibilities

Responsibilities

- Complying with the project's Risk Management Plan and Downer's policies and procedures.
- Communicating honestly and quickly on risks impacting the project and incidents or control breakdowns, i.e. adopting a 'no surprises' approach.
- Monitoring risks within their sphere of influence and ensuring they are managed appropriately.

ANNEX B – PROJECT RISK REGISTER

A register has been developed to capture the project risk for each Managing Contractor Contract (MCC) Offer related to each individual station. See the specific MCC for the relevant Project Commercial Risk Register.

ANNEX C – PROJECT RISK REGISTER KEY ELEMENTS

Key Risk Elements

The Table below is a guide to the type of elements that shall be considered in all assessments. This list is not exhaustive but undertakes to set a minimum consideration.

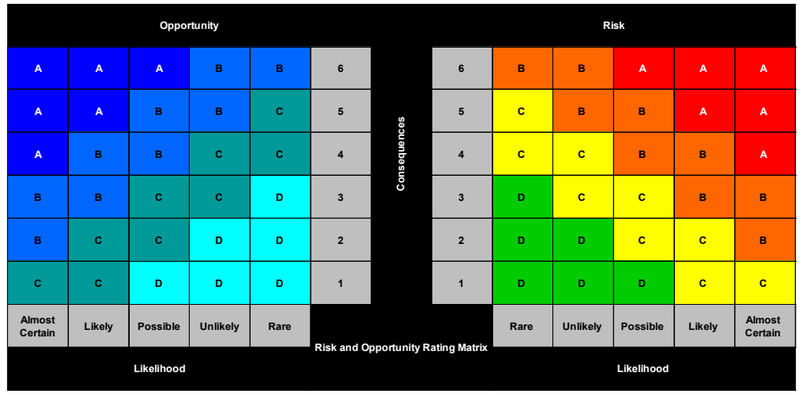
Key Element	Risks and Opportunities that can be included.
Zero Harm	- Consider severe or systemic safety risks that are escalated from the Design HAZOPS HAZAN, HAZOPS, CHAZOP, CHAIR and other OHS risk assessments and how these could affect the achievement of Downer's project objectives. - Include analysis of **safety in design, safety in constructability, site safety, environmental impact, sustainability.**
Stakeholder	- Consider how Downer's interaction and relationships with key stakeholders can affect the achievement of Downer's project objectives. Thought needs to be given to those stakeholders' objectives as this can affect their behaviour. - Include analysis of **end customer relationships, direct client relationships, information provided, project feasibility, community groups, regulators (OHS - Quality), unions and other external bodies.**
Commercial	- Consider the commercial conditions that are prescribed for the works (Contract) and those that subcontractors and suppliers may require and the effect that these conditions may have on the achievement of Downer's project objectives. - Include analysis of **contract conditions (head contract, sub contract, supplier agreements), legal and regulatory requirements, insurance and service delivery.**
Financial	- Consider the financial requirements of the project and contract and how they could affect the achievement of Downer's project objectives. - Include analysis of **payment schedules, cash flow requirements, administration of the accounts, bonds and insurance requirements, inflation (rise and fall), foreign exchange, estimate accuracy.**
Construction	- Consider the construction activities that are planned, what uncertainty is apparent in those plans and how that could affect the achievement of Downer's project objectives. - Include analysis of **constructability of design, productivity expectations, program or schedule, scope of works, technical elements, weather, site conditions**.
People	- Consider the Human Resources requirements of the project, the current uncertainty in any given resource and how this could affect the achievement of Downer's project objectives. - Include analysis of **resource availability, quality and skills of resources, project organisational structures, industrial relations, pay/salary and conditions, accommodation, training and induction.**
Technical	- Consider the technical/technology requirements of the project, the uncertainty these requirements pose and how this could affect the achievement of Downer's project objectives. - Include analysis **of IT infrastructure requirements; IT systems requirements (software or tools), and technology implementation, management, maintenance and upgrades.**
Design	- Consider the design requirements of the project and whether Downer is providing the design, partial design or verification of design, and how that could affect the achievement of Downer's project objectives. - Include analysis of **design responsibility, equipment and process guarantees, performance, quality of vendor data, quality of client or third party supplied design, scope creep, specification clarity, constructability.**
Subcontractors / Suppliers	- Consider the key suppliers and subcontractors selected for the project, their objectives and performance and how these could affect the achievement of Downer's project objectives. - Include analysis of **critical path or long lead items, high risk suppliers (past performance, capability or capacity, reporting), validity of pricing, materials/equipment subject to escalation, size of supplier/subcontractors.**
Plant & Equipment	- Consider the plant and equipment requirements of the project, the uncertainty that remains in the securing and performance of the selected equipment and how this could affect the achievement of Downer's project objectives. - Include analysis of **suitability and availability of equipment; internal and external hire pricing, location and mobilisation of equipment, maintenance, safety, upgrades, cost, and capital investment decisions.**

ANNEX D – PROJECT RISK REGISTER RATING TABLE

Risk Control Effectiveness (RCE) Rating Table

Risk Control Effectiveness	Description
Effective	**Controls are adequate, appropriate and effective.** They provide a reasonable assurance that risks are being managed and objectives should be met.
Generally Sound	**A few specific control weaknesses are noted.** However, many controls are adequate, appropriate and effective to provide a solid basis for assurance that risks are being managed and objectives should be met.
Improvement Required	**Numerous specific control weaknesses were noted**. Controls evaluated are unlikely to provide reasonable assurance that risks are being managed and objectives should be met.
Unsatisfactory	**Controls are not adequate, appropriate or effective.** They do not provide reasonable assurance that risks are being managed and objectives should be met.

Go To Risk Register



Consequence Rating Table (Project Specific)

Rating	Financial	Time	Health and Safety	Resources	Brand & Reputation	Environment & Community	Management	Legal & Compliance
6	• >100% of Gross Margin Add margin in Context Setting to get $ values	• >20% Schedule over-run unrecoverable. 4.0 Months	• Multiple fatalities, or significant irreversible effects to numbers of people	• > 60% increase in expected blue collar churn. >10% increase in PM Team churn	• Total loss of shareholder and customer support; or • Prolonged impact on share price; • Group MD and/or Board member leaves; or • International press reporting; or • Leads to closure of the	• Catastrophic widespread impact resulting in irreversible damage to habitat and species. • Complete loss of trust by affected community leading to long term social unrest and outrage.	• Event with long term impact on the business that requires considerable senior executive management time to handle over years.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) litigation/prosecution impacting the standing of the entire Group; or b) withdrawal of a registration, license, approval or accreditation affecting the entire
5	• 70 – 100% of Gross Margin Add margin in Context Add margin in Context	• 10-20% Schedule over-run unrecoverable. 2.0 Months 4.0 Months	• Single fatality and/or severe irreversible disability to one or more persons	• 40 - 60 increase in expected blue collar churn; 5-10% increase in PM Team churn.	• Divisional CEO leaves; or • Short term impact on share price (months); or • Customer terminates contract; or • Australia wide press reporting	• Significant impact or serious harm on the environment; or • Prolonged community outrage.	• Event that requires considerable senior executive management time to handle over many months.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) litigation/prosecution impacting the standing of a Division; or b) withdrawal of a registration, license, approval or accreditation affecting a
4	• 40 -70% of Gross Margin Add margin in Context Add margin in Context	• 5-10% Schedule over-run unrecoverable. 1.0 Months 2.0 Months	• Moderate irreversible disability or impairment to one or more persons. • Lost Time Injury more than 28 days lost.	• 20 – 40% increase in expected blue collar churn. <5% increase in expected PM Team churn	• Senior Executive leaves; or • Customer registers strong concerns and threatens contract termination; or • State based media reporting.	• Significant impact or material harm on the environment; or • A notifiable incident; or • Long term community irritation leading to disruptive actions and requiring continual Management attention.	• Event requiring the involvement of senior executive management and will take up significant time of managers for several weeks.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) prosecution/investigation by an authority/regulatory body that requires prolonged business input; or b) withdrawal of a registration, license, approval or accreditation affecting a Business within a Division
3	• 20 – 40% of Gross Margin Add margin in Context Add margin in Context	• < 5% Schedule over-run 0 Weeks 1.0 Months	• Lost Time Injury	• 10 – 20% increase in expected blue collar churn.	• Manager disciplined; or • Customer complains strongly; or • Local media reporting.	• Moderate impact or material harm on the environment; or • A notifiable incident; or • Short term community unrest and dissention.	• Event that can be managed with the careful attention of management over several weeks.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) prosecution/investigation by an authority/regulatory body; or b) withdrawal of a registration, license, approval or accreditation confined to a
2	• 5 – 20% of Gross Margin Add margin in Context Add margin in Context	• Schedule slippage without impact to critical path; some operational costs will be incurred to recover.	• Medical Treatment Injury	• 5 - 10 % increase in expected blue collar churn.	• Employee disciplined; or • Customer aware and affected.	• Minor impact on the environment; or • Community complaint requiring intervention and management attention. .	• Event requiring some local management attention over several days.	• Breach of contractual obligation, law, regulation, permit or approval leading to minor penalties.
1	• <5% of Gross Margin Add margin in Context	• Short term schedule slippage without impact to critical path.	• First Aid case or less	• <5% increase in expected blue collar churn.	• No visible impact on business.	• Negligible impact to the environment; or • No community complaint.	• Impact of event absorbed in normal management activity.	• Breach of contractual obligation, law, regulation, permit or approval with penalty notice or warning without financial impact.

Likelihood of Occurrence Rating Table

Category	Criteria
Almost Certain	• Over 90% probability, or • Expected to occur in most circumstances, or • Likely to occur multiple times throughout a project
Likely	• Between 50% -90% probability, or • Probable to occur in most circumstances, or • Possible to occur in a project, has occurred in similar projects.
Possible	• Between 10% - 49% probability, or • Might occur, has occurred before, or • Has occurred in a minority of similar projects.
Unlikely	• Between 1% - 9% probability, or • Could occur, or • Has not occurred in similar projects, but could.
Rare	• <1% probability, or • Exceptionally unlikely, even in the longer term, or • a "100 year event"

This is a subordinate management plan to be used in conjunction with the Project Management Plan

MCC – New Intercity Fleet Program – Station and Signalling Enabling Works

Contract Number: ISD-16-6027

Document Preparation and Control	**Document Review**
Amit Patel – Senior Contract Administrator	Andrew Bedwani – Project Manager
Document Approval	**Signature**
Greg Barnes – Project Director	[redacted]
TfNSW Endorsement	**Signature**

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1 PURPOSE

The purpose of the Cost & Procurement Management Plan (the Plan) is to set out the approach, processes, procedures and standards for managing procurement for the New Intercity Fleet Program (NIF) for Station and Signalling Enabling Works Project.
This document is intended to provide consistency in terms of structure and delivery of an efficient and effective procurement strategy and process. It encompasses the key principles of NSW government policies including:

- Delivering value for money which includes the benefits achieved compared to whole-life costs;
- Achieving efficiency and effectiveness;
- Ensuring probity, equity and effective competition; and
- Providing accessibility and aligning procurement with business needs, especially in respect of small to medium enterprises (SMEs).

In addition, the Plan aims to modernise procurement and provide:

- Strategic and agile procurement practices;
- Reduced red tape;
- Engagement with industry; and
- Encouragement of innovation.

It is not intended to be a comprehensive manual of all items or methods of procurement and should be treated as a guide.

2 DOCUMENT SCOPE

The scope of the Plan covers all aspects of procurement required for the delivery of Managing Contractor services for the Program for the following stations:

- Portion 1 – Central Coast and Newcastle Line, North Shore Line, Strathfield Station, Sydney Terminal and Central Station – Hamilton, Adamstown, Warnervale, Wyong, Lisarow, Gosford, Point Clare, Koolewong, Berowra, Mount Colah, Asquith, Central and Strathfield;
- Portion 2 – Blue Mountains and Main West Line – Springwood, Warrimoo, Emu Plains, Penrith and Lidcombe;
- Portion 3 – South Coast (Illawarra) Line – Bellambi, Mortdale and Hurstville.

The scope of works as per the Works Brief includes:

- approximately 20 no. stations will require improvements to bring the platforms in line with the longer, and in some cases wider, trains. These works are referred to as Non-Base works;
- approximately 140 no. stations, inclusive of the 20 no. captured above, will require nominal treatment by way of car-markers and balise implementation. These works are referred to as Base works.

The target audiences for this plan are Construction Managers, Project Procurement Managers, the Project Procurement Team, the Project Team, and any other relevant stakeholders.

3 PROGRAM MANAGEMENT FRAMEWORK

The Downer program management framework aligns and integrates the Program functions which define the Program's delivery methodologies and processes. The Program Management Plan (PMP), as a key element of the program management framework, is the integration document which identifies and details the standard Downer program management practices, structure, and execution methods, and any Program-specific requirements for the Works.
The PMP incorporates a number of subordinate management plans which provide the specific functional detail required to successfully deliver the Program, as illustrated in the following figure.

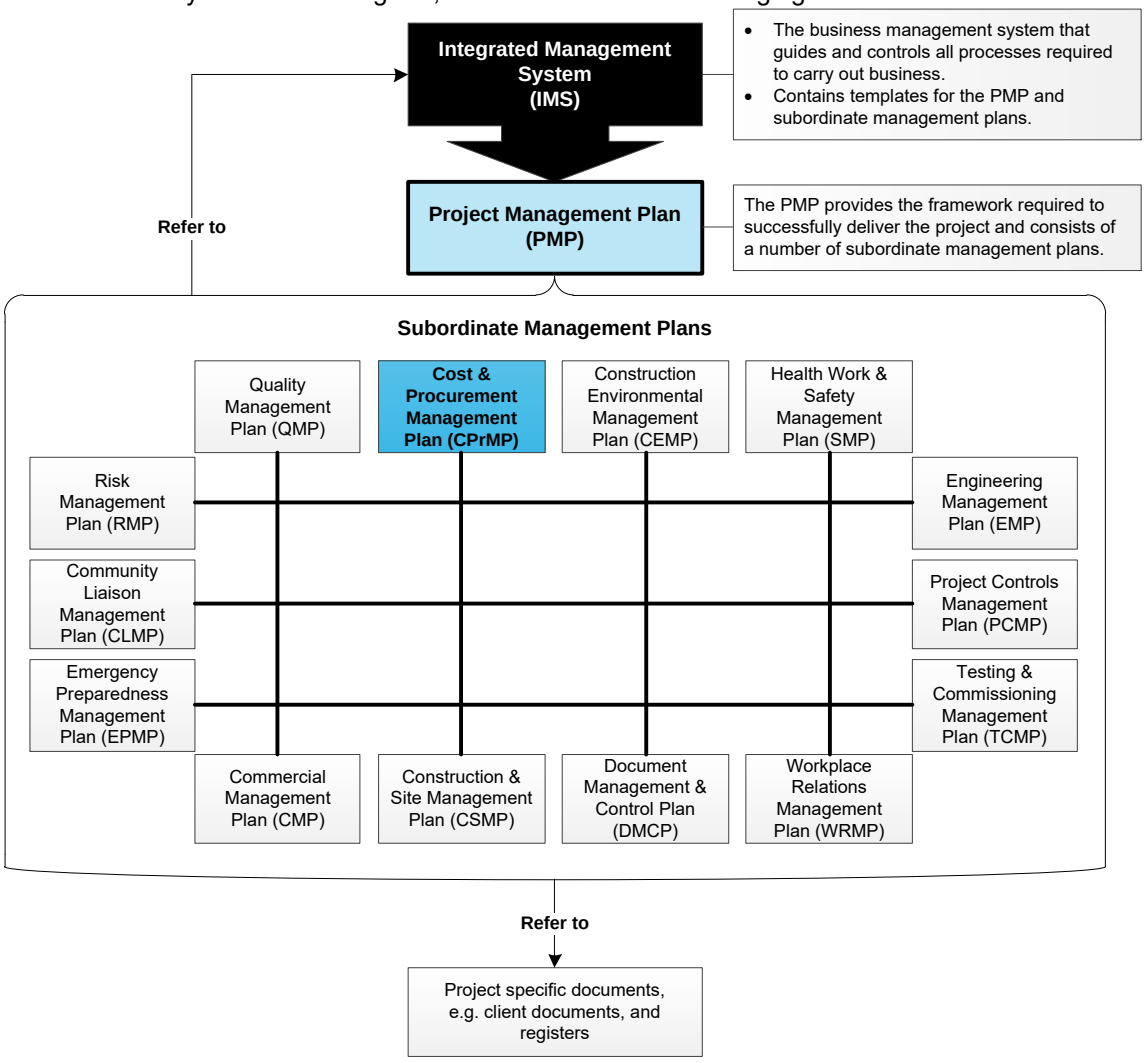


Figure 1: Project Management Plan Structure

Integrated Management System (IMS) is the tool that supports the program management framework including the PMP and all subordinate plans. The plans reference IMS documents (including but not limited to, procedures, work instructions and forms) and any Program-specific documents.
The PMP provides Program-specific details including, but not limited to, the following:

- Program information such as background, Project locations and Project descriptions;
- Scope of work including narrative, basis of design, battery limits and scope of services; and
- Program objectives and values including overarching principles, values and key performance indicators (KPIs) for the Program.

The PMP and subordinate management plans are audited throughout the duration of the Program to maintain compliance, and are updated as required. Updates to the PMP and subordinate management plans are subject to the document review and approval process detailed in the Program's Document Management and Control Plan.

4 REFERENCE DOCUMENTS

Relevant reference documents are provided below. The procedures, forms and registers associated with this Plan will be developed on TfNSW approval of this Plan.

PROCEDURES AND REGISTERS

DI-PM-PR042	Procurement Planning
DI-PM-PR043	Supplier/Subcontractor Pre-Qualification
DI-PM-PR044	Market Engagement (Supplier/Subcontractor Tendering)
DI-PM-PR045	Contract Execution
DI-PM-PR047	Contract Administration
DI-PM-PR048	Materials Management
DI-PM-PR049	Contract Close-Out
DI-PM-RG042.1	Procurement Register

NSW GOVERNMENT PROCUREMENT POLICY DOCUMENTS

- NSW Government Procurement Policy (Office of Financial Management), July 2004;
- Code of Practice for Procurement, (NSW Procurement Board), November 2013;
- Implementation Guidelines to the NSW Code of Practice for Procurement: Building and Construction, July 2013;
- NSW Procurement Policy Framework (NSW Finance & Services), Version 4, July 2015;
- Market Approaches Guide (NSW Finance & Services), Version 0.20, April 2015;
- Industry Engagement Guide (NSW Procurement Board) Version 1.1, March 2015;
- Small and Medium Enterprises Policy Framework (NSW Government Procurement) Version 1.1;
- NSW Government Policy on Aboriginal Participation in Construction (Finance & Services) May 2015;
- Training Management Guidelines, February 2009; and
- Agency Accreditation Scheme for Construction, December 2012.

In addition, a number of Board Directions (in relation to the procurement of goods and services) as issued by the NSW Government Procurement Board, will be embedded within this Plan.

5 DEFINITIONS & ABBREVIATIONS

Direct Negotiation	A complex market engagement method that involves direct negotiation with a single selected service provider without any prior competitive tender process.
ECI	Early Contractor Involvement (ECI) comprises the engagement of service providers with specific expert understanding during a design process to embed value engineering within the final design and prior to the release of a Request for Tender.
EOI	An Expression of Interest is used to identify potential service providers capable of undertaking specific work if the supply market is not well known.
EOT	Extension of Time.
Integrated Management System (IMS)	The documented management system for agreed operational arrangements for all support functions including finance, Zero Harm, quality, HR, Program management. The IMS is designed to provide consistent process controls, meet the requirements of external standards and link and integrate relevant core business processes.
Operator	Sydney Trains
QA	Quality Assurance
RFA	Recommendation for Award
RFI	A Request for Information is the formal process that a tenderer uses to request information during the tender process.
RFP	A Request for Proposal (RFP) is designed to elicit a detail response on a proposal or idea for a business solution.
RFQ	A Request for Quote is an invitation to potential suppliers to provide a price quote for a specific or well defined good or service.
RFT (Open)	An open Request for Tender requests pricing from the supply market with no limitations or restriction on who can submit pricing and is typically used where there is a mature competitive supply market.
RFT (Multi-Stage)	A Multi-Stage Request for Tender identifies suitable suppliers (through an EOI or pre-qualification process) prior to being selected to participate in a Request for Tender.
RFT (Limited/Selective)	A Limited/Selective Request for Tender is issued to known available service providers previously assessed as the most capable of delivering the work, product or service required.
SME	Small to Medium Enterprises
NIF SSEW	New Intercity Fleet Program – Station and Signalling Enabling Works (NIF SSEW)
TfNSW	Transport for NSW
WBS	Work Breakdown Structure

6 PROCUREMENT OVERVIEW

Downer recognises that the NSW government wants “its procurement activities to achieve best value for money in the expenditure of public funds while being fair, ethical and transparent”.

The Plan supports this aim and other key policy objectives to improve procurement outcomes through the following core procurement principles:

- Demonstrating value for money;
- Encouraging competition by targeting new entrants to expand the number of prospective suppliers;
- Increasing opportunities for SMEs through targeted communication and prequalification schemes;
- Encouraging open communication and collaboration with supply chain partners;
- Promoting and sustaining a viable industry in NSW that encourages industry investment in skills development;
- Ensuring transparency and probity throughout the procurement process;
- Reducing red tape to encourage involvement in the procurement process;
- Encouraging innovation by maintaining a flexible, agile and adaptive procurement process; and
- Engaging with Aboriginal communities to broaden the opportunities for Aboriginal participation.

6.1 Standards of behaviour

The core procurement principles outlined above underpin the processes described within this Plan. They will drive the standards of behaviour across all levels of the Program, as outlined in the Code of Practice for Procurement. This includes:

- **Honesty and fairness:** Parties will conduct all procurement and business relationships with honesty and fairness;
- **Accountability and transparency:** The process for awarding work will be open, clear and defensible;
- **No conflict of interest:** A party with a potential conflict of interest will declare and address that interest as soon as the conflict is known to that party;
- **Rule of law:** Parties shall comply with all legal obligations;
- **No anti-competitive practices:** Parties shall not engage in practices that are anti-competitive;
- **No improper advantage:** Parties shall not engage in practices that aim to give a party an improper advantage over another;
- **Intention to Proceed:** Parties shall not seek or submit tenders without a firm intention and capacity to proceed with a contract; and
- **Co-operation:** Parties will maintain business relationships based on open and effective communication, respect and trust, and adopt a non-adversarial approach to dispute resolution.

6.2 Probity requirements

Procurement is an activity that is vulnerable to any real or perceived corruption or maladministration when a proper process is not maintained. It is recognised that the NSW government:

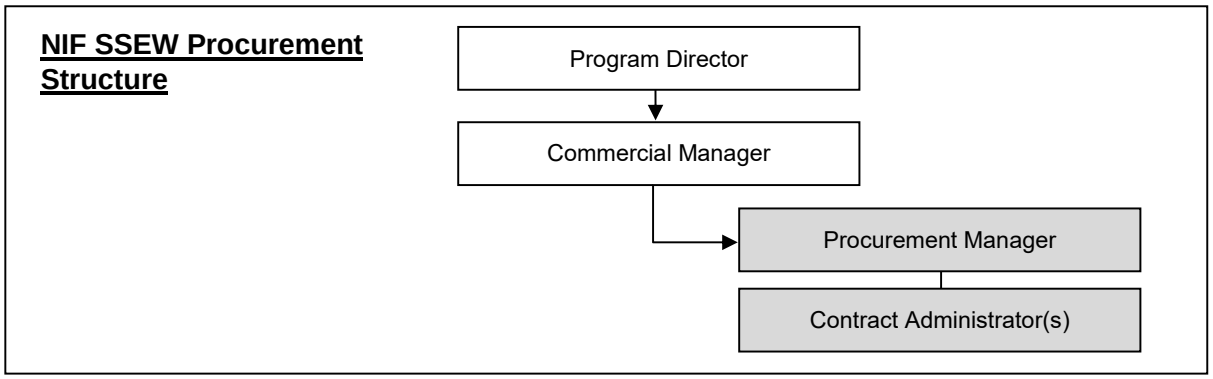
“has an obligation to ensure its procurement conduct is at all times fair, ethical, transparent and probity rich. Clear, visible and meaningful commitments to fairness encourage suppliers to want to do business with government.”

Downer will work closely with the Principal's Representative to ensure that any discussion or correspondence with any person with a conflict of interest will be prohibited from any information concerning the sum of money that is being submitted as the tender sum. Downer will ensure that the integrity and competitiveness of the tender process remains in-tact.

6.3 Preliminary procurement structure

The Commercial Manager will oversee all procurement matters including providing planning expertise, advice and governance.

A preliminary structure for the Procurement Team is provided below which reflects Downer's approach to governance and a collaborative approach to service delivery:



An overview of the key responsibilities as they relate to NIF SSEW Procurement Team is provided below:

Commercial Manager	Accountable for ensuring the Program probity and equity on all supply chain partner engagement and procurement activities and has a direct line of report to the Program Director.
Procurement Manager	Responsible for developing the procurement strategy across the Program and managing the implementation of identification and market engagement activities.
Contract Administrator	Responsible for administering all subcontracts in accordance with the Plan and subcontract terms and conditions.

6.4 Interfacing responsibilities

The Procurement Team works directly with TfNSW and specific disciplines within the Downer team to effectively deliver Program objectives. An overview of specific interfaces is provided below.

6.4.1 Transport for NSW

The Procurement Team has a direct interface with TfNSW to ensure alignment and understanding with the overall procurement strategy including:

- Collaborating as per the general conditions of contract with TfNSW in the development of a proposed packaging approach for how the works will be delivered;
- Ensuring alignment in potential supply chain partners for proposed delivery of work including identification of pre-qualified supply chain partners or (where required) undertaking an EOI; and
- Ensuring that, prior to the release of any supply chain partner packages, there is alignment between TfNSW and Downer on the scope of works, evaluation criteria, proposed delivery model and supply chain partner conditions.

6.4.2 Delivery Team

Interface with the Construction and Project Teams is through the Construction Manager to assist with the development and implementation of the procurement strategy. This includes:

- Development of a packaging strategy considering subcontract markets, Program schedule and delivery strategy (including geographic location);
- Assistance in the preparation of supply chain partner packages for market engagement and being part of the evaluation and award of key packages; and
- Collaborating in the administration of subcontracts including managing claims, variations, chargeback and overall performance delivery.

6.4.3 Design Team

Interface with the Design Team is through the Design Manager to ensure alignment between supply chain partner packages and Program deliverables. Key interfaces include:

- Preparation of equipment specifications, data sheets, drawings and scope of works inclusive of all Program requirements;
- Assistance with supplier RFIs and technical evaluation of tenders (as required); and
- Establishment of quality assurance and quality control requirements for all procurement packages.

7 INITIAL PROPOSED PACKAGING

The initial proposed packaging approach is provided below. These packages will be released to the market using the procurement processes stipulated within this Plan, the NSW Government Procurement Policy Framework and related documents, as listed in Section 4.

To ensure value for money, these packages will be tendered to the market in two scenarios:

- With each station/Project as a single separable portion; and
- As a combined Program where tenderers can provide pricing for the delivery of all stations/Projects concurrently, in line with the overall delivery schedule.

Where it provides value for money, Downer will free issue materials to supply chain partners. These free-issued materials will be managed in accordance with the processes outlined in Section 8.

Upon approval from TfNSW Downer may self-perform reimbursable work for a given package which provides the best value for money. In the event that Downer carry out the self-performed work for any given package, the self-performed reimbursable work will be undertaken in an efficient manner without disruption to subcontractors working concurrently on site.

Downer will provide thorough details for any self-performed reimbursable work to TfNSW with daily reporting and complete transparency.

Initial supply chain partners have been identified, as provided below. These supply chain partners have been identified through an understanding of the industry and market, and have been used on previous Downer projects. At this stage no contact has been made with all of these potential partners in relation to the Program. This group will be further updated following the processes to be implemented, as detailed in Section 8.

The initial estimates on package values provided in the table below are based on the expected Reimbursable Costs. Downer will coordinate with TfNSW if the values updated or adjusted in future.

Ref.	PACKAGE	TENDER SEND OUT DATE	TENDER CLOSE DATE	REQUIRED AWARD DATE	Subcontractor Name	Budget for Subcontract Package	SUBCONTRACT TYPE
1	Civil & Structures	Civil after SDR and Structure after CCB Gate 3 approval	Civil after SDR and Structure after CCB Gate 3 approval	Civil after SDR and Structure after CCB Gate 3 approval	Robson Civil Arenco Talis Civil Alfabs Civil Logic	$ 7,338,685.36	Subcontract
2	Signals	06/02/2018	16/02/2018	23/02/2018	Aldridge Rail Sigtech Solutions Boleh Consulting JMD Rail Tech	$ 1,149,659.51	Subcontract
3	Electrical LV	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Following CCB Gate 3 approval	New Era Elecdata PJ O'Conner Downer Edi Engineering Power Pty Ltd	$ 450,152.63	Subcontract
4	OHW	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Laing O'Rourke John Holland	$ 1,375,770.97	Subcontract
5	Station Systems (CCTV & PA)	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Following CCB Gate 3 approval	New Era Elecdata Auscott Downer Edi Engineering Power Pty Ltd	$ 201,316.05	Subcontract /Subcontract short form
6	Survey	05/02/2018	16/02/2018	23/02/2018	Degotardis Cardno Meadows Geo-image Monteath & Powys	$ 445,328.94	Consultancy Agreement
	Geotechnical Survey	06/02/2018	16/02/2018	23/02/2018	Geotesta Durkin BG Drilling Pty Ltd	$ 110,000.00	Purchase Order
7	Work Site Protection	12/02/2018	19/02/2018	26/02/2018	MCR Swetha Infraworks	$ 1,118,115.01	Subcontract short form
8	Traffic Control	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Altus Evolution Elite D&D	$ 221,154.00	Subcontract short form
9	Trackwork	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Following CCB Gate 3 approval	Martinus Taylor Rail Rhomberg Rail Daricon Rail RCR Coleman Rail	$ 353,007.04	Subcontract /Subcontract short form
10	Balise / Car Markers	31/07/2018	14/08/2018	21/08/2018	MRG Lasercon Infraworks Downer	$ 1,203,622.81	Subcontract /Subcontract short form
11	Labour Hire	16/02/2018	23/02/2018	02/03/2018	MRG Lasercon Everytrade	$ 431,294.47	Subcontract short form
12	Steel	Civil after SDR and Structure after CCB Gate 3 approval	Civil after SDR and Structure after CCB Gate 3 approval	Civil after SDR and Structure after CCB Gate 3 approval	Alfabs Metwest Maitland RKR Engineering Bellingham Engineering	$ 1,383,769.47	Subcontract
13	Service Locating/NDD	09/02/2018	16/02/2018	23/02/2018	Aqua Assets Suresearch Patriot Environmental Management	$ 65,638.10	Plant Wet Hire-In Agreement

Ref.	PACKAGE	TENDER SEND OUT DATE	TENDER CLOSE DATE	REQUIRED AWARD DATE	Subcontractor Name	Budget for Subcontract Package	SUBCONTRACT TYPE
					Durkin		
14	Dilapadation Survey	23/02/2018	02/03/2018	09/03/2018	Australian Dilapidations Rooney & Bye OZ Dilap Opal Dilaps Houspect	$ 41,800.00	Purchase Order/Subcontract short form
15	Cranage	01/05/2018	15/05/2018	01/06/2018	Borger Cranes Crane Systems Australia HES Cranes JDN Monocrane Kone	$ 892,829.93	Plant Wet Hire-In Agreement
16	Early Works	02/03/2018	16/03/2018	23/03/2018	Hili MRG Civil & Tunnel Brefni	$ 200,000.00	Subcontract short form
17	Misc. Items	As required	As required	As required	TBA	$ 366,045.58	Purchase Order

8 PROCESS OVERVIEW

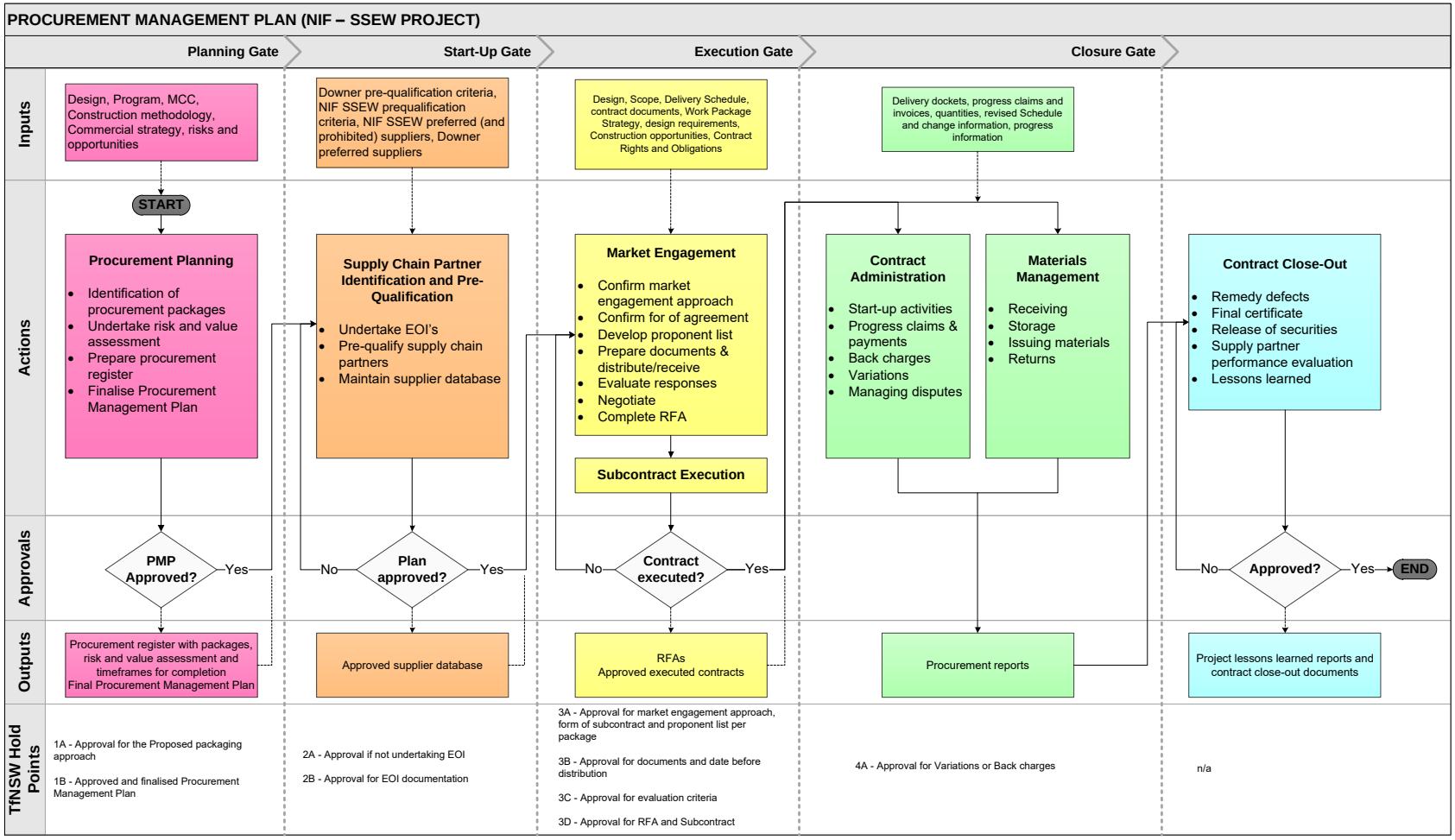
The Downer procurement process sets out the activities and hold points necessary to effectively manage and control the engagement of supply chain partners, consistent with the TfNSW Program objectives and the Downer Procurement Policy.

The standard Downer procurement activities are outlined below and provided in the flowchart following:

Procurement Planning	Establishing the approach to procurement including the proposed packaging and scheduling of procurement activities.
Supply Chain Partner Identification and Pre-Qualification	Identifying the relevant supply chain partners for work on the Program and initial pre-qualification.
Market Engagement	Competitively tendering the packages to identify the most suitable supply chain partners for the defined requirement/s.
Contract Execution	Executing subcontracts to awarded supply chain partners.
Contract Administration	Managing supply chain partners on-site and administering subcontracts.
Materials Management	Coordinating materials and services in accordance with the Program schedule and managing materials on-site.
Contract Close-Out	Finalising all activities to formally complete procurement.

The flow chart below provides an overview of these processes (including hold points and interfaces with TfNSW). Appendix A provides a prescriptive overview of the process with relevant clauses in the MCC identified.

Hold points are included at key milestones in the process to allow oversight and approval of procurement decisions within Downer and TfNSW. These will be developed further during mobilisation to ensure alignment with TfNSW and Program requirements.



8.1 Procurement planning

Procurement planning establishes the approach for procurement across the entire Program life-cycle. It takes into consideration the delivery schedule, construction approach, Project locations, package interfaces and typical characteristics of the market.

The Procurement Manager consults with key Program personnel to develop:

- An initial view of procurement packages;
- An initial view of approach to market engagement and form of agreement using a risk assessment of each package; and
- A procurement register to plan and monitor progress of procurement across the Program.

8.1.1 Identification of procurement packages

Identification of the optimum structure of procurement packages is required to drive value during the delivery of the Program. In addition to the underlying core procurement principles, as outlined in Section 6, the structure of the packages will take into consideration the following:

- Optimising the number of operational interfaces to reduce complexity during delivery;
- Optimise the size of packages to encourage SME involvement and reduce scenarios of margin on margin; and
- Create a sustainable industry in key locations based on existing and potential future work under the Program.
- Prior to tendering any packages, prepare a Subcontract Proposal for TfNSW which includes the following information:
    - The part of the Reimbursable Work to be the subject of the tender (procurement packages)
    - the amount included for this work in the Target Budget Estimate;
    - how Downer will ascertain the tender list for the part of the Reimbursable Work (e.g. EOI process, known tenderers)
    - how Downer will select the preferred Tenderer including details of the criteria (with weightings) for assessment of tenders;
    - the method of delivery for the work;
    - the proposed conditions of Subcontract which Down proposed to use to enter into the Subcontract; and
    - the proposed date for calling of tenders and for tender responses.

HOLD POINT – 1A
▪ Submit for approval from the TfNSW's Representative the Subcontract Proposal.

8.1.2 Undertake risk and value assessment

The Procurement Manager, in conjunction with the Program Director and Project Manager/s, undertakes a risk assessment on each procurement package to inform the necessary market engagement approach and the Form of Agreement, using the guidance set out in the Downer Risk Framework (refer to Annex B).

The value of the procurement package is the estimated value over the proposed term of the subcontract (i.e., not a per annum value).

In undertaking an assessment of the risk, the Procurement Manager considers the following factors relating to the procurement:

- The nature of the goods or services being procured;
- Downer's experience in procuring goods or services of this nature;

- Estimated subcontract value compared with total Program value;
- Technical complexity of the good or service being procured;
- The annual turnover of the supply chain partner likely to be engaged;
- The capability of the market to respond to any specific requirements of the procurement;
- Overall lead time of the good being delivered and relationship to the critical path; and
- Whether there is an existing framework agreement or panel contract for the supply chain partner.

The risk and value assessment outcome will allocate create three tiers of procurement packages, as per below. The value limits specified within Procurement Board Direction 2013-03 and the NSW Government Procurement Guidelines (Construction to $1m) have been used to develop the value limits.

Tier	Risk Category	Value
Tier 1*	High risk [B]	>$1m
	Medium [C] *or* Low Risk [D]	>$1m
Tier 2	Medium [C] *or* Low Risk [D]	$250k - $1m
Tier 3	Medium [C] *or* Low Risk [D]	$50k - $250k
		< $50k

Where an extreme risk [A] is identified as per Annex B, consultation with the TfNSW will be undertaken.

8.1.3 Procurement register

The Procurement Manager develops and maintains the Procurement Register to manage and track procurement activities and lead times for each procurement package. The register is aligned to the Program schedule.

This Procurement Register includes, but is not limited to, the following procurement activities:

- Design requirements;
- Supplier identification and pre-qualification;
- Document preparation;
- TfNSW review and approval requirements;
- Required market engagement method;
- Award and subcontracting/negotiations;
- Required on-boarding and inductions; and
- Manufacturing lead times (if any).

The Procurement Team, in consultation with the Planning Manager, identifies and prioritises packages closest to the critical path and long lead packages. The status of the procurement register, including identifying the forecast and planned dates for all packages and any associated records, is maintained by the Procurement Team.

HOLD POINT – 1B
▪ Submit the Cost & Procurement Management Plan to TfNSW and address the comments

8.2 Supply chain partner identification and pre-qualification

Following the development and TfNSW approval of proposed procurement packages, the Procurement Manager identifies potential supply chain partners relevant for each procurement package.

The initial view of potential supply chain partners, as provided in Section 7, is based on:

- Downer preferred supply chain partners that could be leveraged for the Program (where applicable);

- TfNSW preferred supply chain partners that have proven experience in rail and the Program;
- Exclusion of any TfNSW Prohibited Subcontractors; and
- Local understanding of supply chains with capability/experience on delivering similar project types.

This initial view will be complemented by using the persons nominated in Schedule 1 or an open Expression of Interest (EOI), where potential supply chain partners are invited to seek the status of a pre-qualified supply chain partner to allow fair and equitable access to Program opportunities.

HOLD POINT – 2A

- Seek approval from the TfNSW's Representative if it is proposed not to undertake an EOI.

8.2.1 Expressions of interest

In undertaking an EOI, the Procurement Manager prepares and makes an invitation to the market seeking Expressions of Interest from supply chain partners for inclusion on pre-qualified lists for the provision of works, goods or services for the Program.

The EOI (subject to approval from TfNSW) sets out the key requirements within which Downer expects to be procuring (for example, scope, value) and applicants are given:

- The criteria for supply chain partner pre-qualification;
- Details of the information required to be submitted by applicants; and

Where applicable, details of any agreement that a successful applicant will be required to enter.

HOLD POINT – 2B

- Seek approval from the TfNSW's Representative where an EOI is proposed on specific details around the advertising, EOI documentation, distribution, response evaluation and recommendation.

8.2.2 Supply chain partner pre-qualification

The Procurement Manager manages the process of pre-qualifying supply chain partners which incorporates standard Downer requirements and any Program-specific requirements. A supply chain partner must be included on the Downer pre-qualified list prior to undertaking any works on the Program and preferably prior to being part of any market engagement process (excluding Open Request for Tender circumstances where pre-qualification is undertaken as part of the market engagement process).

The Procurement Manager ensures that each pre-qualification submission received (via EOI, standing offer or other means) is assessed against the standard approval criteria. The assessment is undertaken in a reasonable period and the supply chain partner is informed in writing, with appropriate records maintained.

The outcome of the assessment will be:

- Accepted (meeting the criteria for approval);
- Not Accepted (not meeting the criteria for approval); and
- Prohibited (not to be used or assessed until agreed with TfNSW).

If the potential supply chain partner is found to be 'Accepted', then the details will be included in the supplier database, discussed below, and be eligible to be involved in relevant market engagement activities.

If the potential supply chain partner is found to be 'Not Accepted', then feedback will be provided on why they were not successful. Ideas are provided to assist them to meet the criteria for approval in subsequent processes.

If the potential supply chain partner is found to be 'Prohibited', then feedback will be provided on why the supply partner is deemed to be prohibited and a record of the details for the decision will be maintained within the supplier database. Downer will not enter into a subcontract with a supply chain partner deemed to be 'Prohibited'.

8.2.3 Downer supplier database

The Procurement Manager maintains a Downer Program database and records of pre-qualified supply chain partners necessary to fulfil the wider requirements of the Program. The data contained within the supplier database is treated as commercially sensitive and access to it is restricted to persons properly engaged in the administration and implementation of this Plan.

8.3 Market engagement

The Procurement Manager manages the market engagement activities with supply chain partners. This includes developing the approach for how the market will be engaged, identifying the relevant proponents, preparing the tender documents (including form of agreement) and managing the distribution, receipt and evaluation of tender responses.

8.3.1 Market engagement approach

The Procurement Manager, in consultation with the Commercial Manager and Program Director, develops a market engagement approach for each procurement package based on the risk and value assessment undertaken in Section 8.1 and the core procurement principles in Section 6.

Key market engagement guidelines developed for the Program are provided in Appendix C.

Key market engagement methods, as identified within the NSW Finance and Services Market Approaches Guide, include:

- Expression of Interest (EOI);
- Request for Quote (RFQ);
- Request for Tender (RFT) – Open/Multi-stage/Limited (Selective);
- Request for Proposal (RFP);
- Request for Information (RFI);
- Direct negotiation; and
- Early Contractor Involvement (ECI).

8.3.2 Form of agreement

The Procurement Manager, in consultation with the Commercial Manager, selects a form of agreement for each procurement package based on the risk and value assessment undertaken, as outlined in Section 8.1 and the Program commercial strategy. It is noted that an initial view of the form of agreement for each procurement package (including the pricing mechanism) is included in Section 7, and will be updated through discussions with TfNSW.

The agreements provided below are standard Downer legal precedents and a brief description of their intended use is provided. These agreements will be modified to accommodate back-to-back conditions from the Managing Contractor Contract (MCC), where appropriate.

Appendix C provides the guidelines for determining how these forms of agreement will be used across the different supply tiers.

Agreement Type	Description of Intended Use	Legend
Purchase Order	To purchase a fixed volume of any type of goods that are of low value and low risk (for example, they are basic 'off the shelf' goods).	PO
Supply Agreement	To purchase a fixed volume of any type of goods (together with related services) from a supply chain partner that are of a medium to higher risk/complexity.	SP
Consultancy Agreement	To engage a consultant to provide professional services (for example, design or professional advice).	CA
Hire Agreement (Wet/Dry)	To hire construction plant or equipment, both with or without operators (i.e. both dry hire and wet hire).	PH
Minor Works Subcontract	For low value, low risk on-site work where the supply chain partner's work is not critical to Downer's obligations under its head contract.	MW
Subcontract Agreement – Short form	For complex and higher value/risk work where Downer needs to include provisions dealing with the administration of time (EOTs), completion, variations, latent conditions, DLP, subcontracting, warranties, security, claims and IP.	SUBS
Subcontract Agreement	For more complex, higher value, higher risk work or where prescriptive obligations under the MCC need to be passed through to the supply chain partner.	SUB
Labour Hire Service Agreement	For skilled/unskilled labour hire (for example construction labour, concreter etc)	SUBS

8.3.3 Proponent list

For all procurement packages, the Procurement Manager (or Package Owner) develops a proponent list of supply chain partners for market engagement. In order to prevent any bias or un-competitive practices, the proponent list will be prepared based on:

- Pre-qualified supply chain partners on the supplier database for each procurement package and tier;
- Other known supply chain partners with known capability;
- Any EOIs undertaken; and
- Feedback from past assessment of performance in delivery.

The proponent list for each package is recorded within the procurement register, including those who were invited but declined.

HOLD POINT – 3A

- Seek approval from the TfNSW's Representative on the proposed market engagement approach, form of subcontract and proponent list per package.

8.3.4 Document preparation

The Procurement Manager (or Package Owner) is responsible for coordinating the preparation of documents for each procurement package in-line with the approved market engagement approach. Generally RFT documents comprise:

- Conditions of tendering;
- Tender form and pricing schedules;
- Returnable schedules of information;

- Design drawings and technical specifications (where required);
- Any management system requirements (for example, safety, quality);
- Standard form of agreement;
- Pre-qualification assessment form (where an open tender being used); and
- Description of the work and/or services required, which may include a brief, performance requirements, design information, technical specifications and drawings.

The Procurement Manager ensures that all tender documents are prepared by persons with sufficient expertise and manages the process of obtaining approval for any tender documents from TfNSW.

The Procurement Manager will also ensure that all Subcontractor Tender Documentation prepared and all associated tender processes for Reimbursable Work is carried out with the intention to maximise value for money for TfNSW whilst maintaining the highest standard of probity, fairness and equal opportunity. The Subcontract Tender Documentation pack to TfNSW is to include:

- The Design Documentation relevant to the part of the Reimbursable Work to be subcontracted;
- The conditions of the Subcontract, which must, unless otherwise expressly directed in writing by the Principal's Representative, be on terms approved by the Principal's Representative;
- If the Principal's Representative so directs, a request for tender; and
- Any other documentation necessary for that part of the Reimbursable Work to be subcontracted.

HOLD POINT – 3B

- Seek approval from the TfNSW's Representative on the Subcontract Tender Documentation before distribution to the market.
  (Note: documents must be submitted to TfNSW's representative 15 Business Days before tenders are invited.)

8.3.5 Document distribution/receipt

On receipt of the approved tender package, the Procurement Manager issues the documents using TeamBinder (or an alternate electronic tendering system as agreed with TfNSW) to prospective tenderers, ensuring confidentiality. A record of correspondence with tenderers is maintained.

Documents are also distributed and received so as not to advantage or disadvantage any particular tenderer.

On receipt of a new or re-negotiated tender response, the Procurement Manager ensures each response is date-stamped and then undertakes an elemental review for the completeness of the response, prior to distribution for evaluation.

8.3.6 Request for information

The Procurement Manager (or Package Owner) manages all RFIs from tenderers, by ensuring:

- All clarifications to and from tenderers are in writing;
- Any amendments to the tender prior to the close are issued to all tenderers in writing, as formal addenda;
- Any questions asked by tenderers prior to the tender close are clarified; and
- A record of all correspondence is kept.

8.3.7 Tender period

The Procurement Manager (or Package Owner) establishes the tender response period ensuring:

- Tender periods allow sufficient time for prospective suppliers to price and prepare their submissions/bids for the work; and

- Wherever possible, tenders are published electronically and allow for tenderers to lodge submissions electronically.

The Procurement Manager (or Package Owner) will nominate the tender period for the specific package as part of submitting the documents to TfNSW for approval (refer section 8.3.4).

A tender period will only be extended under special circumstances. Extensions of time for tender submissions must apply to all prospective tenderers.

8.3.8 Response evaluation

The Procurement Manager is responsible for ensuring probity of the evaluation process. Where required, an evaluation team will be created to ensure relevant sections are evaluated by those with the necessary skills and knowledge and who are free of any conflict of interest.

The Procurement Manager (or Package Owner) ensures the evaluation criteria and weighting for each procurement package proposed below meets the key package requirements. The aim is to identify the tenderer offering the best value for money. Any changes to the proposed weighting of the evaluation criteria will be discussed and agreed with TfNSW prior to any evaluations being undertaken. The evaluation criteria include:

Evaluation Criteria	Weighting	Description
E1 Company Background	10%	A general assessment of the tenderers financial health and operational experience in delivering, including but not limited to: ▪ Value of scope of works relative to annual turnover of tenderer; ▪ Financial health of tenderer; ▪ Key health and safety and environment key performance indicators; ▪ Proven experience of tenderer and its personnel in similar projects; and ▪ Past performance assessments/ratings on similar projects. ▪ Key personnel – CVs and Organisational charts
E2 Operational/Technical	20%	Conformity to all technical and design requirements and conformity to all operational requirements, including but not limited to: ▪ Delivery times offered; ▪ Quality of products/services offered; ▪ Conformance to TfNSW warranty periods; ▪ Any innovation in products or service delivery; ▪ Ability to meet Program schedule; and ▪ Any innovation offered that meets or exceeds technical requirements; ▪ Any exclusions listed in tenderer's tender proposal; ▪ Where applicable, conformance to any licensing and registration to undertake works
E3 Zero Harm	20%	Conformity to Downer's and TfNSW health and safety, environment and community relations objectives and supply chain partner's historical performance in these areas.
E4 Workplace Relations	20%	Conformity to the industrial environment and compliance with the Implementation Guidelines to the NSW Code of Practice for Procurement: Building and Construction.
E5 Financial	20%	A comparison of pricing, ensuring all prices are adjusted so that a like for like comparison can be made. The comparison must ensure that it is an assessment of whole-of-life costs (including costs or disposal).

Evaluation Criteria	Weighting	Description
E6 Commercial	10%	Conformity to all terms and conditions (including any performance specifications and ASA requirements), Code requirements and insurances.
E7 Program and resource availability	In combination of E5 and E6	Confirm availability of resources

Where an alternative tender is provided, confidentiality will not be breached by using information contained in alternative tenders as the basis for calling for subsequent tenders. The alternative response will be evaluated in accordance with the conditions of tendering. Considering the work Downer may change above criteria which will be submitted to TfNSW in the Subcontract Proposal.

HOLD POINT – 3C

- Seek approval from the TfNSW's Representative on the evaluation criteria for each package.

8.3.9 Negotiations

The Procurement Manager (or Package Owner) will ensure all negotiations are carried out in line with this Plan where the market engagement process does not deliver either the desired solution from a scope or financial perspective. These negotiations are undertaken in good faith and in line with Procurement Principles and Standards of Behaviour as per Section 6 and the NSW government reference documents (specifically Section 5.2 of the NSW Code of Practice for Procurement).

Downer will provide the original quotation of the recommended tenderer with the tender recommendation of the package.

Upon request of TfNSW's representative, post-tender negotiations with tenderers will be conducted and if required, held in the presence of the TfNSW representative.

8.3.10 Recommendation for award

The Procurement Manager (or Package Owner) manages the award of a subcontract by preparing a Recommendation for Award (RFA). The RFA summarises the details of the offers received and the evaluations performed.

The RFA is circulated to the Downer representative in accordance with the delegated authorities (refer Appendix C) for the Program. TfNSW also receives a copy of the RFA for approval.

The Procurement Manager is responsible for ensuring approval of the RFA from TfNSW. A subcontract is only awarded after approval of the RFA is obtained.

HOLD POINT – 3D

- Seek approval from the TfNSW's Representative on the RFA.

8.3.11 Letters of Regret

Letters of regret are issued to unsuccessful suppliers and subcontractors. At the request of the supplier/subcontractor, and subject to approval from TfNSW, a de-brief session is undertaken to provide feedback on why the supplier/subcontractor was unsuccessful.

8.4 Contract execution

Following approval of the RFA, the Contract Administrator is responsible for executing the subcontract, raising the purchase order to initiate commencement of work and managing securities and insurances prior to any work being undertaken.

8.4.1 Awarding a subcontract

The Procurement Manager (or Package Owner) prepares and updates the final form of subcontract for the supply chain partner by:

- Ensuring the final form of subcontract (including all supporting schedules) does not deviate from the negotiated subcontract;
- Ensuring all functional leads (where required) have reviewed the documents issued or referenced in the final form of subcontract, and updates, where required;
- Obtaining approvals for the final form of subcontract from the appropriate financial delegate;
- Issuing the full set of subcontract documents to the supply chain partner to sign and return (including confidentiality agreements and agreed sub contract price);
- Obtaining the Downer delegated authority signature on the subcontract; and
- Sending the subcontract to the Contract Administrator for filing.

8.4.2 Raising a purchase order

Upon execution of the subcontract, the Project Administrator with assistance of Contract Administrator completes a purchase order and includes the relevant information of the package (for example, description, quantity, price, and delivery/completion date), and the necessary cost codes for commitment.

The Project Administrator raises purchase orders in accordance with Downer's purchasing process and the Contract Administrator update the procurement register and send documentation to Project Controls.

8.4.3 Managing securities and insurances

On subcontract award, the Contract Administrator manages the receipt and storage of securities and insurance certificates in accordance with the subcontract.

Failure by the supply chain partner to submit condition precedent documents within the timeframe specified may constitute a fundamental breach of the subcontract.

8.4.4 Subcontractor Warranties

Upon executing a contract with a subcontractor, the Procurement Manager will work alongside the Commercial Manager to procure and provide warranties from the subcontractor undertaking or supplying the work or item.

A well-defined warranty period will be embedded into the subcontractor agreement which will maintain the integrity, performance and compliance of works carried out by an approved subcontractor/supply chain partner.

8.5 Contract administration

The Contract Administrator is responsible for the administration of the subcontracts for the Program. This includes the following activities, which may be completed concurrently:

- Start-up activities;
- Contract administration (progress claims and payments and back charges);

- Variations (including extensions of time); and
- Managing disputes.

As per the co-ordination of subcontracts, the Procurement Manager will work closely with the Project Manager and delivery team to administer, supervise, inspect, co-ordinate and control the work of all subcontractors engaged on-site.

8.5.1 Start-up activities

The Contract Administrator schedules a kick-off meeting between the Program's Management Team and the supply chain partner's Management Team, after subcontract award and before the supply chain partner commences work on-site or a supplier receives an order. The purpose of the kick-off meeting is to achieve a mutual understanding between Downer and the supply chain partner regarding the way in which the requirements of the subcontract are to be executed.

The Contract Administrator is responsible for establishing and maintaining a file for each supply chain partner and ensuring an appropriate mechanism is established for correspondence control. This ensures the tracking and storing of all correspondence with supply chain partners is registered, actioned and maintained for later access, if required.

8.5.2 Progress claims and payments

Progress claims and payments are coordinated by the Contract Administrator for each package, in consultation with the Commercial Manager. Subject to the terms and conditions within the subcontract, the Contract Administrator:

- Receives a payment claim from the supply chain partner and validates the claim with the Project Manager, referring to documented evidence provided, for example, timesheets, invoices and/or delivery dockets;
- Prepares a payment certificate for the supply chain partner and obtains approval for the claim by the Program Director and relevant financial delegate;
- Forwards the supply chain partner payment claim to Project Controls for input into the Program's cost system;
- Receives a valid tax invoice from the supply chain partner for the same amount as the supply/subcontract payment certificate;
- Forwards documents for processing; and

Updates that the payment was made in the procurement register. Downer will administer the progress claims from subcontractors according to SOPA 1999.

8.5.3 Back charges

The Project Manager issues back charge notices to the Contract Administrator for any back charge work.

Prior to the commencement of back charge work, the Contract Administrator and the supply chain partner agree on the back charge notice issued which defines the scope, schedule, cost code and estimated costs of the work.

The Contract Administrator forwards the approved back charge notice to the supply chain partner for acceptance/approval.

8.5.4 Variations (including extension of time)

The Contract Administrator is responsible for managing variations across the Program in accordance with the Approved Subcontract Agreement. A variation is used in all instances where a change is made to a subcontract, including any change in scope, value or time.

The Contract Administrator raises a formal variation notice where the supply chain partner has been requested to perform works outside the original scope of supply, or if the supply chain partner submits a claim for change. This variation notice must include a request for the supply chain partner to provide an estimate of the effect the variation will have on the subcontract cost, schedule and the affected work breakdown structure (WBS).

All variations notices must be approved in accordance with the delegated authorities (refer Appendix C) for the Program prior to the supply chain partner undertaking any works in relation to the variation.

Once a variation is approved, Project Controls prepares a variation order and sends a formal notice of approval to the supply chain partner. Project Controls increases the subcontract order's committed value in the project controls system to reflect the approved variation order.

HOLD POINT – 4A
▪ Seek approval from the TfNSW's Representative on the value (in accordance with the Subcontract) of a variation or back charge through Payment Claim.

8.5.5 Managing disputes

The Contract Administrator and Commercial Manager are responsible for managing any dispute raised (either by Downer or the supply chain partner) in accordance with the terms and conditions within the subcontract. The Contract Administrator and Commercial Manager will ensure that the representative from TfNSW is kept fully informed of all aspects of a potential dispute. The Project Manager will also inspect any Contemporaneous Work as required to ensure that works completed are not proven to be unsuitable, unsatisfactory or detrimental.

All payments and disputes are managed in accordance with the prescriptive timeframes specified within Building and Construction Industry Security of Payment Act 1999.

8.6 Quality Management

The Systems Engineer is responsible for managing of the Quality documentation and registers across the program in accordance of the Quality Management Plan. Quality management is a continual process which addresses the following:

- Control of project documents;
- Managing variation;
- Project meetings and reports;
- Control of drawings and specifications;
- Non-conformances;
- Corrective and preventative actions.

8.6.1 Inspection and test plans/reports

The System Engineer is responsible to coordinate with the Project Manager and Project Engineers to ensure that the subcontractor has:

- Completed and submitted all the Inspection and Test Plans (ITPs), relevant to the subcontractor's work with the progress claim;
- Completed and submitted all the Inspection and Test Reports (ITRs) and other verifying documents related to each of the ITPs with the progress claim;
- The ITPs have been reviewed and approved by the Project Manager or his/her delegate, who pre-determined the requirements for the ITPs;
- The ITPs and ITRs are signed and dated by a competent person in accordance with the works program.

8.7 Expediting

The Project Manager is responsible to undertake or assign an individual to the Expeditor role. The Expeditor is responsible to ensure that materials and services delivered according to the Project Schedule. Expediting is a continual process, and involves:

- Anticipating and solving problems with the supply;
- Ensuring receipt, approval and progress of the manufacturer's schedule and other supplier / subcontractor documents;
- Continually reviewing the delivery status of all contracts and purchase orders;
- Providing material progress reports and keeping management advised of any changes or deviations from the approved schedule.

8.7.1 Expediting procedure details

The Expeditor is responsible to follow the expediting process. The expediting procedure consists of the following sequence of steps:

- Determining the expediting level required for each work package;
- Setting up the expediting file for each supplier/ subcontractor/ work package and register;
- Contacting the supplied/subcontractor to inform them or their requirements;
- Monitoring of the progress in accordance of the Procurement Register through a series of reports;
- Managing of the supplier/subcontractor site visits;
- Managing of the supplier/subcontractor deliverables;
- Managing of defects and non-conformances;
- Managing of vendor data requirements and ensure that all required documentation is received from the supplier/subcontractor.

8.8 Materials management

As discussed in Section 7, Downer may free issue materials to supply chain partners. In these circumstances, it will be the responsibility of the Procurement Manager (in consultation with the Project Managers) to ensure materials are effectively received, stored, issued and returned (where required).

8.8.1 Goods receiving

The relevant Project Manager ensures that all goods received are verified against the original subcontract or purchase order requirements.

On receipt of the materials, the Project Manager verifies quantities and undertakes an inspection for damage or defect. Each item is allocated a storage location and regularly checked for security and condition.

8.8.2 Goods storage

Project Managers ensure that all materials stored on-site have a storage location allocated and recorded in the procurement register.

8.8.3 Issuing materials

The Project Manager liaises with the Procurement Manager on a regular basis to ensure materials are issued to supply chain partners when required. The Project Managers will provide feedback to the Procurement Manager regarding any future planned material requirements to meet Program requirements.

8.8.4 Goods return

Project Managers ensure the return of unwanted, damaged or surplus items are tracked to ensure the safe, timely and commercially responsible return of items. Returns are generally due to quality assurance inspection, oversupply and damage/defect rectification.

8.9 Contract close-out

The Contract Administrator closes out all subcontracts. Close-out begins when all work under the subcontract has been completed and the Contract Administrator, with the relevant Project Manager, will:

- Undertake a final inspection with the supply chain partner and remedy any defects identified;
- Issue a notice of practical completion in accordance with the relevant clause of the subcontract;
- Evaluate the supply chain partner performance and feedback any issues to TfNSW;
- Engage the supply chain partners to conduct a lessons learnt and identify areas for improvement;
- Establish a process to monitor supply chain partner defects during the defects liability period; and
- Ensure securities are maintained in accordance with the relevant clause in the subcontract;
- Ensure that on completion of any test, all activities and works conducted by Downer and relevant subcontractors are fully compliant with the managing contractor contract.

8.9.1 Final certificate and release of securities

On expiration of the defects liability period, the Contract Administrator issues (or receives from the supply chain partner) a final payment certificate (or claim) in accordance with the subcontract. On approval of the final payment claim (certificate), securities are released to the supply chain partner in accordance with the relevant clause in the subcontract.

9 PROCESS REVIEW/CONTINUOUS IMPROVEMENT

The Procurement Manager undertakes an annual review of Downer's Program procurement process and prepares a summary report for the Program Director. With TfNSW input, the procurement approach/plan for the following year is improved, where possible.

9.1 Scope of annual procurement review

Before commencing the review, the Procurement Manager agrees to the scope of the annual procurement review with the Program Director. The annual procurement review considers (as a minimum) the following:

- Probity of the procurement process;
- The status of the approved supply chain partner list;
- Changes to the approved supply chain partner list during the year;
- Local target outcomes;
- Supply chain partner utilisation;
- Supply chain partner performance;
- Supplier market health; and
- The effectiveness of the process including recommendations for change.

9.1.1 Review and audit

The Program Director is accountable for the implementation of this Procurement Plan and will review the Plan and associated procedures quarterly during the first 12 months and annually thereafter using our continuous improvement mechanisms in a manner that:

- Achieves contract compliance and continually improves the Procurement Plan; and
- Optimises value-adding activities, minimises non-value adding activities and eliminates waste in order to deliver continual improvement and reduce cost to TfNSW.

10 COST MANAGEMENT

10.1 Overview

In Downer we use ERP based accounting System called JDE (JD Edwards) for Cost Management. The System is well equipped with advanced features. We will use the System for managing cost, budget, forecast, profit recognition, payments and monthly Valuation for the Project.

10.2 Details

A unique Project number will be created up in JDE to manage cost for the Project. Cost code structure as per the WBS will be created and where possible we will link the cost code to the Target Budget. Once created and approved by the Project Manger the cost codes will be set up in the system and linked with the Project number. At the same time approval route for approval of the Purchase order and commitments will be set up in accordance with Downer's Financial Delegated Authority and as provided in this Plan.

Downer will create the Budget in System from Target Budget and link it with the cost code; we will use this budget for the procurement packages and allocate them to the appropriate package. In the event where Downer needs to change the budget for packages due to market circumstances we will request TfNSW for the budget reallocation and provide with detail information. After the package allocated to the Subcontractor Downer will track the budget of the package against the actual cost during the delivery of the project. Budget will be revised due the scope change, variation etc.

Project Manager with assistance of the Contract Administrator will do the forecast for the Project. Each cost code will be allocated with the forecast amount and will be tracked against the actual cost. Software called Candy will be used for estimation and cost forecast purpose.

After necessary evaluation completed through the Procurement process Downer will engage the Subcontractor/Supplier/Consultant by using the appropriate procurement instrument as described in this Plan. Engaged party will be set up in the System if not already set up. Then the Purchase Order will be raised.

After commencement the Subcontractor will submit the progress claim for the works as per agreement for Downer's assessment. Downer's Project Manager will assess the claim in view of the actual work performed by the Subcontractor.

We will ensure that the daily diaries/timesheet/day works sheet will be signed/approved by Downer for the Schedule of Rate type Subcontract or as required and then progress claim will be assessed in line with the approved document.

Project Administrator will receipt and voucher match the claim as per assessment. Progress payment will be made as per the agreement via EFT.

The procedure will pass through RFQ/RFT, Purchase Order, Approval, Receipt and Payment phases and ends at Final Payment.

We will create the monthly cashflow in p6 (Primavera) by using information from JDE and Candy.

Downer will use software called Envision to record events and to create contractual Notices.

Thus Downer will use JDE, Candy, Primavera and Envision for Project control purpose.

The Project Administrator is responsible for raising Purchase Order, receipting, voucher matching, and processing the payment. The Project Manager is responsible for assessment of the claims whilst the Contract

Administrator is responsible for verification of claim and management of cost, budget and forecast. Project Planner with assistance from the Contract Administrator is responsible to create cashflow.

During the delivery of the Project, Downer will track the contingency. Downer will provide the status of contingency in tabular form in excel version when requested by TfNSW.

Reconciliation of each package will be done at the completion of the package by using actual cost and the budget.

10.3 Reporting

For the cost management purpose we will run different type of reports such as transaction to date, transaction per month, transaction per cost code, etc., to track:

- Actual cost;
- Accruals;
- Forecast and budget.

For variance in cost the actual cost will be verified against the commitment, accruals will be verified against the actual cost of the month, and forecast and budget will be verified against any changes.

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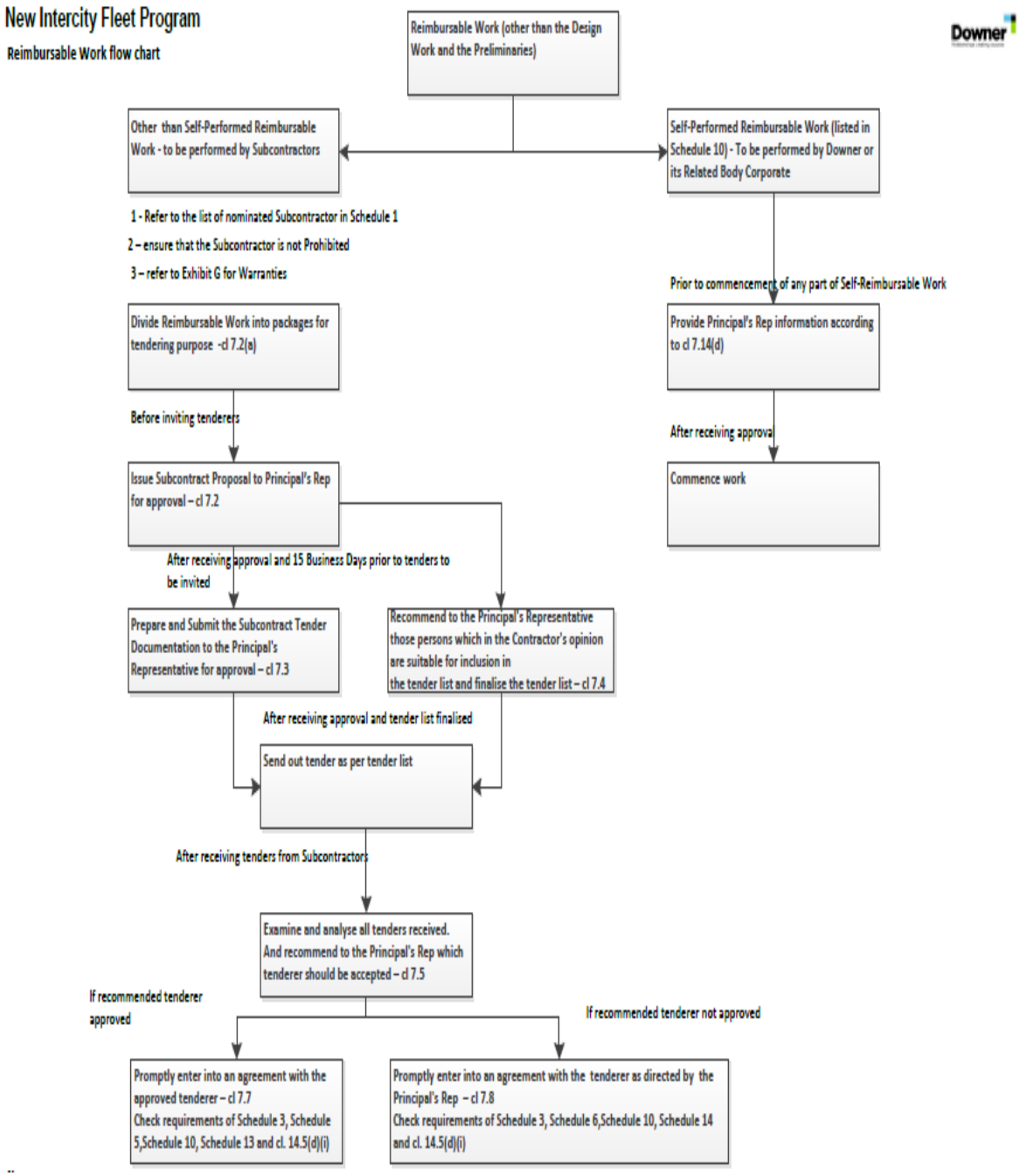
APPENDIX A – REIMBURSABLE WORK FLOW CHART



APPENDIX B – DOWNER RISK ASSESSMENT FRAMEWORK

What is being evaluated:		Person/s conducting evaluation:		Date:	

Risk Assessment Matrix		Likelihood				
		Rare	Unlikely	Possible	Likely	Almost Certain
Consequence	6 – Catastrophic	B	B	A	A	A
	5 – Extreme	C	B	B	A	A
	4 – Severe	C	C	B	B	A
	3 – High	D	C	C	B	B
	2 – Medium	D	D	C	C	B
	1 – Low	D	D	D	C	C

Risk Assessment Ratings

Consequence Rating	Likelihood Rating	Risk Rating

Likelihood	Criteria
Almost Certain	▪ Over 90% probability ▪ Expected to occur in most circumstances ▪ Likely to occur multiple times throughout a project
Likely	▪ Between 50% to 90% probability ▪ Probable that is occurred in most circumstances ▪ Possible to occur in a project
Possible	▪ Between 10% to 49% probability, or ▪ Might occur, has occurred before", or ▪ Has occurred in a minority of similar projects
Unlikely	▪ Between 1% to 9% probability ▪ Could occur ▪ Has not occurred in similar projects, but could
Rare	▪ Less than1% probability ▪ Exceptionally unlikely, even in the longer term ▪ A "100 year event"
Risk Level	
A - Extreme	▪ Threat to business ▪ Immediate action required
B – High	▪ Unacceptable level of risk in procuring ▪ Senior Management decision/action required to use and a high level of monitoring required
C - Medium	▪ Additional monitoring required for work ▪ Review for improvement opportunities
D - Low	▪ Monitor risk and reduce if practical

Rating	Financial	Time	Client/Reputation	Zero Harm	Stakeholder & Community
6	>100% of Gross Margin	>20% Schedule over-run unrecoverable	▪ Total loss of shareholder and client support ▪ Prolonged impact to share price ▪ Departure of Group MD and/or Board Members ▪ International press ▪ Loss of sector presence/relevance	▪ Fatalities or significant irreversible effects to more than one person ▪ Catastrophic widespread impact on the environment resulting in irreversible damage	▪ Complete loss of trust by affected community leading to long term social unrest and outrage.
5	70 – 100% of Gross Margin	10-20% Schedule over-run unrecoverable	▪ Departure of Divisional Executives ▪ Short term impact on share-price ▪ Client terminates contract ▪ Australia wide press ▪ Erosion of relevance/significance in the sector ▪ Significant opportunity jeopardised	▪ Single fatality or severe irreversible disability to one or more persons ▪ Significant impact or serious environmental harm	▪ Prolonged community outrage.
4	40 -70% of Gross Margin	5-10% Schedule over-run unrecoverable	▪ Client registers strong concern and threatens contract termination ▪ State-based media reporting ▪ Potential future opportunities opened up to competitors	▪ Moderate irreversible disability or impairment to one or more persons ▪ Lost Time Injury > 28 days ▪ Significant impact or material harm on the environment ▪ An environmental notifiable incident	▪ Long term community irritant leading to disruptive actions and requiring continual Management attention.
3	20 – 40% of Gross Margin	< 5% Schedule over-run	▪ Client complains strongly ▪ Local media reporting	▪ Lost Time Injury; ▪ Moderate or material environmental harm; and ▪ An environmental notifiable incident.	▪ Short term community outrage or longer term unrest and dissent.
2	5 – 20% of Gross Margin	Schedule slippage without impact to critical path (some operational costs)	▪ Client aware and affected	▪ Medical Treatment Injury; and ▪ Minor impact on the environment	▪ One off community protest requiring intervention and management attention.
1	<5% of Gross Margin	Short term schedule slippage without impact to critical path	▪ No visible impact on the client or our reputation	▪ Fatalities or significant irreversible effects to more than one person; ▪ Catastrophic widespread impact on the environment resulting in irreversible damage.	▪ No complaint.

Market engagement guidelines

The Procurement Manager will utilise the guidelines provided overleaf in determining the appropriate approach to engaging the market.

<table>
<tr><th rowspan="2">Tier</th><th rowspan="2">Risk</th><th rowspan="2">Value</th><th rowspan="2">Market Engagement Approach</th><th colspan="5">Form of Agreement</th></tr>
<tr><th>Subcontract</th><th>Consultancy</th><th>Goods</th><th>Plant</th><th>labour</th></tr>
<tr><td rowspan="2">Tier 1*</td><td>High risk [B]</td><td>>$1m</td><td rowspan="2">Approach to be discussed and agreed on a case by case basis</td><td>Subcontract Agreement</td><td rowspan="4">Consultancy Agreement</td><td rowspan="3">Supply Agreement</td><td rowspan="4">Hire Agreement (Wet/Dry</td><td rowspan="4">Subcontract Agreement – Short form</td></tr>
<tr><td>Medium [C] or Low Risk [D]</td><td>>$1m</td><td>Subcontract Agreement – Short form</td></tr>
<tr><td>Tier 2</td><td>Medium [C] or Low Risk [D]</td><td>$250k - $1m</td><td>RFT – 3 tender responses</td><td>Subcontract Agreement – Short form</td></tr>
<tr><td rowspan="2">Tier 3</td><td rowspan="2">Medium [C] or Low Risk [D]</td><td>$50k - $250k</td><td>RFQ/RFT – 3 quotes</td><td>Minor Works subcontract</td><td rowspan="2">Purchase Order</td></tr>
<tr><td>< 50k</td><td>1 quote</td><td>Minor works or Purchase Order</td><td>Purchase Order</td><td>Purchase Order</td><td>Purchase Order</td></tr>
</table>

* Where an extreme risk is identified consultation with the Principals Representative will be undertaken

APPENDIX C – DELEGATIONS OF AUTHORITY

The delegations of authority provided below will be used for all approval of RFAs and execution of subcontracts included in this Plan and must comply with the necessary TfNSW hold points and approvals as detailed in Section 8.

Expense / Approval Categories	Divisional CEO ('$000's)	EGM ('$000's)	GM ('$000's)	Program Director ('$000's)	Construction Manager ('$000's)	Commercial Manager ('$000's)	Project Manager ('$000's)	Project Engineer ('$000's)
Subcontract Award, Supply / Purchase Order, Variations	$15,000	$10,000	$7,500	$2,000	$500	$250	$250	$10

This is a subordinate management plan to be used in conjunction with the Project Management Plan

Transport Access Program

Contract Number: ISD-15-4742A

Document Preparation and Control	Document Review
Amit Patel – Senior Contract Administrator	Daniel Bains – Commercial Manager
Document Approval	**Signature**
Greg Barnesl – Project Director	[redacted]

Project Document Version	Date
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1 Purpose

The purpose of the Procurement Management Plan (the Plan) is to set out the approach, processes, procedures and standards for managing procurement for the Transport Access Program (TAP) for Easy Access Station Upgrades (the Program).
This document is intended to provide consistency in terms of structure and delivery of an efficient and effective procurement strategy and process. It encompasses the key principles of NSW government policies including:

- Delivering value for money which includes the benefits achieved compared to whole-life costs;
- Achieving efficiency and effectiveness;
- Ensuring probity, equity and effective competition; and
- Providing accessibility and aligning procurement with business needs; especially in respect of small to medium enterprises (SMEs).

In addition, the Plan aims to modernise procurement and provide:

- Strategic and agile procurement practices;
- Reduced red tape;
- Engagement with industry; and
- Encouragement of innovation.

It is not intended to be a comprehensive manual of all items or methods of procurement and should be treated as a guide.

2 Document scope

The scope of the Plan covers all aspects of procurement required for the delivery of Managing Contractor services for the Program for the following stations:

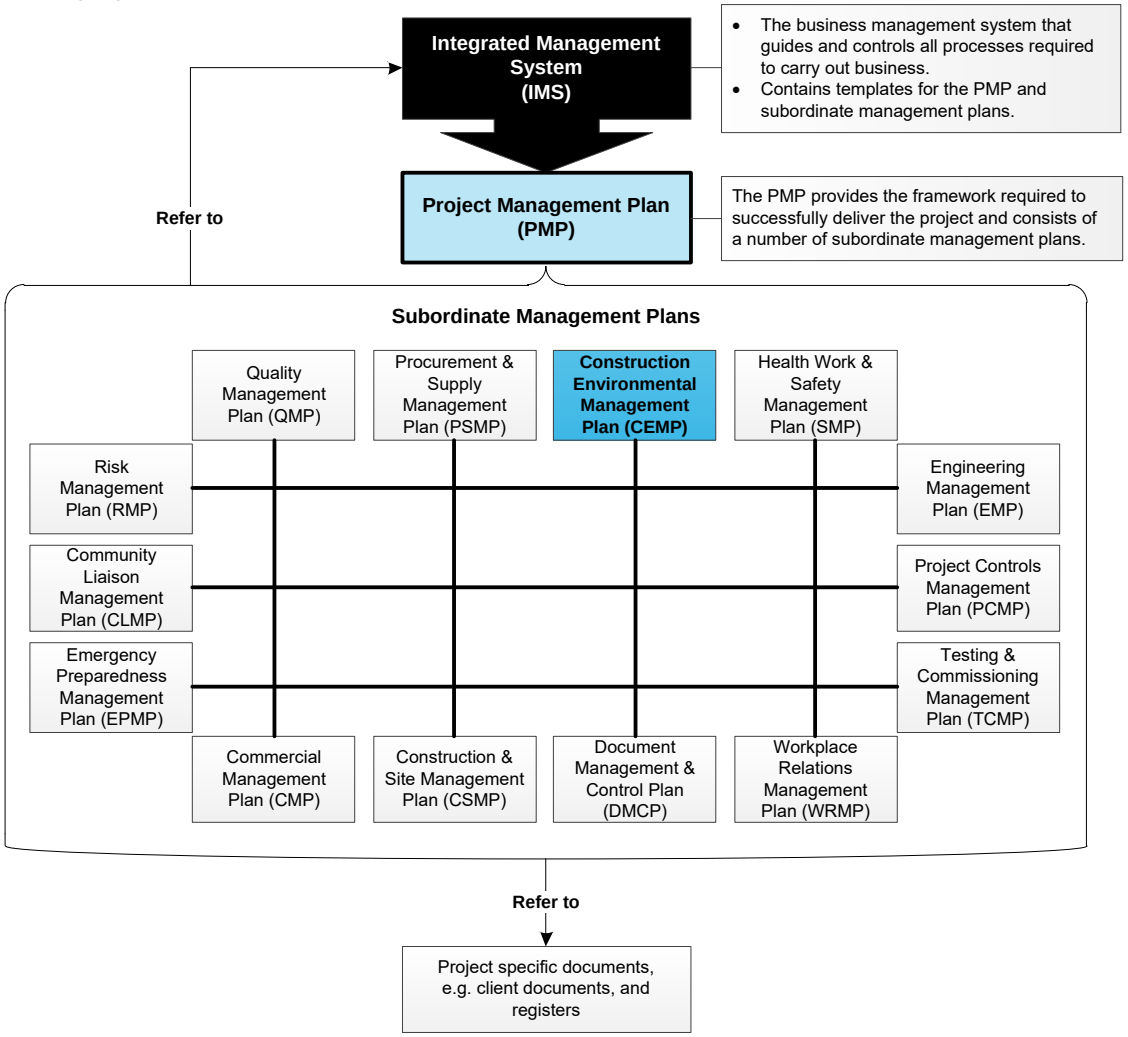
- Homebush;
- Toongabbie;
- Panania Station;
- Harris Park Station; and
- Victoria Street Station, East Maitland

The target audiences for this plan are Construction Managers, Project Procurement Managers, the Project Procurement Team, the Project Team, and any other relevant stakeholders

3 Program management framework

The Downer program management framework aligns and integrates the Program functions which define the Program's delivery methodologies and processes. The Program Management Plan (PMP), as a key element of the program management framework, is the integration document which identifies and details the standard Downer program management practices, structure, and execution methods, and any Program-specific requirements for the Works.

The PMP incorporates a number of subordinate management plans which provide the specific functional detail required to successfully deliver the Program, as illustrated in the following figure.



Integrated Management System (IMS) is the tool that supports the program management framework including the PMP and all subordinate plans. The plans reference IMS documents

(including but not limited to, procedures, work instructions and forms) and any Program-specific documents.
The PMP provides Program-specific details including, but not limited to, the following:

- Program information such as background, Project locations and Project descriptions;
- Scope of work including narrative, basis of design, battery limits and scope of services; and
- Program objectives and values including overarching principles, values and key performance indicators (KPIs) for the Program.

The PMP and subordinate management plans are audited throughout the duration of the Program to maintain compliance, and are updated as required. Updates to the PMP and subordinate management plans are subject to the document review and approval process detailed in the Program's Document Management and Control Plan.

4 Reference documents

Relevant reference documents are provided below. The procedures, forms and registers associated with this Plan will be developed on TfNSW approval of this Plan.

PROCEDURES AND REGISTERS

DI-PM-PR042	Procurement Planning
DI-PM-PR043	Supplier/Subcontractor Pre-Qualification
DI-PM-PR044	Market Engagement (Supplier/Subcontractor Tendering)
DI-PM-PR045	Contract Execution
DI-PM-PR047	Contract Administration
DI-PM-PR048	Materials Management
DI-PM-PR049	Contract Close-Out
DI-PM-RG042.1	Procurement Register

NSW GOVERNMENT PROCUREMENT POLICY DOCUMENTS

- NSW Government Procurement Policy (Office of Financial Management), July 2004;
- Code of Practice for Procurement, (NSW Procurement Board), November 2013;
- Implementation Guidelines to the NSW Code of Practice for Procurement: Building and Construction, July 2013;
- NSW Procurement Policy Framework (NSW Finance & Services), Version 4, July 2015;
- Market Approaches Guide (NSW Finance & Services), Version 0.20, April 2015;
- Industry Engagement Guide (NSW Procurement Board) Version 1.1, March 2015;
- Small and Medium Enterprises Policy Framework (NSW Government Procurement) Version 1.1;
- NSW Government Policy on Aboriginal Participation in Construction (Finance & Services) May 2015;
- Training Management Guidelines, February 2009; and
- Agency Accreditation Scheme for Construction, December 2012.

In addition, a number of Board Directions (in relation to the procurement of goods and services) as issued by the NSW Government Procurement Board, will be embedded within this Plan.

5 Definitions & abbreviations

Direct Negotiation	A complex market engagement method that involves direct negotiation with a single selected service provider without any prior competitive tender process.
ECI	Early Contractor Involvement (ECI) comprises the engagement of service providers with specific expert understanding during a design process to embed value engineering within the final design and prior to the release of a Request for Tender.
EOI	An Expression of Interest is used to identify potential service providers capable of undertaking specific work if the supply market is not well known.
EOT	Extension of Time.
Integrated Management System (IMS)	The documented management system for agreed operational arrangements for all support functions including finance, Zero Harm, quality, HR, Program management. The IMS is designed to provide consistent process controls, meet the requirements of external standards and link and integrate relevant core business processes.
Operator	Sydney Trains
QA	Quality Assurance
RFA	Recommendation for Award
RFI	A Request for Information is the formal process that a tenderer uses to request information during the tender process.
RFP	A Request for Proposal (RFP) is designed to elicit a detail response on a proposal or idea for a business solution.
RFQ	A Request for Quote is an invitation to potential suppliers to provide a price quote for a specific or well defined good or service.
RFT (Open)	An open Request for Tender requests pricing from the supply market with no limitations or restriction on who can submit pricing and is typically used where there is a mature competitive supply market.
RFT (Multi-Stage)	A Multi-Stage Request for Tender identifies suitable suppliers (through an EOI or pre-qualification process) prior to being selected to participate in a Request for Tender.
RFT (Limited/Selective)	A Limited/Selective Request for Tender is issued to known available service providers previously assessed as the most capable of delivering the work, product or service required.

SME	Small to Medium Enterprises
TAP	Transport Access Program
TfNSW	Transport for NSW
WBS	Work Breakdown Structure

6 Procurement overview

Downer recognises that the NSW government wants “its procurement activities to achieve best value for money in the expenditure of public funds while being fair, ethical and transparent”.

The Plan supports this aim and other key policy objectives to improve procurement outcomes through the following core procurement principles:

- Demonstrating value for money;
- Encouraging competition by targeting new entrants to expand the number of prospective suppliers;
- Increasing opportunities for SMEs through targeted communication and prequalification schemes;
- Encouraging open communication and collaboration with supply chain partners;
- Promoting and sustaining a viable industry in NSW that encourages industry investment in skills development;
- Ensuring transparency and probity throughout the procurement process;
- Reducing red tape to encourage involvement in the procurement process;
- Encouraging innovation by maintaining a flexible, agile and adaptive procurement process; and
- Engaging with Aboriginal communities to broaden the opportunities for Aboriginal participation.

6.1 Standards of behaviour

The core procurement principles outlined above underpin the processes described within this Plan. They will drive the standards of behaviour across all levels of the Program, as outlined in the Code of Practice for Procurement. This includes

- **Honesty and fairness:** Parties will conduct all procurement and business relationships with honesty and fairness;
- **Accountability and transparency:** The process for awarding work will be open, clear and defensible;
- **No conflict of interest:** A party with a potential conflict of interest will declare and address that interest as soon as the conflict is known to that party;
- **Rule of law:** Parties shall comply with all legal obligations;
- **No anti-competitive practices:** Parties shall not engage in practices that are anti-competitive;
- **No improper advantage:** Parties shall not engage in practices that aim to give a party an improper advantage over another;
- **Intention to Proceed:** Parties shall not seek or submit tenders without a firm intention and capacity to proceed with a contract; and
- **Co-operation:** Parties will maintain business relationships based on open and effective communication, respect and trust, and adopt a non-adversarial approach to dispute resolution.

6.2 Probity requirements

Procurement is an activity that is vulnerable to any real or perceived corruption or maladministration when a proper process is not maintained. It is recognised that the NSW government:

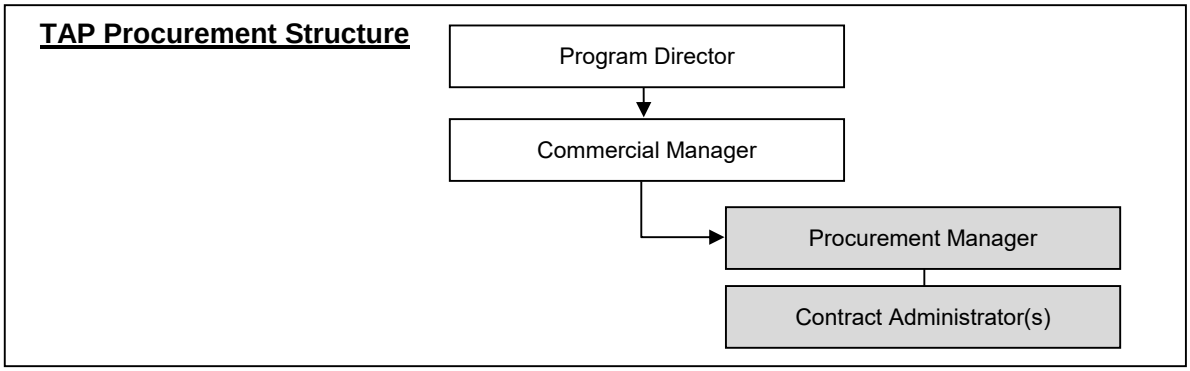
"has an obligation to ensure its procurement conduct is at all times fair, ethical, transparent and probity rich. Clear, visible and meaningful commitments to fairness encourage suppliers to want to do business with government."

Downer will work closely with the Probity Advisor to ensure that any discussion or correspondence with any person with a conflict of interest will be prohibited from any information concerning the sum of money that is being submitted as the tender sum. Downer will ensure that the integrity and competitiveness of the tender process remains in-tact.

6.3 Preliminary procurement structure

The Commercial Manager will oversee all procurement matters including providing planning expertise, advice and governance.

A preliminary structure for the Procurement Team is provided below which reflects Downer's approach to governance and a collaborative approach to service delivery:



An overview of the key responsibilities as they relate to TAP Procurement Team is provided below:

Commercial Manager	Accountable for ensuring the Program probity and equity on all supply chain partner engagement and procurement activities and has a direct line of report to the Program Director.
Procurement Manager	Responsible for developing the procurement strategy across the Program and managing the implementation of identification and market engagement activities.
Contract Administrator	Responsible for administering all subcontracts in accordance with the Plan and subcontract terms and conditions.

6.4 Interfacing responsibilities

The Procurement Team works directly with TfNSW and specific disciplines within the Downer team to effectively deliver Program objectives. An overview of specific interfaces is provided below.

6.4.1 Transport for NSW

The Procurement Team has a direct interface with TfNSW to ensure alignment and understanding with the overall procurement strategy including:

- Collaborating as per the general conditions of contract with TfNSW in the development of a proposed packaging approach for how the works will be delivered;
- Ensuring alignment in potential supply chain partners for proposed delivery of work including identification of pre-qualified supply chain partners or (where required) undertaking an EOI; and
- Ensuring that, prior to the release of any supply chain partner packages, there is alignment between TfNSW and Downer on the scope of works, evaluation criteria, proposed delivery model and supply chain partner conditions.

6.4.2 Delivery Team

Interface with the Construction and Project Teams is through the Construction Manager to assist with the development and implementation of the procurement strategy. This includes:

- Development of a packaging strategy considering subcontract markets, Program schedule and delivery strategy (including geographic location);
- Assistance in the preparation of supply chain partner packages for market engagement and being part of the evaluation and award of key packages; and
- Collaborating in the administration of subcontracts including managing claims, variations, chargeback and overall performance delivery.

6.4.3 Design Team

Interface with the Design Team is through the Design Manager to ensure alignment between supply chain partner packages and Program deliverables. Key interfaces include:

- Preparation of equipment specifications, data sheets, drawings and scope of works inclusive of all Program requirements;
- Assistance with supplier RFIs and technical evaluation of tenders (as required); and
- Establishment of quality assurance and quality control requirements for all procurement packages.

7 Initial proposed packaging

The initial proposed packaging approach is provided below. These packages will be released to the market using the procurement processes stipulated within this Plan, the NSW Government Procurement Policy Framework and related documents, as listed in Section 4.

To ensure value for money, these packages will be tendered to the market in two scenarios:

- With each station/Project as a single separable portion; and
- As a combined Program where tenderers can provide pricing for the delivery of all stations/Projects concurrently, in line with the overall delivery schedule.

Where it provides value for money, Downer will free issue materials to supply chain partners. These free-issued materials will be managed in accordance with the processes outlined in Section 8.

Upon approval from TfNSW Downer may self-perform reimbursable work for a given package which provides the best value for money. In the event that Downer carry out the self-performed work for any given package, the self-performed reimbursable work will be undertaken in an efficient manner without disruption to subcontractors working concurrently on site.

Downer will provide thorough details for any self-performed reimbursable work to TfNSW with daily reporting and complete transparency.

Initial supply chain partners have been identified, as provided below. These supply chain partners have been identified through an understanding of the industry and market, and have been used on previous Downer projects. At this stage no contact has been made with any of these potential partners in relation to the Program. This group will be further updated following the processes to be implemented, as detailed in Section 8.

The initial estimates on package values provided in the table below are based on the TfNSW preliminary designs and the Expected Reimbursable Costs as provided by TfNSW in RFT Appendix B - Tender Schedule 3. These values will be updated/adjusted as part of the Downer offer in the RFT Part B Period.

PACKAGE	DESCRIPTION	FORM OF AGREEMENT	TENDERING METHOD	ESTIMATED VALUE ('$000's)		
				Homebush	Toongabbie	TOTAL
Traffic Management	Design, Traffic Controllers, Signage	Minor Works Subcontract	Request for Quote	[redacted]		
Way-finding (Supply)	Supply of way finding signage and tactiles	Minor works Subcontract	Request for Quote			
Survey	Including Dilapidation Surveys and Site Attendances	Consultancy Agreement	Request for Quote			
Access	Scaffolding, hoarding and temporary fencing and barriers and safety signage	Minor Works Subcontract	Request for Tender			
Demolition	Demolition works for building, platform or off-station including ACM management	Subcontract Agreement – short form	Request for Tender			
Buildings	All above platform works (excluding electrical and structural steel) and roofing	Minor Works Subcontract	Request for Tender			
Fixtures	Fencing, Street Furniture.	Minor Works Subcontract	Request for Quote			
Structural Steel & Canopies	Structural steel and canopy works	Subcontract Agreement	Request for Tender			

PACKAGE	DESCRIPTION	FORM OF AGREEMENT	TENDERING METHOD	ESTIMATED VALUE ('$000's)		
				Homebush	Toongabbie	TOTAL
				[redacted]		
FRP	Above platform FRP including (columns, headstand and stairs). Includes Precast.	Minor Works Subcontract	Request for Tender			
Excavation	Building excavation work	Minor Works Subcontract	Request for Tender			
Civil (on station)	Ground preparation, foundation work, earthworks, drainage, services, formwork and CSR	Minor Works Subcontract	Request for Tender			
Civil (off-station)	All off station ground preparation, foundation work, earthworks, drainage, services, CSR and roadworks	Minor Works Subcontract	Request for Tender			
Landscaping & Fencing	Soft and hard scaping including install of road furniture (potentially include fencing)	Minor Works Subcontract	Request for Tender			
Electrical (LV), Electrical (HV) & Comms	All station electrical works (including cable ladder), CCTV and SPI. Any HV installation and Design and Construct of fire and life systems	Minor Works Subcontract	Request for Tender			

PACKAGE	DESCRIPTION	FORM OF AGREEMENT	TENDERING METHOD	ESTIMATED VALUE ('$000's)			
				Harris Park	Panania	Victoria Street	TOTAL
Footbridge	Structural – FRP and Precast	Minor Works Subcontract	Request for Tender	[redacted]			
	Structural – Canopy & Steel	Subcontract Agreement – short form	Request for Tender				
	Civil	Minor Works Subcontract	Request for Tender				
	Demolition	Subcontract Agreement – short form	Request for Tender				
Interchanges	Structural – FRP	Minor Works Subcontract	Request for Tender				
	Building – lifts and wayfinding	Minor Works Subcontract	Request for Tender				
	Structural – Canopy & Steel	Subcontract Agreement – short form	Request for Tender				
	Civil – Piling, Earthworks, Roadworks & Drainage	Subcontract Agreement	Request for Tender				

Platform	Structural – FRP	Minor Works Subcontract	Request for Tender	[redacted]
	Building – lifts and wayfinding	Subcontract Agreement – short form	Request for Tender	
	Structural – Canopy & Steel	Subcontract Agreement – short form	Request for Tender	
	Civil – Piling, Earthworks, Roadworks & Drainage	Subcontract Agreement	Request for Tender	
Building/ Concourse	Building works	Subcontract Agreement – short form	Request for Tender	
Electrical and Comms	Station systems – LV	Subcontract Agreement – short form	Request for Tender	
	Station systems – Communications	Subcontract Agreement – short form	Request for Tender	
	External utilities – HV	Subcontract Agreement	Request for Tender	

Additional Scope Items	Trade change/re-scope all areas (to be included in respective packages)	To be proposed as per Appendix C	Request for Tender
Reimbursable trade prelims	Indirect labour	Labour Hire Service Agreement or purchase order	Request for Quote
	Offices and amenities	Hire agreement or purchase order	Request for Quote
	Plant	Hire agreement	Request for Quote
	Traffic management	Minor Works Subcontract or purchase order	Request for Quote
	Safety	Subcontract Agreement – Short form or purchase order	Request for Quote
	Survey and dilapidation	Consultancy Agreement	Request for Quote

8 Process overview

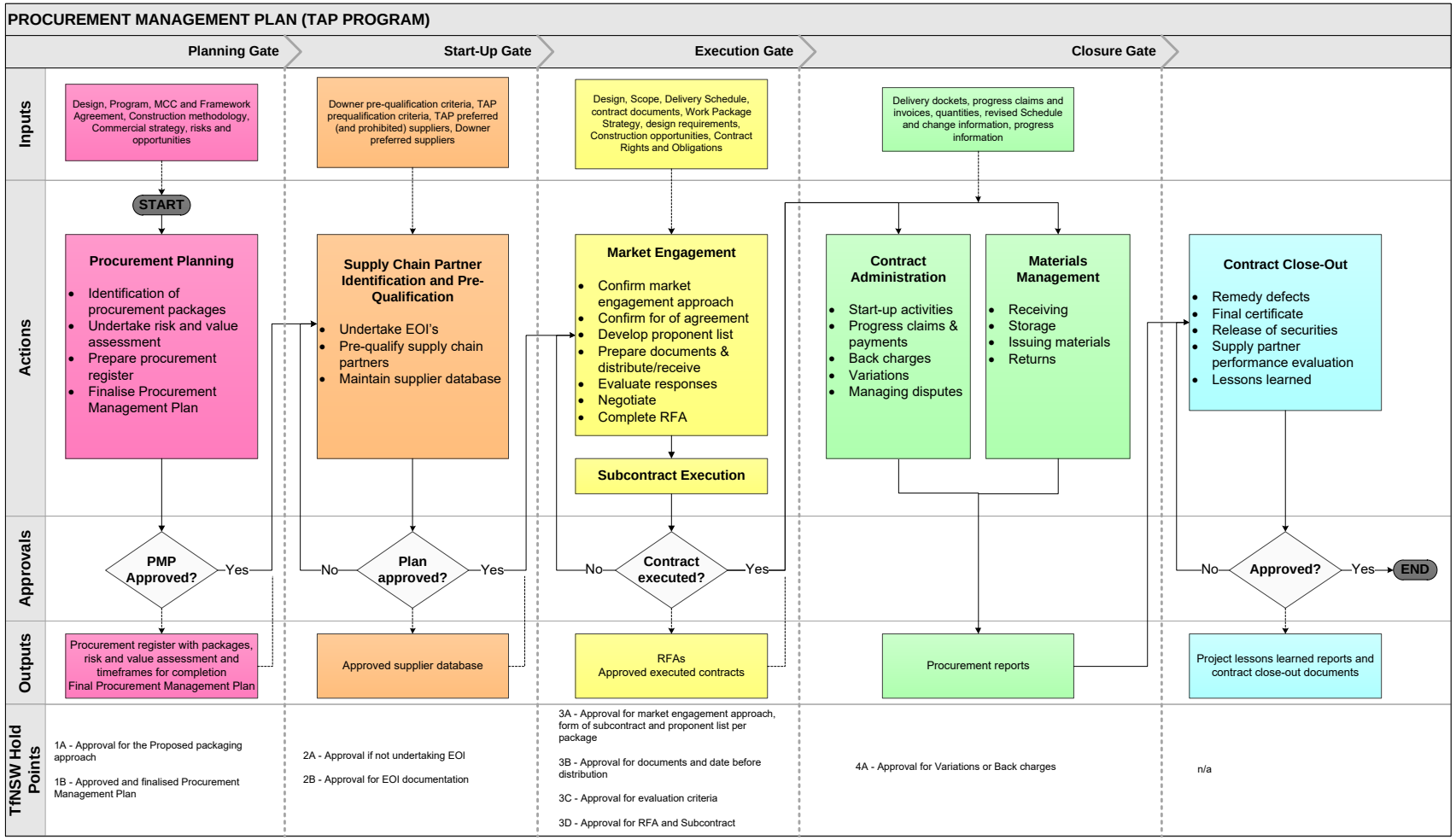
The Downer procurement process sets out the activities and hold points necessary to effectively manage and control the engagement of supply chain partners, consistent with the TfNSW Program objectives and the Downer Procurement Policy.

The standard Downer procurement activities are outlined below and provided in the flowchart following:

Procurement Planning	Establishing the approach to procurement including the proposed packaging and scheduling of procurement activities.
Supply Chain Partner Identification and Pre-Qualification	Identifying the relevant supply chain partners for work on the Program and initial pre-qualification.
Market Engagement	Competitively tendering the packages to identify the most suitable supply chain partners for the defined requirement/s.
Contract Execution	Executing subcontracts to awarded supply chain partners.
Contract Administration	Managing supply chain partners on-site and administering subcontracts.
Materials Management	Coordinating materials and services in accordance with the Program schedule and managing materials on-site.
Contract Close-Out	Finalising all activities to formally complete procurement.

The flow chart below provides an overview of these processes (including hold points and interfaces with TfNSW). Appendix A provides a prescriptive overview of the process with relevant clauses in the MCC identified.

Hold points are included at key milestones in the process to allow oversight and approval of procurement decisions within Downer and TfNSW. These will be developed further during mobilisation to ensure alignment with TfNSW and Program requirements.


PROCUREMENT MANAGEMENT PLAN (TAP PROGRAM)
Planning Gate
Start-Up Gate
Execution Gate
Closure Gate
Inputs
Actions
Approvals
Outputs
TfNSW Hold Points
Design, Program, MCC and Framework Agreement, Construction methodology, Commercial strategy, risks and opportunities
Downer pre-qualification criteria, TAP prequalification criteria, TAP preferred (and prohibited) suppliers, Downer preferred suppliers
Design, Scope, Delivery Schedule, contract documents, Work Package Strategy, design requirements, Construction opportunities, Contract Rights and Obligations
Delivery dockets, progress claims and invoices, quantities, revised Schedule and change information, progress information
START
Procurement Planning
Identification of procurement packages
Undertake risk and value assessment
Prepare procurement register
Finalise Procurement Management Plan
Supply Chain Partner Identification and Pre-Qualification
Undertake EOI's
Pre-qualify supply chain partners
Maintain supplier database
Market Engagement
Confirm market engagement approach
Confirm for of agreement
Develop proponent list
Prepare documents & distribute/receive
Evaluate responses
Negotiate
Complete RFA
Subcontract Execution
Contract Administration
Start-up activities
Progress claims & payments
Back charges
Variations
Managing disputes
Materials Management
Receiving
Storage
Issuing materials
Returns
Contract Close-Out
Remedy defects
Final certificate
Release of securities
Supply partner performance evaluation
Lessons learned
PMP Approved?
Yes
No
Plan approved?
Yes
No
Contract executed?
Yes
No
Approved?
Yes
No
END
Procurement register with packages, risk and value assessment and timeframes for completion
Final Procurement Management Plan
Approved supplier database
RFAs
Approved executed contracts
Procurement reports
Project lessons learned reports and contract close-out documents
1A - Approval for the Proposed packaging approach
1B - Approved and finalised Procurement Management Plan
2A - Approval if not undertaking EOI
2B - Approval for EOI documentation
3A - Approval for market engagement approach, form of subcontract and proponent list per package
3B - Approval for documents and date before distribution
3C - Approval for evaluation criteria
3D - Approval for RFA and Subcontract
4A - Approval for Variations or Back charges
n/a

8.1 Procurement planning

Procurement planning establishes the approach for procurement across the entire Program life-cycle. It takes into consideration the delivery schedule, construction approach, Project locations, package interfaces and typical characteristics of the market.

The Procurement Manager consults with key Program personnel to develop:

- An initial view of procurement packages;
- An initial view of approach to market engagement and form of agreement using a risk assessment of each package; and
- A procurement register to plan and monitor progress of procurement across the Program.

8.1.1 Identification of procurement packages

Identification of the optimum structure of procurement packages is required to drive value during the delivery of the Program. In addition to the underlying core procurement principles, as outlined in Section 6, the structure of the packages will take into consideration the following:

- Optimising the number of operational interfaces to reduce complexity during delivery;
- Optimise the size of packages to encourage SME involvement and reduce scenarios of margin on margin; and
- Create a sustainable industry in key locations based on existing and potential future work under the Program.
- Prior to tendering any packages, prepare a Subcontract Proposal for TfNSW which includes the following information:
    - The part of the Reimbursable Work to be the subject of the tender (procurement packages)
    - the amount included for this work in the Target Budget Estimate;
    - how Downer will ascertain the tender list for the part of the Reimbursable Work (e.g. EOI process, known tenderers)
    - how Downer will select the preferred Tenderer including details of the criteria (with weightings) for assessment of tenders;
    - the method of delivery for the work;
    - the proposed conditions of Subcontract which Down proposed to use to enter into the Subcontract; and
    - the proposed date for calling of tenders and for tender responses.

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HOLD POINT – 1A
■ Submit for approval from the TfNSW's Representative the Subcontract Proposal.

8.1.2 Undertake risk and value assessment

The Procurement Manager, in conjunction with the Program Director and Project Manager/s, undertakes a risk assessment on each procurement package to inform the necessary market

engagement approach and the Form of Agreement, using the guidance set out in the Downer Risk Framework (refer to Annex B).

The value of the procurement package is the estimated value over the proposed term of the subcontract (i.e. not a per annum value).

In undertaking an assessment of the risk, the Procurement Manager considers the following factors relating to the procurement:

- The nature of the goods or services being procured;
- Downer's experience in procuring goods or services of this nature;
- Estimated subcontract value compared with total Program value;
- Technical complexity of the good or service being procured;
- The annual turnover of the supply chain partner likely to be engaged;
- The capability of the market to respond to any specific requirements of the procurement;
- Overall lead time of the good being delivered and relationship to the critical path; and
- Whether there is an existing framework agreement or panel contract for the supply chain partner.

The risk and value assessment outcome will allocate create three tiers of procurement packages, as per below. The value limits specified within Procurement Board Direction 2013-03 and the NSW Government Procurement Guidelines (Construction to $1m) have been used to develop the value limits.

Tier	Risk Category	Value
Tier 1*	High risk [B]	>$1m
	Medium [C] *or* Low Risk [D]	>$1m
Tier 2	Medium [C] *or* Low Risk [D]	$250k - $1m
Tier 3	Medium [C] *or* Low Risk [D]	$30k - $250k
		< $30k

Where an extreme risk [A] is identified as per Annex B, consultation with the TfNSW will be undertaken.

8.1.3 Procurement register

The Procurement Manager develops and maintains the Procurement Register to manage and track procurement activities and lead times for each procurement package. The register is aligned to the Program schedule.

This Procurement Register includes, but is not limited to, the following procurement activities:

- Design requirements;
- Supplier identification and pre-qualification;
- Document preparation;
- TfNSW review and approval requirements;
- Required market engagement method;
- Award and subcontracting/negotiations;
- Required on-boarding and inductions; and
- Manufacturing lead times (if any).

The Procurement Team, in consultation with the Planning Manager, identifies and prioritises packages closest to the critical path and long lead packages. The status of the procurement

register, including identifying the forecast and planned dates for all packages and any associated records, is maintained by the Procurement Team.

HOLD POINT – 1B
■ Seek approval from the TfNSW's Representative on the Procurement Management Plan.

8.2 Supply chain partner identification and pre-qualification

Following the development and TfNSW approval of proposed procurement packages, the Procurement Manager identifies potential supply chain partners relevant for each procurement package.

The initial view of potential supply chain partners, as provided in Section 7, is based on:

- Downer preferred supply chain partners that could be leveraged for the Program (where applicable);
- TfNSW preferred supply chain partners that have proven experience in rail and the Program;
- Exclusion of any TfNSW Prohibited Subcontractors; and
- Local understanding of supply chains with capability/experience on delivering similar project types.

This initial view will be complemented by using the persons nominated in Schedule 28 or an open Expression of Interest (EOI), where potential supply chain partners are invited to seek the status of a pre-qualified supply chain partner to allow fair and equitable access to Program opportunities.

HOLD POINT – 2A
■ Seek approval from the TfNSW's Representative if it is proposed not to undertake an EOI.

8.2.1 Expressions of interest

In undertaking an EOI, the Procurement Manager prepares and makes an invitation to the market seeking Expressions of Interest from supply chain partners for inclusion on pre-qualified lists for the provision of works, goods or services for the Program.

The EOI (subject to approval from TfNSW) sets out the key requirements within which Downer expects to be procuring (for example, scope, value) and applicants are given:

- The criteria for supply chain partner pre-qualification;
- Details of the information required to be submitted by applicants; and
- Where applicable, details of any agreement that a successful applicant will be required to enter.

HOLD POINT – 2B

- Seek approval from the TfNSW's Representative where an EOI is proposed on specific details around the advertising, EOI documentation, distribution, response evaluation and recommendation.

8.2.2 Supply chain partner pre-qualification

The Procurement Manager manages the process of pre-qualifying supply chain partners which incorporates standard Downer requirements and any Program-specific requirements. A supply chain partner must be included on the Downer pre-qualified list prior to undertaking any works on the Program and preferably prior to being part of any market engagement process (excluding Open Request for Tender circumstances where pre-qualification is undertaken as part of the market engagement process).

The Procurement Manager ensures that each pre-qualification submission received (via EOI, standing offer or other means) is assessed against the standard approval criteria. The assessment is undertaken in a reasonable period and the supply chain partner is informed in writing, with appropriate records maintained.

The outcome of the assessment will be:

- Accepted (meeting the criteria for approval);
- Not Accepted (not meeting the criteria for approval); and
- Prohibited (not to be used or assessed until agreed with TfNSW).

If the potential supply chain partner is found to be 'Accepted', then the details will be included in the supplier database, discussed below, and be eligible to be involved in relevant market engagement activities.

If the potential supply chain partner is found to be 'Not Accepted', then feedback will be provided on why they were not successful. Ideas are provided to assist them to meet the criteria for approval in subsequent processes.

If the potential supply chain partner is found to be 'Prohibited', then feedback will be provided on why the supply partner is deemed to be prohibited and a record of the details for the decision will be maintained within the supplier database. Downer will not enter into a subcontract with a supply chain partner deemed to be 'Prohibited'.

8.2.3 Downer supplier database

The Procurement Manager maintains a Downer Program database and records of pre-qualified supply chain partners necessary to fulfil the wider requirements of the Program. The data contained within the supplier database is treated as commercially sensitive and access to it is restricted to persons properly engaged in the administration and implementation of this Plan.

8.3 Market engagement

The Procurement Manager manages the market engagement activities with supply chain partners. This includes developing the approach for how the market will be engaged, identifying the relevant proponents, preparing the tender documents (including form of agreement) and managing the distribution, receipt and evaluation of tender responses.

8.3.1 Market engagement approach

The Procurement Manager, in consultation with the Commercial Manager and Program Director, develops a market engagement approach for each procurement package based on the risk and value assessment undertaken in Section 8.1 and the core procurement principles in Section 6.

Key market engagement guidelines developed for the Program are provided in Appendix C.

Key market engagement methods, as identified within the NSW Finance and Services Market Approaches Guide, include:

- Expression of Interest (EOI);
- Request for Quote (RFQ);
- Request for Tender (RFT) – Open/Multi-stage/Limited (Selective);
- Request for Proposal (RFP);
- Request for Information (RFI);
- Direct negotiation; and
- Early Contractor Involvement (ECI).

8.3.2 Form of agreement

The Procurement Manager, in consultation with the Commercial Manager, selects a form of agreement for each procurement package based on the risk and value assessment undertaken, as outlined in Section 8.1 and the Program commercial strategy. It is noted that an initial view of the form of agreement for each procurement package (including the pricing mechanism) is included in Section 7, and will be updated through discussions with TfNSW.

The agreements provided below are standard Downer legal precedents and a brief description of their intended use is provided. These agreements will be modified to accommodate back-to-back conditions from the Managing Contractor Contract (MCC), where appropriate.

Appendix C provides the guidelines for determining how these forms of agreement will be used across the different supply tiers.

Agreement Type	Description of Intended Use	Legend
Purchase Order	To purchase a fixed volume of any type of goods that are of low value and low risk (for example, they are basic 'off the shelf' goods).	PO
Supply Agreement	To purchase a fixed volume of any type of goods (together with related services) from a supply chain partner that are of a medium to higher risk/complexity.	SP

Agreement Type	Description of Intended Use	Legend
Consultancy Agreement	To engage a consultant to provide professional services (for example, design or professional advice).	CA
Hire Agreement (Wet/Dry)	To hire construction plant or equipment, both with or without operators (i.e. both dry hire and wet hire).	PH
Minor Works Subcontract	For low value, low risk on-site work where the supply chain partner's work is not critical to Downer's obligations under its head contract.	MW
Subcontract Agreement – Short form	For complex and higher value/risk work where Downer needs to include provisions dealing with the administration of time (EOTs), completion, variations, latent conditions, DLP, subcontracting, warranties, security, claims and IP.	SUBS
Subcontract Agreement	For more complex, higher value, higher risk work or where prescriptive obligations under the MCC need to be passed through to the supply chain partner.	SUB
Labour Hire Service Agreement	For skilled/unskilled labour hire (for example construction labour, concreter etc)	LH

8.3.3 Proponent list

For all procurement packages, the Procurement Manager (or Package Owner) develops a proponent list of supply chain partners for market engagement. In order to prevent any bias or un-competitive practices, the proponent list will be prepared based on:

- Pre-qualified supply chain partners on the supplier database for each procurement package and tier;
- Other known supply chain partners with known capability;
- Any EOIs undertaken; and
- Feedback from past assessment of performance in delivery.

The proponent list for each package is recorded within the procurement register, including those who were invited but declined.

HOLD POINT – 3A
■ Seek approval from the TfNSW's Representative on the proposed market engagement approach, form of subcontract and proponent list per package.

8.3.4 Document preparation

The Procurement Manager (or Package Owner) is responsible for coordinating the preparation of documents for each procurement package in-line with the approved market engagement approach. Generally RFT documents comprise:

- Conditions of tendering;
- Tender form and pricing schedules;
- Returnable schedules of information;

- Design drawings and technical specifications (where required);
- Any management system requirements (for example, safety, quality);
- Standard form of agreement;
- Pre-qualification assessment form (where an open tender being used); and
- Description of the work and/or services required, which may include a brief, performance requirements, design information, technical specifications and drawings.

The Procurement Manager ensures that all tender documents are prepared by persons with sufficient expertise and manages the process of obtaining approval for any tender documents from TfNSW.

The Procurement Manager will also ensure that all Subcontractor Tender Documentation prepared and all associated tender processes for Reimbursable Work is carried out with the intention to maximise value for money for TfNSW whilst maintaining the highest standard of probity, fairness and equal opportunity. The Subcontract Tender Documentation pack to TfNSW is to include:

- The Design Documentation relevant to the part of the Reimbursable Work to be subcontracted;
- The conditions of the Subcontract, which must, unless otherwise expressly directed in writing by the Principal's Representative, be on terms approved by the Principal's Representative;
- If the Principal's Representative so directs, a request for tender; and
- Any other documentation necessary for that part of the Reimbursable Work to be subcontracted

HOLD POINT – 3B
■ Seek approval from the TfNSW's Representative on the Subcontract Tender Documentation before distribution to the market. (Note: documents must be submitted to TfNSW's representative 21 days before tenders are invited.)

8.3.5 Document distribution/receipt

On receipt of the approved tender package, the Procurement Manager issues the documents using TeamBinder (or an alternate electronic tendering system as agreed with TfNSW) to prospective tenderers, ensuring confidentiality. A record of correspondence with tenderers is maintained.

Documents are also distributed and received so as not to advantage or disadvantage any particular tenderer.

On receipt of a new or re-negotiated tender response, the Procurement Manager ensures each response is date-stamped and then undertakes an elemental review for the completeness of the response, prior to distribution for evaluation.

8.3.6 Request for information

The Procurement Manager (or Package Owner) manages all RFIs from tenderers, by ensuring:

- All clarifications to and from tenderers are in writing;
- Any amendments to the tender prior to the close are issued to all tenderers in writing, as formal addenda;
- Any questions asked by tenderers prior to the tender close are clarified; and
- A record of all correspondence is kept.

8.3.7 Tender period

The Procurement Manager (or Package Owner) establishes the tender response period ensuring:

- Tender periods allow sufficient time for prospective suppliers to price and prepare their submissions/bids for the work; and
- Wherever possible, tenders are published electronically and allow for tenderers to lodge submissions electronically.

The Procurement Manager (or Package Owner) will nominate the tender period for the specific package as part of submitting the documents to TfNSW for approval (refer section 8.3.4).

A tender period will only be extended under special circumstances. Extensions of time for tender submissions must apply to all prospective tenderers.

8.3.8 Response evaluation

The Procurement Manager is responsible for ensuring probity of the evaluation process. Where required, an evaluation team will be created to ensure relevant sections are evaluated by those with the necessary skills and knowledge and who are free of any conflict of interest.

The Procurement Manager (or Package Owner) ensures the evaluation criteria and weighting for each procurement package proposed below meets the key package requirements. The aim is to identify the tenderer offering the best value for money. Any changes to the proposed weighting of the evaluation criteria will be discussed and agreed with TfNSW prior to any evaluations being undertaken. The evaluation criteria includes:

Evaluation Criteria	Weighting	Description
E1 Company Background	10%	A general assessment of the tenderers financial health and operational experience in delivering, including but not limited to: ■ Value of scope of works relative to annual turnover of tenderer; ■ Financial health of tenderer; ■ Key health and safety and environment key performance indicators; ■ Proven experience of tenderer and its personnel in similar

Evaluation Criteria	Weighting	Description
		projects; and ■ Past performance assessments/ratings on similar projects. ■ Key personnel – CVs and Organisational charts
E2 Operational/ Technical	20%	Conformity to all technical and design requirements and conformity to all operational requirements, including but not limited to: ■ Delivery times offered; ■ Quality of products/services offered; ■ Conformance to TfNSW warranty periods; ■ Any innovation in products or service delivery; ■ Ability to meet Program schedule; and ■ Any innovation offered that meets or exceeds technical requirements; ■ Any exclusions listed in tenderer's tender proposal; ■ Where applicable, conformance to any licensing and registration to undertake works
E3 Zero Harm	20%	Conformity to Downer's and TfNSW health and safety, environment and community relations objectives and supply chain partner's historical performance in these areas.
E4 Workplace Relations	20%	Conformity to the industrial environment and compliance with the Implementation Guidelines to the NSW Code of Practice for Procurement: Building and Construction.
E5 Financial	20%	A comparison of pricing, ensuring all prices are adjusted so that a like for like comparison can be made. The comparison must ensure that it is an assessment of whole-of-life costs (including costs or disposal).
E6 Commercial	10%	Conformity to all terms and conditions (including any performance specifications and ASA requirements), Code requirements and insurances.

Where an alternative tender is provided, confidentiality will not be breached by using information contained in alternative tenders as the basis for calling for subsequent tenders. The alternative response will be evaluated in accordance with the conditions of tendering.

HOLD POINT – 3C
■ Seek approval from the TfNSW's Representative on the evaluation criteria for each package.

8.3.9 Negotiations

The Procurement Manager (or Package Owner) will ensure all negotiations are carried out in line with this Plan where the market engagement process does not deliver either the desired solution from a scope or financial perspective. These negotiations are undertaken in good faith and in line with Procurement Principles and Standards of Behaviour as per Section 6 and the NSW government reference documents (specifically Section 5.2 of the NSW Code of Practice for Procurement).

Upon request of TfNSW's representative, post-tender negotiations with tenderers will be conducted and if required, held in the presence of the TfNSW representative.

8.3.10 Recommendation for award

The Procurement Manager (or Package Owner) manages the award of a subcontract by preparing a Recommendation for Award (RFA). The RFA summarises the details of the offers received and the evaluations performed.

The RFA is circulated to the Downer representative in accordance with the delegated authorities (refer Appendix D) for the Program. TfNSW also receives a copy of the RFA for approval.

The Procurement Manager is responsible for ensuring approval of the RFA from TfNSW. A subcontract is only awarded after approval of the RFA is obtained.

HOLD POINT – 3D
■ Seek approval from the TfNSW's Representative on the RFA.

8.3.11 Letters of Regret

Letters of regret are issued to unsuccessful suppliers and subcontractors. At the request of the supplier/subcontractor, and subject to approval from TfNSW, a de-brief session is undertaken to provide feedback on why the supplier/subcontractor was unsuccessful.

8.4 Contract execution

Following approval of the RFA, the Contract Administrator is responsible for executing the subcontract, raising the purchase order to initiate commencement of work and managing securities and insurances prior to any work being undertaken.

8.4.1 Awarding a subcontract

The Procurement Manager (or Package Owner) prepares and updates the final form of subcontract for the supply chain partner by:

- Ensuring the final form of subcontract (including all supporting schedules) does not deviate from the negotiated subcontract;
- Ensuring all functional leads (where required) have reviewed the documents issued or referenced in the final form of subcontract, and updates, where required;
- Obtaining approvals for the final form of subcontract from the appropriate financial delegate;
- Issuing the full set of subcontract documents to the supply chain partner to sign and return (including confidentiality agreements and agreed sub contract price);
- Obtaining the Downer delegated authority signature on the subcontract; and
- Sending the subcontract to the Contract Administrator for filing.

8.4.2 Raising a purchase order

Upon execution of the subcontract, the Contract Administrator completes a purchase order and includes the relevant information of the package (for example, description, quantity, price, and delivery/completion date), and the necessary cost codes for commitment.

The Contract Administrator raises purchase orders in accordance with Downer's purchasing process and the procurement register is updated and documentation sent to Project Controls.

8.4.3 Managing securities and insurances

On subcontract award, the Contract Administrator manages the receipt and storage of securities and insurance certificates in accordance with the subcontract.

Failure by the supply chain partner to submit condition precedent documents within the timeframe specified may constitute a fundamental breach of the subcontract.

8.4.4 Subcontractor Warranties

Upon executing a contract with a subcontractor, the Procurement Manager will work alongside the Commercial Manager to procure and provide warranties from the subcontractor undertaking or supplying the work or item.

A well-defined warranty period will be embedded into the subcontractor agreement which will maintain the integrity, performance and compliance of works carried out by an approved subcontractor/supply chain partner.

8.5 Contract administration

The Contract Administrator is responsible for the administration of the subcontracts for the Program. This includes the following activities, which may be completed concurrently:

- Start-up activities;
- Contract administration (progress claims and payments and back charges);
- Variations (including extensions of time); and
- Managing disputes.

As per the co-ordination of subcontracts, the Procurement Manager will work closely with the Project Manager and delivery team to administer, supervise, inspect, co-ordinate and control the work of all subcontractors engaged on-site.

8.5.1 Start-up activities

The Contract Administrator schedules a kick-off meeting between the Program's Management Team and the supply chain partner's Management Team, after subcontract award and before the supply chain partner commences work on-site or a supplier receives an order. The purpose of the kick-off meeting is to achieve a mutual understanding between

Downer and the supply chain partner regarding the way in which the requirements of the subcontract are to be executed.

The Contract Administrator is responsible for establishing and maintaining a file for each supply chain partner and ensuring an appropriate mechanism is established for correspondence control. This ensures the tracking and storing of all correspondence with supply chain partners is registered, actioned and maintained for later access, if required.

8.5.2 Progress claims and payments

Progress claims and payments are coordinated by the Contract Administrator for each package, in consultation with the Commercial Manager. Subject to the terms and conditions within the subcontract, the Contract Administrator:

- Receives a payment claim from the supply chain partner and validates the claim with the Project Manager, referring to documented evidence provided, for example, timesheets, invoices and/or delivery dockets;
- Prepares a payment certificate for the supply chain partner and obtains approval for the claim by the Program Director and relevant financial delegate;
- Forwards the supply chain partner payment claim to Project Controls for input into the Program's cost system;
- Receives a valid tax invoice from the supply chain partner for the same amount as the supply/subcontract payment certificate;
- Forwards documents for processing; and
- Updates that the payment was made in the procurement register.

8.5.3 Back charges

The Project Manager issues back charge notices to the Contract Administrator for any back charge work.

Prior to the commencement of back charge work, the Contract Administrator and the supply chain partner agree on the back charge notice issued which defines the scope, schedule, cost code and estimated costs of the work.

The Contract Administrator forwards the approved back charge notice to the supply chain partner for acceptance/approval.

8.5.4 Variations (including extension of time)

The Contract Administrator is responsible for managing variations across the Program in accordance with the Approved Subcontract Agreement. A variation is used in all instances where a change is made to a subcontract, including any change in scope, value or time.

The Contract Administrator raises a formal variation notice where the supply chain partner has been requested to perform works outside the original scope of supply, or if the supply chain partner submits a claim for change. This variation notice must include a request for the supply chain partner to provide an estimate of the effect the variation will have on the subcontract cost, schedule and the affected work breakdown structure (WBS).

All variations notices must be approved in accordance with the delegated authorities (refer Appendix D) for the Program prior to the supply chain partner undertaking any works in relation to the variation.

Once a variation is approved, Project Controls prepares a variation order and sends a formal notice of approval to the supply chain partner. Project Controls increases the subcontract order's committed value in the project controls system to reflect the approved variation order.

HOLD POINT – 4A
■ Seek approval from the TfNSW's Representative on the value (in accordance with the Subcontract) of a variation or back charge through Payment Claim.

8.5.5 Managing disputes

The Contract Administrator and Commercial Manager are responsible for managing any dispute raised (either by Downer or the supply chain partner) in accordance with the terms and conditions within the subcontract. The Contract Administrator and Commercial Manager will ensure that the representative from TfNSW is kept fully informed of all aspects of a potential dispute. The Project Manager will also inspect any Contemporaneous Work as required to ensure that works completed are not proven to be unsuitable, unsatisfactory or detrimental.

All payments and disputes are managed in accordance with the prescriptive timeframes specified within Building and Construction Industry Security of Payment Act 1999.

8.6 Quality Management

The Systems Engineer is responsible for managing of the Quality documentation and registers across the program in accordance of the Quality Management Plan. Quality management is a continual process which addresses the following:

- Control of project documents;
- Managing variation;
- Project meetings and reports;
- Control of drawings and specifications;
- Non-conformances;
- Corrective and preventative actions.

8.6.1 Inspection and test plans/reports

The System Engineer is responsible to coordinate with the Project Manager and Project Engineers to ensure that the subcontractor has:

- Completed and submitted all the Inspection and Test Plans (ITPs), relevant to the subcontractor's work with the progress claim;

- Completed and submitted all the Inspection and Test Reports (ITRs) and other verifying documents related to each of the ITPs with the progress claim;
- The ITPs have been reviewed and approved by the Project Manager or his/her delegate, who pre-determined the requirements for the ITPs;
- The ITPs and ITRs are signed and dated by a competent person in accordance with the works program.

8.7 Expediting

The Project Manager is responsible to undertake or assign an individual to the Expeditor role. The Expeditor is responsible to ensure that materials and services delivered according to the Project Schedule. Expediting is a continual process, and involves:

- Anticipating and solving problems with the supply;
- Ensuring receipt, approval and progress of the manufacturer's schedule and other supplier / subcontractor documents;
- Continually reviewing the delivery status of all contracts and purchase orders;
- Providing material progress reports and keeping management advised of any changes or deviations from the approved schedule.

8.7.1 Expediting procedure details

The Expeditor is responsible to follow the expediting process. The expediting procedure consists of the following sequence of steps:

- Determining the expediting level required for each work package;
- Setting up the expediting file for each supplier/ subcontractor/ work package and register;
- Contacting the supplied/subcontractor to inform them or their requirements;
- Monitoring of the progress in accordance of the Procurement Register through a series of reports;
- Managing of the supplier/subcontractor site visits;
- Managing of the supplier/subcontractor deliverables;
- Managing of defects and non-conformances;
- Managing of vendor data requirements and ensure that all required documentation is received from the supplier/subcontractor.

8.8 Materials management

As discussed in Section 7, Downer may free issue materials to supply chain partners. In these circumstances, it will be the responsibility of the Procurement Manager (in consultation with the Project Managers) to ensure materials are effectively received, stored, issued and returned (where required).

8.8.1 Goods receiving

The relevant Project Manager ensures that all goods received are verified against the original subcontract or purchase order requirements.

On receipt of the materials, the Project Manager verifies quantities and undertakes an inspection for damage or defect. Each item is allocated a storage location and regularly checked for security and condition.

8.8.2 Goods storage

Project Managers ensure that all materials stored on-site have a storage location allocated and recorded in the procurement register.

8.8.3 Issuing materials

The Project Manager liaises with the Procurement Manager on a regular basis to ensure materials are issued to supply chain partners when required. The Project Managers will provide feedback to the Procurement Manager regarding any future planned material requirements to meet Program requirements.

8.8.4 Goods return

Project Managers ensure the return of unwanted, damaged or surplus items are tracked to ensure the safe, timely and commercially responsible return of items. Returns are generally due to quality assurance inspection, oversupply and damage/defect rectification.

8.9 Contract close-out

The Contract Administrator closes out all subcontracts. Close-out begins when all work under the subcontract has been completed and the Contract Administrator, with the relevant Project Manager, will:

- Undertake a final inspection with the supply chain partner and remedy any defects identified;
- Issue a notice of practical completion in accordance with the relevant clause of the subcontract;
- Evaluate the supply chain partner performance and feedback any issues to TfNSW;
- Engage the supply chain partners to conduct a lessons learnt and identify areas for improvement;
- Establish a process to monitor supply chain partner defects during the defects liability period; and
- Ensure securities are maintained in accordance with the relevant clause in the subcontract;
- Ensure that on completion of any test, all activities and works conducted by Downer and relevant subcontractors are fully compliant with the managing contractor contract.

8.9.1 Final certificate and release of securities

On expiration of the defects liability period, the Contract Administrator issues (or receives from the supply chain partner) a final payment certificate (or claim) in accordance with the subcontract. On approval of the final payment claim (certificate), securities are released to the supply chain partner in accordance with the relevant clause in the subcontract.

9 Process review/continuous improvement

The Procurement Manager undertakes an annual review of Downer's Program procurement process and prepares a summary report for the Program Director. With TfNSW input, the procurement approach/plan for the following year is improved, where possible.

9.1 Scope of annual procurement review

Before commencing the review, the Procurement Manager agrees to the scope of the annual procurement review with the Program Director. The annual procurement review considers (as a minimum) the following:

- Probity of the procurement process;
- The status of the approved supply chain partner list;
- Changes to the approved supply chain partner list during the year;
- Local target outcomes;
- Supply chain partner utilisation;
- Supply chain partner performance;
- Supplier market health; and
- The effectiveness of the process including recommendations for change.

9.1.1 Review and audit

The Program Director is accountable for the implementation of this Procurement Plan and will review the Plan and associated procedures quarterly during the first 12 months and annually thereafter using our continuous improvement mechanisms in a manner that:

- Achieves contract compliance and continually improves the Procurement Plan; and
- Optimises value-adding activities, minimises non-value adding activities and eliminates waste in order to deliver continual improvement and reduce cost to TfNSW.

10 List of appendices

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Appendix A: Reimbursable work flow chart

Appendix B: Downer risk assessment framework

What is being evaluated:		Person/s conducting evaluation:		Date:	

Risk Assessment Matrix		Likelihood				
		Rare	Unlikely	Possible	Likely	Almost Certain
Consequence	6 – Catastrophic	B	B	A	A	A
	5 – Extreme	C	B	B	A	A
	4 – Severe	C	C	B	B	A
	3 – High	D	C	C	B	B
	2 – Medium	D	D	C	C	B
	1 – Low	D	D	D	C	C

Risk Assessment Ratings

Consequence Rating	Likelihood Rating	Risk Rating

Likelihood	Criteria
Almost Certain	▪ Over 90% probability ▪ Expected to occur in most circumstances ▪ Likely to occur multiple times throughout a project
Likely	▪ Between 50% to 90% probability ▪ Probable that is occurred in most circumstances ▪ Possible to occur in a project
Possible	▪ Between 10% to 49% probability, or ▪ Might occur, has occurred before", or ▪ Has occurred in a minority of similar projects
Unlikely	▪ Between 1% to 9% probability ▪ Could occur ▪ Has not occurred in similar projects, but could
Rare	▪ Less than1% probability ▪ Exceptionally unlikely, even in the longer term ▪ A "100 year event"
Risk Level	
A - Extreme	▪ Threat to business ▪ Immediate action required
B – High	▪ Unacceptable level of risk in procuring ▪ Senior Management decision/action required to use and a high level of monitoring required
C - Medium	▪ Additional monitoring required for work ▪ Review for improvement opportunities
D - Low	▪ Monitor risk and reduce if practical

Rating	Financial	Time	Client/Reputation	Zero Harm	Stakeholder & Community
6	>100% of Gross Margin	>20% Schedule over-run unrecoverable	▪ Total loss of shareholder and client support ▪ Prolonged impact to share price ▪ Departure of Group MD and/or Board Members ▪ International press ▪ Loss of sector presence/relevance	▪ Fatalities or significant irreversible effects to more than one person ▪ Catastrophic widespread impact on the environment resulting in irreversible damage	▪ Complete loss of trust by affected community leading to long term social unrest and outrage.
5	70 – 100% of Gross Margin	10-20% Schedule over-run unrecoverable	▪ Departure of Divisional Executives ▪ Short term impact on share-price ▪ Client terminates contract ▪ Australia wide press ▪ Erosion of relevance/significance in the sector ▪ Significant opportunity jeopardised	▪ Single fatality or severe irreversible disability to one or more persons ▪ Significant impact or serious environmental harm	▪ Prolonged community outrage.
4	40 -70% of Gross Margin	5-10% Schedule over-run unrecoverable	▪ Client registers strong concern and threatens contract termination ▪ State-based media reporting ▪ Potential future opportunities opened up to competitors	▪ Moderate irreversible disability or impairment to one or more persons ▪ Lost Time Injury > 28 days ▪ Significant impact or material harm on the environment ▪ An environmental notifiable incident	▪ Long term community irritant leading to disruptive actions and requiring continual Management attention.
3	20 – 40% of Gross Margin	< 5% Schedule over-run	▪ Client complains strongly ▪ Local media reporting	▪ Lost Time Injury; ▪ Moderate or material environmental harm; and ▪ An environmental notifiable incident.	▪ Short term community outrage or longer term unrest and dissent.
2	5 – 20% of Gross Margin	Schedule slippage without impact to critical path (some operational costs)	▪ Client aware and affected	▪ Medical Treatment Injury; and ▪ Minor impact on the environment	▪ One off community protest requiring intervention and management attention.
1	<5% of Gross Margin	Short term schedule slippage without impact to critical path	▪ No visible impact on the client or our reputation	▪ Fatalities or significant irreversible effects to more than one person; ▪ Catastrophic widespread impact on the environment resulting in irreversible damage.	▪ No complaint.

Market engagement guidelines

The Procurement Manager will utilise the guidelines provided overleaf in determining the appropriate approach to engaging the market.

Tier	Risk	Value	Market Engagement Approach	Form of Agreement				
				Subcontract	Consultancy	Goods	Plant	labour
Tier 1*	High risk [B]	>$1m	*Approach to be discussed and agreed on a case by case basis*	Subcontract Agreement	Consultancy Agreement	Supply Agreement	Hire Agreement (Wet/Dry	Labour Hire Service Agreement
	Medium [C] *or* Low Risk [D]	>$1m		Subcontract Agreement – Short form				
Tier 2	Medium [C] *or* Low Risk [D]	$250k - $1m	RFT – 3 tender responses	Subcontract Agreement – Short form				
Tier 3	Medium [C] *or* Low Risk [D]	$30k - $250k	RFQ – 3 quotes	Minor Works subcontract		Purchase Order		
		< $30k	1 quote	Minor works or Purchase Order				Purchase Order

* Where an extreme risk is identified consultation with the Principals Representative will be undertaken

Appendix C: Delegations of authority

The delegations of authority provided below will be used for all approval of RFAs and execution of subcontracts included in this Plan and must comply with the necessary TfNSW hold points and approvals as detailed in Section 8.

Expense / Approval Categories	Divisional CEO ('$000's)	EGM ('$000's)	GM ('$000's)	Program Director ('$000's)	Commercial Manager ('$000's)	Construction Manager ('$000's)	Project Manager ('$000's)	Project Engineer ('$000's)
Subcontract Award	$15,000	$10,000	$5,000	$2,000	-	-	-	-
Supply / Purchase Order	$15,000	$10,000	$5,000	$2,000	$250	$250	$100	$10
Variations*	$1,500	$1,000	$500	$200	-	-	-	-

** Variations must not exceed 10% of the original contract value and must be communicated to Project Controls and are subject to the necessary hold points and approval from TfNSW as described in Section 8.*

Risk Management Plan

MCC – Transport Access Program – Easy Access Station Upgrades
Document Number: TAP-DOWIPD-PLN-RM-0001

This is a subordinate management plan to be used in conjunction with the Project Management Plan

Managing Contractor Contract
TAP – Easy Access Station Upgrades Project

Contract Number: ISD-15-4742

Document Preparation and Control	Document Review
Sina Bigdeli - Project Manager	
Document Approval	**Signature**
Kevin Brady - Project Director	

Project Document Version	Date
1	31/11/2018

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1 PURPOSE

This plan defines the risk management principles, processes, procedures, systems, tools and templates implemented for use throughout the duration of the project.

This plan is subordinate to the Project Management Plan (PMP) which has been developed to:

- Satisfy the requirements of the contract; and
- Support the Project Team in completing the requirements of the project.

2 DOCUMENT SCOPE

The scope of this management plan applies to Downer Infrastructure Services and Engineering, Construction and Maintenance; and New Zealand, hereafter referred to as Downer.

This plan applies to all aspects of risk management for the project.

The target audiences for this plan are Project Managers, Project Commercial & Risk Managers, Risk Owners, Project Team Members and any other relevant stakeholders.

Project Specific Requirements
This Management Plan has been developed by Downer in accordance with the requirements of Contract No. ISD-15-4742-A (the Framework Agreement), its subsequent station specific Managing Contractor Contracts (MCC), and associated specifications: TSR P - Project Administration, TSR S – Safety Management, TSR E – Environmental Management which describes the management of risks applicable to the undertaking of the Contractor's Activities on the project.

3 PROJECT MANAGEMENT FRAMEWORK

The Downer project management framework aligns and integrates the project functions which define the project's delivery methodologies and processes. The Project Management Plan (PMP), as a key element of the project management framework, is the integration document which identifies and details the standard Downer project management practices, structure, and execution methods and any project specific requirements for the project.

The PMP incorporates a number of subordinate management plans which provide the specific functional detail required to successfully delivery the project, as illustrated in the following figure.

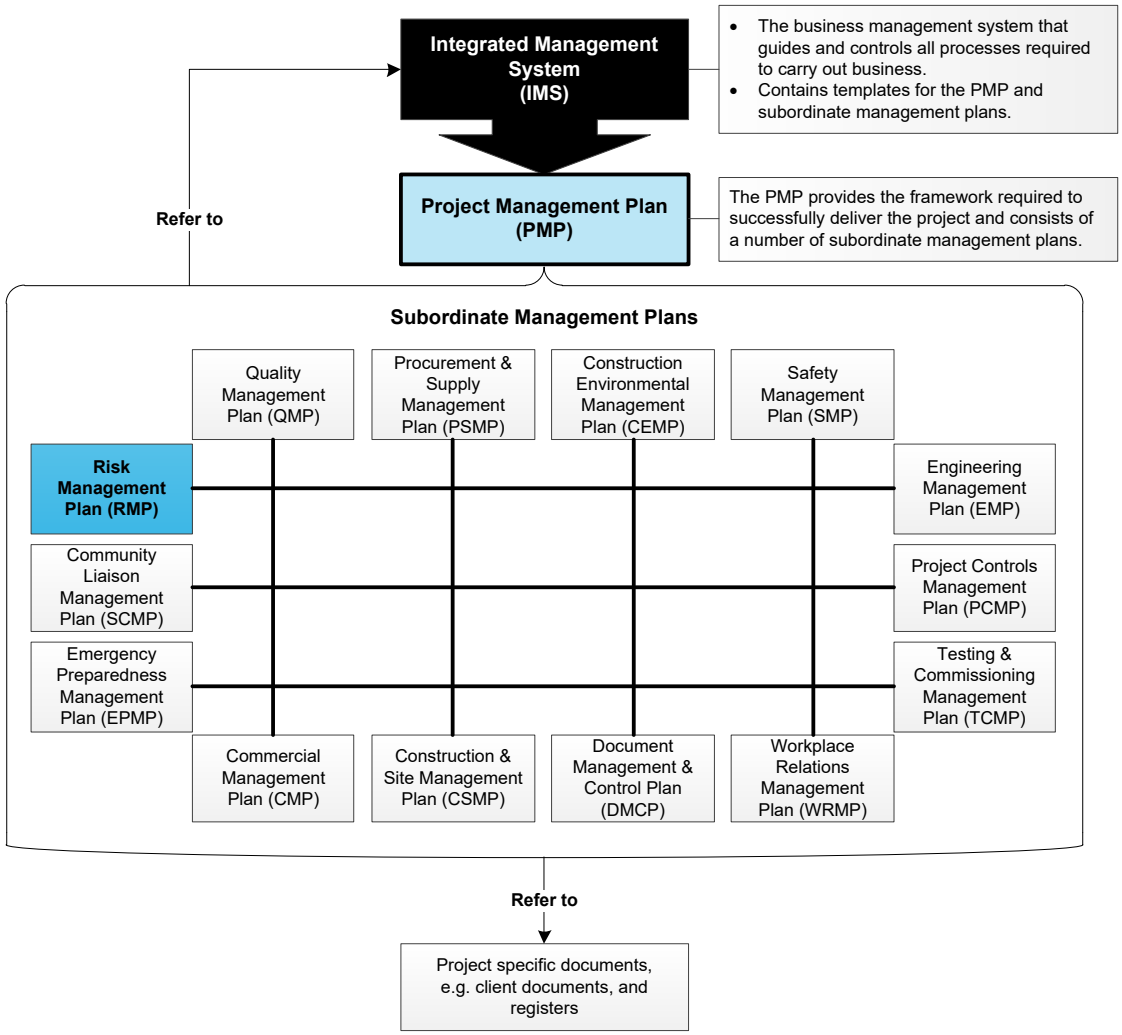


Figure 1: Project Management Plan Structure

The plans reference any IMS documents (including but not limited to procedures, work instructions and forms), client specific requirements and project specific documents required to execute the project.

The PMP provides project specific details including, but not limited to, the following:

- Project information, i.e. background, project location, and project description ;
- Scope of work, i.e. scope of work narrative, basis of design, battery limits, and scope of services; and
- Project objectives and values, i.e. objectives, overarching principles, values, and key performance indicators (KPIs) for the project.

All positions in the Project Team have a clearly defined role and set of responsibilities that are included either in the PMP or relevant subordinate management plan. All project team members are made aware of and understand their responsibilities prior to commencing work on the project. Refer to *Annex A – Project Roles & Responsibilities* for the roles and responsibilities for risk management.

The PMP and subordinate management plans are audited throughout the duration of the project to maintain compliance, and updated as required. Updates to the PMP and subordinate management plans are subject to the document review and approval process detailed in the project's Document Management & Control Plan.

Project Specific Requirements
▪ TfNSW Standard Requirements TSR's ▪

4 REFERENCED DOCUMENTS

IMS DOCUMENTS — **USE FOR PROJECT?** *If No, see project specific documents.*

AS PER THE PROJECT MANAGEMENT PLAN

IMS DOCUMENTS		USE FOR PROJECT?	
GUIDES			
DI-PM-GU026	DI-PM-GU026	DI-PM-GU026	
PROCEDURES			
DA-FN-PR008	Delegated Authorities Procedure	☒ Yes	☐ No
DA-ZH-PR028	Zero Harm Risk Management	☒ Yes	☐ No
DI-RM-PR002	Opportunity and Bid Risk Management	☒ Yes	☐ No
DI-RM-PR003	Project Risk Management	☒ Yes	☐ No
DI-RM-PR004	Conducting a Risk Assessment	☒ Yes	☐ No
REGISTERS			
DA-QA-RG001	Definitions Register	☒ Yes	

LEGAL AND REGULATORY

Legal and Regulatory compliance documents are managed within Downer using a number of centralised reference matrices which are applicable to all aspects of and sites / stations within the TAP Project.

PROJECT SPECIFIC DOCUMENTS

PLANS

TAP-DOWIPD-PLN-PM-0020	Work Health and Safety Management Plan
TAP-C4742-TG-SE-0001.A.TFNSW	Safety Assurance Plan
TAP-DOWIPD-PLN-CO-0001	Commissioning Management
TAP-DOWIPD-PLN-HS-0005	Emergency Preparedness Management Plan
TAP-DOWIPD-PLN-PM-0001	Contract Management Plan
TAP-DOWIPD-PLN-PM-0004	Commuter and Passenger Management
TAP-DOWIPD-PLN-PM-0005	Construction & Site Management Plan
TAP-DOWIPD-PLN-PM-0010	Defect Management Plan

TAP-DOWIPD-PLN-PM-0015	Quality Management Plan
TAP-DOWIPD-PLN-PM-0021	Workplace Relations Management Plan
TAP-DOWIPD-PLN-RM-0001	Risk Management Plan
TAP-DOWIPD-PLN-SC-0003	Property Management Plan
TAP-DOWIPD-PLN-ZZ-0001	Engineering Management Plan
Various (Site Specific)	Construction Environmental Management Plan (Site Specific)
Various (Site Specific)	Community Liaison Management Plan (Site Specific)
Various (Site Specific)	Stakeholder and Communications Management Plan(Site Specific)
TAO-C4742-MU-EM-0000	AEO Integrated Project Management Plan
TAP-DOWNER-PLN-PM-0002	Project Management Plan
TAP-DOWIPD-PLN-SG-0001	Interface Management Plan
TAP-DOWIPD-PLN-PM-0002	Procurement Plan
TAP-DOWIPD-PLN-PM-0022	DSS Management Plan
TAP-DOWIPD-PLN-PM-0023	Training Management Plan

TFNSW DOCUMENTS *(only documents referenced in the PMP)*

ISD-15-4742-A	TAP - EASU Managing Contractor - Framework Agreement
ISD-15-4742-6	TAP - EASU – North Strathfield
ISD-15-4742-7	TAP - EASU – Kingswood
ISD-15-4742-8	TAP - EASU – Glenbrook; and
ISD-15-4742-9	TAP - EASU - Hazelbrook

Schedule 2 MCC Exhibit A	TfNSW Standard Requirements
Schedule 2 MCC Exhibit B	Works Brief

REGISTER

Generic Rail Safety Risk Register

PROCESS

Bushfire Environmental Assessment Code for NSW

Sydney Trains Possession Planning Process (incl. PACT)

DOCUMENT

150847-SCH-A-XXXX-0	Project Schedule - Homebush
150847-SCH-A-XXXX-0	Project Schedule – Toongabbie

5 DEFINITIONS

The following terms are used in this document and are included in ***DA-QA-RG001 Definitions Register***.

Cause	An event or reason that may lead to a risk occurring
Consequence	The impact of the risk occurring, typically considered against project objectives.
Control	Existing processes, devices or practices that act to minimise negative risks or enhance positive opportunities.
Control and Treatment Plan	Documents the series of actions needed to modify the risk profile, including specific tasks, task owners and completion dates.
Cost Risk Analysis	A quantitative risk analysis on an Estimate to Complete that evaluates the impacts of inherent uncertainties and discrete risk events through the application of Monte Carlo analysis techniques. It is used to establish contingency levels or to understand uncertainty in achieving forecast margins at completion.
Integrated Management System (IMS)	The documented management system for agreed operational arrangements for all support functions including Finance, Zero Harm, Quality, HR and Project Management. The IMS is designed to provide consistent process controls, meet the requirements of external standards, linking and integrating relevant core business processes.
Opportunity	Opportunities are treated in the converse manner to risks, i.e. instead of reducing the exposure to a risk the project may increase its exposure where an opportunity is present. Throughout this Risk Management Plan 'risk' can be substituted for 'opportunity', the difference being risks are negative, opportunities are positive and the purpose of risk management is to reduce exposure to risks and also to increase exposure to opportunities
Project Risk Register	An MS Excel based tool that captures the Risk Profile, applying the Project Risk Rating Matrix and is used for monitoring purposes. It includes information from all steps of the Risk Management Process.
Residual Risk	The level of risk remaining after implementing risk controls and taking into account risk control effectiveness.
Risk	The effect an uncertainty has on an organisation or project achieving its objectives. Note: Risk may have a negative or positive impact; positive impact is commonly referred to as opportunity.
Risk Control Effectiveness (RCE)	A relative assessment of the actual level of control that is present and effective.
Risk Profile	Description of any set of risks that relate to the business, part of the business, site or project. It is usually captured in the Project Risk Register.
Risk Treatment	Actions to be taken to modify the risk profile. Must include specific tasks, task owners and completion dates.

Subcontractor	An individual or organisation that signs a contract with Downer to perform part or all of the obligations of a Downer contract, including the performance of work, i.e. provision of labour and/ or labour services. Examples of subcontractors include contingent labour hire, independent contractors, consultants and cartage contractors.

6 STANDARDS & LEGISLATION

The following standards and/ or legislation relating to risk management apply to the project:

- AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines.

Project Specific Requirements
▪ Bushfire Environmental Assessment Code for NSW.

7 PROJECT DESCRIPTION

To avoid duplication refer to the Project Management Plan for the project details relevant to all subordinate management plans.

7.1 Background

The Transport Access Program – Easy Access Station Upgrades is a Framework Agreement for 4 years with secured stations awarded under Managing Contractor Contracts.

The program involves the upgrading of train stations to make them DDA compliant.

The typical scope of work will include the design and construction (in the capacity of a Managing Contractor) of lifts, modifications to concourses and footbridges, canopies and weather protection, station buildings, lighting and passenger systems upgrades, and general services.

7.2 Project Location

The location of the initial 5 stations cover the Sydney and Maitland areas, the stations are listed below.

The site specific contract documents and related drawings provide the background information in relation to the location of the Project sites. The Project Sites are located as follows:

North Strathfield Station;

Kingswood Station;

Glenbrook Station; and

Hazelbrook Station.

7.3 Scope of Works

The scope of works for delivery of the easy access project generally comprises the Design Work, procurement, supply, construction, testing, commissioning, integration, Operational Readiness and the Asset Handover including but not limited to the following elements:

(a) new lifts and foyers for station access from the respective external public domain frontages and associated canopies;

(b) new lift and foyers for platform access;

(c) works to the existing transport interchange and parking within each station precinct;

(d) station entrances and public areas comprising footbridge or subway with associated access ramps or stairs compliant to BCA and Disability Standard for Accessible Public Transport 2002;

(e) new wayfinding and signage including removal and replacing existing signs with the current TfNSW standard for wayfinding;

(f) new street entry and lighting; and

(g) new canopies with roof drainage connected to controlled discharge, lighting, and associated platform seating.

The approved scope of work for the project including battery limits and exclusions, is detailed in Exhibit B Works Brief and the MCC Contract specific requirements for each station.

The scope of work for the project is a baseline contract document which is managed in accordance with ***DI-PM-PR037 Project Change Management – Category 1 to 3*** and ***DI-PM-PR038 Project Change Management – Category 4 and 5***.

Project Specific Requirements

The scope will encompass the Easy Access Station Upgrades to improve access to public transport for commuters with disabilities, the elderly and parents with prams, for the stations identified below,

- North Strathfield Station;
- Kingswood Station;
- Glenbrook Station;
- Hazelbrook Station. and
- Any projects to be identified in the future and included under the Framework Agreement

Generally the scope of Works at each station includes the installation of lifts, stairs, canopies, and other station features and facilities, and includes:

- design for architectural, civil, structural and all associated services;
- Installation of new passenger lift/s (17 person capacity) from interchange or concourse level to existing island or side platforms;
- modifications to or new construction to concourse/footbridge, stairs, and platforms to facilitate functional and safe access to new lift location, canopies and waiting areas, surface drainage control, platform regrading, tactile ground surface indicators,
- station building upgrades including toilets and staff amenity fit outs, reallocation and fit out of operational rooms;
- rail and non-rail services protection or relocations, power supply transformers and isolations relevant to earthing and bonding;
- new and modified M&E installations including lift power supply and shaft ventilation, new and altered lighting arrangement, PA and CCTV modifications. Relocation of some existing passenger services also station way finding signage;
- works to external public domain interchanges to provide BCA and DDA compliant access and operational improvements, bike storage, and bus, taxi, and car zones, waiting area shelters and seating, and lighting; and
- Boundary fencing.

8 RISK MANAGEMENT OVERVIEW

8.1 Risk Governance

Risk governance relates to project leaders and decision-makers establishing rules and procedures that define the actions, delegate authorities, and risk management performance for the project. Risk governance addresses the discipline that must be continually demonstrated when considering the factors that present both risk and opportunity to the project.

The attributes of effective risk governance include providing:

- a clear definition of the expectations relating to risk management across all levels of the project;
- control and oversight of risk management activities within delegated responsibilities;
- authorisation to efficiently manage risk at the appropriate level, e.g. by the Project Team; and
- a balance of risk management performance rights with appropriate reporting, supervisory and assurance checks.

The facilitation of effective risk governance is supported by, but not limited to, the following:

- risk forums, such as risk workshops and risk update/ review sessions;
- risk management tools, including the Risk Register and risk management systems; and
- risk reports.

Project Specific Requirements
▪ Station Specific MCC – Exhibit B Works Brief – Interface Stakeholders ▪ Exhibit A TfNSW Standard Requirements

9 QUALITATIVE RISK MANAGEMENT

Qualitative risk management is completed using ***DI-RM-PR004 Conducting a Risk Assessment***, which is consistent with *AS/NZS ISO 31000:2009 Risk Management - Principles and Guidelines*.

In line with recognised risk management guidance and principles, successful execution of the project requires risk owners to consider and develop control and treatment plans that relate to the key risks faced. The application of qualitative risk management improves the likelihood of achieving the project's objectives by assisting the Project Team to:

- understand the risks associated with the delivery of the project;
- comply with laws, policies and regulations;
- be proactive in how risks and opportunities are addressed;
- be transparent in how risks and opportunities are identified and considered; and
- prioritise resources to activities that will best achieve the project's objectives.

Qualitative risk management includes completing the following six key steps, as illustrated in the figure below:

- Step 1 – Risk Assessment Planning, including establishing the context and arranging risk workshops;
- Step 2 – Risk Identification;
- Step 3 – Risk Analysis, including assessing the nature of risk;

- Step 4 – Risk Evaluation;
- Step 5 – Risk Treatment, including determining the activities to manage, control, and treat risk;
- Step 6 – Monitoring and Review, including the introduction of new risks throughout the duration of the project.

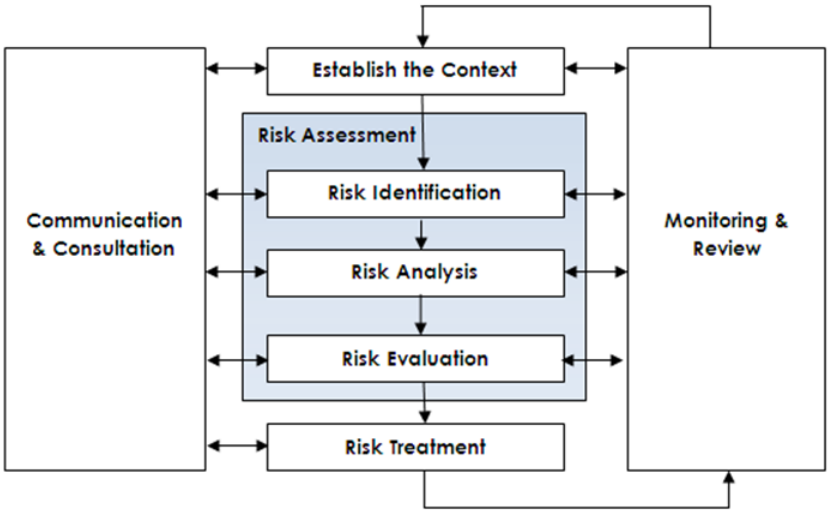


Figure 2: Qualitative Risk Management Steps

Communication and consultation is not a discrete step, but an ongoing, essential component of effective risk management that ensures relevant stakeholders are informed and consulted, as required and when completing the steps for qualitative risk management.

Project Specific Requirements

- A comprehensive and Site-specific property risk assessment in conjunction with the Contractor's construction personnel and in consultation with the Property Representative, shall be performed prior to the commencement of early works (including preconstruction works).
- Additional risk assessments as required shall include the following:
  a. Permanent and temporary worksite access requirements and timing;
  b. access to or across adjoining properties and timing;
  c. crane swings, air rights and impacts on neighbouring properties or the Rail Corridor;
  d. access to Services;
  e. any future subdivision, easements, other title interests or divestment requirements;
  f. any future commercial impacts of resultant works;
  g. Site investigation and contamination;
  h. type Approval and procurement of major equipment; and
  i. community, interface contractors, possession and outage planning.
- Targeted risk assessments will be completed for possessions, outages and commissioning works as part of the planning process

9.1 Step 1 – Risk Assessment Planning

9.1.1 Establishing the Context

At a minimum, risk assessments are completed:

- at the start of each phase of the project, i.e. Handover & Initiation, Planning, Start-Up, Execution, and Close-Out; or
- following the completion of key project milestones or scope items, i.e. at points where the project risk profile changes.

Risk assessments are required at the project and/ or work package level depending on the project's size, scope and complexity, as determined by the Project Manager.

In planning for a risk assessment, it is important to understand the circumstances surrounding the risk assessment, the objectives of the risk assessment, and the context in which the risk assessment is being undertaken. This includes establishing the:

- nature of the topic to be assessed, e.g. whole project, work package or activity;
- scope of the risk assessment, i.e. any risks the Project Team can plan for and manage or treat to influence the project's objectives, taking into consideration that the scope may be influenced by the project elements to be included or excluded for that particular risk assessment (e.g. work package elements);
- objectives of the assessment, i.e. confirm the internal and external drivers and what is to be achieved from the risk assessment;
- risk methodology to be applied; and
- stakeholders for the risk assessment, including participants/ contributors and all related parties.

As per ***DI-RM-PR004 Conducting a Risk Assessment***, the Risk Management Workbook provides guidance on the aspects to be considered when establishing the context of the risk assessment, and generates the applicable Project Risk Register for the project's category.

Project Specific Requirements
The concept design Project Specific Risk Register for each of the station sites, which is to be starting risk register for the detailed design will be developed following the CHAIR Workshop for each specific station site and can be found as a part of the design deliverable documentation (See Engineering Management Plan for further Details).

9.1.2 Risk Workshops

Risk assessments are performed in a workshop arrangement with a qualified and competent facilitator, such as the Project Manager, Project Commercial & Risk Manager, or external party. Risk workshops are designed to gain vital information and differing points of view from a suitable and diverse audience of the potential risks and opportunities to the project's objectives. Risk workshops encourage brainstorming, including open dialogue and discussion, and provide a more holistic view to risk management, by providing participants with a view of risks within project functions other than their own.

A typical agenda for a risk workshop includes:

- background and context to the risk assessment;
- a description of the risk assessment methodology to be followed;
- risk identification, including determining causal factors for each risk;
- qualitative risk assessment, including identification of controls, and an assessment of the residual risk rating; and

- establishment of risk treatment plans.

Risk treatment plans are typically established in a separate workshop to focus on high-rated risks, or by risk owners outside of the risk workshop.

Project Specific Requirements
▪ Risk workshops will be held in the project MCC Offer phase to define risk registers (Including commercial, design, program, and safety risks); ▪ Risk registers will be reviewed on a monthly basis; ▪ Targeted risk assessments will be completed for each possession, outage and commissioning event.

9.2 Step 2 – Risk Identification

Risks are identified by exploring what events or uncertainties could impact the project's objectives, within the boundaries identified for the risk assessment. This includes events or uncertainties that have a positive or negative effect on objectives, i.e. opportunities and risks/ threats.

The first risk assessment for the project is completed by identifying risks from a 'blank sheet of paper'. Where previous risk assessments have been completed for the project, e.g. Front End Engineering Design (FEED), Front End Loading (FEL), or Detailed Feasibility Study (DFS) risk assessments, and the project risk profile hasn't changed substantially, the Project Team leverages off the previous risk assessments, including:

- identifying which risks are to be closed and which risks are to be maintained on the Project Risk Register; and
- revisiting the risks to be maintained on the Project Risk Register and updating them to reflect the current project phase, knowledge of the knowledge (e.g. expert judgement), or risk status.

If the project risk profile has changed substantially (e.g. major scope change or revised delivery model), the nature of the risk assessment has altered (e.g. from bid to execution), or the Project Team has materially changed, the risk assessment is re-completed from a 'blank sheet of paper'. Previous risk assessments are then be used as a review or check against the outputs of the risk assessment.

It is important to describe risks in a manner that identifies the source of uncertainty and the main effect on the achievement of the stated objectives. Examples of good risk and poor risk descriptions are included in the following table.

Example Type	Risk Description	Cause	Impact
Good	Design and approval process results in delays to design completion.	▪ Scope of design requirements is more than what was assumed in the bid. ▪ Cost optimisation process results in design rejection and re-work. ▪ No approved design plan and process in place.	▪ Delays to construction. ▪ Re-work and re-visit results in cost over-runs. ▪ Design cost forecast over-runs/ under-recovery of design costs.
	Under-recovery of variations and delay costs results in margin erosion.	▪ Onerous contract - time bars are short. ▪ Lack of understanding of rights and obligations. ▪ Process of getting information from field is difficult.	▪ Margin erosion. ▪ Disputes with the Client.
	Untimely delivery of client supplied materials results in delays and disruption to Downer.	▪ Material that Downer is installing is delivered late or out of sequence. ▪ Mismanagement of free issued materials or services delays construction.	▪ Delays to milestone dates. ▪ Disruption to direct labour and PF issues. ▪ Cost over-runs. ▪ Liquidated damages
Poor	White collar.	Obtaining all the required white collar resources for site.	Cost overrun.
	Client claim for injury or death.	Injury or death.	Client claim for injury or death.
	EBA.	Allow for greenfield agreement.	Uncompetitive if competitors do not allow for a greenfield agreement.

The Key Risk Elements in ***DI-RM-PR003 Project Risk Management*** are considered when identifying risks in the risk workshop.

Project Specific Requirements
▪ Nil

9.3 Step 3 – Risk Analysis

Risk analysis involves consideration of:

- possible causes and scenarios that may trigger the risk;
- possible impacts (positive and negative), including the knock-on consequences or main effect of that particular risk e.g. cascading and cumulative effects; and
- the effectiveness of risk controls.

Understanding the causes and impacts of risks is vital for understanding the effectiveness of current controls, as well as developing appropriate risk treatment plans or responses.

Rating the Risk Control Effectiveness (RCE)

Risk control effectiveness requires that existing controls are identified, discussed, documented, and rated for overall effectiveness at modifying the risk or opportunity. Risk controls do one of the following:

- minimise the likelihood of occurrence by managing sources/ causes of risk (negative risks);
- mitigate potential impacts by implementing a layered system of alerts, automatic responses, and treatment plans to control potential consequences (negative risks); or
- maximise the likelihood of an opportunity being realised or its impact by taking proactive action to create and exploit opportunities.

Control strategies and processes may be related to any of the following:

- Substitution of a process, use of materials, or method of work;
- Engineering solutions or reallocation of risk;
- Specific policies, plans, systems, and procedures that detail day to day checks, verification of outcomes, and mandatory requirements such as sign-off protocols/ approvals, process and documentation content, templates and tools;
- Training and capability development;
- Management reviews/ activities that monitor or assess performance or compliance;
- Verification by third parties;
- Contractual or commercial agreements with external parties;
- Allowance of cost or time to accommodate the uncertainties effect.

Controls measures are documented in the Project Risk Register and revisited when considering additional measures to improve the control environment.

The ratings for RCE are defined in ***DI-RM-PR004 Conducting a Risk Assessment***.

Project Specific Requirements
▪ Nil

9.4 Step 4 – Risk Evaluation

Analysis of risks and opportunities requires a methodical assessment process. The assessment process incorporates the analysis and evaluation of the event and evaluates these in terms of the:

- extent of the potential impact or consequence should the risk or opportunity factor eventuate;
- likelihood of the risk event occurring within the event or risk assessment's timeframe; and
- risk level according to the likelihood and consequence scales.

Rating the Consequence of the Risk

Consequence can be recorded as:

- financial value when a quantitative assessment is applied; or
- nominal rating when a qualitative assessment is applied.

The Downer Project Consequence Rating Table in ***DI-RM-PR004 Conducting a Risk Assessment*** is used to consistently rate the severity of a consequence to the project. Financial and schedule impacts are tailored by

applying the relevant percentages from the Downer Project Consequence Rating Table to the total project cost and duration respectively. Other qualitative measures are applicable to the project.

The following occurs when determining the consequence rating:

- the residual risk impact is evaluated by considering how existing controls and the RCE limit the potential impacts if the risk occurs, i.e. no measure is required for "risk without controls" or the "inherent risk";
- the most likely impact of the risk (given the information known) is identified, i.e. typically a range of potential impacts exist for each risk, ranging from minor to catastrophic, and for a qualitative assessment, only the most likely or typical impact is considered;
- the impact descriptors in the Downer Project Consequence Rating Table are used to align the impacts to the consequence categories; and
- where more than one consequence category exists, the highest rated category is chosen as the consequence rating.

Likelihood of Occurrence

The likelihood of a risk event occurring is assessed by those participating in the workshop, and is evaluated:

- in alignment with the stated consequences of the risk, i.e. the most likely consequence; and
- by considering existing controls and their effectiveness, i.e. RCE.

When establishing an estimate of probability, participants ask the following questions:

- When was the last time this risk occurred with the stated consequence?
- Did the risk occur within Downer? Which country and industry did the risk occur?
- Is Downer exposed to similar circumstances?
- Has Downer done anything to limit the risk from occurring given the above knowledge?
- On what basis has the likelihood rating been determined? Is this justifiable?

Likelihood can be recorded as either a percentage or a rating. When a qualitative approach is applied, the Likelihood of Occurrence Rating Table in ***DI-RM-PR004 Conducting a Risk Assessment*** is used.

Residual Risk Rating

Once evaluated and verified, the stated causes/triggers and consequences of a risk, and the magnitude of residual risk shall be rated. Residual risk is a direct correlation of the likelihood and consequence ratings and is graded using the Residual Risk Matrix in ***DI-RM-PR004 Conducting a Risk Assessment***.

Residual Risk Exposure

The residual risk exposure rating quantifies the total plausible financial cost to the project should the risk occur. The residual risk exposure is not evaluated for those risks that don't have a financial exposure, e.g. some reputational risks.

Current controls and their effect on the likelihood or consequence are considered when establishing the residual risk exposure.

Residual risk exposure provides a way of evaluating the risk/ reward balance of the current controls and potential treatments, i.e. does the cost of implementing the risk treatment plans provide sufficient benefit given the residual risk exposure?

Project Specific Requirements
The risk evaluation shall identify, manage and record risks/contingent liabilities, stakeholders, impacted adjoining land and assets.

9.5 Step 5 – Risk Treatment

It is typically unlikely that risks are eliminated entirely. Therefore effective risk management is fundamentally about reducing the exposure to risks to as low as reasonably practical and within tolerance levels. This is achieved through treatment plans that involve:

- continuous review of existing controls and their effectiveness; and
- development and implementation of treatment actions to further treat the risk over and above the existing control measures. This includes any actions identified to improve weaknesses within control measures. Once treatment actions are complete, they become control measures.

The need for additional treatment actions is highest for those risks where the RCE can be improved (i.e. is not "effective") or where the residual risk rating is at an unacceptable level.

9.5.1 Risk Treatment Options

There are four broad categories for treating risks, as per the following table, which are applied either in isolation or in conjunction with each other. The treatment plan should consider indirect and direct costs to implement the treatment plan and the potential benefits, to ensure the full impacts of implementing the treatment plan are understood and that an appropriate balance between risk and reward is achieved.

Option	Description
Reduce	Reduce the likelihood of the risk occurring and/ or its impact.
Transfer	Transfer the risk to a third party that is typically best placed to effectively control the risk.
Avoid	Avoiding the activity that leads to the risk event, e.g. choosing not to proceed with a particular course of action or scope item, or qualifying terms and conditions.
Retain	Retain the risk where: ▪ the residual risk fits within a tolerable level and it has effective controls in place to monitor and manage the risk likelihood and/ or impact; or ▪ in extreme circumstances, there is an intolerable risk exposure where the project has implemented effective controls but has no other risk treatment option available.

Project Specific Requirements
The risk treatment shall manage and mitigate those risks directly related to the potential damage of property as a consequence of the Works;

9.5.2 Develop Risk Treatment Plans

The Project Commercial & Risk Manager is responsible for developing and monitoring risk treatment plans with the applicable Risk Owner(s). All risk treatment plans include a:

- list of specific, discrete, and achievable risk treatment actions (e.g. "establish a process of management reviews" not 'management reviews");
- nominated owner for the Risk Treatment Plan (typically the Risk Owner);
- nominated person responsible for implementing each discrete task; and
- target date for the completion of each task as well as the overall Risk Treatment Plan, against which progress is measured.

Due dates for treatment tasks are secured during the review/ workshop and fit within the scope of the risk assessment. Ongoing dates are not preferred and indicate that an effective treatment plan has not been described. If a date is revised, a reason for the revision and approval is provided.

Project Specific Requirements
▪ Nil

9.5.3 Escalation

Risks are escalated according to their residual risk rating and RCE, which determines the requirements for sign-off, further action and monitoring.

The Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment*** details Downer's project monitoring requirements, which align with ***DA-FN-PR008 Delegated Authorities Procedure***.

Project Specific Requirements
▪ Risks deemed 'extreme' or 'high' within the risk register shall be reported to the Principal

9.6 Step 6 – Monitoring & Review

9.6.1 Risk Monitoring

The ongoing and continual monitoring of risk exposures, including the effectiveness of the controls in place to positively manage the risk exposures, is an important component of qualitative risk management and provides the opportunity to test and refine the control activities as circumstances change.

The Project Risk Register is the main tool used to capture and report risk information, as per ***DI-RM-PR003 Project Risk Management***. The Project Risk Register is the central repository for all risk information.

As part of risk monitoring, the Project Risk Register, including risk treatment plans and tasks, is updated on a monthly basis (as a minimum). Individual risks with a high residual risk rating (e.g. Category A or B), or which are due to materialise or pass, are updated on a more frequent basis, at the discretion of the applicable Delegated Authority listed in the Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment***.

The Project Commercial Manager is responsible for facilitating and assisting with qualitative risk management, including overseeing the monitoring regime, which is primarily performed through regular (e.g. monthly) meetings with risk owners. Monitoring of risks involves:

- updating progress of risk treatment actions within risk treatment plans, including reviews of onsite activities (where considered appropriate) to validate actions reported, and reforecasting completion dates for activities, if applicable;
- monitoring the effectiveness of risk treatment actions by exploring whether actions that have been performed are influencing the likelihood and/ or consequence of the risk event occurring;
- reviewing the risk status, including:
  - ongoing challenge of assumptions and existing practices;
  - considering whether changes to the internal or external environment have altered the likelihood and/ or consequence of a risk occurring and the identification of new causes to a risk; and
  - using the results of risk reviews and safe design reviews where the risk outcome has a material impact on the delivery of the project;

- retiring risk events that have been effectively mitigated or passed, which requires approval by the applicable Delegated Authority listed in the Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment***; and
- identifying new or emerging risks by engaging the Project Team to understand:
  - how the project risk profile has changed;
  - any issues or concerns; and
  - the next phase of the project.

The Project Commercial & Risk Manager is responsible for risk monitoring, maintaining the Project Risk Register, and developing risk reports, but not for the performance of risk treatment actions. The Risk Owner is responsible for ensuring these actions are performed.

Project Specific Requirements

- The Project Risk Register shall be available to the Principal upon request.
- Details of key risks are to be included in the monthly report to the principal.

9.6.2 Risk Reporting

Monthly risk reports are prepared by the Project Commercial & Risk Manager and identify or comment on:

- the project risk profile and key risks within the profile;
- movements or trends in the project risk profile, including risks that have been retired (i.e. effectively mitigated or passed), risks that have changed in ratings and/ or new risks;
- the completion and efficiency of risk management actions contained within risk treatment plans; and
- other relevant matters relating to risk management that may arise throughout the duration of the project.

Project Specific Requirements

- Electronic copies of the Risk Register may be submitted in lieu of paper copies;
- Reports are to be provided each month that provide an overview of the full risk register (e.g. number of risks by category and rating, number of new risks identified and risks closed out during the previous month);
- Reports are to provide the status of; the associated controls and tasks, performance, results of risk audits and residual risk assessments.

9.6.3 Endorsing the Risk Registers

The Project Manager endorses the Project Risk Register following the initial risk assessment and upon the completion of each monthly update. The Project Board endorses risks categorised as A and B as per the Project Level Risk Priority Table (Project Monitoring) in ***DI-RM-PR004 Conducting a Risk Assessment***.

Project Specific Requirements

- Details of the status, implementation, operation and effectiveness of the Risk Management Plan shall be reported for risks deemed ‘extreme’ or ‘high’ within the risk register.

9.7 Communication & Consultation

Communication and consultation includes:

- communicating the Project Risk Register with the Project Team, Client, suppliers and subcontractors, as applicable
- conducting regular risk forums and meetings, including monthly risk update meetings and workshops; and
- communicating with local communities and other affected stakeholders on key risk management activities.

Project Specific Requirements
▪ Risk considerations shall include: adjoining properties, approvals and community issues (including media, commuters, residents and councils.) ▪ Risks identified by the principal for inclusion in the risk register shall be assessed as per the requirements of Qualitative Risk Management. ▪ Project risk workshops will be held throughout the project with a range of stakeholders including TfNSW, ST, suppliers and other external stakeholders as required.

9.8 Risk Management throughout the Project Phases

Qualitative risk management remains the same throughout all phases of the project however the focus of risk management activity differs to some extent within each phase. Key elements of the process by project phase are outlined in the following table. Refer to ***DI-RM-PR003 Project Risk Management*** for more information.

The project risk profile is assessed at the commencement of each project phase.

Project Phase	Activities & Key Focus
Handover & Initiation	▪ Review of opportunity and bid risk assessments at the handover meeting involving the Project Board, and bid and project teams. ▪ As part of the Project Delivery Plan, the Project Manager completes an initial review of the opportunity and bid risk assessment reports in order to re-assess risks and their ratings, identify new risks, develop treatment plans for Category A and B risks, and assess contingency allowances.
Planning	▪ Completing risk assessments and establishing risk treatment plans from a “clean sheet of paper” (with the Opportunity and Bid Risk Assessment used as a cross-check). ▪ Setting up appropriate project specific risk governance procedures and project roles and responsibilities. ▪ If required, completing a cost risk analysis to calculate contingency as per section *10 Quantitative Risk Analysis & Contingency*.
Start-Up	Allocating risks and contingency to budgets and schedules.

Project Phase	Activities & Key Focus
Execution	▪ Managing project risks and treatment plans, including monthly reviews, updates, and reporting. ▪ Assessing the adequacy of the approved and remaining contingency against the risk profile and estimate to complete which may involve completing a basic cost analysis or cost risk analysis as per section *10 Quantitative Risk Analysis & Contingency*. ▪ Retiring risks as they are passed or treated. ▪ Signing risk assessments to be included in monthly reports.
Close-Out	▪ Ensuring that risk treatment plans have been fully implemented, where relevant, and closing-out of project risks. ▪ Identifying residual or remaining risks which may materialise after Practical Completion and allocating resources to manage and monitor the risks. ▪ As applicable, transferring the Project Risk Register, including any residual or remaining risks and controls (e.g. any noted operational risks), to the Client. ▪ Retaining risk information, including mitigation strategies, and communicating/ sharing lessons learned for future projects or other applicable projects within Downer.

Project Specific Requirements
▪ Additional considerations shall include: safety in design (HAZID & HAZOP), construction, operation and maintenance.

9.9 Specific Risk Assessments

Issues arise throughout the duration of the project that require a specific risk assessment to gain a deeper understanding and establish the most effective course of action.

Specific risk assessments required for the engineering and design phase of the project are detailed in the project's Engineering Management Plan and more specifically in ***DI-PM-GU026 Safe Design Guide***.

Specific risk assessment required for site activities are detailed in the both the project's Safety Management Plan and Construction Environmental Management Plan, and more specifically in ***DA-ZH-PR028 Zero Harm Risk Management*** .

Key risks identified in specific assessments that will have a material effect on the project's objectives are elevated to the Project Risk Register.

Project Specific Requirements
▪ Additional considerations shall include: asset operability, durability, reliability, availability and maintenance. ▪ A program including the specific risks to be managed during the Track Possessions, outages and commissioning events will be developed in accordance with the requirements of TSR P and the project Deed.

9.10 Risk Assessment Considerations

The items in the following table are considered when completing the steps for qualitative risk management.

Item	Considerations
Risk Identification & Qualitative Assessment	1. Has the context of the assessment been established and agreed with project leaders and relevant authorized business managers? 2. Are external parties/ stakeholders that can influence the project's success identified? 3. Has input been sought on risks facing the project, function, or work package from: ▪ a sufficiently broad group of project team members, internal/ external stakeholders, and subject matter experts; and ▪ an appropriate variety of information sources? 4. Have risks been analysed by their type and across all elements (as appropriate)? 5. Have risks and opportunities been described sufficiently, i.e. explaining an uncertainty and its impact on a project objective? 6. Have risks been allocated to appropriate individuals according to their title, role, or function? 7. Have existing controls and their effectiveness on mitigating the risk been identified? 8. Have the individual risks been assessed for likelihood and consequence with consideration of existing controls and their effectiveness? 9. Is there a manageable and prioritised set of risks, and are they grouped together or consolidated (where possible)? 10. Where applicable, has a more detailed quantitative risk assessment been completed, considering likelihood and a range of impacts? 11. Is there a process to escalate material risks, and has this been followed? 12. Does the overall project risk profile make sense intuitively, when viewed holistically and relatively?
Risk Management & Treatment	1. Are the risk response measures commensurate with the risk level and do they provide value-for-money? 2. Are accountabilities for the management and monitoring of the risk/ opportunity identified? 3. Have timelines been set against risk treatment actions? 4. Where management actions have not been directed to an identified risk or opportunity, should they be established (considering the risk rating and the RCE)? 5. Are plans/ measures/ metrics in place to monitor risks? 6. Have risk and control monitoring activities been integrated with existing project activities? 7. Has the project identified who will be responsible for providing risk and control information to facilitate required reporting, i.e. a Project Commercial & Risk Manager? 8. Are risk reporting requirements understood and resources appropriately allocated? 9. Is there stakeholder support for the activities outlined in the risk treatment and control plan, and sign-off/ approval of the plan?

Project Specific Requirements
▪ Nil

10 QUANTITATIVE RISK ANALYSIS & CONTINGENCY

10.1 Quantitative Risk Analysis

As per ***DI-RM-PR002 Opportunity and Bid Risk Management***, risk quantification first occurs during the bid phase to establish project contingency amounts using the following methods, as applicable:

- Basic cost analysis, as per section *10.2 Basic Cost Analysis;*
- Cost risk analysis through applying the Monte Carlo technique to the estimate, as per section *10.3 Cost Risk Analysis*; and/ or
- Schedule risk analysis through the applying Monte Carlo technique to the Project Schedule, as per section *10.4 Schedule Risk Analysis*.

Analysis of uncertainty in the project's estimated costs and schedule includes:

- inherent uncertainty in the project cost estimate and estimated project schedule durations;
- inherent uncertainty in project execution costs and durations; and
- discrete risks that may impact the project's costs or schedule.

A Monte Carlo risk analysis is completed for cost and schedule at the start of each project phase and is updated on a regular basis (e.g. monthly).

The key benefits of completing a quantitative cost and schedule risk analysis is to:

- improve forecasting of the final project costs and completion dates;
- improve the accuracy of forecasts by evaluating contingency needs for remaining works and remaining durations;
- assist in the early identification of issues/ possible overruns;
- provide additional rigour in the evaluation of risk mitigation or treatment strategies, i.e. cost-benefit;
- inform decisions regarding the release of contingency to margin; and
- aid the prioritisation of project management activities by better identifying those factors most likely to influence project outcomes, which may not be apparent from performing single point qualitative assessments.

Where Monte Carlo analysis is not performed, basic cost analysis is completed and updated throughout the duration of the project.

Project Specific Requirements
▪ Nil.

10.2 Basic Cost Analysis

The basic cost analysis uses the Quantified Project Risk Register in the Risk Management Workbook, which includes the columns in the following table that are additional to the Project Risk Register.

Column	Purpose/ Description

Column	Purpose/ Description
Most Likely Cost Impact	The residual risk value as per the qualitative risk assessment.
Worst Cost Impact	If the risk occurred, the worst/ highest cost impact that could be expected.
Best Cost Impact	If the risk occurred, the best/ lowest cost impact that could be expected.
Basis of Estimate	An explanation of the residual risk value.
Likelihood (that the risk will occur)	A single percentage value from within the likelihood range established during the qualitative risk assessment.
Current Assessment of Risk	The likelihood multiplied by the most likely cost impact.

The basic cost analysis is completed as part of the risk assessments or workshops conducted as per section *9 Qualitative Risk Management*. The basic cost analysis is facilitated by an experienced facilitator such as the Project Manager, Project Commercial & Risk Manager, or an external party. The same personnel involved in qualitative risk management are involved in basic cost analysis, along with project controls and estimating representatives.

The current assessment of risk is the total exposure for risk items and is compared against the remaining project contingency amount. Refer to section *10.5 Contingency & Estimate to Complete* for further information.

Project Specific Requirements
▪ The risk register shall consider cost control.

10.3 Cost Risk Analysis

Cost risk analysis involves applying Monte Carlo analysis to the project estimate to complete (ETC). Monte Carlo is an analytical technique in which single point inputs (e.g. estimate values) are substituted for a range of outcomes (e.g. uncertainties) which are expressed as distributions. Monte Carlo analysis runs a large number of simulations that applies random sampling of each defined distribution to provide probabilistic outcomes for the project outcomes. For project costs, Monte Carlo analysis provides a view of the likelihood of achieving the project's budget, as well as a range of probabilistic outcomes above and below the project's budget.

Cost risk analysis is completed to assist in determining the required remaining contingency amount, and involves establishing ranges of uncertainty/ variation against all items in the project ETC, as well as the inclusion of discrete risk items which may impact on project cost outcomes.

Each MCC Offer will include a detailed risk register identifying issues and risks encountered and concerns raised by stakeholders in developing the MCC Offer, and showing how each risk or issue has been satisfactorily considered and addressed or will be addressed during the balance of the Works. The P50 output from this register will be included in the Target Budget Estimate (TBE).

Uncertainty or variation for specific cost, schedule or risk items involves establishing possible outcomes, as per the following table and figure.

Possible Outcome	Description
Optimistic case (P10)	Positive outcome that 1 in 10 projects would achieve, i.e. 10% confident the project can be delivered to the amount or less.
Likely (P50)	The expected outcome, as likely to be above the value as below, i.e. 50% the project can be delivered to the amount or less. This is the nominated value that will be determined from the project specific risk register and adopted for all MCC offers as part of the TBE.
Pessimistic case (P90)	Adverse outcome that 1 in 10 projects would face, i.e. 90% confident the project can be delivered to the amount or less.

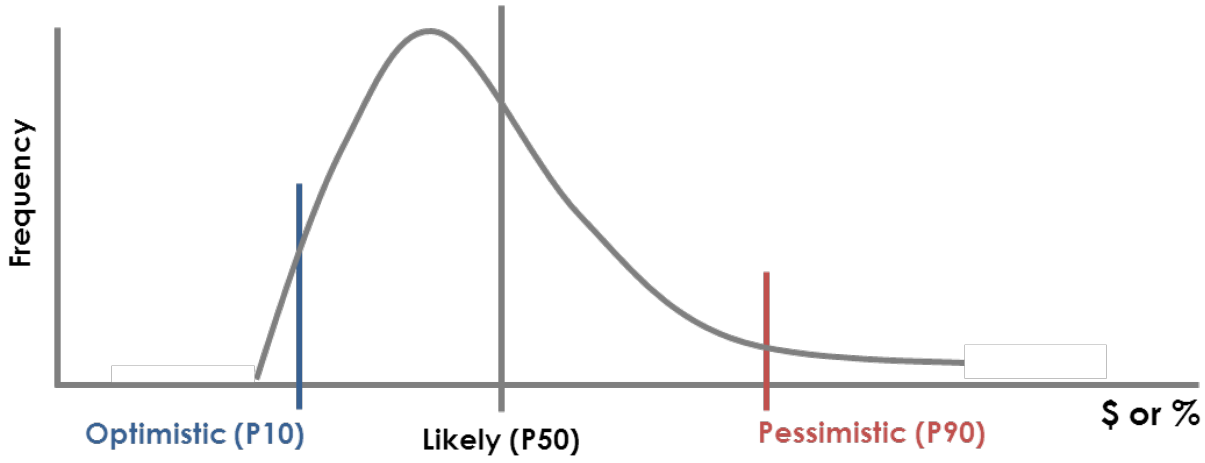


Figure 3: Risk Distribution

Typical areas of uncertainty or variance include:

- material, plant, and equipment rates and quantities;
- labour productivity;
- schedule (refer to section *10.4 Schedule Risk Analysis* for further information);
- project management and site supervision resource levels and rates;
- subcontracts;
- discrete risk items, i.e. individual risks from the Project Risk Register; and
- travel, induction/ training, accommodation rates, and quantities.

Downer's cost risk analysis methodology is to establish:

- the key drivers within ETC items at a summary level; and
- 3 point ranges for the key drivers as per *Figure 3 – Risk Distribution*.

For example, a forecast cost for materials will have separate drivers for the quantity of material required and rates ($). The evaluated risk ranges for these drivers will be applied to the ETC within the Monte Carlo model. Some key drivers, e.g. labour productivity and schedule, will impact multiple ETC items, including direct and indirect costs.

Establishing uncertainty and variance values is undertaken through a workshop facilitated by an experienced facilitator such as the Project Manager, Project Commercial & Risk Manager, or an external party. The same

personnel involved in qualitative risk management are involved in cost risk analysis, along with project controls and estimating representatives.

Cost risk analysis is completed using Palisade's @ Risk for Excel, as per ***DI-RM-PR002 Opportunity and Bid Risk Management***. The updated cost risk analysis is used to compare remaining contingency in the budget against forecast requirements from the analysis.

Project Specific Requirements
▪ Nil

10.4 Schedule Risk Analysis

Schedule risk analysis is performed at the discretion of the Project Manager, as per ***DI-RM-PR002 Opportunity and Bid Risk Management***. Schedule risk analysis is completed on either the complete project schedule or a summary schedule. If applied to a summary schedule, the summary schedule is prepared by the Planner/ Scheduler and:

- includes all of the work scope to be completed;
- is a fully logically linked critical path method (CPM) schedule that reflects the sequence of works;
- includes the major activities carrying schedule risk, e.g. procurement of long lead items or specialist plant
- includes critical and near critical paths; and
- isolates key project milestones and contractual dates.

Schedule risk analysis is essentially the same as cost risk analysis process in that 3 point estimates are still obtained through workshops for line items and discrete risk events and a Monte Carlo analysis is completed to model the variability. The difference between schedule risk analysis and cost risk analysis is that the Monte Carlo analysis is completed on the project schedule and the uncertainty ranges are applied to activities rather than cost line items. The schedule risk analysis is completed using **Acumen Risk**.

The schedule risk analysis output is used:

- in the cost risk analysis to determine the prolongation effect on estimated costs as well as to understand exposure to liquidated damages; and
- to compare the likelihood of achieving key project milestones against reported forecast completion dates.

Project Specific Requirements

▪ The risk register shall consider the following:
  ○ Construction Program and Key Timing Constraints consideration;
  ○ Construction Access consideration;
  ○ Constructability considerations;
  ○ Interface considerations and interface contractors;
  ○ Type approval;
  ○ Community interface;
  ○ Possessions, outages, commissioning events.

10.5 Contingency & Estimate to Complete (ETC)

The Project Manager reviews the outputs of the risk quantification analyses, i.e. cost risk analysis and schedule risk analysis, for remaining project scope or work against remaining contingency, the ETC, and forecast completion dates. Key principles considered include:

- Risk Burn-down, i.e. the reduction of risk exposure throughout the duration of the project; and
- Risk Draw-down, i.e. the draw-down of the contingency as a result of a risk, or a release to margin as the risk burn-down occurs.

If there is discrepancy between the risk quantification outputs and forecast cost and schedule values, the Project Manager takes corrective action, such as implementing appropriate risk mitigation strategies or escalating to the Project Board.

Project Specific Requirements
▪ Additional considerations shall include: Design, technical, quality, environmental, and safety issues associated with delivery.

ANNEX A – PROJECT ROLES & RESPONSIBILITIES

The Project Director works with the relevant functional managers and human resources personnel to ensure adequate resources are in place for the project, as per the project's Workplace Relations Management Plan.

The Project Director ensures that the specific roles, inter-relationships, and lines of reporting for the project are defined in the project's organisational structure, and may assign:

- an individual to a specific role;
- the accountabilities for the specific role to themselves; or
- the accountabilities for the specific role to other project team members.

Refer to the PMP for further information.

CEO/ COO/ EGM Responsibilities

Responsibilities

- Defining the project risk profile, including objectives and commitment to risk management.
- Establishing and maintaining a risk management function, including tools and procedures to support the project.
- Delegating sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring) to the Project Board.

Project Board Responsibilities

Responsibilities

- Ensuring alignment of project risk management procedures with Downer's policy.
- Endorsing the Project Risk Register following risk assessments at the commencement of each project phase.
- Addressing (including review and approval) any risks and risk mitigation plans with the potential to have major implications to the success of the project, i.e. delegated sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring).
- Reporting to key stakeholders or other forums on risk status and issues, including escalation of risks as per Group requirements, as required.

Project Director Responsibilities

Responsibilities

- Reporting and escalating risks to the Project Board in line with the delegated sign-off for risks, as per the Project Level Risk Priority Table (Project Monitoring).
- Reviewing and approving risk ratings and treatment plans in line with the delegated sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring).
- Reviewing and approving monthly risk reports.
- Facilitating risk assessment workshops (or delegating to the Project Commercial & Risk Manager or external party, as applicable)

Project Manager Responsibilities

Responsibilities

- Managing the overall project risk management.

- Implementing the approved Risk Management Plan and ensuring the currency of the risks and treatment plans in the Project Risk Register is maintained.
- Regularly checking project risks for changes to the project's contractual, budgetary, and/ or physical situation.
- Reviewing and approving risk ratings and treatment plans in line with the delegated sign-off for risks as per the Project Level Risk Priority Table (Project Monitoring).
- Reporting and escalating risks to the Project Director in line with the delegated sign-off for risks, as per the Project Level Risk Priority Table (Project Monitoring).

Project Commercial Manager Responsibilities

Responsibilities

- Maintaining the Risk Management Plan, Project Risk Register and risk treatment plans.
- Monitoring and reporting of the project risk profile, including but not limited to, risk status, trends, and changes.
- Monitoring and reporting of risk treatment plans, including status of actions and efficiency of risk treatment plans.
- Providing training and guidance to personnel on risk management principles and processes.
- Assisting and guiding the Project Team to identify, analyse, evaluate, and treat risks, including developing risk treatment plans.
- Monitoring the status and performance of the project risk management and developing monthly risk reports.
- Regularly checking that risks reflect the project's contractual, budgetary, and physical situation.
- Escalating risks to the Project Manager and/ or Project Board, as required.
- Preparing residual risk and mitigation plans for handover to the Client at project close-out.
- Maintaining compliance with Downer's risk management procedures.
- Coordinating and/ or facilitating risk assessment workshops, as required.
- Assessing adequacy of the approved and remaining contingency against the project risk profile and ETC.
- Modelling of cost and/ or schedule risk analysis by applying Monte Carlo techniques.
- Representing the risk function at project forums, as required.

Risk Owner Responsibilities

Responsibilities

- Continuously identifying potential risks and opportunities.
- With assistance from the Project Commercial & Risk Manager, assessing, evaluating, and agreeing on treatment actions to address risks in commercially sensible ways.
- With approval from the Project Manager, assigning resources to manage, review, and report on risks.
- Developing appropriate metrics to monitor progress.
- With assistance from the Project Commercial Manager, reviewing project risks at appropriate intervals.
- Assisting the Project Commercial Manager to prepare and maintain the Project Risk Register, risk treatment plans, and risk status reports.
- Working with personnel from other functional teams to address complex risks that cross functional boundaries.

- Communicating and (where necessary) escalating risks.

Project Team Responsibilities

Responsibilities

- Complying with the project's Risk Management Plan and Downer's policies and procedures.
- Communicating honestly and quickly on risks impacting the project and incidents or control breakdowns, i.e. adopting a 'no surprises' approach.
- Monitoring risks within their sphere of influence and ensuring they are managed appropriately.

ANNEX B – PROJECT RISK REGISTER

A register has been developed to capture the project risk for each Managing Contractor Contract (MCC) Offer related to each individual station. See the specific MCC for the relevant Project Commercial Risk Register.

ANNEX C – PROJECT RISK REGISTER KEY ELEMENTS

Key Risk Elements

The Table below is a guide to the type of elements that shall be considered in all assessments. This list is not exhaustive but undertakes to set a minimum consideration.

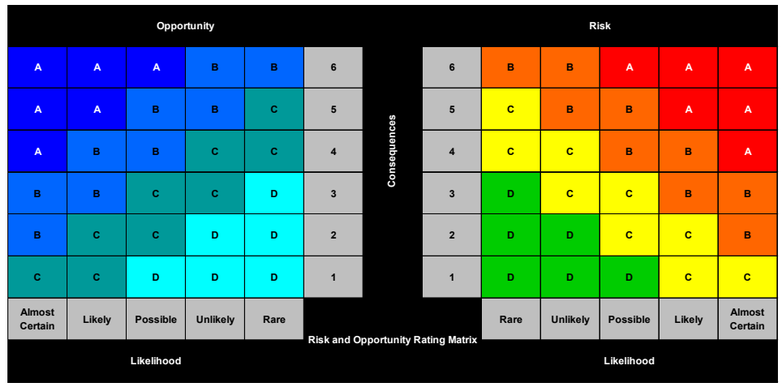
Key Element	Risks and Opportunities that can be included.
Zero Harm	- Consider severe or systemic safety risks that are escalated from the Design HAZOPS HAZAN, HAZOPS, CHAZOP, CHAIR and other OHS risk assessments and how these could affect the achievement of Downer's project objectives. - Include analysis of **safety in design, safety in constructability, site safety, environmental impact, sustainability.**
Stakeholder	- Consider how Downer's interaction and relationships with key stakeholders can affect the achievement of Downer's project objectives. Thought needs to be given to those stakeholders' objectives as this can affect their behaviour. - Include analysis of **end customer relationships, direct client relationships, information provided, project feasibility, community groups, regulators (OHS - Quality), unions and other external bodies.**
Commercial	- Consider the commercial conditions that are prescribed for the works (Contract) and those that subcontractors and suppliers may require and the effect that these conditions may have on the achievement of Downer's project objectives. - Include analysis of **contract conditions (head contract, sub contract, supplier agreements), legal and regulatory requirements, insurance and service delivery.**
Financial	- Consider the financial requirements of the project and contract and how they could affect the achievement of Downer's project objectives. - Include analysis of **payment schedules, cash flow requirements, administration of the accounts, bonds and insurance requirements, inflation (rise and fall), foreign exchange, estimate accuracy.**
Construction	- Consider the construction activities that are planned, what uncertainty is apparent in those plans and how that could affect the achievement of Downer's project objectives. - Include analysis of **constructability of design, productivity expectations, program or schedule, scope of works, technical elements, weather, site conditions**.
People	- Consider the Human Resources requirements of the project, the current uncertainty in any given resource and how this could affect the achievement of Downer's project objectives. - Include analysis of **resource availability, quality and skills of resources, project organisational structures, industrial relations, pay/salary and conditions, accommodation, training and induction.**
Technical	- Consider the technical/technology requirements of the project, the uncertainty these requirements pose and how this could affect the achievement of Downer's project objectives. - Include analysis **of IT infrastructure requirements; IT systems requirements (software or tools), and technology implementation, management, maintenance and upgrades.**
Design	- Consider the design requirements of the project and whether Downer is providing the design, partial design or verification of design, and how that could affect the achievement of Downer's project objectives. - Include analysis of **design responsibility, equipment and process guarantees, performance, quality of vendor data, quality of client or third party supplied design, scope creep, specification clarity, constructability.**
Subcontractors / Suppliers	- Consider the key suppliers and subcontractors selected for the project, their objectives and performance and how these could affect the achievement of Downer's project objectives. - Include analysis of **critical path or long lead items, high risk suppliers (past performance, capability or capacity, reporting), validity of pricing, materials/equipment subject to escalation, size of supplier/subcontractors.**
Plant & Equipment	- Consider the plant and equipment requirements of the project, the uncertainty that remains in the securing and performance of the selected equipment and how this could affect the achievement of Downer's project objectives. - Include analysis of **suitability and availability of equipment; internal and external hire pricing, location and mobilisation of equipment, maintenance, safety, upgrades, cost, and capital investment decisions.**

ANNEX D – PROJECT RISK REGISTER RATING TABLE

Risk Control Effectiveness (RCE) Rating Table

Risk Control Effectiveness	Description
Effective	**Controls are adequate, appropriate and effective.** They provide a reasonable assurance that risks are being managed and objectives should be met.
Generally Sound	**A few specific control weaknesses are noted.** However, many controls are adequate, appropriate and effective to provide a solid basis for assurance that risks are being managed and objectives should be met.
Improvement Required	**Numerous specific control weaknesses were noted**. Controls evaluated are unlikely to provide reasonable assurance that risks are being managed and objectives should be met.
Unsatisfactory	**Controls are not adequate, appropriate or effective.** They do not provide reasonable assurance that risks are being managed and objectives should be met.

Go To Risk Register



Consequence Rating Table (Project Specific)

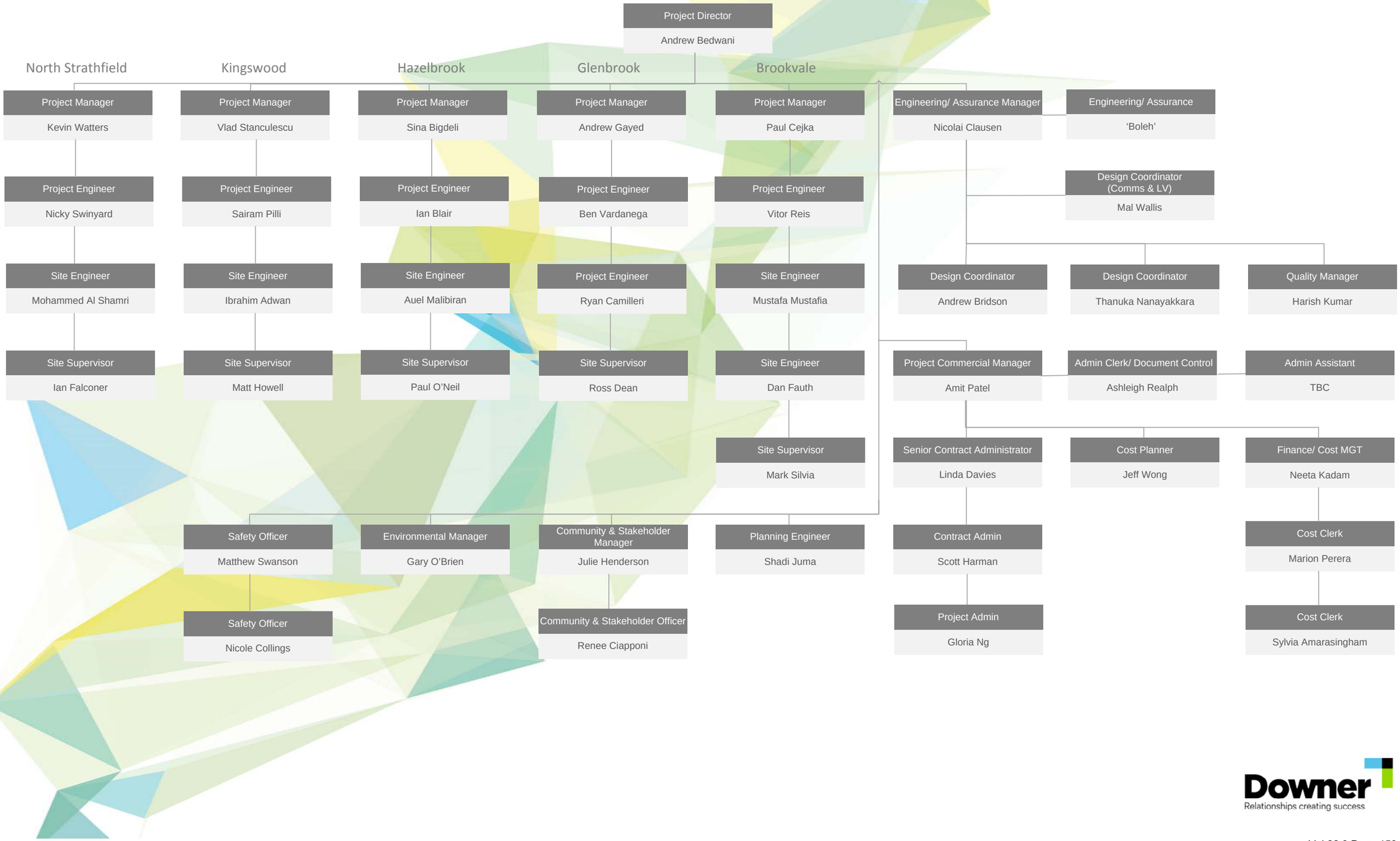
Rating	Financial	Time	Health and Safety	Resources	Brand & Reputation	Environment & Community	Management	Legal & Compliance
6	• >100% of Gross Margin Add margin in Context Setting to get $ values	• >20% Schedule over-run unrecoverable. 4.0 Months	• Multiple fatalities, or significant irreversible effects to numbers of people	• > 60% increase in expected blue collar churn. >10% increase in PM Team churn	• Total loss of shareholder and customer support; or • Prolonged impact on share price; • Group MD and/or Board member leaves; or • International press reporting; or • Leads to closure of the	• Catastrophic widespread impact resulting in irreversible damage to habitat and species. • Complete loss of trust by affected community leading to long term social unrest and outrage.	• Event with long term impact on the business that requires considerable senior executive management time to handle over years.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) litigation/prosecution impacting the standing of the entire Group; or b) withdrawal of a registration, license, approval or accreditation affecting the entire
5	• 70 – 100% of Gross Margin Add margin in Context Add margin in Context	• 10-20% Schedule over-run unrecoverable. 2.0 Months 4.0 Months	• Single fatality and/or severe irreversible disability to one or more persons	• 40 - 60 increase in expected blue collar churn; 5-10% increase in PM Team churn.	• Divisional CEO leaves; or • Short term impact on share price (months); or • Customer terminates contract; or • Australia wide press reporting	• Significant impact or serious harm on the environment; or • Prolonged community outrage.	• Event that requires considerable senior executive management time to handle over many months.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) litigation/prosecution impacting the standing of a Division; or b) withdrawal of a registration, license, approval or accreditation affecting a
4	• 40 -70% of Gross Margin Add margin in Context Add margin in Context	• 5-10% Schedule over-run unrecoverable. 1.0 Months 2.0 Months	• Moderate irreversible disability or impairment to one or more persons. • Lost Time Injury more than 28 days lost.	• 20 – 40% increase in expected blue collar churn. <5% increase in expected PM Team churn	• Senior Executive leaves; or • Customer registers strong concerns and threatens contract termination; or • State based media reporting.	• Significant impact or material harm on the environment; or • A notifiable incident; or • Long term community irritation leading to disruptive actions and requiring continual Management attention.	• Event requiring the involvement of senior executive management and will take up significant time of managers for several weeks.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) prosecution/investigation by an authority/regulatory body that requires prolonged business input; or b) withdrawal of a registration, license, approval or accreditation affecting a Business within a Division
3	• 20 – 40% of Gross Margin Add margin in Context Add margin in Context	• < 5% Schedule over-run 0 Weeks 1.0 Months	• Lost Time Injury	• 10 – 20% increase in expected blue collar churn.	• Manager disciplined; or • Customer complains strongly; or • Local media reporting.	• Moderate impact or material harm on the environment; or • A notifiable incident; or • Short term community unrest and dissention.	• Event that can be managed with the careful attention of management over several weeks.	• Breach of contractual obligation, law, regulation, permit or approval leading to: a) prosecution/investigation by an authority/regulatory body; or b) withdrawal of a registration, license, approval or accreditation confined to a
2	• 5 – 20% of Gross Margin Add margin in Context Add margin in Context	• Schedule slippage without impact to critical path; some operational costs will be incurred to recover.	• Medical Treatment Injury	• 5 - 10 % increase in expected blue collar churn.	• Employee disciplined; or • Customer aware and affected.	• Minor impact on the environment; or • Community complaint requiring intervention and management attention. .	• Event requiring some local management attention over several days.	• Breach of contractual obligation, law, regulation, permit or approval leading to minor penalties.
1	• <5% of Gross Margin Add margin in Context	• Short term schedule slippage without impact to critical path.	• First Aid case or less	• <5% increase in expected blue collar churn.	• No visible impact on business.	• Negligible impact to the environment; or • No community complaint.	• Impact of event absorbed in normal management activity.	• Breach of contractual obligation, law, regulation, permit or approval with penalty notice or warning without financial impact.

Likelihood of Occurrence Rating Table

Category	Criteria
Almost Certain	• Over 90% probability, or • Expected to occur in most circumstances, or • Likely to occur multiple times throughout a project
Likely	• Between 50% -90% probability, or • Probable to occur in most circumstances, or • Possible to occur in a project, has occurred in similar projects.
Possible	• Between 10% - 49% probability, or • Might occur, has occurred before, or • Has occurred in a minority of similar projects.
Unlikely	• Between 1% - 9% probability, or • Could occur, or • Has not occurred in similar projects, but could.
Rare	• <1% probability, or • Exceptionally unlikely, even in the longer term, or • a "100 year event"

TfNSW Transport Access Program 3.0AP/B-Line

Organisation Structure



Downer
Relationships creating success

New Intercity Fleet – Stations and Signalling Enabling Works Project

Contract Number: 20041067

(Category 3 Project)

Document Preparation and Control	Document Review
Abdal Aziz – Senior Project Manager, IPD	Tom Watson – IPD Commercial Manager
Document Approval	**Signature**
Kevin Brady – Operations Manager, IPD	[redacted]

Project Document Version	Date
Revision 1	03/04/18
Revision 2	03/05/19
Revision 3	16/05/19
Revision 4	09/04/20

1 PURPOSE

This document provides clear and concise direction to the Project Manager with regards to the framework under which their assigned contract must be managed.

This Project Mandate applies to the New Intercity Fleet Stations & Signalling Enabling Works Project.

2 PROJECT BOARD AND MANAGEMENT STRUCTURE

The following table provides member(s) of the Project Board as appointed by the CEO or delegated authority for the project as well as the nominated Project Manager and key project personnel available for the project. The Project Board may refer to subject matter experts if required to aid the governance of the project, these may be other senior line managers, Commercial Managers, Financial Controllers or other subject matter experts.

Role	Name(s)
Project Board	• Operations Manager – Kevin Brady (Chair) • Divisional Commercial Manager – Tom Watson
Project Manager	Abdal Aziz
Project Commercial Manager	Henry Jansen

3 THE PROJECT DELIVERY PLAN

The Project Manager is to review the Project Mandate for Project Board requirements, information and guidance on their expectations for the project and to create the Delivery Plan in accordance with the Project Mandate requirements and using document **DI-PM-TP002 Delivery Plan**.

A Project Delivery Plan shall be submitted to the Project Board for approval and updated as required during the project.

The Project Delivery Plan is the initial high level plan that will be expanded and refined in the project Planning phase activities as necessary and represents the Project Managers response to the Project Mandate. It confirms or otherwise to the Project Board as to whether the Project Manager has an adequate understanding of the project scope, risk and opportunity controls and treatments; and how the Project Manager will effectively manage and deliver the project.

4 AUTHORITY/ DELEGATIONS/ KEY RESPONSIBILITIES

The responsible authority for authorising cost and resource applicable to the project is the Project Board.

The Project Manager must monitor costs on a daily basis. The Project Manager will inform the Project Board promptly if costs exceed budgeted amounts by more than 10% and/or if the works program varies by more than five days from the planned program. The Project Manager liaises with the Client on a daily basis.

The Project Manager has the authority to run the project on a daily basis on behalf of the Project Board within the constraints laid down by the Project Board. The Project Manager is responsible to ensure that the project

produces the specified products and services to the required standard of quality and within the agreed constraints of cost and schedule. The Project Manager must ensure proper planning around project management and technical and operational management of the project. The Project Manager must arrange the preparation and reconciliation of Progress Payment Claims and the collection of associated payments.

Approval of any costs and resources outside the Project Budget require the prior review and approval of the Project Board.

The Project has been classified as Category 3, with the following requirements under **DI-PM-PR002.**

Project Management Methodology (PMM) Deliverable	Project Category				
	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
Handover/Initiation Phase					
▪ Project Handover	Note 1	✓	✓	✓	✓
▪ Project Mandate	-	Note 2	✓	✓	✓
▪ Project Delivery Plan	-	Note 2	✓	✓	✓
PMM Deliverable	**Project Category**				
	Cat 1	**Cat 2**	**Cat 3**	**Cat 4**	**Cat 5**
Planning Phase					
▪ Risk Assessment	Note 1	Note 2	✓	✓	✓
▪ Programme/Schedule	Note 1	Note 2	✓	✓	✓
▪ Budget	Note 1	Note 2	✓	✓	✓
▪ Project Management Plans	Note 1	Note 2	✓	✓	✓
Start Up Phase	Note 1	Specific requirements to be documented for different categories and project types			
Execution Phase					
▪ Project Controls Management	✓	✓	✓	✓	✓
▪ Design (Only) Management	-	✓	✓	✓	✓
▪ Work Package Management	-	-	-	✓	✓
▪ Design & Construct Management	-	-	✓	✓	✓
▪ EPC/M Management	-	-	-	-	✓
Close Out Phase					
▪ Project Close Out	✓	✓	✓	✓	✓
▪ Lessons Learnt Review	-	Note 3	Note 3	✓	✓

Table 1 - DI-PM-PR002

4.1 Delegated Financial Authority:

The delegation authority matrix included below maps out the OPEX limits as per the Downer Financial Delegated Authorities Framework Document IS-FN-ST001.

Name and Position	OPEX limits	Delegation code
Sergio Cinerari (CEO, Infrastructure Services)	[redacted]	D01
Mark Mackay (EGM, Infrastructure Projects)	[redacted]	D03
Karl McCarthy (GM , IPD NSW) Manish Pancholi (GM, Downer Utilities NSW)	[redacted]	D04
Kevin Brady (Operations Manager)	[redacted]	D07.0
Abdal Aziz (Senior Project Manager)	[redacted]	D07.1

Contingency for the project will be managed by the Project Board. It is the responsibility of the Project Manager to forecast cost associated with Project risks as it become probable that the risk will become realised. The releasing of associated contingency from the contingency cost codes shall be agreed with the Project Board in advance of monthly reporting.

4.2 Key responsibilities Project Board:

- Ensuring project is executed in accordance with the project's contractual requirements
- Ensure Project Manager is executing the project in line with Downer objectives and is in compliance with the Downer Project Management Methodology, policies and procedures
- Conduct Monthly Project Review with Project Team to ensure integrity and accuracy in all reporting pertaining to project including Financial & Zero Harm
- Review to ensure compliance to Downer IMS Systems and Processes for all new starters, including initiating refresher courses on Downer's Project Management Framework where necessary
- Ascertain from monthly reviews where further support, direction and guidance for the Project Manager and other key personnel is required to execute the project; and
- Provide support and assistance resolving, mediating and negotiating in any unforeseen dispute resolution required with client, suppliers or subcontractors to avoid litigation.
- Review and approve project deliverables in line with a Category 3 project as per the Downer's Project Management Processes, including but not limited to the following:
  - Project Delivery Plan
  - Project Implementation Plan
  - Programme
  - Project Budget and cash flow
  - Risk assessment and mitigation measures; and
  - Project Plans including the following:
    - Zero Harm Management Plan
    - Environmental Management Plan
    - Project Management Plan (PMP)
    - Traffic Management Plan

- Quality Management Plan
- Engineering Management Plan

➢ Lessons Learnt Close Out Report

For expediency, the chair of the Project Board is delegated to sign project documents on behalf of, and after conferring with, the Project Board. The Line Manager provides the day to day contact between the Project Board and the Project Manager.

4.3 Key responsibilities Project Manager:

- Drive for Zero Harm on project. Engage with project personnel to obtain commitment to company Zero Harm objective (DA-ZH-PRO28 Zero Harm Risk Management);
- Build and maintain an effective and productive relationship with the client;
- Support the project team to enable an efficient streamlined delivery process;
- Promote and ensure compliance with the Project Controls Framework tools and systems throughout the project team;
- Conduct and prepare project reports as required for review (DI-PM-PRO20 Monthly Project Reporting and Review);
- Direct liaison with client for all project related issues;
- Endeavor to increase company margins by best buy, reduced wastage and looking for further opportunities;
- Effectively manage actual labour, subcontractors and material costs against the project budget;
- Engagement of subcontractors as required in accordance with Downer policies and procedures;
- Accurate financial reporting and record keeping. Ensure invoicing is completed in a timely manner and in strict accordance with the contract;
- Ensure quality and consistency of workmanship across project with the objective to eliminate re-work;
- Variations to be approved in accordance with Financial Delegation Policy;
- Seek approval from project board prior to project margin changes UP or DOWN;
- Ensuring compliance with Contract and Statutory requirements;
- Identify, quantify and monitor Project Risk and Opportunities. (DI-RM-PRO03 Project Risk Management).
- Appoint an “Appointed Person (Lifting)” for the project to manage all lifting activities and review lift studies for the project. Ensure this appointed person has attended the two day Edwards lifting course. This appointment should be identified in the safety management plan.
- Appoint an “Appointed Person (Utilities)” for the project to manage all excavations and ground disturbance and associated permit system on the project. Ensure this appointed person has received utilities management training. This appointment should be identified in the safety management plan.

Project Manager Authorities:

- Subcontract – All subcontracts and suppliers must be engaged using Downer’s agreements
  - Enter into & execute subcontract agreements within approved budgets: [redacted] (As per delegated Authorities);
  - Seek approval as per delegated Authorities for subcontract and supply agreements [redacted] prior to the subcontractor/supplier/consultant commencing works.
- Purchase Orders – Used on a minor basis, engagement through supply agreements that do not have retention or bank guarantee requirements;
  - Place a purchase order for materials for [redacted] (As per delegated Authorities);
- Subcontract Orders – Used for all subcontract/consultancy agreements and supply agreements that have retention or bank guarantee requirements:

- Place a subcontract order for subcontract/consultancy agreements [redacted] (As per delegated Authorities).

Order types to be as defined in the following table:

Agreement Type	Description of Intended Use	JDE Order Type
Purchase Order	To purchase a fixed volume of any type of goods that are of low value and low risk (for example, they are basic 'off the shelf' goods that are not manufactured to project specific requirements).	Standard Purchase Order
Supply Agreement	To purchase a fixed volume of any type of goods (together with related services) from a Supplier/Subcontractor that is of a medium to higher risk/complexity.	Standard Purchase Order unless the Supply Agreement has retention or bank guarantee requirements. If so raise on a Subcontract Order.
Supply & Install Agreement	To purchase any type of good which requires installation/commissioning as part of the related services.	Subcontract Order
Consultancy Agreement	To engage a consultant to provide professional services (for example, design or professional advice).	Subcontract Order
Hire Agreement (Wet/Dry)	To hire construction plant or equipment, both with or without operators (i.e. both dry hire and wet hire).	Standard Purchase Order
Minor Works Subcontract	For low value, low risk on-site work where the Supplier/Subcontractor's work is not critical to Downer's obligations under its head contract.	Subcontract Order
Subcontract Agreement	For more complex and higher value/risk work where Downer needs to include provisions dealing with the administration of time (EOTs), completion, variations, latent conditions, DLP, subcontracting, warranties, security, claims and IP.	Subcontract Order
Major Works Subcontract	For complex, higher value, higher risk work or where prescriptive obligations under the MCC need to be passed through to the Supplier/Subcontractor.	Subcontract Order
Downer Preferred Supplier/Subcontract Agreements	For suppliers/subcontractors where Downer has a preferred/Group level agreement executed.	Purchase Order with reference to the Downer Group level agreement terms.

- Contract Variations;
  - Accept commercial changes to contract conditions – Nil Authority
- Price Variations;
  - Price Variations (positive or negative) - [redacted] %of contract value)

- Staff Resources;
  - Agree project resource requirements or any changes with Project Board
- Client Interface;
  - All client interfaces with the exception of:
    - Significant commercial disputes.
    - Deteriorating client relationship.
- Minimum Reporting Requirements:
  - Monthly Project Value (PV) Reporting
  - Monthly Project Reporting using Candy – must identify forecast budget exceedances more than $20k and proposed mitigation
  - Weekly report in standard format, using envision (Refer to document DOWIPD-MND-CP-0001)
  - Weekly look ahead programme
  - Weekly Program update and variance report
- Exception Reporting (immediately / monthly report)
  - Any identified cost blow out exceeding cost code budget by >$75k.
  - Non-conforming works / rework.
  - Any concerning deterioration in client relationship
  - Community complaints

The project will implement and utilise Downer's Project Controls Framework tools and systems project control systems being IMS, JDE, Candy, Primavera P6, Teambinder, SharePoint and Envision for the execution of the project, without exception.

5 PROJECT OBJECTIVES

The project objectives are to deliver safely, to the required quality, on time and within budget, the Scope of Works in accordance with Downer's Zero Harm philosophy, Project Management Methodology and Project Controls Framework.

Specifically, the objectives are to:

1. Showcase collaboration within Transport and Infrastructure and the benefits to the Downer Group by presenting as "One Downer" and utilising skills and expertise appropriately between the BU's.
2. Demonstrate Downer's expertise and capabilities in the delivery of rail infrastructure projects, establishing it as a leading contractor in the eyes of all Project Stakeholders.
3. Delivery of project to the quality standards required by contract with minimum fuss and negligible rectification. (Measurement: cost of non-conforming works / rectification / rework, NCRs/CARs issued).
4. Delivery of project to the Client within program requirements with consideration of Project site constraints. (Measurement against program).
5. Delivery of project to Budget. (Measurement: Variance to Budget).

Focus Area	Objective	Measures
Health, Safety and Environment	Deliver outstanding project safety and environmental performance Integrate health, safety and environment considerations into design, procurement, construction and commissioning. Genuinely care for the well-being of all people related to the project, and Strive equally to eliminate damage to plant, equipment and the environment	Tracking and 90% plus compliance of all lead indicators, STAR Cards, KPI'S, Critical Risk Observations as per Role requirements. PM to attend pre start once per month Corrective Actions Register maintained for safety/ environment breaches Cardinal Rule breaches = 0 LTIFR = 0 TRIFR = 0
Cost	Deliver the project within the project budget inclusive of variations and costs associated with extensions of time	Project Margin above the approved Project Forecast for Month 1 deemed to be success. Delivery of margin below Month 1 Forecast to be investigated by Project Board. Accurate Cashflow forecasts updated and provided monthly both to Downer internal reports and HWC reports
Schedule/ Time	Complete project on or before amended Construction Programme scheduled target dates Liaise with the client to understand time based drivers of the project Actively pursue all entitlements to Extension of Time and ensure timely notifications under the contract.	Tracked against Approved Construction Programme. Report of programme Slippages provided monthly with a mechanism for mitigation or improvement noted. PVA Tracking, Project Schedule Health and Performance checks, Forensic reviews Review of RFI's, NOD's, SI's & EOT's Ensure project baseline approval from PMO if rated Category 3 or above over greater than $5M in value. Ensure the program is updated weekly for Downer reporting, tracking and time claim related matters. Reporting to Client as per the Contract Specific Requirements. Monthly Program updates and Client updates to be issued to the National Planning Manager (PMO) at the completion of each update. This is not just for reporting purposes but for data security / backup purposes. No time barred submissions for EOT

Focus Area	Objective	Measures
Financial	Cost Control mechanism to be tracked weekly. Implement Candy and become champions to the system and how it can benefit projects. Sub-contractors claims to be fully verified on site for streamlined processing of claims. All variations to be tracked in Contract Obligations and Claims register with transparency of approved variations compared to Client variations position.	Zero payment claims returned to the project for rework. Zero SOPA claims on the project and timely responses to any Subcontractor SOPA claims Payments to suppliers and Subcontractors on time per contract conditions. No time barred submissions for variations
Quality Management	All functional audits (e.g. safety, environment and quality) are undertaken to schedule. Project deliverables are to requisite statutory requirements, specifications and standards. Non-conforming products and services are identified and reported for immediate corrective action.	100 % compliance with audit schedule. Zero overdue non-conformance reports (NCRs). Completion, ready for submission all QA records within Contract requirements. Number of RFI's open and closed Number of Non-conformance reports open and closed Lots status monitored monthly and lot closure to be progressive, avoiding risks associated with lot closure late in the project.
Engineering / Design Management	All design and engineering management related activities are undertaken in a timely manner, "right first time", and in accordance with the Project program and Contract.	Number of tender assumptions open and closed Number of hazards / risks open and closed in Project Hazard Log (PHL) or Project Specific Safety Risk Register (PSSRR) Number of items open and closed in Requirements Traceability Matrix (RAATM or equivalent)
Risk Management	All project activities and tasks are undertaken with an understanding and control of related hazards and risks. Proactive identification of emerging risks and opportunities.	Zero overdue risk control plan actions. Project Risk Register and control plan updated monthly. Risk and opportunities Register updated mid-month for inclusion in Month end project reporting. Allocation of Risks and Opportunities to team members for active monitoring and closing out with Monthly progress recorded on the register

Focus Area	Objective	Measures
People Management	Ensure that all project personnel are regularly consulted on matters that affect safety, environment and quality. All employees, suppliers and subcontractors are free from discrimination, harassment and bullying in the workplace.	Pre-start meetings held daily. All staff sign off on assigned management plans All staff complete Downer PMI and induction modules Toolbox meetings held fortnightly (as a minimum). Zero Equal Employee Opportunity (EEO) complaints. Employee engagement and communication initiatives to be implemented regularly in the form of ; a) Toolbox Talks (from Management) b) PDP timely and meaningful c) Position Descriptions accurate d) General communications about Downer strategies from Executive Mgt
Stakeholder Management	Satisfy all reasonable and defined needs of the project stakeholders, including Sydney Trains, NSW Train Link , local Councils, community and statutory bodies.	Correspondence with key stakeholders (Sydney Trains, NSW Train Link, Councils, statutory bodies) is tracked/registered Register of complaints will be maintained. Action complaints in timely manner. Compliance with reporting and consultative communication schedule = 100%. Weekly discussions with Client on performance at Client Meetings Monthly reports on time and accurate with scoring system on Project Delivery aspects

6 COMMERCIAL

The commercial aspects of the project are deemed medium risk.

As this project is a category 3, *completion of the Contract Rights and Obligations section of **DI-CM-RG007 Obligations and Claims Registers** is mandatory*. The Contract Rights and Obligations must be attached to the Delivery Plan and reviewed with the Project Board.

Effective deed management is essential to the successful delivery of the project obligations to TfNSW and maintaining Downer's commercial position with clear definition of Downer's rights under the head contract. The key Team Members with responsibility for Head Contract Management are to attend a training course in GC21 contracts Rights and Obligations.

The principles, processes, procedures, systems, tools, and templates implemented for effective understanding and management of the head contract's rights and obligations will be detailed in the project's Commercial Management Plan (CMP). The Project Manager and Commercial Manager are responsible for ensuring that the project executes all of its contract obligations and provides all contract deliverables, both cyclical and singular, when required.

The project is required to comply with the Transport & Infrastructure Project Controls Framework with regards to month end reporting in order to increase accuracy and the Project Boards confidence in the project status. Commercial month end reporting will be carried out using Candy and JDE.

The Project Manager is to identify Project Team training requirements and training can be arranged for the following Project Controls Framework software systems: JDEGS, Candy, Primavera P6, Teambinder and Envision to ensure all personnel are proficient with each system

The team will use Envision/P6 software to track and manage delays efficiently; Aconex to manage control of documents and correspondence; and Candy with JDEGS for tracking and managing costs, budget and revenue.

Contract Margin and Project Contingency Delegated Authority.

The Project Manager is responsible for ensuring the Project Valuations (PV's) and all necessary supporting documentation is prepared for the Project Board as per agreed timetables. Drafts will be reviewed on the 26th of each month including Monthly Reporting on all elements. The PV will be reviewed on the 26th by the Project Board prior to submission.

Contingency for the project shall be reported in Candy and will be managed by the Project Board. It is the responsibility of the Project Manager to forecast cost associated with Project risks as it become probable that the risk will become realised. The releasing of associated contingency from the contingency cost codes shall be agreed with the Project Board in advance of monthly reporting

The following shall be agreed with the Project Board in advance of month end reporting:

- Adjustments to the Contract margin
- Profit recognition including margin deferral and approving contract margin write-downs, whereby the primary focus is on downward adjustment of the Forecast Margin at Completion.
- Recognition of unapproved claims and variations.
- Write-off of work in progress (WIP), and settlement of claims or disputes resulting in the increase or decrease in WIP

7 INTERFACES

Downer is responsible for interfacing with project stakeholders as the Managing Contractor, including interface with Sydney Trains, NSW Trains Link, Local Community, Councils, EPA, Service Providers and Contractors working within the rail corridor.

The Project Manager will retain responsibility for interface management with authorities under the contract, particularly where approvals are required for proposed methodology to deliver the works or where authority procedures require input from the delivery contractor.

8 REPORTING & REVIEW

The Project Manager must keep the Project Board informed about any departures from the planned safe, quality-assured, timely and budgeted delivery of the Works. At the end of each month, the Project Manager must provide to the Project Board a Project Status Report (DI-PM-FM022 Project Status Report.docx) incorporating Project safety statistics, quality records (lots opened, lots closed, non-conformance register) and progress of works along with a Project Valuation covering cost to date and forecast cost to complete. This is to be completed in accordance with the Downer Project Management Methodology on the IMS reporting timetable requirements as issued by IPD.

The Project Manager is responsible for producing a month end forecast in line with Downer's reporting timetables.

The Transport & Infrastructure Project Controls Framework establishes a consistent and effective way to deliver projects and resources from within the business and Transport & Infrastructure Project Office with work with the Project Team to implement and support the systems.

Image 8. Project Control Framework

Month end commercial reports are to be complete on the third working day of every month. The reports are to be produced using Candy and based on the standard reporting suite. The Project Valuation (PV) report is to be generated from JDE.

Candy will be used for forecasting, Subcontractor allocation / allocating budget to Subcontract packages and the subsequent managing of Subcontractor claims along with P6 for Programming and Earned Value.

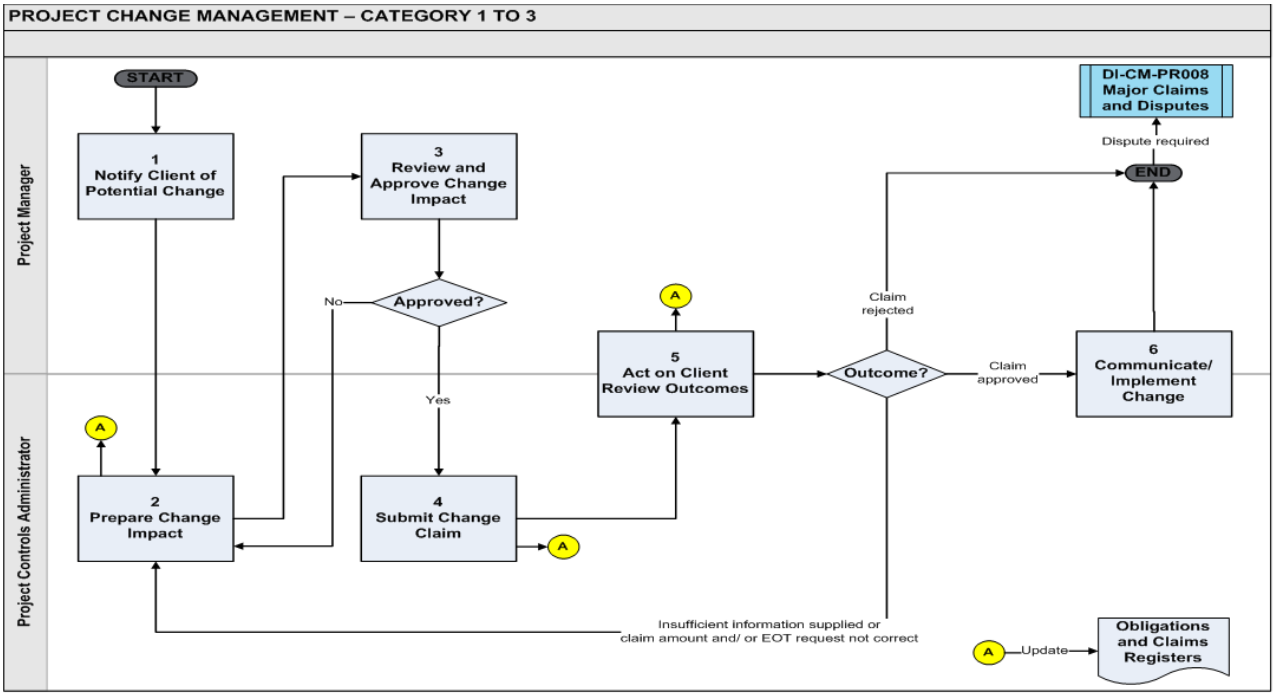
A monthly project report is to include commentary on project, project schedule and variance from baseline, risks, commercial status (EOT's, NOD's and Variations) additional business opportunities, client relationship, project productivity, safety statistics and initiatives, monthly accruals and detailed WIP explanation.

The Project Board each month will conduct a detailed review of the projects forecast cost position and cost to complete.

Only material changes in the project financial position from the Project Board meeting through to the next month end reporting period will be amended (after Project Board approval)

9 CHANGE MANAGEMENT

It is the Project Manager's responsibility to maintain a variation and extension of time register for the duration of the project. Included in the monthly report will be fully status EOT, variation and RFI registers. Refer to ***DI-PM-PR037 Project Change Management – Cat 3 Project.***



10 KEY RISKS, OPPORTUNITIES & CONSTRAINTS

A comprehensive risk and opportunity register must be developed by the Project Manager. The risk register is to be reviewed and updated by the Project team throughout the duration of the project.

It is the Project Manager's responsibility to maintain the risk register and ensure an up to date and current risk register is available for review by the project board at each monthly project review meeting and included in the reporting process.

Areas of risk currently identified for consideration are,

- Unknown buried services – existing buried services within the rail corridor must be positively located and Downer's two stage permit to excavate must be administered by the project Appointed Person (Services).
- Access to site during possessions – priority typically given to Sydney Trains and other major projects currently underway across the network.
- Lack of subcontractor resources – Availability of AEO accredited Overhead Wiring subcontractors and competent civil contractors, Lack of Downer AEO accreditation for overhead wiring construction.
- Shortage of supervision resources – Multiple major possessions running concurrently over a large geographical area.
- Staff retention – project program is heavily dependent on weekend possessions including night shifts and public holidays resulting in higher staff burnout.

These should be addressed in the risk matrix.

11 LEARNINGS FROM PREVIOUS PROJECTS

For category 3 – 5 projects list the key learnings from previous projects of a similar delivery model, similar scope or similar Client, in the table below and note the action / treatment plan recommended for this project.

The project manager must capture lessons learned from the project and add these to Downer records.

Project	Issue / Learning	Recommended Action / Treatment

12 OTHER INFORMATION

It is important that Downer manages this contract in accordance with the conditions of the Contract, including the use of any standard forms, reporting requirements and contractual timelines. The client has been co-operative and reasonable in their dealings with Downer so far and it is vital that Downer complies with all Contractual requirements and delivers a project that will enhance our reputation as a Contractor and provide opportunities for future works.

TAP 3 Tranche 3 – Transport Access Program

Contract Number: 20041088-92

Document Preparation and Control	Document Review
Andrew Bedwani – Program Manager	Kevin Brady – NSW Operations Manager, IPD
Document Approval	**Signature**
Karl McCarthy – General Manager, IPD	

Project Document Version	Date
Rev 0	04/05/2020

1 PURPOSE

This document provides clear and concise direction to the Project Manager with regards to the framework under which their assigned contract must be managed. This Project Mandate applies to all projects to be delivered under the Transport Access Program that includes Banksia, Birrong, Roseville, Wollstonecraft, Mascot and Canley Vale Station as a minimum.

2 PROJECT BOARD AND MANAGEMENT STRUCTURE

The following table provides member(s) of the Project Board as appointed by the CEO or delegated authority for the project as well as the nominated project management for the program and associated projects.

Role	Name(s)
Project Board	Karl McCarthy – General Manger (NSW) Kevin Brady – IPD NSW Operations Manager Tom Watson – NSW Commercial Manager Subject Matter Experts as required by invitation of the nominated Project Board
Program Manager	Andrew Bedwani
Commercial Manager	Amit Patel
Project Manager(s)	Kevin Watters, Andrew Gayed, Vlad Stanculescu, Sina Bigdeli, Vitor Reis, Jason Briscoe & Nicolai Claussen

3 DELIVERY PLANS

The program manager and each project manager are to review the Project Mandate for Project Board requirements, information and guidance on their expectations for the program / project and to create a Project Management Plan (PMP) in accordance with the Project Mandate and **DG-DM-GU001 Delivery Management Methodology Guide** requirements using document **DG-DM-PR023 Project Management Plan Development Procedure**.

Program and Project Delivery Plans shall be submitted to the Project Board for approval and updated as required during the works.

The Delivery Plans are the initial high-level plans that will be expanded and refined in the project planning phase activities as necessary and represents the program / project managers response to the Project Mandate. It confirms or otherwise to the Project Board as to whether the program / project managers have an adequate understanding of the project scope, risk and opportunity controls and treatments; and how the program / project managers will effectively manage and deliver the works.

4 AUTHORITY/ DELEGATIONS/ KEY RESPONSIBILITIES

The Program Manager is the responsible authority for authorising cost and resource applicable to the project.

The Project Manager(s) must monitor costs on a daily basis. The Project Manager(s) will inform the Program Manager promptly if costs exceed budgeted amounts by more than 10% and/or if the works program varies by more than five days from the planned program.

The Program Manager has the authority to run the TAP program on a daily basis on behalf of the Project Board within the constraints laid down by the Project Board. The Project Managers are responsible to ensure that the projects produce the specified products and services to the required standard of quality and within the agreed constraints of cost and schedule. The Project Managers must ensure proper planning around project management and technical and operational management of the projects. The Program Manager must arrange the preparation and reconciliation of Progress Payment Claims and the collection of associated payments.

Approval of any costs and resources outside the Project Budget require the prior review and approval of the Project Board.

The Project has been classified as Category 4, with the following requirements under **DG-DM-GU001**.

Delivery Management Methodology (DMM) Key Activity	**Project Category**				
	Cat 1	**Cat 2**	**Cat 3**	**Cat 4**	**Cat 5**
Handover and Kick-off Phase					
▪ Project Handover	Note 1	✓	✓	✓	✓
▪ Mandate	-	Note 2	✓	✓	✓
▪ Day 1 Readiness Plan/ Checklist	Optional	Note 3	✓	✓	✓
Plan Day 1 Readiness Phase					
▪ Risk Assessment	Note 1	Note 2	✓	✓	✓
▪ Programme/ Schedule	Note 1	Note 2	✓	✓	✓
▪ Budget	Note 1	Note 2	✓	✓	✓
▪ Project Management Plans	Note 1	Note 2	✓	✓	✓
Prepare Day 1 Readiness Phase					
	Note 1	Specific requirements to be documented for different categories and project types			
Execute, Monitor and Control Phase					
▪ Project Controls/ Performance Mgt	✓	✓	✓	✓	✓
▪ Design (Only) Management	-	✓	✓	✓	✓
▪ Work Package Management	-	Optional	Optional	✓	✓
▪ Design & Construct Management	-	-	✓	✓	✓
▪ EPC/M Management	-	-	-	-	✓
▪ Operations, Maintenance, Services	✓	✓	✓	✓	✓
Close-out and Capture Lessons Learned Phase					
▪ Project Close-out	✓	✓	✓	✓	✓

Delivery Management Methodology (DMM) Key Activity	Project Category				
	Cat 1	Cat 2	Cat 3	Cat 4	Cat 5
▪ Lessons Learned Review	-	Note 4	Note 4	✓	✓

4.1 Delegated Financial Authority:

The delegation authority matrix included below maps out the OPEX limits as per the Downer **Financial Delegated Authorities Framework Document IS-FN-ST001**.

Name and Position	OPEX limits	Delegation code
Sergio Cinerari (COO, Australian Operations)	[redacted]	D01
Mark Mackay (EGM, Transport Projects)		D03
Karl McCarthy (GM NSW, Transport Projects)		D04
Kevin Brady (Operations Manager)		D07.0
Andrew Bedwani (Program Manager)		D07.1
Kevin Watters, Andrew Gayed, Vlad Stanculescu, Sina Bigdeli, Vitor Reis & Nicolai Claussen (Project Managers)		D07.2

Contingency for the project will be managed by the Project Board. It is the responsibility of the Project Managers to forecast cost and margin associated with project risks and opportunities and to report the nett R&O position as compared to contingency to the Project Board on a monthly basis. The releasing of associated contingency from the contingency cost codes shall be agreed with the Project Board in advance of monthly reporting.

4.2 Key responsibilities of the Project Board:

- Ensuring project is executed in accordance with the project's contractual requirements
- Ensure Program Manager is executing the program in line with Downer objectives and in compliance with company Project Management policies and procedures
- Conduct Monthly Project Review with Project Team to ensure integrity and accuracy in all reporting pertaining to project including Financial & Zero Harm
- Review to ensure compliance to Downer IMS Systems and Processes for all new starters, including initiating refresher courses on Downer's Project Management Framework where necessary
- Ascertain from monthly reviews where further support, direction and guidance for the Program Manager and other key personnel is required to execute the works; and
- Provide support and assistance resolving, mediating and negotiating in any unforeseen dispute resolution required with client, suppliers or subcontractors to avoid litigation.

Ensure project deliverables in line with a Category 4 project as per the Downer Project Management Processes are completed, including but not limited to the following:

- Project Delivery Plan
- Project Implementation Plan
- Program

- Project Budget (prior to related expenditure) and cash flow
- Risk assessment and mitigation measures; and
- Project Plans including the following:
  - Engineering Management Plan, incorporating our AEO responsibilities
  - Competency Management Plan (per our AEO requirements)
  - Zero Harm Management Plan
  - Environmental Management Plan
  - Project Construction Management Plan
  - Traffic Management Plan
  - Commercial Management Plan
  - Quality Management Plan
- Lessons Learnt Close Out Report

4.3 Key responsibilities Program Manager and Project Managers:

- Strive for Zero Harm on project. Engage with project personnel to obtain commitment to company Zero Harm objective (**DA-ZH-PR28 Zero Harm Risk Management**) including COVID-19 management;
- Build and maintain an effective and productive relationship with the client;
- Support the projects to enable an efficient streamlined delivery process;
- Promote and ensure compliance with the Transport Project Controls Framework tools and systems throughout the project teams;
- Prepare TAP monthly reports as required for review (**DG-DM-PR025 Monthly Project Reporting and Review**);
- Direct liaison with client for all project related issues;
- Endeavor to increase company margins by best buy, reduced wastage and looking for further opportunities;
- Effectively forecast and then manage actual labour, subcontractors and material costs against the project budget;
- Engagement of subcontractors as required in accordance with Downer policies and procedures;
- Accurate financial reporting and record keeping. Ensure invoicing is completed in a timely manner and in strict accordance with the contract;
- Ensure quality and consistency of workmanship across project with the objective to eliminate re-work;
- Variations to be approved in accordance with Financial Delegation Policy;
- Approval must be sought from Project Board prior to project margin changes UP or DOWN;
- Ensuring compliance with Contract and Statutory requirements;
- Identify, quantify and monitor Project Risk and Opportunities. (**DG-RM-PR003 Project Risk and Opportunity Management Procedure**).
- Appoint an “Appointed Person (Lifting)” for the project to manage all lifting activities and review lift studies for the project. Ensure this appointed person has attended the nominated lifting course. This appointment should be identified in the safety management plan.
- Appoint an “Appointed Person (Utilities)” for the project to manage all excavations and ground disturbance and associated permit system on the project. Ensure this appointed person has received utilities management training. This appointment should be identified in the safety management plan.

Project Manager Authorities:

- Subcontract – All subcontracts and suppliers must be engaged using Downer’s agreements
  - Execute subcontract agreements within approved budgets (As per delegated Authorities);
  - Seek approval as per delegated Authorities for subcontract and supply agreements [redacted] prior to the subcontractor/supplier/consultant commencing works.

  - Include a payment structure requiring related quality and hand over documentation to be a separate payment item to incentivise timely and accurate documentation provision during delivery.
- Purchase Orders – Used on a minor basis, engagement through supply agreements that do not have retention or bank guarantee requirements;
  - Place a purchase order for materials for [redacted] (As per delegated Authorities);
- Subcontract Orders – Used for all subcontract/consultancy agreements and supply agreements that have retention or bank guarantee requirements:
  - Place a subcontract order for subcontract/consultancy agreements [redacted] (As per delegated Authorities).
  - Obtain Project Board approval for any design related subcontracts prior to commencement of design.

Order types to be as defined in the following table:

Agreement Type	Description of Intended Use	JDE Order Type
Purchase Order	To purchase a fixed volume of any type of goods that are of low value and low risk (for example, they are basic 'off the shelf' goods that are not manufactured to project specific requirements).	Standard Purchase Order
Supply Agreement	To purchase a fixed volume of any type of goods (together with related services) from a Supplier/Subcontractor that is of a medium to higher risk/complexity.	Standard Purchase Order unless the Supply Agreement has retention or bank guarantee requirements. If so, raise on a Subcontract Order.
Supply & Install Agreement	To purchase any type of good which requires installation/commissioning as part of the related services.	Subcontract Order
Consultancy Agreement	To engage a consultant to provide professional services (for example, design or professional advice).	Subcontract Order
Hire Agreement (Wet/Dry)	To hire construction plant or equipment, both with or without operators (i.e. both dry hire and wet hire).	Standard Purchase Order
Minor Works Subcontract	For low value, low risk on-site work where the Supplier/Subcontractor's work is not critical to Downer's obligations under its head contract.	Subcontract Order
Subcontract Agreement	For more complex and higher value/risk work where Downer needs to include provisions dealing with the administration of time (EOTs), completion, variations, latent conditions, DLP, subcontracting, warranties, security, claims and IP.	Subcontract Order

Agreement Type	Description of Intended Use	JDE Order Type
Major Works Subcontract	For complex, higher value, higher risk work or where prescriptive obligations under the MCC need to be passed through to the Supplier/Subcontractor.	Subcontract Order
Downer Preferred Supplier/Subcontract Agreements	For suppliers/subcontractors where Downer has a preferred/Group level agreement executed.	Purchase Order with reference to the Downer Group level agreement terms.

- Contract Variations;
  - Accept commercial changes to contract conditions – Nil Authority
- Price Variations;
  - Price Variations (positive or negative) <$150,000 (or 1.5% of contract value)
- Staff Resources;
  - Agree project resource requirements or any changes with Project Board
  - Use “TEAMS” to allocate tasks and track progress on critical activities against the program
- Client Interface;
  - All client interfaces with the exception of:
    - Significant commercial disputes.
    - Deteriorating client relationship.

5 PROJECT OBJECTIVES

The Project’s objectives are to deliver safely, to the required quality, on time and within budget, the Scope of Works in accordance with Downer’s Zero Harm philosophy, Project Management Methodology and Project Controls Framework.

The scope of works for the project is a Managing Contractor Contract for the Transport Access Program of works.

Specifically, this Project’s objectives are to:

1. Deliver the project to a very high standard of safety within the Downer Zero Harm framework and to TfNSW minimum requirements.
2. Delivery of project to Budget. (Measurement: Variance to Budget).
3. Demonstrate Downer’s expertise and capabilities in the delivery of Transport for New South Wales projects, establishing it as a leading contractor in the eyes of all Project Stakeholders.
4. Further develop key Downer personnel relationships with the Client and establish new relationships of presently unknown Downer personnel with the Client.
   a. This includes introduction of new Downer personnel to the Client, demonstrating depth of Downer teams’ capabilities in rail construction works. That is new Project Managers, Project Engineers and Project Supervisors.
   b. Mentoring of new Downer personnel to ensure we have a greater depth of project management capability for delivery of construction projects.
5. Delivery of project to the quality standards required by contract with minimum fuss and negligible rectification. (Measurement: cost of non-conforming works / rectification / rework, NCRs/CARs issued).
6. Delivery of project to the Client within program requirements with consideration of Project site constraints. (Measurement against program).

7. Enhance Downer's reputation, supporting a lift in prequalification level and the likelihood of Downer being awarded similar work in the future.

The following table outlines the key objectives and specific measures/deliverables required for each focus area.

Focus Area	Objective	Measures
Health, Safety and Environment	Deliver outstanding project safety and environmental performance Integrate health, safety and environment considerations into design, procurement, construction and commissioning. Genuinely care for the well-being of all people related to the project, and Strive equally to eliminate damage to plant, equipment and the environment	Tracking and 90% plus compliance of all lead indicators, STAR Cards, KPI'S, Critical Risk Observations as per Role requirements. PM to attend pre start daily and 1 Toolbox per month. Corrective Actions Register maintained for safety/ environment breaches Cardinal Rule breaches = 0 LTIFR = 0 COVID-19 constraints breaches = 0
Margin	Return the forecast profit to the business	[redacted] Gross Margin is the minimum accepted margin position
Cost management and cost forecasting	Deliver the project within the project budget inclusive of variations and costs associated with extensions of time	Aim to get a consistent and simple Cost Breakdown Structure (CBS) on all projects to facilitate ease of administration. The CBS must be signed off by the Project Board prior to implementation. No expenses can be incurred by the project team until project budgets and the CBS is approved by the Project Board. Exceptions will be permitted at the discretion of the Project Board. Accurately capture daily, weekly and monthly costs in JDE and capture accruals for monthly reporting. Track and report on productivity metrics ($ per unit of output) of key scope elements that have a large influence on project success. Each Project Manager must present an accurate position of their Cost to Date (including accruals) and their Forecast Cost to Complete each month and present this information in Candy. The Program Manager must ensure accuracy of non-project specific costs and forecasts (preliminaries, design etc.).

Focus Area	Objective	Measures
		Generate a monthly Cost Report from Candy which includes Cost Performance Index (CPI) for each project Undertake Subcontract and supplier progress claim assessments in Candy Generate cashflow forecasts that are within a +- 10% degree of accuracy on a 3-month horizon and within +- 20% accuracy beyond a 3-month horizon.
Procurement	The utilise a streamlined and systematic procurement and approval system for tendering, tender assessment and engagement approval. To dovetail the Downer and TfNSW approvals process to minimise delays and duplication of effort. To continually monitor procurement gains/losses against budget and to assess the residual procurement risk on unlet work scopes.	Involve the Downer Group centralised purchasing team at project commencement to set up the ARCUS system and to use it for all procurement activities. Maintain a detailed procurement register which is linked to the project program and is reported upon monthly to the Project Board.
Schedule/ Time	Complete project on or before amended Construction Programme scheduled target dates Liaise with the client to understand time-based drivers of the project Actively pursue all entitlements to Extension of Time and ensure timely notifications under the contract. Generate very detailed possession schedules and plans to ensure certainty of delivery when on weekend possession.	Ensure project baseline approval from PMO. Achieve a Client Agreed Baseline program within 1 month of award Report monthly on Planned V's Actual (PVA) for: (a) planned activities for the month as stated in the previous monthly report, (b) critical path activities, and (c) against the client approved baseline for the period. Ensure the program is updated weekly for Downer reporting, tracking and time claim related matters. Reporting to Client as per the Contract Specific Requirements. Ensure all detailed possession plans have a "hand back readiness" cut off point where a decision will be taken to abandon planned work scope that might jeopardise the hand back timing to Sydney Trains Monthly Program updates and Client updates to be issued to the National Planning Manager (PMO) at the completion of each update. This is not just for reporting purposes but for data security / backup purposes. No time barred submissions for EOT

Focus Area	Objective	Measures
		Capture all COVID-19 related impacts on programme
Financial	Implement Candy and become champions to the system and how it can benefit projects. Sub-contractors claims to be fully verified on site for streamlined processing of claims. All variations to be tracked in Contract Obligations and Claims register with transparency of approved variations compared to Client variations position.	Zero payment claims returned to the project for rework. Zero SOPA claims on the project and timely responses to any Subcontractor SOPA claims Payments to suppliers and Subcontractors on time per contract conditions. No time barred submissions for variations Weekly tracker to be maintained for COVID-19 cost impacts
Quality Management	All functional audits (e.g. safety, environment and quality) are undertaken to schedule. Project deliverables are to requisite statutory requirements, specifications and standards. Non-conforming products and services are identified and reported for immediate corrective action.	100 % compliance with audit schedule. Zero overdue non-conformance reports (NCRs). Completion, ready for submission all QA records within Contract requirements. Number of RFI's open and closed Number of Non-conformance reports open and closed Lots status monitored monthly and lot closure to be progressive, avoiding risks associated with lot closure late in the project.
Engineering / Design Management	All design and engineering management related activities are undertaken in a timely manner, "right first time", and in accordance with the Project program and Contract.	Number of tender assumptions open and closed Number of hazards / risks open and closed in Project Hazard Log (PHL) or Project Specific Safety Risk Register (PSSRR) Number of items open and closed in Requirements Traceability Matrix (RAATM or equivalent)
Risk Management	All project activities and tasks are undertaken with an understanding and control of related hazards and risks. Proactive identification of emerging risks and opportunities.	Zero overdue risk control plan actions. Project Risk Register and control plan updated monthly. Risk and opportunities Register updated mid-month for inclusion in Month end project reporting.

Focus Area	Objective	Measures
		Allocation of Risks and Opportunities to team members for active monitoring and closing out with Monthly progress recorded on the register
People Management	Ensure that all project personnel are regularly consulted on matters that affect safety, environment and quality. All employees, suppliers and subcontractors are free from discrimination, harassment and bullying in the workplace.	Pre-start meetings held daily. All staff sign off on assigned management plans All staff complete Downer PMI and induction modules Toolbox meetings held fortnightly (as a minimum). Zero Equal Employee Opportunity (EEO) complaints. Employee engagement and communication initiatives to be implemented regularly in the form of; a) Toolbox Talks (from Management) b) PDP timely and meaningful c) Position Descriptions accurate d) General communications about Downer strategies from Executive Mgt COVID-19 constraints effectively managed
Stakeholder Management	Satisfy all reasonable and defined needs of the project stakeholders, including TfNSW, local Councils, utility agencies, community members and statutory bodies.	Correspondence with key stakeholders (TfNSW, Councils, statutory bodies) is tracked/registered Register of complaints will be maintained. Action complaints in timely manner. Compliance with reporting and consultative communication schedule = 100%. Weekly discussions with Client on performance at Client Meetings Monthly reports on time and accurate with scoring system on Project Delivery aspects

6 COMMERCIAL

The contract is a Managing Contractor Contract and commercial aspects of the project are deemed medium risk. The reputational risk is considered high.

The project is required to comply with the Transport Projects Project Controls Framework (refer Image 8 below) with regards to month end reporting in order to increase accuracy ant the Project Boards confidence in the project status. Commercial month end reporting will be carried out using Candy. Candy will also be used for head contract progress claims, head contract variations, subcontractor progress claims and subcontractor variations.

The Project is a category 4 project and therefore completion of the Contract Rights and Obligations section of **DG-DM-FM011 Rights and Obligations Table** is mandatory.

The Program Manager is to identify Project Team training requirements and training can be arranged for the following Project Controls Framework software systems: JDEGS, Candy, Primavera P6, Arcus and TeamBinder to ensure all personnel are proficient with each system.

The team will use TeamBinder to manage control of documents and correspondence; P6 for tracking program & progress, Candy with JDEGS for tracking and managing costs, budget and revenue and Arcus for the procurement of Suppliers and Subcontractors.

The Contract Rights and Obligations must be attached to the TAP Delivery Plan and must be completed along with the Deliverables tab during the project planning phase and reviewed with the Project Board.

Contract Margin and Project Contingency Delegated Authority.

The Program Manager is responsible for ensuring the Project Valuations (PV's) and all necessary supporting documentation is prepared for the Project Board as per timetables requested by the business.

Contingency for the project shall be reported in Candy and will be managed by the Project Board. It is the responsibility of the Program Manager to forecast cost associated with Project risks as it become probable that the risk will become realised. The releasing of associated contingency from the contingency cost codes shall be agreed with the Project Board in advance of monthly reporting.

Adjustments to the Contract margin shall be agreed with the Project Board in advance of month end reporting, as incorporated in the limits set in **DG-FN-ST029 Financial Delegated Standard** for contract margin approvals, which relates to:

- Profit recognition including margin deferral and approving contract margin write-downs, whereby the primary focus is on downward adjustment of the Forecast Margin at Completion.
- Recognition of unapproved claims and variations.
- Adjustment of RAfPR, and settlement of claims or disputes resulting in the increase or decrease in RAfPR.

7 INTERFACES

The Program Manager is responsible for liaising and communicating with the Client representative and other stakeholders as necessary on all matters relating to the planning, preparation, execution and delivery of the Contract Works.

The Project Managers will retain responsibility for interface management with authorities for their projects, particularly where approvals are required for proposed methodology to deliver the works or where authority procedures require input from the delivery contractor.

8 REPORTING & REVIEW

The Program Manager must keep the Project Board informed about any departures from the planned safe, quality-assured, timely and budgeted delivery of the Works. At the end of each month, the Program Manager must provide to the Project Board a consolidated Project Status Report **DG-DM-FM044 Project Status**

Report incorporating Project safety statistics, quality records (lots opened, lots closed, non-conformance register) and progress of works along with a Project Valuation covering cost to date and forecast cost to complete. This is to be completed in accordance with the Downer Project Management Methodology on the IMS reporting timetable requirements. Transport Projects may trial a Dashboard Reporting template as an alternative during the life of this project.

The Project Managers are responsible for producing a month end forecast in line with Downer's reporting timetables.

The Transport Projects Project Controls Framework establishes a consistent and effective way to deliver projects and resources from within the business.

- Minimum Reporting Requirements:
  - Monthly Project Value (PV) Reporting
  - Monthly Cost Reporting using Candy – must identify forecast budget exceedances more than $20k and proposed mitigation
  - Monthly project program reviews
  - Weekly report in standard format, using envision (Refer to document DOWIPD-MND-CP-0001)
  - Weekly look ahead program with Planned Versus Actual progress report
  - Weekly COVID-19 impact tracker
- Exception Reporting (immediately / monthly report)
  - Any identified cost blow out exceeding cost code budget by >$20k.
  - Non-conforming works / rework.
  - Any concerning deterioration in client relationship
  - Community complaints

The project will implement and utilise Downer's Project Controls Framework tools and systems being the Downer IMS, JDE, Candy, Primavera P6, TeamBinder and SharePoint for the execution of the project, without exception. ARCUS will also be used for procurement.

Image 8. Project Control Framework

Month end commercial reports are to be complete on the third working day of every month. The reports are to be produced using Candy and based on the standard reporting suite which is attached in Annexure A. The Project Valuation (PV) report is to be generated from JDE (or Candy if system configuration allows this).

Candy will be used for forecasting, Subcontractor allocation / allocating budget to Subcontract packages and the subsequent managing of Subcontractor claims along with P6 for Programming and Earned Value.

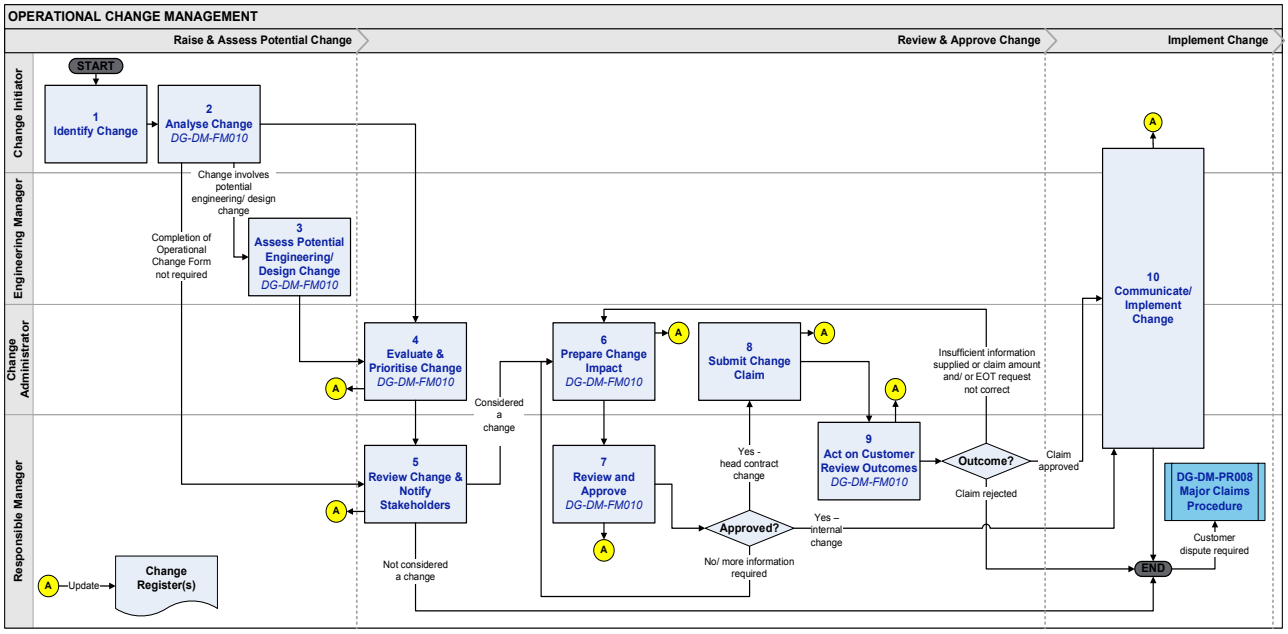
A monthly project report is to include commentary on project schedule and variance from baseline, risks, commercial status (EOT's, NOD's and Variations) additional business opportunities, client relationship, project productivity, safety statistics and initiatives, monthly accruals and detailed RAfPR explanation.

The Program Manager each month will conduct a detailed review of the projects forecast cost position and cost to complete with each Project Manager, which will subsequently be reviewed by the Project Board.

Only material changes in the project financial position from the Project Board meeting through to the next month end reporting period will be amended (at Project Board approval)

9 CHANGE MANAGEMENT

It is the Project Manager's responsibility to maintain a variation and extension of time register for the duration of their project. Included in the monthly report will be fully status EOT, variation and RFI registers. Refer to **DG-DM-PR003 Operational Change Management Procedure.**



A separate process for TfNSW mandated configuration change will be included into the Engineering Management plan in order to comply with our Authorised Engineering Organisation (AEO) responsibilities.

10 KEY RISKS, OPPORTUNITIES & CONSTRAINTS

A comprehensive risk and opportunity register is to be developed by each Project Manager and reviewed by the Program Manager. The risk register is to be reviewed and updated by the Project team monthly. Each risk identified must be allocated to a specific "risk owner" by the Project Manager to ensure careful monitoring and accountability are maintained.

It is the Program Manager's responsibility to maintain a consolidated risk register and ensure an up to date and current risk register is available for review by the Project Board at each monthly project review meeting and included in the reporting process.

Areas of risk currently identified for consideration are;

- COVID-19 Impacts
- Staff retention
- Services – existing utilities must be positively located, and Downer's two stage permit to excavate must be administered by the project Appointed Person (Services).
- Erection of precast & structural elements to be conducted following review and approval of lift studies by the Appointed Person (Lifting).
- Work under Level 5 approval to proceed only once reviewed and risks associated with this work approved by the NSW Operations Manager or Rail Safety Manager.

11 LEARNINGS FROM PREVIOUS PROJECTS

The Project Manager should identify key learnings from previous projects of a similar delivery model, similar scope or similar Client, in the table below and note the action / treatment plan recommended for this project. Annex B and C also provides further information from the New Intercity Fleet (NIF) Project and lessons learned on the TAP Projects.

Project	Issue / Learning	Recommended Action / Treatment
See Annex B & C		

12 OTHER INFORMATION

It is important that Downer manages this contract in accordance with the conditions of the Contract, including the use of any standard forms, reporting requirements and contractual timelines. The client has been co-operative and reasonable in their dealings with Downer so far and it is vital that Downer complies with all Contractual requirements and delivers a project that will enhance our reputation as a Managing Contractor and provide opportunities for future works.

ANNEX A – PROJECT DELEGATIONS OF AUTHORITY MATRIX

See Section 4.1

ANNEX C – LESSONS LEARNED - NEW INTERCITY FLEET (NIF) PROJECT

Category	Discipline	Improvements
Systems	Commercial	Establishing a uniform budget tracking system prior to the commencement of the project. Candy was abandoned half way through the job and excel sheets were used and are still being used for remaining and additional scope.
	Documentation	Establishing a procedure for uploading documentation to TeamBinder from the commencement of the project. Special attention to be paid to the TfNSW/Downer Bridge, which does not work for all transmittal types and TB functions, e.g. Lot management.
	Project Wide	There are too many systems in use across the project. Reduce the number of systems. Envision, Lucidity, TfNSW Teambinder, Downer Teambinder, Sharepoint / excel registers, DBOT as well as manual processes.
Safety	Assurance	Requirements chased through RAATAM are to be project specific not pulled from a previous project.
	Assurance	Inadequate resourcing of a safety assurance manager. The org chart listed the NSW Engineering Manager as the Safety Assurance Manager. This resulted in the Designer Manager taking on further responsibilities outside of their role. Inadequate safety assurance expertise within the project team resulted in heavy reliance on subcontractor (Arch / Nova systems). Subcontractor performance is subject to the assigned resource and is not consistent, numerous issues were raised by client on the majority of safety assurance and Gate submissions.
Resources	Resources	The resourcing needs to be consistent throughout the life of the project. Resources can't be jumping from project to project. This resulted in client frustrations and inconsistencies across the project.
		Ensure the appropriate personnel are attending the required workshops. This will ensure that critical details are not missed and are documented.

		Certain titles that have been assigned to specific resources, do not cover their entire role. The title is too specific to the role. Clearly define the role and responsibilities of that resources which are specific to the project. There was no engineering manager or quality manager, and those roles were not assigned to any specific individuals, resulting in a clunky first year on the project.
		A lack of SME's assigned to the project (e.g. OHW & Signalling). We relied on sub-contractor resources to be experts across those fields. A very heavy reliance on subcontractors give the client (and stakeholders such as ST) an impression that Downer, being the AEO and MC, do not have full time inhouse resources and should not attempt such works, even when the project scope is delivered successfully.
Quality/Design	Documentation	A dedicated document controller was not assigned to the project, resulting in poor filing of critical project documentation.
	Scope	Reduce splitting the supply of materials/ scope between different sub-contractors. One sub-contractor was assigned to carry out piling, the other to supply the rag bolts, leaving Downer very exposed when errors occurred in the supply of materials.
	Investigations	Service search and survey needs to be carried out prior to AFC to avoid significant time and commercial impacts due to redesign. In The early stages of the project, sites were poorly searched and survey records of the services were incorrect and unverified.
	Systems	A proven defect management system must be in place at the commencement of the project. An excel defects register is inadequate to manage the number of defects on the sized project.

TRANSPORT ACCESS PROGRAM
Project Charter

Our Vision

Connecting people..... By improving the Infrastructure in the communities in which we work, providing greater mobility and ultimately enhancing their way of life!

Our Values

We value:

- Resilience with Integrity and Mutual Respect
- One Team Approach with Credibility, Reliability and Openness in our work
- Compliance with Innovation and Tenacity
- Diversity and Inclusion being Sympathetic to Cultural Differences

Our Behaviours

We will be:

- Proactive
- Approachable and Respectful
- Accountable for actions, inactions and decisions
- Collaborative and Inclusive
- Fit and Healthy

Downer
Relationships creating success

NSW GOVERNMENT Transport for NSW

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1 PURPOSE

This document outlines the Downer policy for providing avenues for the reporting of misconduct, or an improper state of affairs or circumstances, in relation to the Company, such as inappropriate, unethical, corrupt or illegal behaviour.

This Policy is made available to all officers and employees of the Company on the Downer Group website and the Downer Standard intranet site.

The Company is committed to fostering a culture in which all persons feel free to raise concerns about misconduct or conduct which may be improper, knowing that their identity will be kept confidential (subject to the below), and that they can do so without fear of reprisal, dismissal or discriminatory retaliation even if they turn out to be mistaken.

This Policy supports other policies of the Company, including the Standards of Business Conduct.

All requirements in this document are consistent with the documents listed in section *14 Referenced & Associated Documents*.

2 SCOPE

This policy is applicable to the Company, Directors, employees, contractors and Reporting Persons.

3 DEFINITIONS

The following terms are used in this document.

Board	The Board of Directors of Downer EDI Limited (ACN 003 872 848).
Company	Downer EDI Limited (ACN 003 872 848), its subsidiary companies, operating divisions and business units.
Director	Any person who is appointed to the Board and includes alternate directors.
Eligible Person	Any person who is a: ▪ current or former officer, employee or associate; ▪ current and former contractor, supplier, consultant, or service provider (or their employees); or ▪ their relatives, dependents or spouse.
Eligible Recipient	A senior manager of the Company, an officer of the Company, the WPO, an auditor of the Company, ASIC, APRA, or a legal practitioner for the purpose of obtaining legal advice or legal representation in relation to the operation of the whistleblower provisions in the *Corporations Act 1999* (Cth).
Personal Work-Related Grievance	A grievance about the Reporting Person's employment or former employment, having personal implications for that person, and does not have broader implications for the Company.
Policy	Business Integrity Policy.

Reportable Conduct	All misconduct, or an improper state of affairs or circumstances, in relation to the Company. It includes any practice or behaviour that is contrary to the Standards of Business Conduct, or which may be inappropriate, unethical, corrupt or illegal. The conduct does not need to be a breach of any law or illegal. It includes: ▪ dishonest, fraudulent, corrupt or unlawful conduct or practices, including theft, drug use or sale, violence or threatened violence and criminal damage against property; ▪ the harassment of, intimidation of or bullying of any person; ▪ misleading or deceptive conduct including practices or representations which amount to improper or misleading accounting or financial reporting practices; ▪ conduct or any proposed conduct which may breach the provisions of any competition or corporations law in any jurisdiction in which the Company operates; ▪ a breach or alleged breach of the Company's Standards of Business Conduct; ▪ conduct within the Company's control which may present a significant environmental hazard or a breach or potential breach of environmental laws; ▪ conduct which may increase the risk of injury to any person or persons or a threat to their health, which has been reported to management but not acted upon; ▪ any action taken against a person who has made a report under this Policy having reasonable grounds to suspect that Reportable Conduct has occurred or is about to occur; and ▪ any other conduct or act which may be damaging to the Company's reputation or which may be against its interests. It does not include any practice or behaviour that is related solely to a Personal Work-Related Grievance.
Reporting Person	Any person who, whether anonymously or not, makes, attempts to make or wishes to make a report in connection with any Reportable Conduct.
Standards of Business Conduct	The Company's code of conduct and as amended from time to time.
WIO	A person appointed by the Company as the Whistleblower Investigation Officer to conduct investigations into a report received from a Reporting Person.
WPO	A person appointed by the Company as the Whistleblower Protection Officer to protect and safeguard the interests of a Reporting Person under this Policy.

4 WHAT SHOULD BE REPORTED UNDER THIS POLICY?

All misconduct, or an improper state of affairs or circumstances, in relation to the Company, is **Reportable Conduct** and should be reported. It includes any practice or behaviour that is contrary to the Standards of Business Conduct, or which may be inappropriate, unethical, corrupt or illegal.

The conduct does not need to be a breach of any law or illegal.

A Personal Work-Related Grievance that does not qualify as Reportable Conduct will generally be dealt with under the Company's ***DG-HR-ST016 Raising and Managing Complaints Standard***.

5 HOW IS A REPORT TO BE MADE?

5.1 Internal Reporting

The Company encourages that an employee's first contact should be made with the person's direct manager or supervisor or with the head of the business unit. If this is not appropriate, then a local human resources advisor or manager may be approached for initial advice as to whether the conduct might constitute Reportable Conduct.

An internal report can also be made to:

- any senior manager of the Company
- an officer of the Company; or
- the WPO.

5.2 External Reporting

If a person is unable or does not wish to make an internal report, or in circumstances where that person has made an internal report and believes that appropriate action was not taken, that person may make a report through the Our Voice service.

Our Voice is an external, independent service which allows people to report Reportable Conduct. All reports made to Our Voice may be made on an anonymous basis.

Our Voice can be contacted by:

- calling the Our Voice service:
  - 1800 448 041 (free call from within Australia)
  - 0800 404 509 (free call from within New Zealand)
  - 800 6167 042 (free call from within Singapore)
- going online ***http://www.ourvoice.deloittedigital.com*** (user name and password: downer)
- sending an email to ***ourvoice@deloittedigital.com***
- sending a letter:

Our Voice	Our Voice
Reply Paid 12628	PO Box 912028
A'Beckett Street	Victoria Street
MELBOURNE VIC 8006	West Auckland 1142

- sending a fax from anywhere in the world to +61 3 9691 8182.

Calls to the Our Voice service may be made at any time, 24 hours a day, 7 days a week and can be made from any country in which the Company operates. Calls are not recorded or traced.

The Our Voice operators taking the call are independent of the Company and are trained to assist Reporting Persons with their questions and reports.

A confidential reference number will be supplied by the Our Voice operator to the Reporting Person, to be used whenever the Reporting Person wishes to provide further information or request feedback on the report.

The Our Voice operator will prepare a report which will detail the Reportable Conduct reported and forward the report to the WPO for action.

All reports under this Policy will be treated seriously and will be investigated appropriately.

5.3 Reasonable Grounds

A Reporting Person should have reasonable grounds to suspect that Reportable Conduct has occurred or is about to occur. Where such reasonable grounds exist, a Reporting Person can still be entitled to protection even if the report is incorrect.

5.4 Report Content

It is important that Reporting Persons provide as much information as possible in their report. This will assist in any investigation of the Reportable Conduct.

6 WHAT HAPPENS AFTER A REPORT IS MADE?

6.1 Notifying the WPO of the Report

If a report is made internally to a senior manager of the Company or an officer of the Company, the person to whom the report is made should notify the WPO about the report.

If a report is made to Our Voice, the report will be provided to the WPO.

The person to whom the report is made will keep the identity of the Reporting Person, and information which could lead to their identification, confidential (subject to section *8 Are Reports Treated Confidentially*).

6.2 Assigning a WIO to Investigate the Report

Once the WPO receives the report, the WPO will decide whether to commence an investigation. If the WPO is satisfied that prima facie the report contains details of Reportable Conduct and an investigation is commenced, the WPO will assign the report to the relevant WIO. The WIO will be a person who is independent of the area of the business being investigated, the Reporting Person and any person the subject of the Reportable Conduct.

6.3 The WIO Investigates the Report

Once the WIO receives the report from the WPO, the WIO reviews the report and conducts an investigation.

The investigation by the WIO will be conducted fairly and objectively, and otherwise as is reasonable and appropriate having regard to the nature of the Reportable Conduct and the circumstances. Any person the subject the Reportable Conduct will be treated in accordance with the principles of natural justice.

An investigation by the WIO will usually involve the WIO talking to the person who has made the report (or their representative) about the report.

The WIO can speak with any person in the course of the WIO's investigation. The WIO can also obtain and review any materials (including documents and other records) the WIO thinks will be relevant to the WIO's investigation.

6.4 The WIO Makes a Finding

Once the WIO has completed the investigation, the WIO will make a finding about the report including that:

- there is none or insufficient evidence of Reportable Conduct
- there is none or insufficient evidence of Reportable Conduct but process, system or control issues require attention; or
- there is evidence of Reportable Conduct.

7 WHAT HAPPENS TO THE FINDING?

The WIO will report their findings to the WPO.

The WPO will notify the appropriate decision makers of the findings and together with the appropriate decision makers, will determine the appropriate response.

The outcome of all investigations and the responses to the reports will be reported to the Board.

Where appropriate and possible, the WIO or Our Voice will advise the Reporting Person about the response.

8 ARE REPORTS TREATED CONFIDENTIALLY?

A Reporting Person may make a report anonymously, or place restrictions on who is informed of their identity.

The identity of a Reporting Person will be treated confidentially, and will not be shared, unless:

- the Reporting Person has provided prior consent
- it is to prevent a threat to health or safety
- it is required or authorised by law (including if the Reportable Conduct is reported to ASIC, APRA, the Tax Commissioner or the Australian Federal Police); or
- the report is raised with a lawyer for the purpose of obtaining legal advice or representation.

However, a certain level of disclosure of information that could lead to the identification of the Reporting Person may be reasonably needed for the purposes of conducting an investigation into the Reportable Conduct. In that circumstance, the Company will take all reasonable steps to reduce the risk that the Reporting Person is identified.

9 HOW ARE REPORTING PERSONS PROTECTED AND SUPPORTED?

A Reporting Person who is a current employee may access the Company's Employee Assistance Program.

Where the Reporting Person has reasonable grounds to suspect that Reportable Conduct has occurred or is about to occur, and that person is not involved in the conduct the subject of the report, then the Company will ensure that no adverse or retaliatory action is taken against the Reporting Person including being dismissed, demoted, subjected to any form of discrimination or bullying, or subjected to any harassment, intimidation, threats, harm or injury, or damage to property, reputation, business or financial position (or others important to the Reporting Person).

There are practical limitations in the WPO's ability to protect a Reporting Person from adverse or retaliatory action if the Reporting Person chooses to be anonymous.

If any adverse or retaliatory action of this kind is taken by a person against the Reporting Person or his or her family, the Reporting Person should report the conduct immediately to the WPO.

A Reporting Person may ask the WPO to arrange for relocation or leave of absence while the report is being investigated. In these circumstances, the anonymity of the Reporting Person may be difficult to maintain but the WPO will take reasonable steps to ensure that it is preserved as far as practicable. However, the

Company is unable to make protections outside its control, for example, a Reporting Persons' employment conditions with another employer.

Any person who is found to have dismissed, demoted, harassed, discriminated, victimised, or retaliated against a Reporting Person will be subject to appropriate disciplinary action, including dismissal.

The Company retains the ability to raise with a Reporting Person any matter that arises in the ordinary course of their employment or engagement, or which relates to a grievance made by a Reporting Person about any matter relating to their employment or former employment.

If a Reporting Person is found not to have had reasonable grounds to suspect that Reportable Conduct has occurred or is about to occur, or has made malicious allegations without basis, then the Reporting Person may be subject to disciplinary action, including dismissal.

The Company may be unable to protect Reporting Persons from criminal prosecution.

9.1 Disclosures Outside This Policy

Under the *Corporations Act 1999* (Cth), an Eligible Person is entitled to certain protections in addition to this Policy if that person, having reasonable grounds to suspect that Reportable Conduct has occurred or is about to occur, makes a report of that conduct to an Eligible Recipient. Subject to certain exceptions, these protections include:

- immunity from any civil, criminal or administrative legal action (including disciplinary action) for making the report
- no contractual or other remedy or right may be enforced or exercised against the Eligible Person for making the report
- the report is not admissible against the Eligible Person in criminal proceedings or in proceedings for the imposition of a penalty
- the Eligible Person's identity cannot be disclosed to a court or tribunal except where considered necessary
- anyone who causes or threatens to cause detriment to the Eligible Person or another person in the belief or suspicion that a report has been made, or may have been made, proposes to or could be made, may be guilty of an offence and may be liable for damages; and
- the person receiving the report commits an offence if they disclose the substance of the report or Eligible Person's identity, without the Eligible Person's consent, to anyone except if it is required or authorised by law.

The ASIC website contains information on those protections and the conditions that must be met for the protections to apply.

The *Tax Administration Act 1953* (Cth) contains similar protections. The ATO website contains information on those protections and the conditions that must be met for those protections to apply.

We encourage Eligible Persons to make a report in the first instance to the Company, so that the Company can identify and address the Reportable Conduct as early as possible.

10 ARE REPORTS KEPT?

All information, documents, records and reports relating to the investigation of Reportable Conduct will kept confidential and will be securely stored.

11 WHO IS THE WPO?

The WPOs are the Group General Counsel of Downer EDI Limited and the Company Secretary of Downer EDI Limited.

The WPO is responsible for ensuring that the Company carries out its obligations in accordance with this Policy and the law, receiving reports, ensuring the confidentiality of the report, protecting a Reporting Person's

identity (as far as reasonably possible), allocating the reports to the appropriate WIO for investigation, and protecting the Reporting Person from adverse action and retaliation.

The WPO has access to independent financial, legal and operational advice as needed.

12 WHO IS THE WIO?

The WIO must be a person who is independent of the area of the business being investigated, the Reporting Person and any person the subject of the Reportable Conduct. The WIO is appointed by the WPO.

The WIOs are responsible for investigating a report and determining whether there is enough evidence to support the claims made in the report.

13 REVIEW OF THIS POLICY

The Board will review this Policy on a regular basis (but at least once every two years) to ensure it is in line with legislative and regulatory requirements and leading practice.

14 REFERENCED & ASSOCIATED DOCUMENTS

STANDARDS

DG-HR-ST016	Raising and Managing Complaints Standard
DG-CS-ST002	Standards of Business Conduct

REGISTERS

Definitions Register

LEGISLATIVE REQUIREMENTS

Corporations Act 1999 (Cth)

Tax Administration Act 1953 (Cth)