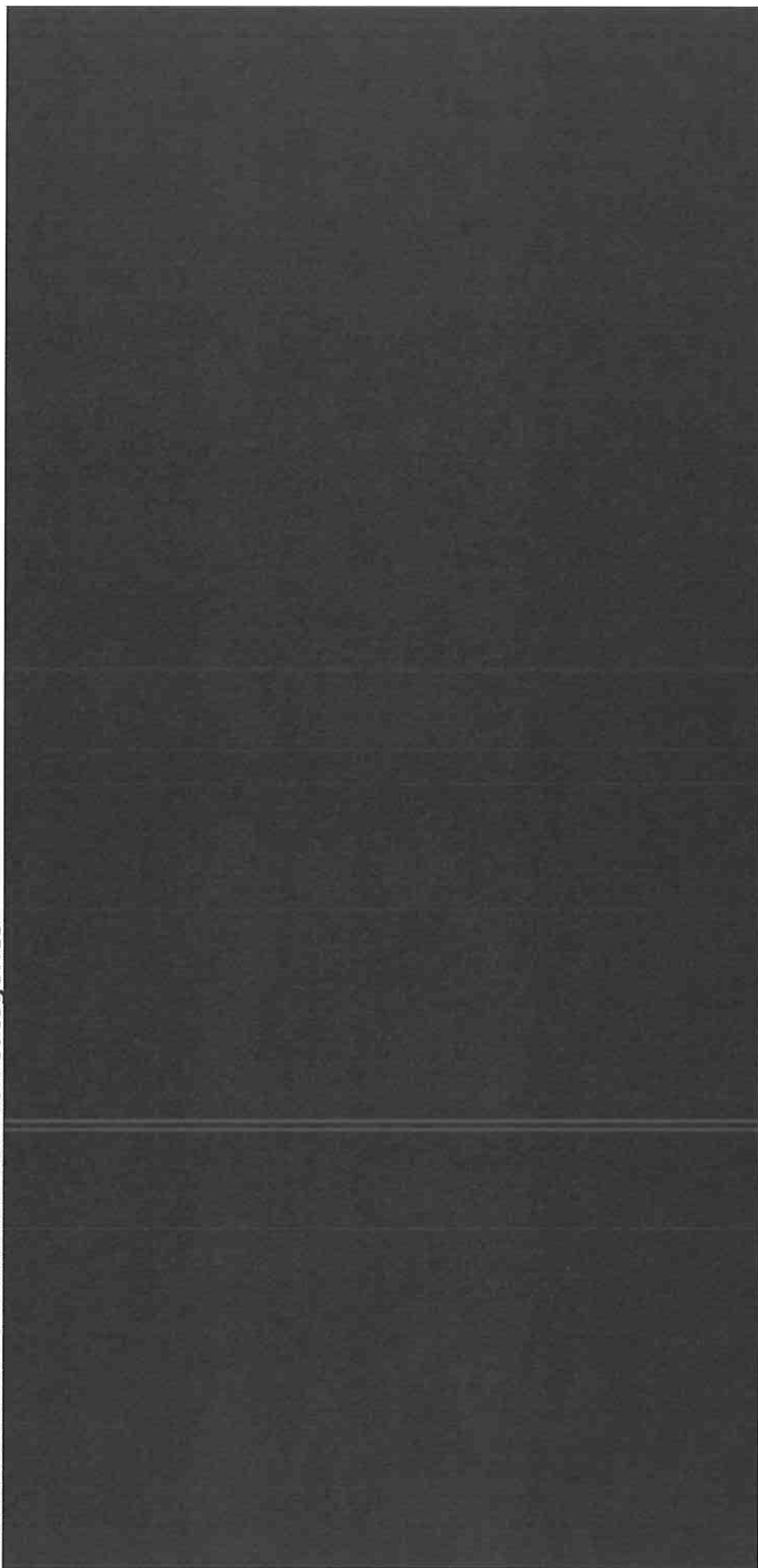


Risk Overview

ACT Government risk appetite shows 'Broad Distribution of Risk'

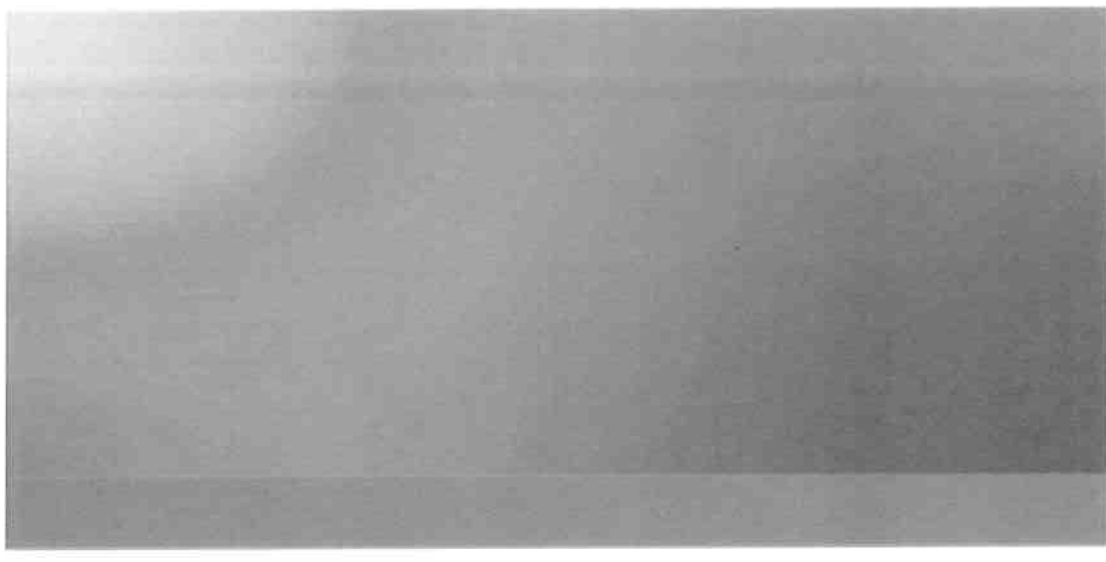
Transfer		Own		Share	
Transfer the risk	9 Risks	Treat the risk & own	27 Risks	Share the risk & monitor	10 Risks
Treat the risk & transfer residual	7 Risks	Accept the risk & monitor	5 Risks	Treat the risk & share	7 Risks
		Accept the risk, treat & monitor	5 Risks		
		Eliminate the risk	5 Risks		
		Further Investigate the risk to understand more	1 Risk		
Transfer	20 Risks	Own	43 Risks	Share	17 Risks

Risk Overview - Distribution of Risk Categories



Proposed Assessment Criteria

Discuss each Criteria & select those to be included in the
MCA



Proposed Assessment Criteria

- Time to Market
 - Operational flexibility
- Time to deliver project
 - Market interest
- Project interfaces
 - Construction Innovation
- Budget certainty
 - Simplicity
- Flexibility - future scope changes
 - Quality
- Risk Management
 - Community and Stakeholder
- Stakeholder management
 - Whole-of-life Innovation

Proposed Assessment Criteria

Criteria	Description
Time to Market	The extent of each procurement option to lend themselves to go to market quickly and engage designers to do the detailed design and contractors to start early works packages
Time to deliver project	The extent to which each procurement option is able to: • Support optimum time certainty for the Principal in relation to construction completion and commencement of operations. • Enable benefits realisation (thus efficient funding)
Project interfaces	The extent to which each procurement option can provide flexibility to support delivery timeframes of other concurrent or planned projects in the Principals 'pipe-line'

Proposed Assessment Criteria

Criteria	Description
Budget certainty	The extent to which each procurement option assists the Principal to confidently predict cost (i.e. certainty around capital costs / operating and maintenance expenditure associated with the project assets / quantum of public funding where required).
Flexibility -future scope changes	The extent to which each procurement option assists the Principal in managing and implementing changes to the functional and scope requirements of the project over time (particularly in relation to any variation in performance requirements e.g. required capacity of the road and changes in legislation)
Risk Management	The extent to which each procurement option provides incentives effectively and efficiently to manage and reduce risks via an effective and efficient risk allocation to the parties best able to manage and price risk. *Refer also to 'Risk Overview' slides.

Proposed Assessment Criteria

Criteria	Description
Stakeholder management	The extent to which each procurement option assists the Principal in managing stakeholders through the delivery of the project.
Operational flexibility	The extent to which each procurement option enables the Principal to retain flexibility in terms of the operational profile, and / or allows operational performance via incentives and risk allocation.
Market interest	The extent to which each procurement option assists in: • Maximising market interest amongst the appropriate market participants with the relevant skills, expertise and capacity to deliver the project, and • Supports competitive pricing.

Proposed Assessment Criteria

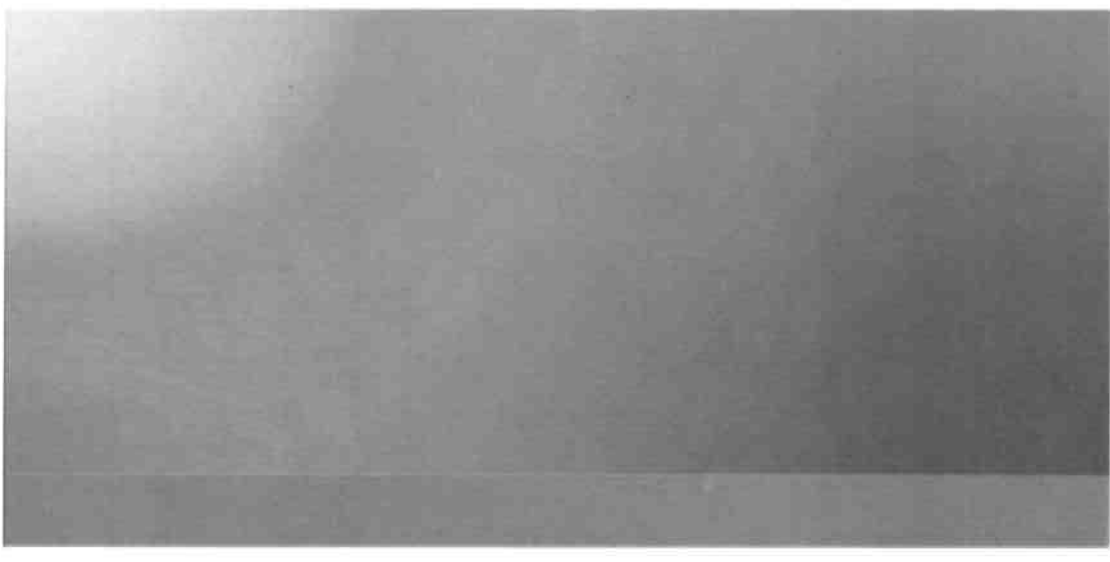
Criteria	Description
Construction Innovation	The extent to which a procurement option provides incentives for the private sector to introduce new or change ideas, approaches, methodologies, materials and buildability options during design & construction.
Simplicity	The extent to which the procurement option requires government development and tender costs and resources. The degree to which an option helps minimise the need to implement overly complex and/or unprecedented (domestic or international) contract & commercial structures and the extent to which it allows for genuine transparency over the true cost of the bid and fair comparison of bidder proposals.
Quality	The extent to which each procurement option supports achieving the Principals performance and quality requirements.

Proposed Assessment Criteria

Criteria	Description
Community and Stakeholder	The extent to which the procurement option may: • assist in minimising impacts on communities, • satisfy political considerations, • support environmental objectives, • assist in protection of cultural assets, and • assist's in optimising the use of natural resources.
Whole-of-life Innovation	The extent to which the procurement option supports satisfying the performance expectations and generate additional value to the Principal and users (through cost savings, optimising toll revenues, additional sources of revenues, enhanced user experience, innovative technical solutions.

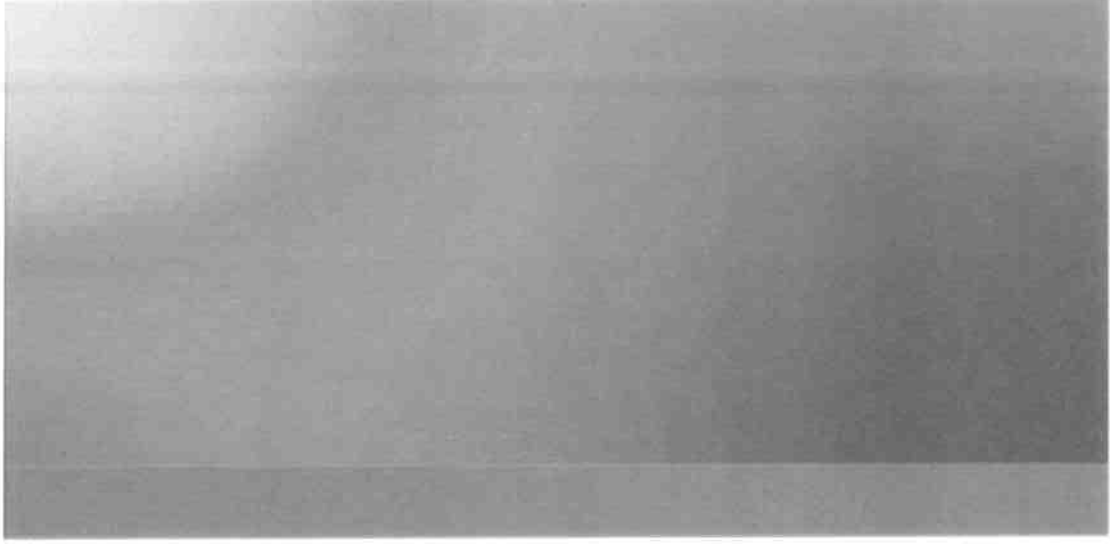
Assessment Criteria Weightings

Discuss the importance of each selected Criteria and agree weightings for each out of a total of 100



Scoring

Review of the proposed Scoring Matrix



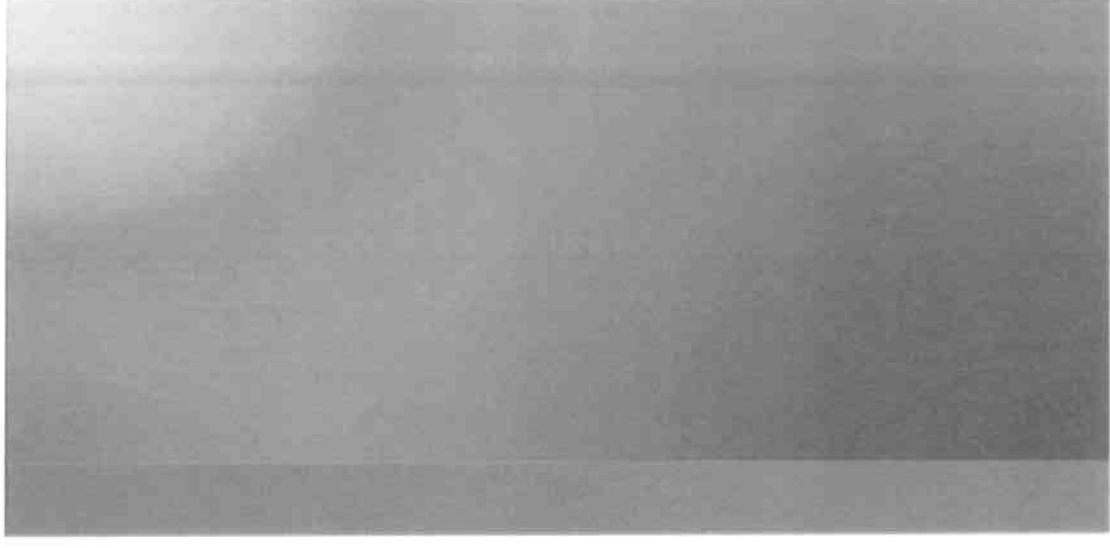
Scoring Matrix

Score	Definition
5	Exceeds - The Procurement Model exceeds the requirements of the Criterion.
4	Good - The Procurement Model satisfies all the requirements of the Criterion. The Procurement Model is considered a good fit against all the requirements of the Criterion.
3	Adequate - The Procurement Model Adequately satisfies the requirements of the Criterion. The Procurement Model contains few or very limited deficiencies against the Criterion, however these are considered acceptable.
2	Deficient - The Procurement Model satisfies few or very limited requirements of the Criterion. The Procurement Model is mostly deficient for use against the Criterion and unlikely to be acceptable.
1	Unacceptable -The Procurement Model does not satisfy any of the requirements of the Criterion and is unacceptable for use against the Criterion.

Next Steps

Each Participant to prepare for Workshop 2

For each Criteria selected today, score each Procurement Model using the Scoring Matrix



Monaro Highway Upgrade Program

Procurement Study Phase 3
Multi Criteria Analysis (MCA) Workshop
18 August 2020

Agenda

Item	Lead	Approx Time
Introductions	All	10:30
Project Update	Stuart	10:40
Assessment Criteria introduction & review of selected 6 procurement models for MCA	Jonathan	10:50
Multi Criteria Assessment - unweighted	All	11:10
Review of unweighted MCA scoring	Jonathan	12:10
MCA Categories weighting & overall results	Jonathan	12:15
Next Steps & Close		12:30

Workshop Objectives

The objective of today's Multi Criteria Analysis (MCA) workshop is to:

Identify the preferred delivery model for the Monaro Highway Lanyon Drive Interchange Project by appraising a list of selected delivery models against a set of agreed project performance criteria

Workshop Facilitation Guidance

- Participation – all contributions considered and included in the ideas, solution or decisions that emerge
- Cameras on please – lets make this digital workshop as real as we can
- Chat function – can be used to ask questions
- Have patience – things may take slightly longer than normal and not as easy as being all in the same room
- Be polite and courteous to each other
- Interruptions and distractions – Please be on mute if you have a noisy background
- Parking lot – Need to maintain momentum, capture unresolved items on the Teams chat function
- Outcomes, actions and questions will be properly recorded and circulated
- We will schedule a break around 11:30 or when there is a natural point
- Technological issues – Backups etc

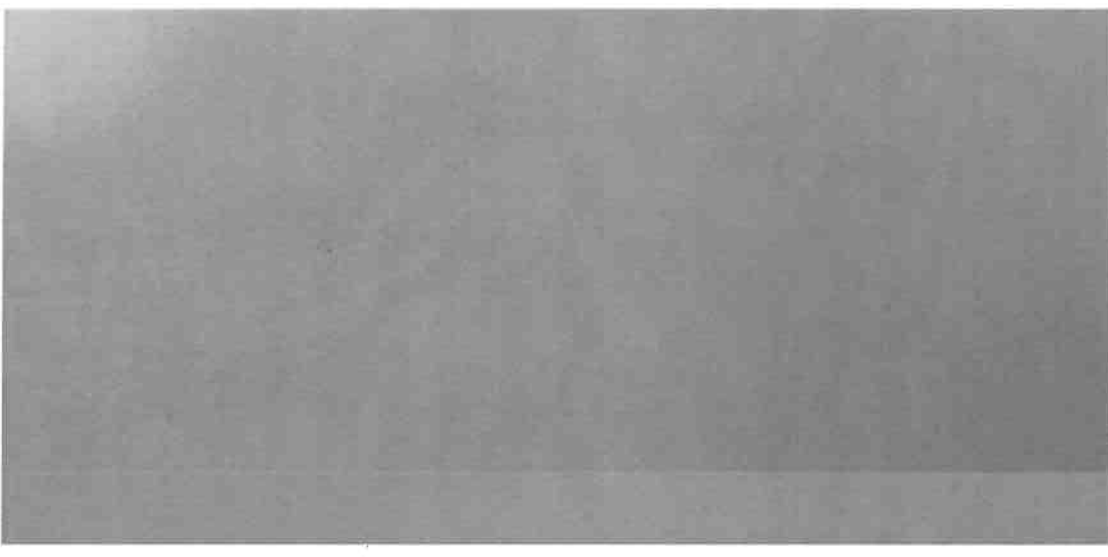
Introductions

- Name
- Organisation / department
- Role on the Monaro Highway upgrade project

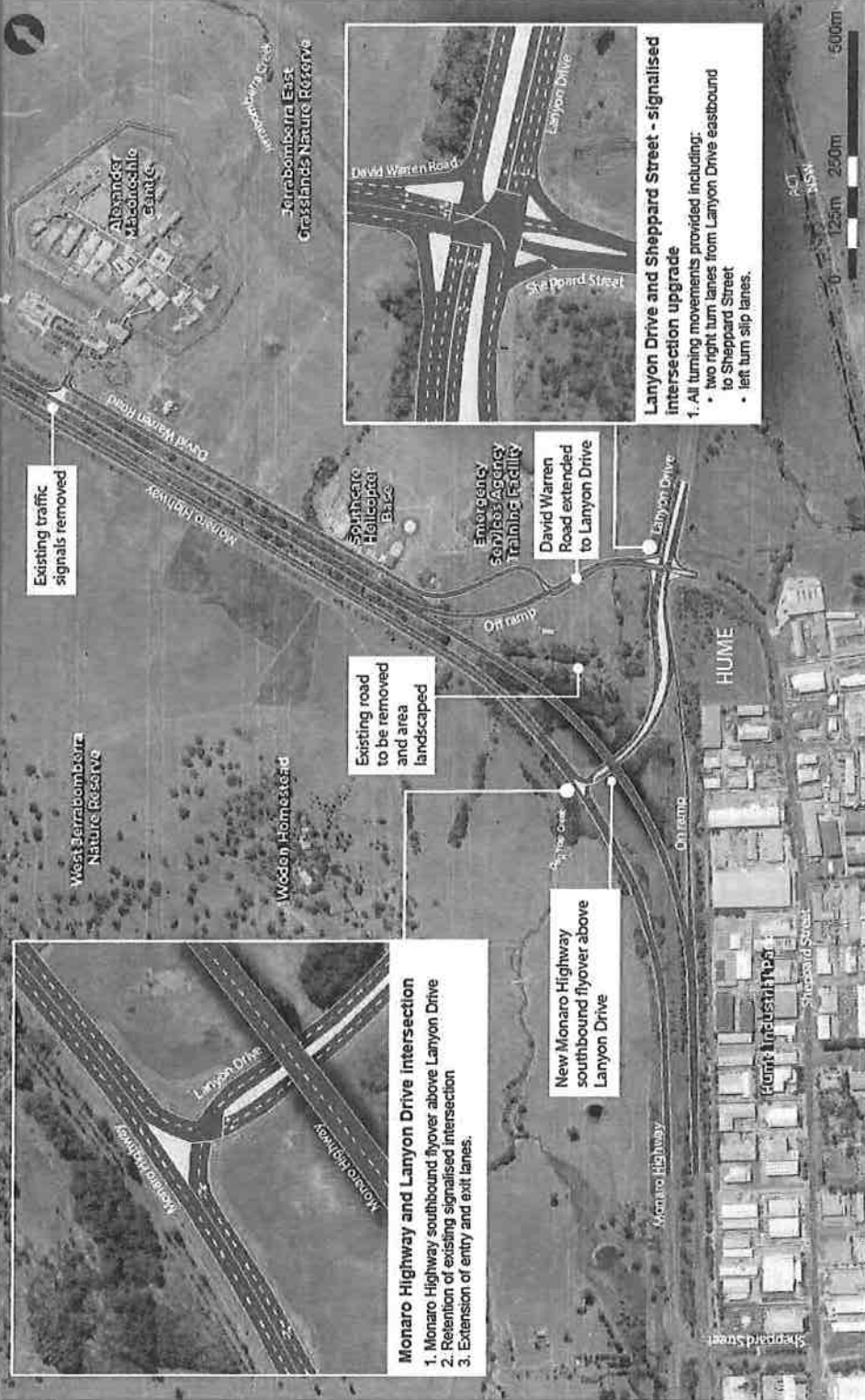
Attendees

- Jonathan Key – Jacobs Facilitator/ MCA lead
- Mark Anslow – Jacobs Commercial Manager
- Randy Akroush – Jacobs Project Manager
- Nathan Greig – TCCS. Senior Manager, Infrastructure Delivery
- Stuart Oxborrow – TCCS. Senior Engineer, Infrastructure Delivery
- Leon Mayers – MPC. Project Procurement Officer
- Andrew Crompton – Consultant/ Advisor
- Meghan Oldfield – TCCS. Executive Group Manager, Infrastructure Delivery & Waste
- Kristine Scheul – TCCS. Executive Branch Manager. Legal & Contracts
- Catriona Vigor – Senior Director, Treasury
- Wilhelmina Blount – Executive Branch Manager, Treasury
- Jeff Hart – MPC. Senior Director, Project Development.
- Shelly Fraser – TCCS. Executive Branch Manager. Roads ACT
- Jeremy Smith – TCCS. Executive Branch Manager, Infrastructure Delivery
- Owen Earl – TCCS. Director, Infrastructure Planning
- Sophie Gray– MPC. Director Civil Procurement
- Sri Tharan – MPC. Director Project Procurement
- Elizabeth Kirkham– Assistant Director, Treasury
- Ben Hubbard – TCCS. Senior Director Traffic Management & Safety
- Stephen Hare
- David Gray

Project Overview and Early Works Packages



Monaro Highway and Lanyon Drive upgrade



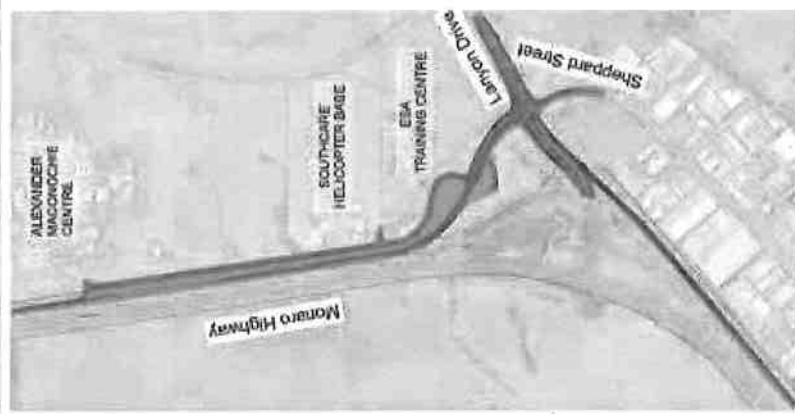


Figure 4 - Package 1C

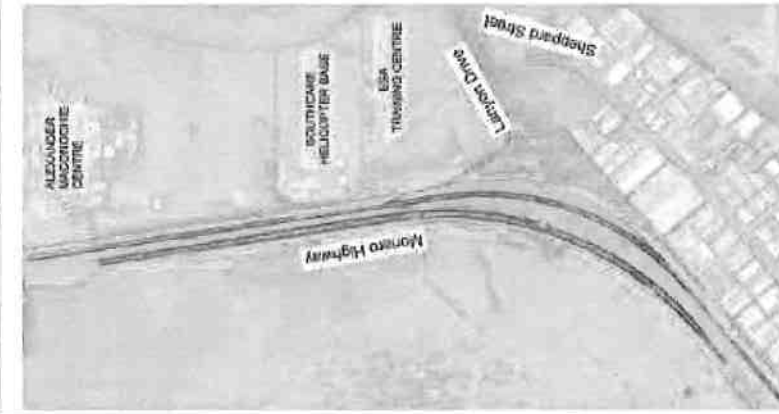


Figure 3 - Package 1B

Early Works Packages Update

Utilities

Protection and relocation of utilities within the Designated Land road corridor (ie Package 1B).

- Utilities Detailed Design currently being tendered for delivery by Dec 2020
- Utilities Construction to commence early 2021 (approx. 4-6 months)

In awarding the Utilities Package early, the risk profile of the project will be different and some of the risks identified during the risk workshop will have been mitigated. It is envisaged that the Utility Construction Package will be run in parallel with the initial phases of early works package

Procurement Options and Delivery Model – Journey so far

Jacobs has been commissioned to undertake a Procurement Options and Delivery Model Study (Study) (specifically for the Lanyon Drive Interchange), as follows:

Phase 1: Risk and Opportunity Assessment

Output: Consolidated risk register

Phase 2: Delivery Models Phase.

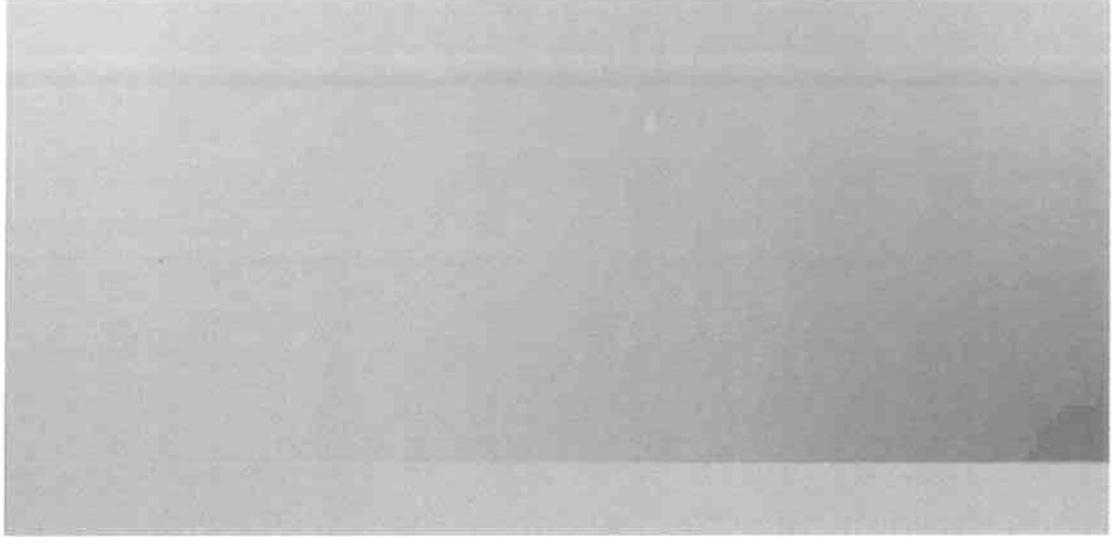
Review of possible delivery models and procurement options available. In this stage we compared the advantages and disadvantages of proposed delivery models and provided guidance on the applicability of each. This phase has resulted in a delivery model shortlist for inclusion in Phase 3 Multi Criteria Analysis (refer attached Phase 2 report).

Phase 3: Multi Criteria Analysis (MCA) Phase.

There has been a pre-MCA workshop to confirm the delivery model shortlist, confirm assessment criteria and confirm assessment criteria weighting which will be discussed in more detail shortly.

Assessment Criteria

Introduction



Project Objectives

Project Delivery

1. No WHS incidents during construction
2. Achieve value for money in delivery. Project budget for entire Monaro Upgrade is \$200m
3. Substantial works commencing on site before June 2021.
4. Deliver the scheme with minimum impact on local heritage and the environment.
5. Address and incorporate stakeholder concerns, where possible.
6. Meet policy guidelines – e.g. Local Industry Participation Policy, Secure Local Jobs, Indigenous Participation.

Project Performance Outcomes

1. Increase posted road speed to 100kph in line with the rest of Monaro highway
2. Improve travel times in AM and PM peaks for current and future (2031 and 2041) traffic demands
3. Minimal impact to existing traffic during construction

Pre-Workshop – Selected Criteria

Considered

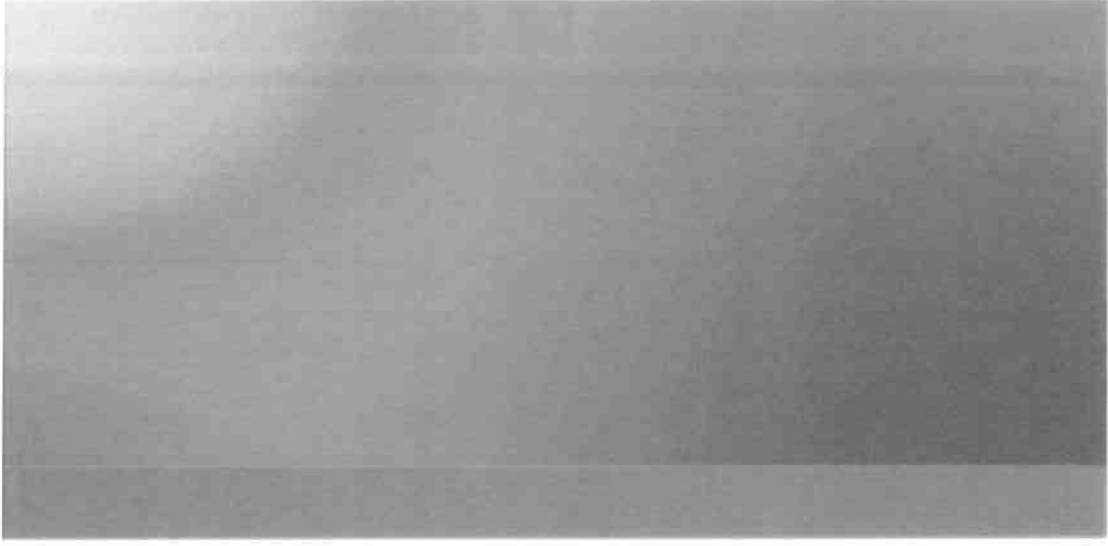
1. Time to market
2. Time to deliver project
3. Project interfaces
4. Cost /Budget certainty
5. Flexibility
6. Operational flexibility
7. Risk Management
8. Community & Stakeholder Government
9. Work Health Safety
10. Market Interest
11. Construction Innovation
12. Whole of life Maintenance / Innovation
13. Quality
14. Environmental
15. Simplicity

Pre-Workshop – Selected Criteria

Considered	Selected
1. Time to market 2. Time to deliver project 3. Project interfaces 4. Cost /Budget certainty 5. Flexibility 6. Operational flexibility 7. Risk Management 8. Community & Stakeholder Government 9. Work Health Safety 10. Market Interest 11. Construction Innovation 12. Whole of life Maintenance / Innovation 13. Quality 14. Environmental 15. Simplicity	1. Risk Management – Alignment of risks 2. Certainty on Time / Schedule 3. Certainty on Budget 4. Quality, design objectives, Operations & Maintenance 5. Flexibility including future scope & design changes 6. Community & Stakeholder Government 7. Innovation 'Grouped into' or 'included within' Selected Criteria 1. Time to market 2. Time to deliver project 3. Project interfaces Not Selected 9. Work Health Safety 10. Market Interest 11. Construction Innovation 12. Whole of life Maintenance / Innovation 13. Quality 14. Environmental 15. Simplicity

More definition of each criteria provided later

Proposed Procurement Models



Procurement Models – Recommended from Phase 2 (for MCA assessment)

- Traditional (Construct Only).
 - Design & Construct - Performance Specification Design and Construct (PSD&C).
 - Design & Construct - Design, Develop and Construct (DD&C).
 - Design & Construct - Design, Novate and Construct (DN&C).
 - Project Management Agreement (PMA)/ Construction Management
 - Managing Contractor (MC)
-
- Early Contractor Involvement / Early Tender Involvement is always and option with all models above

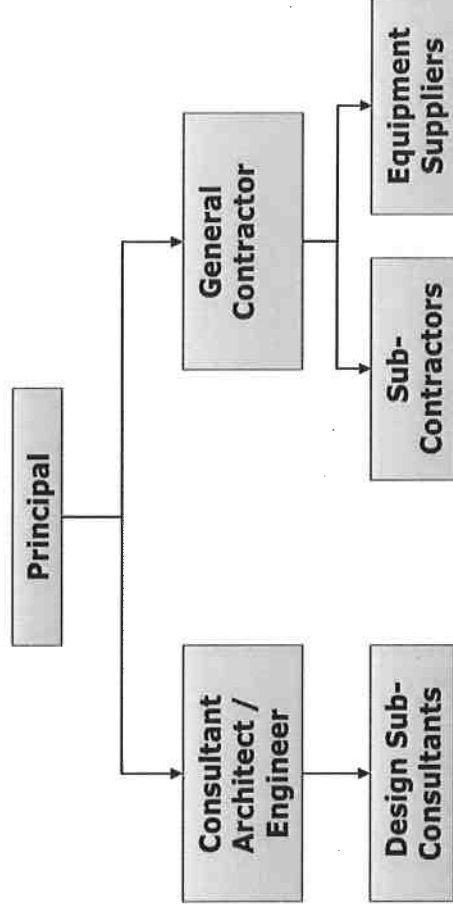
Procurement Models – Not Recommended

- Design & Construct - Design, Construct and Maintain (DC&M)
- Design & Construct – Design Construct Maintain Operate (DCMO)
- Alliance
- PPP BOOT
- PPP Availability

Traditional Construct Only

Summary

- Principal responsible for the project design
- Principal engages a design team to develop the design
- Contractor competitively tenders a contract price for the client designed works
- Usually lump sum and / or schedule of rates



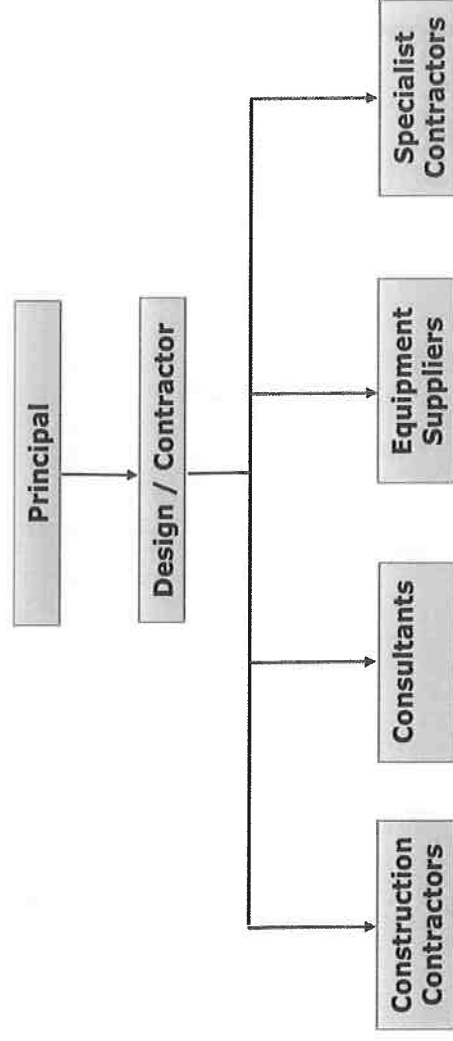
Typical sequence:



Design & Construct - Performance Specification Design and Construct (PSD&C)

Summary

- Principal prepares a Performance Specification (design brief)
- Contractor competitively tenders design & construction contained in the design brief
- Usually lump sum



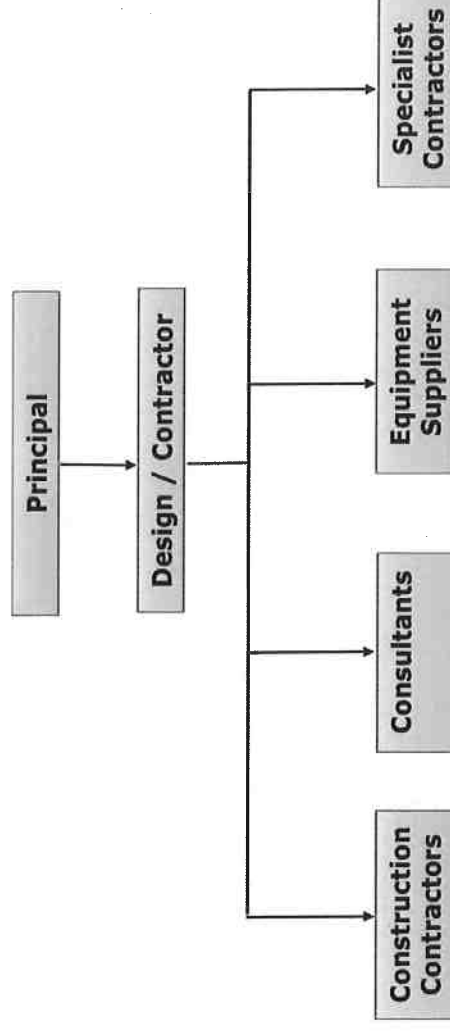
Typical sequence:



Design & Construct - Design, Develop and Construct (DD&C)

Summary

- Variation to the PSD&C model
- Principal prepares a preliminary design in addition to performance specification
- Contractor competitively tenders detailed design & construction contained in the schematic design
- Contractor develops the detailed design
- Usually lump sum



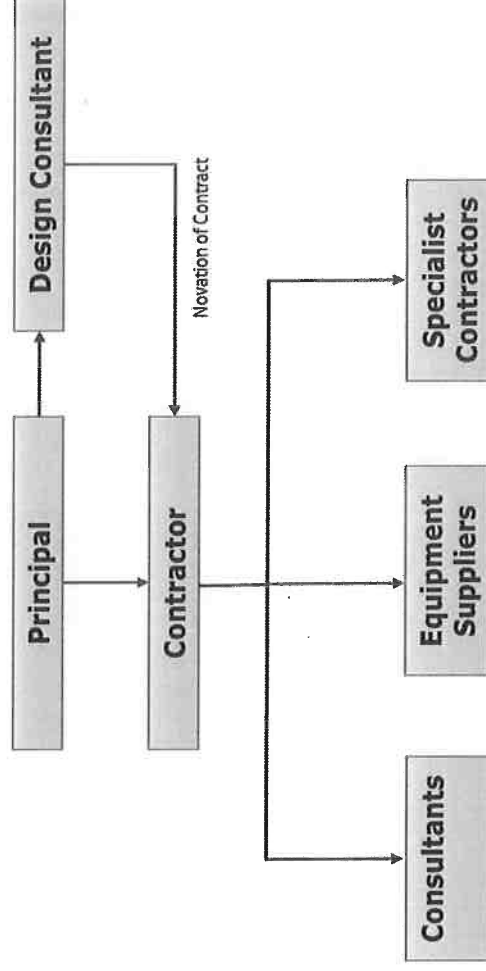
Typical sequence:



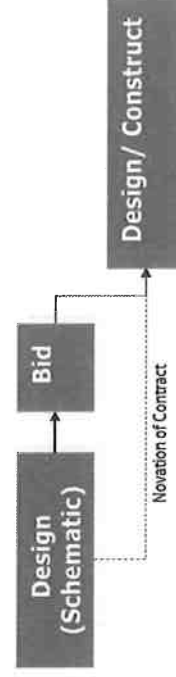
Design & Construct - Design, Novate and Construct (DN&C)

Summary

- Principal engages a designer to prepare a preliminary design, then based on that design, the Principal competitively engages a D&C Contractor and novates the preliminary designer to that Contractor
- Contractor takes on design & construction including payment of the designer's fees



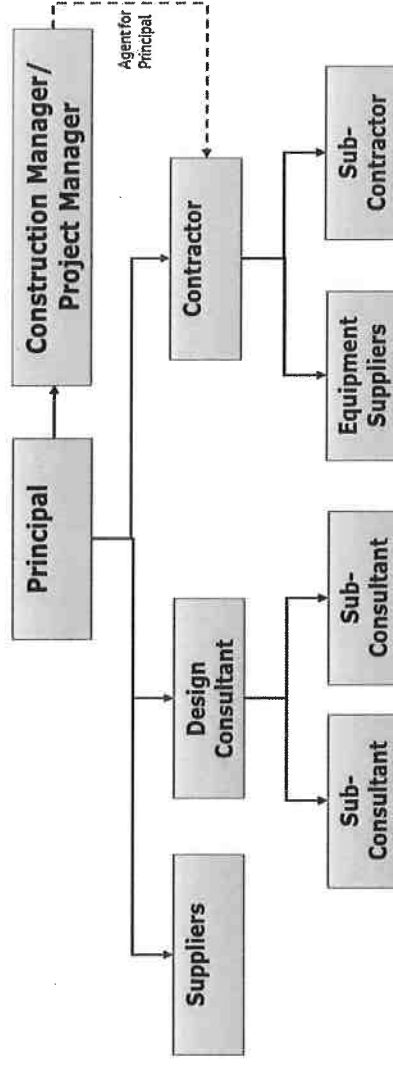
Typical sequence:



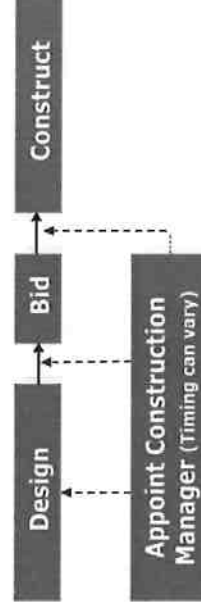
Project Management Agreement (PMA) / Construction Management

Summary

- Principal engages a consultant to prepare design and contract documents.
- Principal also contracts a project manager and construction manager
- Project manager and construction manager's role are predominantly one of Principal's advisor and administrator



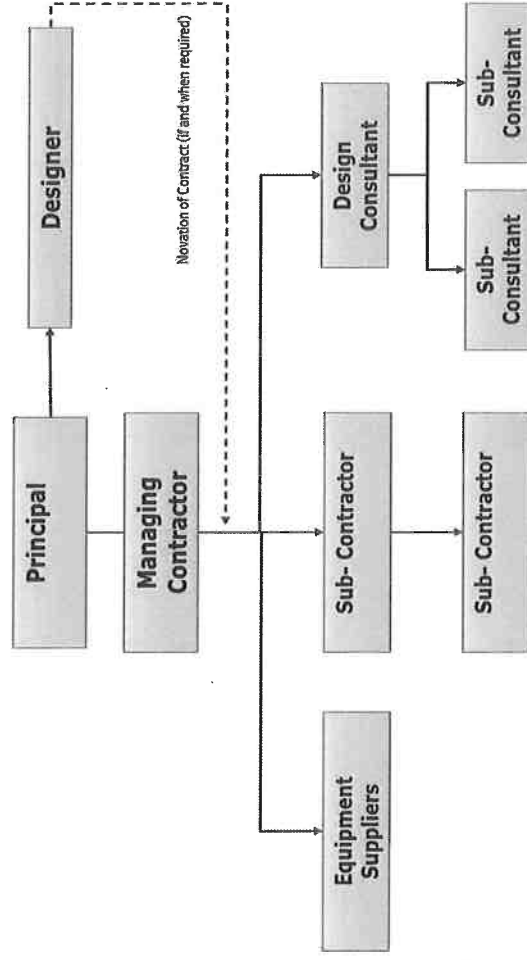
Typical sequence:



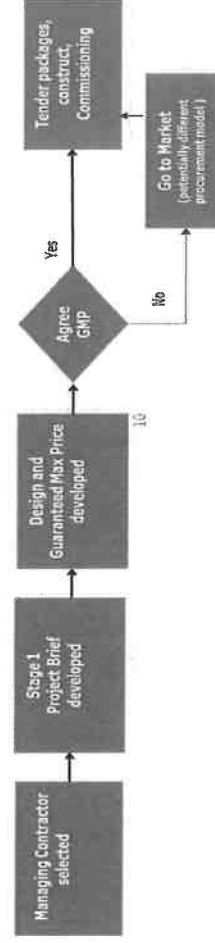
Managing Contractor (MC)

Summary

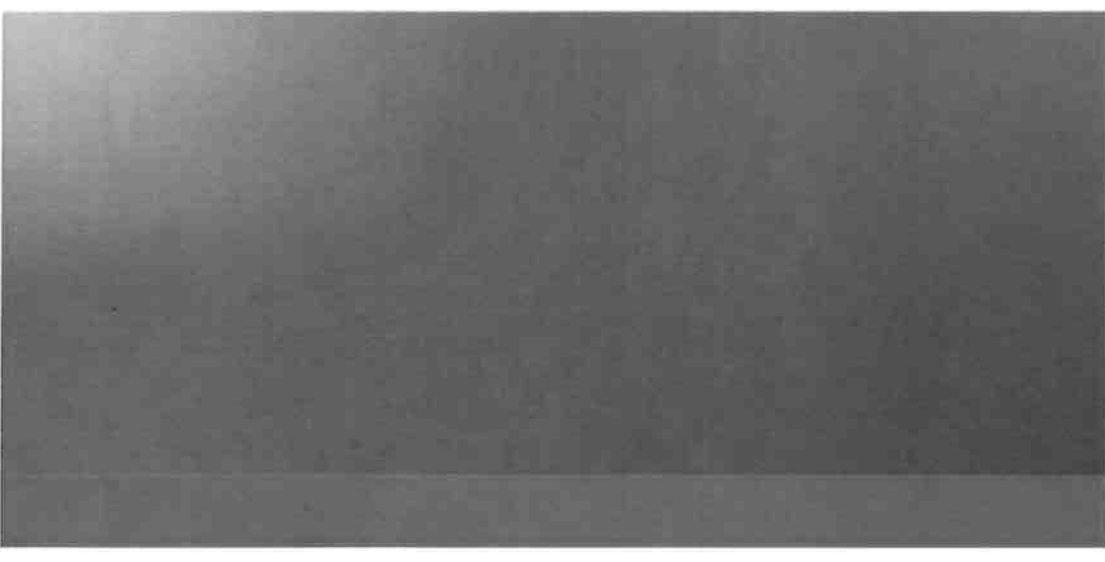
- Principal engages a consultant to prepare design and contract documents.
- Principal also contracts a project manager and construction manager
- Project manager and construction manager's role are predominantly one of Principal's advisor and administrator



Typical sequence:



Workshop Assessment Criteria



Scoring Matrix

Score	Definition
5	Exceeds - The Procurement Model exceeds the requirements of the Criterion.
4	Good - The Procurement Model satisfies all the requirements of the Criterion. The Procurement Model is considered a good fit against all the requirements of the Criterion.
3	Adequate - The Procurement Model Adequately satisfies the requirements of the Criterion. The Procurement Model contains few or very limited deficiencies against the Criterion, however these are considered acceptable.
2	Deficient - The Procurement Model satisfies few or very limited requirements of the Criterion. The Procurement Model is mostly deficient for use against the Criterion and unlikely to be acceptable.
1	Unacceptable -The Procurement Model does not satisfy any of the requirements of the Criterion and is unacceptable for use against the Criterion.

Criterion 1 – Risk Management/ Alignment of Risks

The extent to which each procurement option provides incentives to manage and reduce risks via an effective and efficient risk allocation to the parties best able to manage and price risk.

Context

- Achieves appropriate risk allocation.
- Risks are allocated to those best placed to manage them.
- Allocates those risks to the ACT Govt and appropriate to accept
- Aligns with ACT Govt risk profile
- Everyone working to identify and manage risks

ACT Government Risk Appetite

During Phase 1 we conducted a risk assessment workshop and 80 risks were identified.

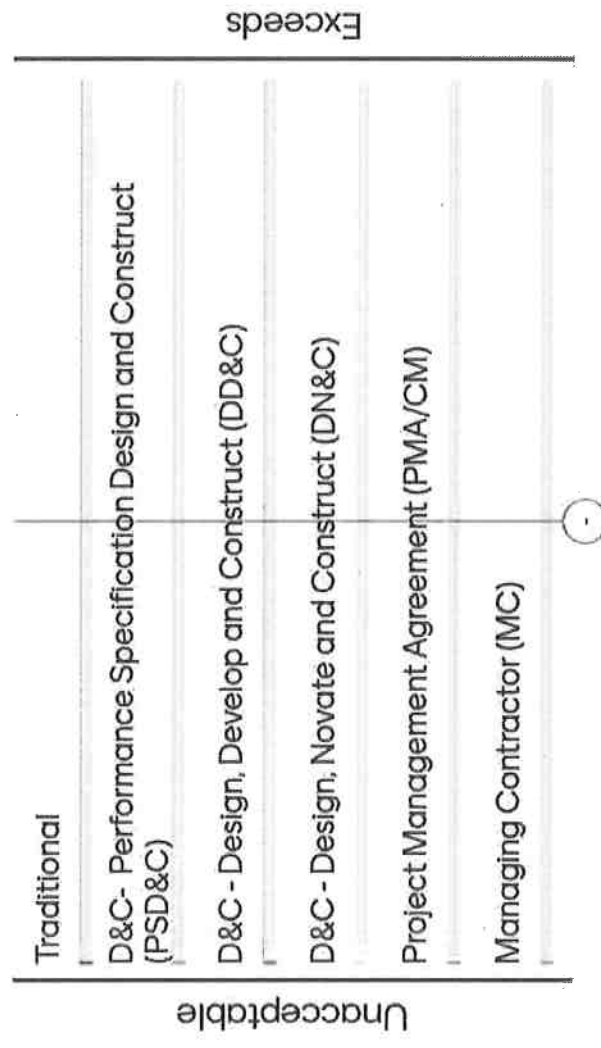
Each risk was reviewed and mitigated using the following strategies:

1. Eliminate the risk
2. Transfer the risk
3. Share the risk and monitor
4. Accept the risk and monitor
5. Accept the risk, treat and monitor
6. Treat the risk and transfer residual
7. Further investigate risk
8. Treat risk and own
9. Treat risk and share

Typical allocation on risk on standard delivery models (unaltered)

Risk Type	Traditional (Construct Only)	Design & Construct - Performance Specification Design and Construct (PSD&C)	Design & Construct - Design, Develop and Construct (DD&C)	Design & Construct - Design, Novate and Construct (DN&C)	Project Management Agreement (PMA/CM)	Managing Contractor (MC)
Scope / Specification risks						
Site availability and access risk						
Operating performance risks						
Maintenance risks						
Operating cost escalation risks						
Change in specification risks						
Change in legislation risk						
Industrial relations risk						
Land acquisition risks						
Environmental approvals risks						
Planning approvals risks						
Interface Risk						
Design risks						
Construction risks						
Construction cost escalation risk						
Construction quality risks						
Supplier risk						
Site condition risk						
	Own	Own	Own	Own	Own	Own
	Transfer	Transfer	Shared	Transfer	Transfer	Transfer
	Own or Transfer	Own or Transfer	Own or Transfer	Own or Transfer	Own or Transfer	Own or Transfer

Criterion 1 – Risk Management/ Alignment of Risks Scoring (example)



Criterion 1 – Risk Management/ Alignment of Risks Scoring (example)

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Criteria 1: Alignment of Risk

Traditional
1 Unacceptable 3 Adequate 5 Excellent

D&C - Performance Specification Design and Construct (PSD&C)
1 Unacceptable 4 Good 5 Excellent

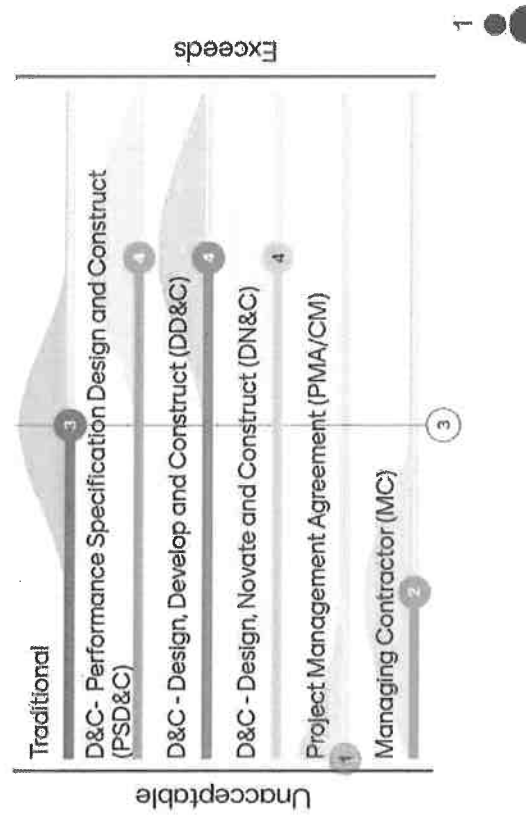
D&C - Design, Develop and Construct (DD&C)
1 Unacceptable 4 Good 5 Excellent

D&C - Design, Novate and Construct (DN&C)
1 Unacceptable 4 Good 5 Excellent

Project Management Agreement (PMA/CM)
1 Unacceptable 5 Excellent

Managing Contractor (MC)
1 Unacceptable 2 Deficient 5 Excellent

Submit



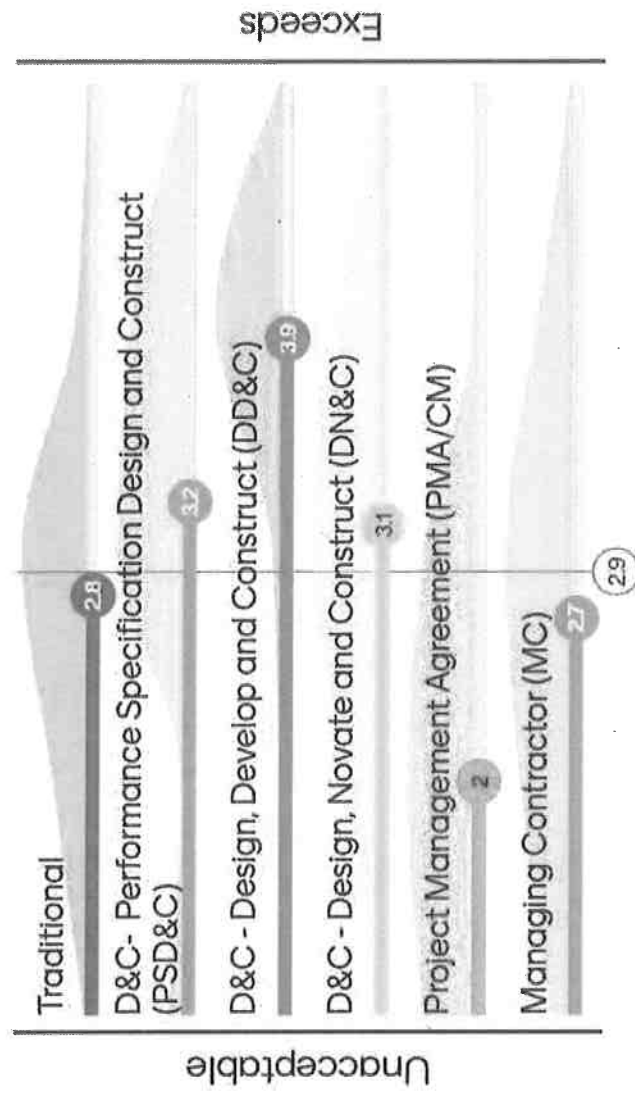
Criterion 1 – Risk Management/ Alignment of Risks Scoring



Score	Definition – Alignment of risk profile
5	Best/ Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Poor / Unacceptable

Unacceptable	Traditional
	D&C- Performance Specification Design and Construct (PSD&C)
	D&C - Design, Develop and Construct (DD&C)
	D&C - Design, Novate and Construct (DN&C)
	Project Management Agreement (PMA/CM)
	Managing Contractor (MC)
	Exceeds

Criterion 1 – Risk Management/ Alignment of Risks Scoring Results



Criterion 2 – Certainty on Time/ Schedule

The extent to which each procurement option provides the greatest level of certainty to the delivery of the final and key intermediate milestones on, or ahead of time

Context

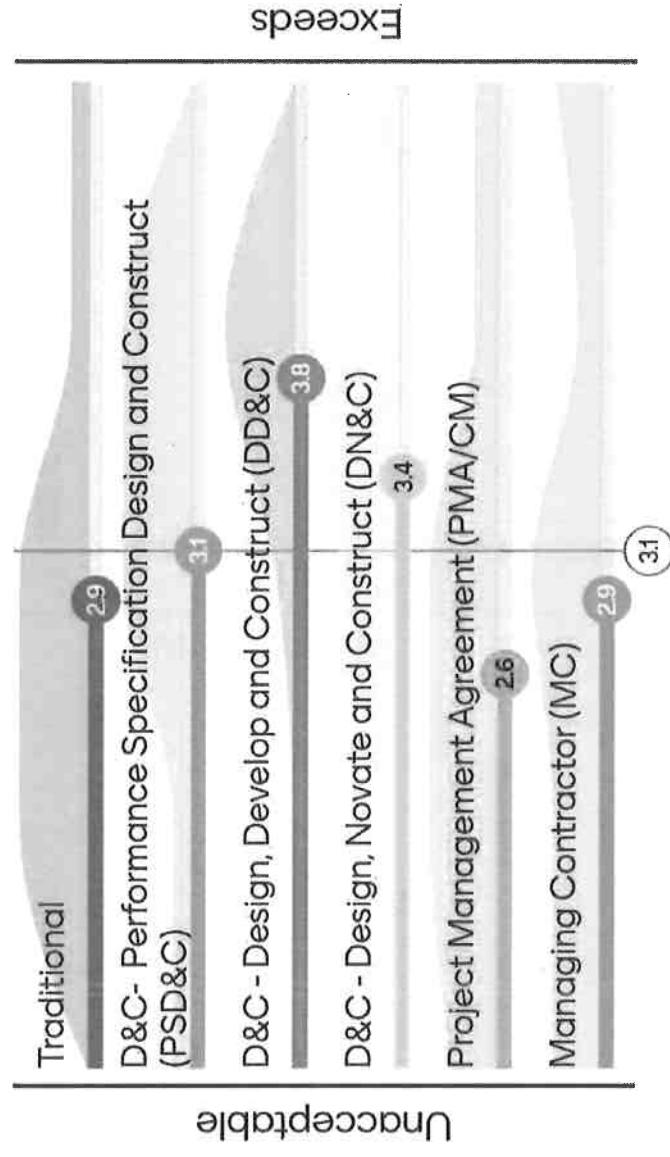
- Time to market - Substantial works commencing on site before June 2021(Partially mitigated by early works packages)
- Interface / flexibility to support delivery timeframes of other concurrent or planned projects in the Principals 'pipe-line
- Early civil works package completed within 30 months of award.

Criterion 2 – Certainty on Time / Schedule

Score	Definition – Confidence of achieving or bettering key milestones
5	Very High / Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Low / Unacceptable

Traditional	
D&C- Performance Specification Design and Construct (PSD&C)	
D&C - Design, Develop and Construct (DD&C)	
D&C - Design, Novate and Construct (DN&C)	
Project Management Agreement (PMA/CM)	
Managing Contractor (MC)	
	Exceeds

Criterion 2 – Certainty on Time / Schedule Results



Criterion 3 – Certainty on Budget

The extent to which each procurement option assists the Principal to confidently predict cost (i.e. certainty around capital costs / operating and maintenance expenditure associated with the project assets / quantum of public funding where required).

Context

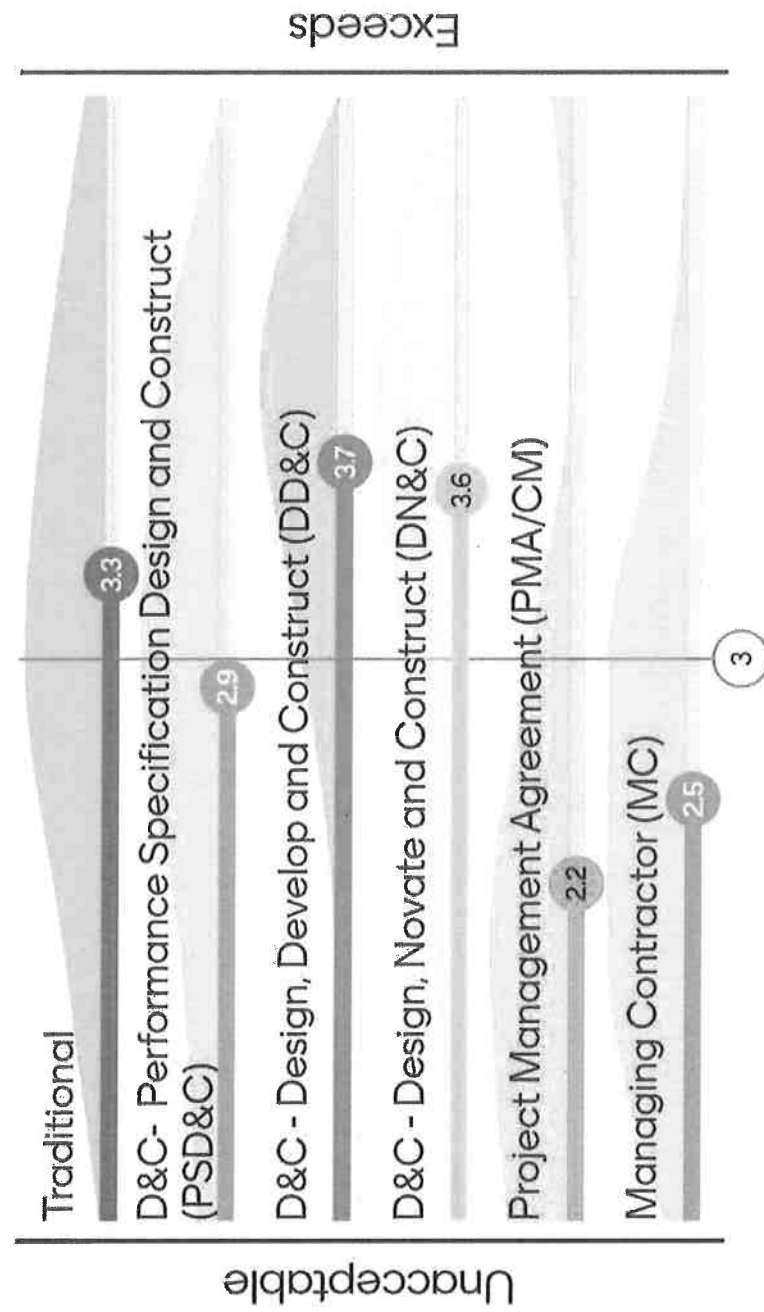
- Package 1 complete under \$100m, for a total project cost of \$200m
- No need to go back to Treasury / Business Case (for unplanned or additional funding)
- Adequate contingencies allocated to cover uncertainties/ additional works
- Appropriate framework in contract for managing contingencies
- Cost of managing the delivery model

Criterion 3 – Certainty on Budget

Score	Definition – Confidence of meeting or bettering Budget
5	Very High/ Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Low / Unacceptable

Unacceptable	Traditional
	D&C- Performance Specification Design and Construct (PSD&C)
	D&C - Design, Develop and Construct (DD&C)
	D&C - Design, Novate and Construct (DN&C)
	Project Management Agreement (PMA/CM)
	Managing Contractor (MC)
	Exceeds

Criterion 3 – Certainty on Budget Results



Criterion 4 – Quality, Design Objectives, Operations & Maintenance

The extent to which each procurement option supports achieving the Principals performance and quality requirements.

Context

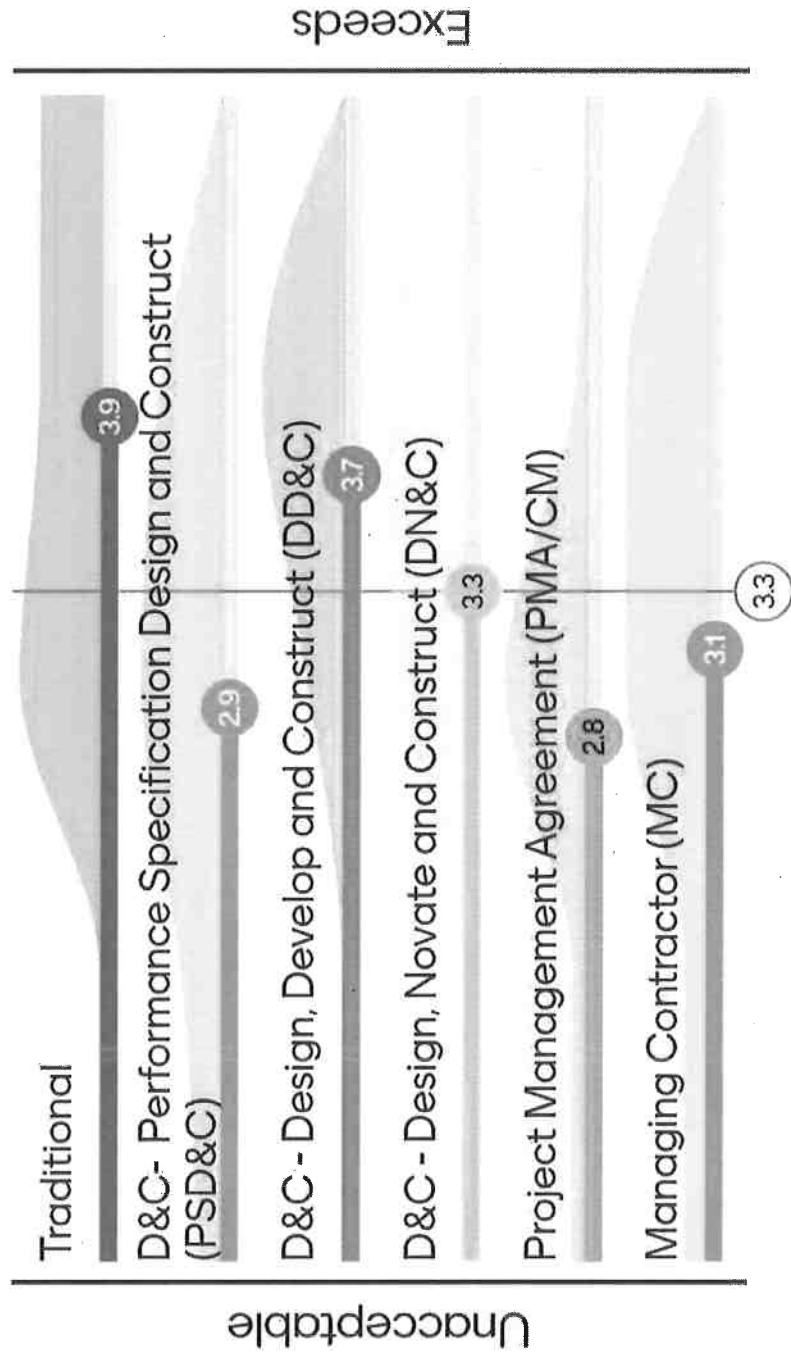
- Built product meets the Principal's expectations – aesthetic and quality
- Final product is acceptable to receiving asset holders (Durable and defects free)
- Takes good consideration of operations & maintenance
- Does the model help with minimising whole of life costs
- Provides certainty on design outcomes

Criterion 4 – Quality, Design Objectives, Operations & Maintenance

Score	Definition – Quality, designed and built and considers maintenance and operational objectives
5	Very High / Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Low / Unacceptable

Unacceptable	Traditional	Exceeds
	D&C- Performance Specification Design and Construct (PSD&C)	
	D&C - Design, Develop and Construct (DD&C)	
	D&C - Design, Novate and Construct (DN&C)	
	Project Management Agreement (PMA/CM)	
	Managing Contractor (MC)	

Criterion 4 – Quality, Design Objectives, Operations & Maintenance Results



Criterion 5 – Flexibility to include future scope and design changes

The extent to which each procurement option allows the Principal to influence scope and design at any stage (Post Award) with readily definable time and costs impacts

Context

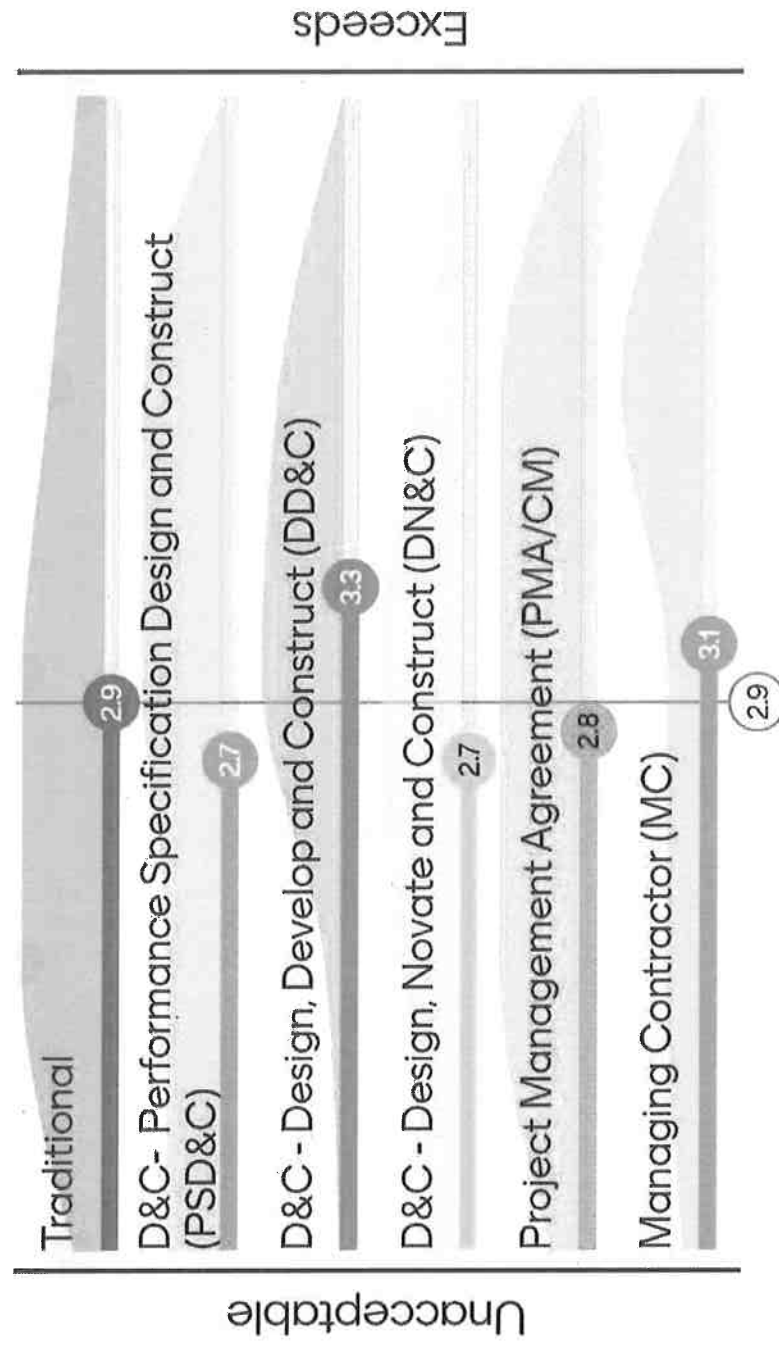
- The extent to which each procurement option assists the Principal in managing and implementing changes to the functional and scope requirements of the project over time (particularly in relation to any variation in performance requirements e.g. required capacity of the road and changes in legislation)
 - Allows Principal to not own the design, but be able to influence – even at a late stage including during construction
 - Provides level of control sought by the Principal over design development- ensuring cost efficiency and constructible
 - Ability to capitalise on identified opportunities
 - Tolerant to changes in scope and uncertainty
-

Criterion 5 – Flexibility to include future scope and design changes

Score	Definition – Ability to influence scope and design without suffering adverse impacts on time and cost
5	Very High/ Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Low / Unacceptable

Unacceptable	Traditional
	D&C- Performance Specification Design and Construct (PSD&C)
	D&C - Design, Develop and Construct (DD&C)
	D&C - Design, Novate and Construct (DN&C)
	Project Management Agreement (PMA/CM)
	Managing Contractor (MC)
	Exceeds

Criterion 5 – Flexibility to include future scope and design changes results



Criterion 6 – Community and Stakeholders

The extent to which each procurement option assists the Principal in managing community and stakeholders through the delivery of the project.

Context

- Managing of Internal and external stakeholders
- Assist in minimising impacts on communities – Eg traffic
- Satisfy political considerations,
- Support environmental objectives,
- Assist in protection of cultural assets, and
- Assist's in optimising the use of natural resources.

Criterion 6 – Community and Stakeholders

Score	Definition – Ability to manage community and stakeholders expectations
5	Very High/ Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Low / Unacceptable

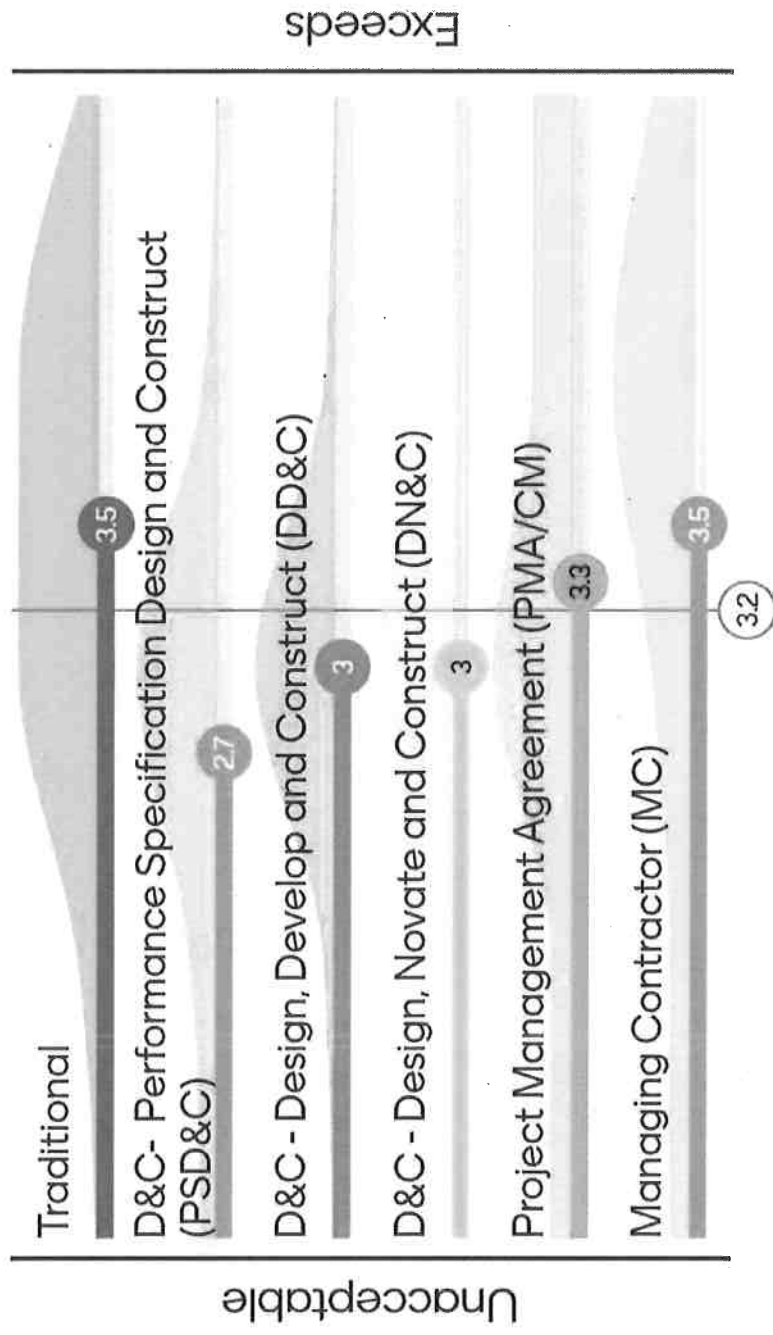
Traditional		
D&C- Performance Specification Design and Construct (PSD&C)		
D&C - Design, Develop and Construct (DD&C)		
D&C - Design, Novate and Construct (DN&C)		
Project Management Agreement (PMA/CM)		
Managing Contractor (MC)		

○

Unacceptable

Exceeds

Criterion 6 – Community and Stakeholders



Criterion 7 – Innovation

The extent to which a procurement option provides incentives for the private sector to introduce new or change ideas, approaches, methodologies, materials and buildability options during design & construction to achieve best project outcomes

Context

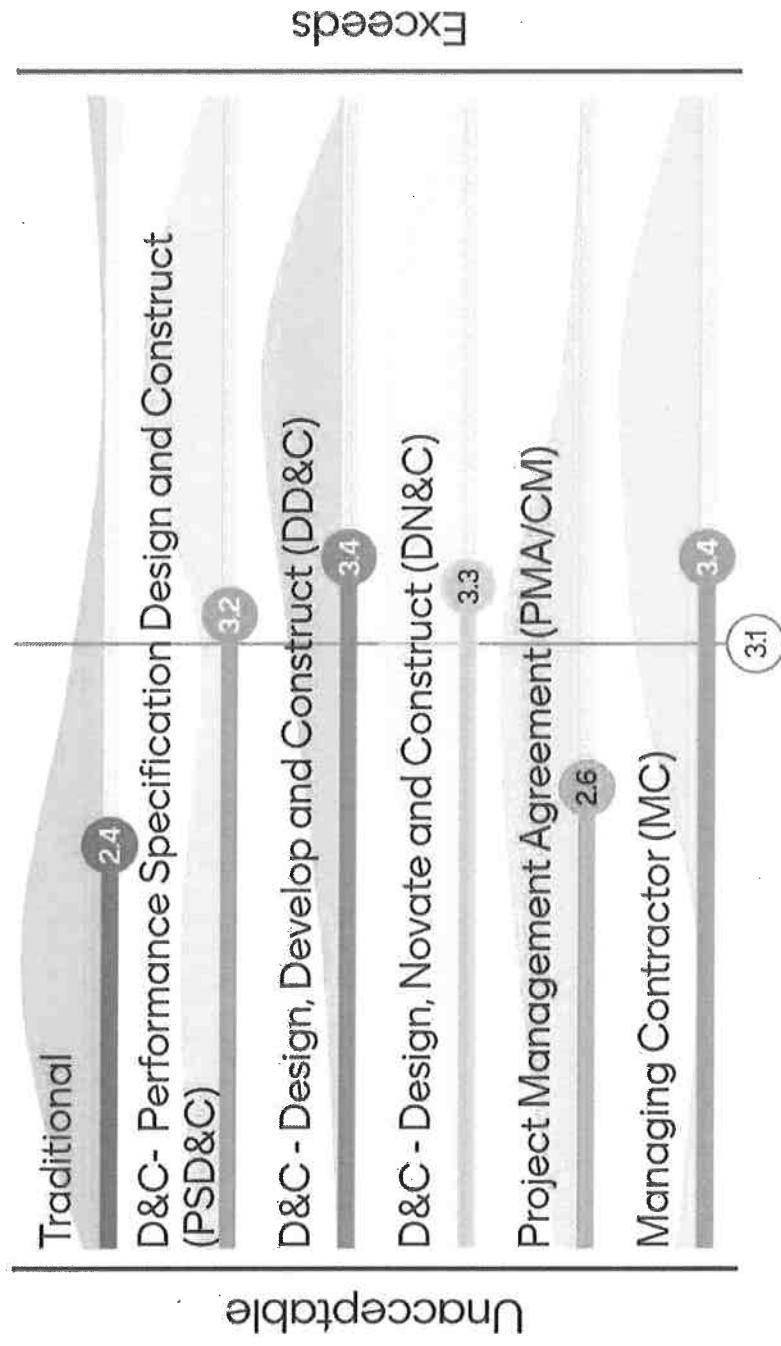
- Manages the complexity of the design solution
- Provides an environment that encourages innovation by all parties
- Delivers a buildable design solution
- Encourages clever design thinking
- Encourages construction innovation

Criterion 7 – Innovation

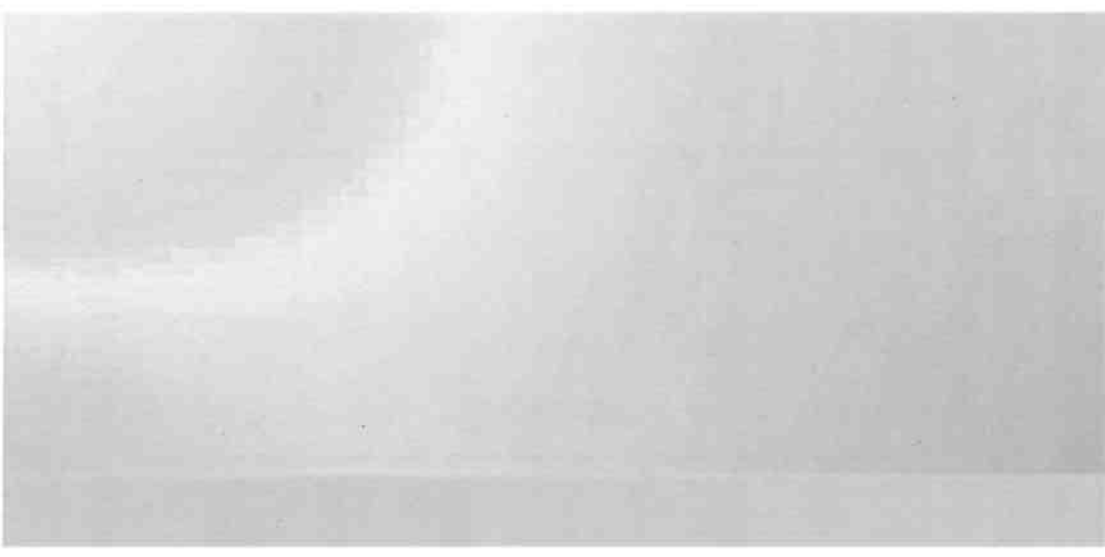
Score	Definition – Best Environment for promoting innovation by all parties to achieve best project outcome
5	Very High/ Exceed
4	Good
3	Adequate
2	Fair / Deficient
1	Low / Unacceptable

Unacceptable	Traditional	
	D&C- Performance Specification Design and Construct (PSD&C)	
	D&C - Design, Develop and Construct (DD&C)	
	D&C - Design, Novate and Construct (DN&C)	
	Project Management Agreement (PMA/CM)	
	Managing Contractor (MC)	
		Exceeds

Criterion 7 – Innovation Results



Assessment Criteria Weightings and Final Scoring



Criterion Results Unweighted

Raw Score										
Criteria ID	Description	Construct Only			Procurement Model					
		Max Score	Score		PSD&C	DD&C	DN&C	PMA	MC	
C1	Risk Management/ Alignment of Risks	5	2.8		3.2	3.9	3.1	2.0	2.7	
C2	Certainty on Time / Schedule	5	2.9		3.1	3.8	3.4	2.6	2.9	
C3	Certainty on Budget	5	3.3		2.9	3.7	3.6	2.2	2.5	
C4	Quality, Design Objectives, Operations & Maintenance	5	3.9		2.9	3.7	3.3	2.8	3.1	
C5	Flexibility to include future scope and design changes	5	2.9		2.7	3.3	2.7	2.8	3.1	
C6	Community and Stakeholders	5	3.5		2.7	3.0	3.0	3.3	3.5	
C7	Innovation	5	2.4		3.2	3.4	3.3	2.6	3.4	
Total		35	21.7		20.7	24.8	22.4	18.3	21.2	

Raw Results Un-weighted										
Criteria ID	Description	Weight	Construct Only		Procurement Model					
			Score		PSD&C	DD&C	DN&C	PMA	MC	
C1	Risk Management / Alignment of Risks Certainty on Time / Schedule Certainty on Budget	14%	8.0%		9.1%	11.1%	8.9%	5.7%	7.7%	
C2		8.3%		8.9%	10.9%	9.7%	7.4%	8.3%		
C3		9.4%		8.3%	10.6%	10.3%	6.3%	7.1%		
C4	Quality, Design Objectives, Operations & Maintenance	14%	11.1%		8.3%	10.6%	9.4%	8.0%	8.9%	
C5	Flexibility to include future scope and design changes	14%	8.3%		7.7%	9.4%	7.7%	8.0%	8.9%	
C6	Community and Stakeholders	14%	10.0%		7.7%	8.6%	8.6%	9.4%	10.0%	
C7	Innovation	14%	6.9%		9.1%	9.7%	9.4%	7.4%	9.7%	
Total		100%	62.00		59.14	70.86	64.00	52.29	60.57	

Criterion Weightings

Criteria	Pre – Workshop weighting
Certainty on Budget	25%
Certainty on Time / Schedule	20%
Quality, design objectives, Operations & Maintenance	20%
Risk Management – Alignment of risks	15%
Flexibility including future scope & design changes	10%
Community & Stakeholder Government	5%
Innovation	5%
Total	100%

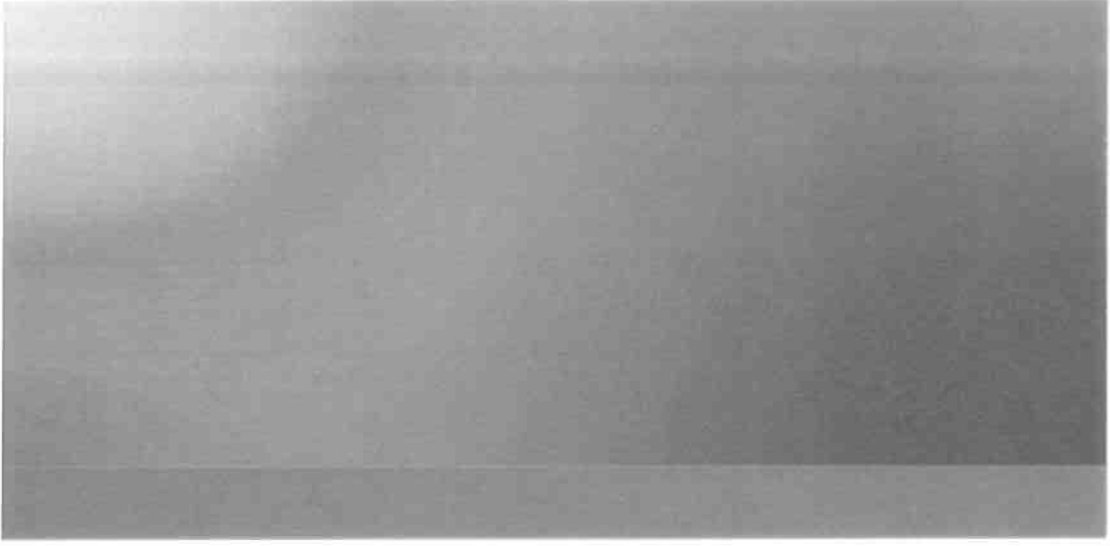
MCA Results - Weighted

Raw Score									
Criteria ID	Description	Max Score	Construct Only		Procurement Model				
			Score	Weight	PSD&C	DD&C	DN&C	PMA	MC
C1	Risk Management/ Alignment of Risks	5	2.8	25%	3.2	3.9	3.1	2.0	2.7
C2	Certainty on Time / Schedule	5	2.9	20%	3.1	3.8	3.4	2.6	2.9
C3	Certainty on Budget	5	3.3	20%	2.9	3.7	3.6	2.2	2.5
C4	Quality, Design Objectives, Operations & Maintenance	5	3.9	15%	2.9	3.7	3.3	2.8	3.1
C5	Flexibility to include future scope and design changes	5	2.9	10%	2.7	3.3	2.7	2.8	3.1
C6	Community and Stakeholders	5	3.5	5%	2.7	3.0	3.0	3.3	3.5
C7	Innovation	5	2.4	5%	3.2	3.4	3.3	2.6	3.4
Total		35	21.7	100%	20.7	24.8	22.4	18.3	21.2

Weighted Score									
Criteria ID	Description	Weight	Construct Only		Procurement Model				
			Score	Weight	PSD&C	DD&C	DN&C	PMA	MC
C1	Risk Management/ Alignment of Risks	25%	14%	25%	16%	20%	16%	10%	14%
C2	Certainty on Time / Schedule	20%	12%	20%	12%	15%	14%	10%	12%
C3	Certainty on Budget	20%	13%	20%	12%	15%	14%	9%	10%
C4	Quality, Design Objectives, Operations & Maintenance	15%	12%	15%	9%	11%	10%	8%	9%
C5	Flexibility to include future scope and design changes	10%	6%	10%	5%	7%	5%	6%	6%
C6	Community and Stakeholders	5%	4%	5%	3%	3%	3%	3%	4%
C7	Innovation	5%	2%	5%	3%	3%	3%	3%	3%
Total		100%	62.20	100%	60.00	73.60	65.10	49.10	57.50

Next Steps





Thank you



Challenging today.
Reinventing tomorrow.

Monaro Highway Upgrade Program

Summary of Procurement Delivery Models for
MCA Workshop

Procurement Models – Recommended from Phase 2 (for MCA assessment)

- Traditional (Construct Only).
 - Design & Construct - Performance Specification Design and Construct (PSD&C).
 - Design & Construct - Design, Develop and Construct (DD&C).
 - Design & Construct - Design, Novate and Construct (DN&C).
 - Project Management Agreement (PMA)/ Construction Management
 - Managing Contractor (MC)
-
- Early Contractor Involvement / Early Tender Involvement is always and option with all models above

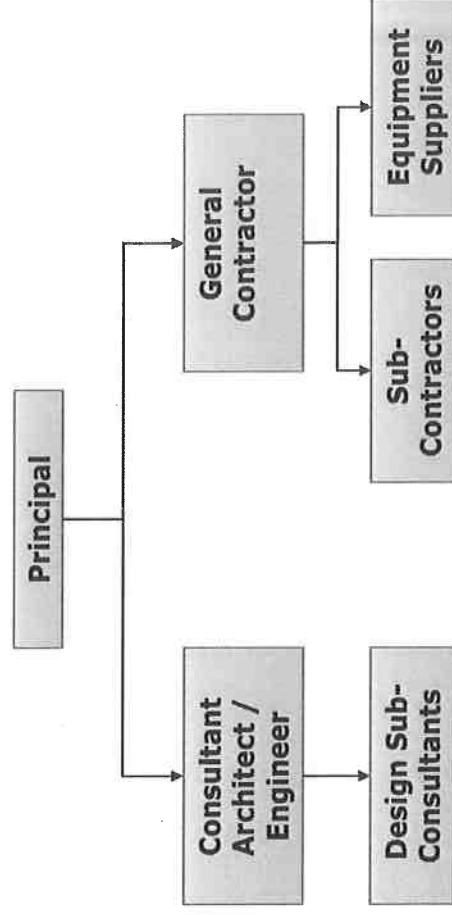
Procurement Models – Not Recommended

- Design & Construct - Design, Construct and Maintain (DC&M)
- Design& Construct – Design Construct Maintain Operate (DCMO)
- Alliance
- PPP BOOT
- PPP Availability

Traditional Construct Only

Summary

- Principal responsible for the project design
- Principal engages a design team to develop the design
- Contractor competitively tenders a contract price for the client designed works
- Usually lump sum and / or schedule of rates



Typical sequence:



Traditional Construct Only

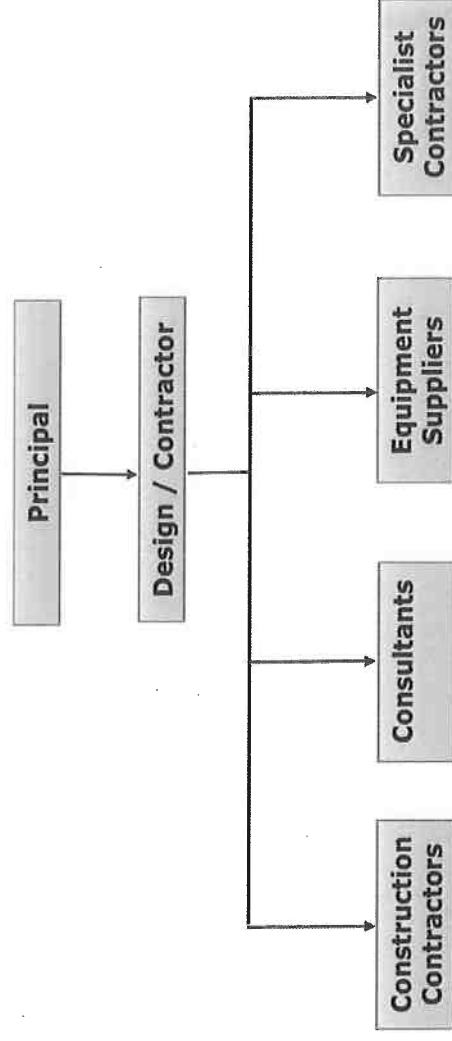
Reason for Inclusion	Reason to Exclude
• Construction risk transfer • Construction price certainty (better if lump sum pricing) • Enables detailed design work to progress ahead of construction tendering • Provides flexibility because the government controls the design process for an extended period	• Client retains design risk • Client retains interface between design & construction • Changes to scope after construction commences will result in variations to the contract • Little opportunity for innovation from the Contractor once construction has commenced • Limited opportunity for bundling construction services & maintenance to creating 'whole-of-life' project efficiencies

SAF Criteria	Effectiveness
Risk Transfer	Medium
Time to market	Short to Medium
Flexibility	Medium to High
Price Certainty	Medium
Innovation & Incentive	Low

Design & Construct - Performance Specification Design and Construct (PSD&C)

Summary

- Principal prepares a Performance Specification (design brief)
- Contractor competitively tenders design & construction contained in the design brief
- Usually lump sum



Typical sequence:



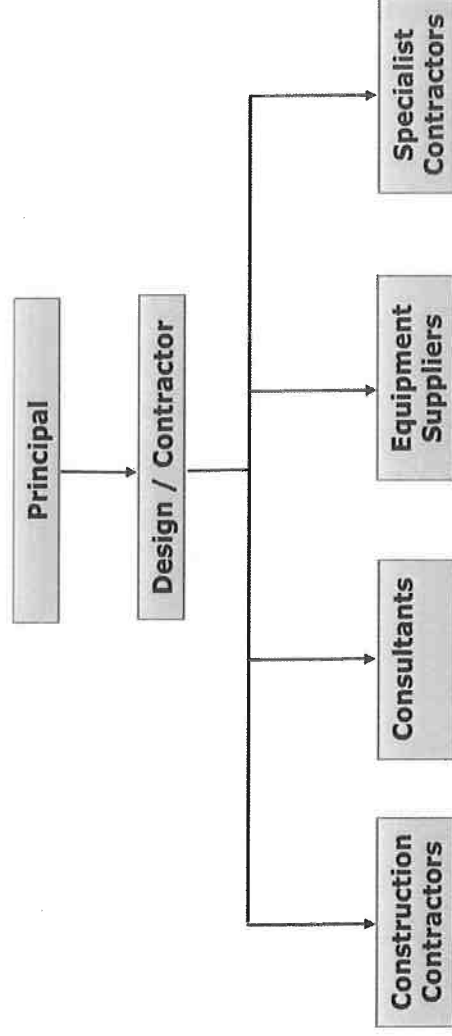
Design & Construct - Performance Specification Design and Construct (PSD&C)

Reason for Inclusion	Reason to Exclude	SAF Criteria	Effectiveness
- Contractor owns the design risk - Procurement of contractor in advance of detailed design - Price certainty in design & construction - Likely to result in cost effective designs - Enables innovation because the contractor can integrate design and construction methodology & buildability	- Changes to scope after contract award are difficult and potentially expensive - Control of design by the Principal is limited post contract award - Limited opportunity for bundling services & maintenance to create 'whole-of-life' project efficiencies	Risk Transfer Time to market Flexibility Price Certainty Innovation & Incentive	Medium Short Medium Medium Medium

Design & Construct - Design, Develop and Construct (DD&C)

Summary

- Principal prepares a preliminary design in addition to performance specification
- Contractor competitively tenders detailed design & construction contained in the schematic design
- Contractor develops the detailed design
- Usually lump sum



Typical sequence:



Design & Construct - Design, Develop and Construct (DD&C)

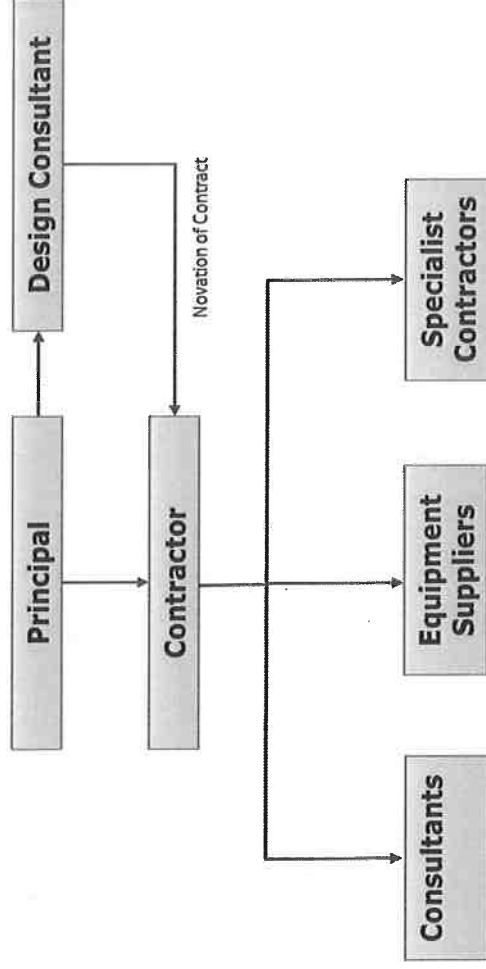
Reason for Inclusion	Reason to Exclude
- Principal wishes to determine the preliminary design - Principal does not have enough time to manage the design to completion - Contractor has flexibility to incorporate innovations and improve buildability - Enables construction to start prior to finalisation of detailed design - Risk of contract claims due to errors and omissions in the design is reduced	- If the design documents supplied by the Principal are unclear or in error, the desired outcomes may not be achieved - Significant risk of delays or changes to project scope as issues are resolved with stakeholders or investigations are completed - Price is likely to be higher to allow for the contractor's increased risks - Fewer potential tenderers. This can result in higher tender prices

SAF Criteria	Effectiveness
Risk Transfer	Medium
Time to market	Medium
Flexibility	Medium
Price Certainty	Medium
Innovation & Incentive	Medium

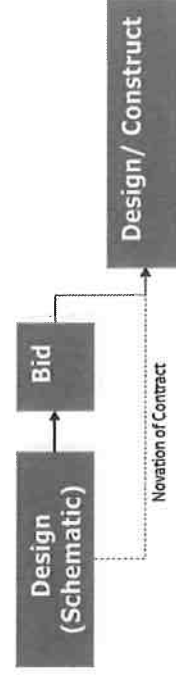
Design & Construct - Design, Novate and Construct (DN&C)

Summary

- Principal engages a designer to prepare a preliminary design, then based on that design, the Principal competitively engages a D&C Contractor and novates the preliminary designer to that Contractor
- Contractor takes on design & construction including payment of the designer's fees



Typical sequence:



Design & Construct - Design, Novate and Construct (DN&C)

Reason for Inclusion	Reason to Exclude
Reduces the risk of the design not meeting the Principal's requirements	- Potential price increase because the contractor and the designer price the risk of entering into a contract with an unknown entity on terms predetermined by others - Potential designers may be reluctant to tender to the Principal because they are reluctant to later be contracted to an unknown contractor - Potential for complex litigious problems if the relationship between designer and contractor deteriorate

SAF Criteria	Effectiveness
Risk Transfer	Medium
Time to market	Medium
Flexibility	Medium
Price Certainty	Medium
Innovation & Incentive	Medium

Project Management Agreement (PMA) / Construction Management

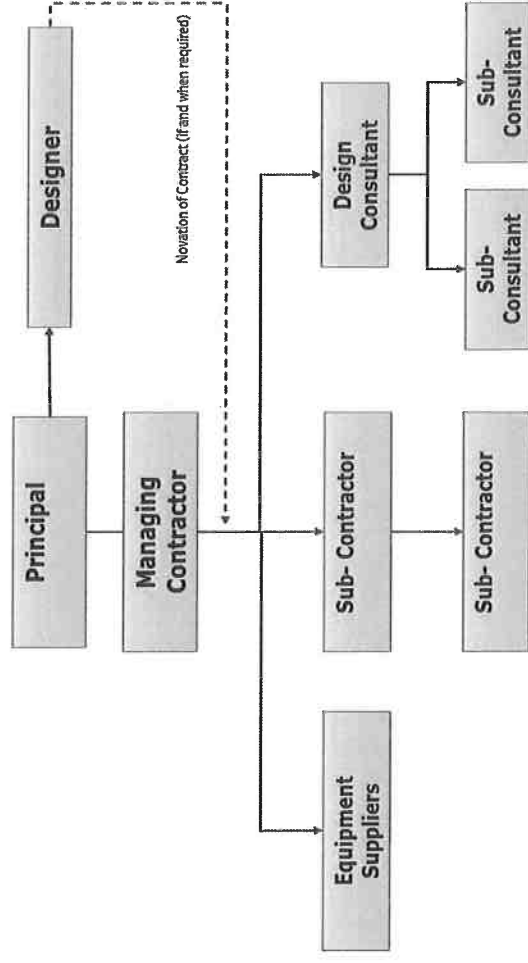
Reason for Inclusion	Reason to Exclude
- Principal gains technical knowledge of the project manager and construction manager - Short time to market - Principal retains high level of control - Used in projects where it is not possible for design or other elements to be started before work is undertaken by others - High collaboration - Highly flexible	- Low price certainty - Low innovation opportunities - Low risk transfer opportunities - Used mainly on low capital value projects

SAF Criteria	Effectiveness
Risk Transfer	Low
Time to market	Short
Flexibility	High
Price Certainty	Low
Innovation & Incentive	Low

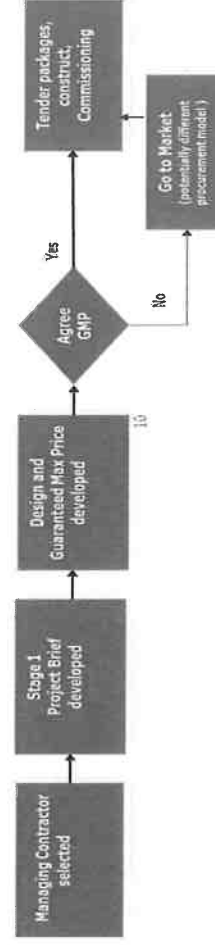
Managing Contractor (MC)

Summary

- Principal engages a consultant to prepare design and contract documents.
- Principal also contracts a project manager and construction manager
- Project manager and construction manager's role are predominantly one of Principal's advisor and administrator



Typical sequence:



Managing Contractor (MC)

Reason for Inclusion	Reason to Exclude
- Where early contractor involvement is beneficial. Where completion times are tight and fixed. - Where there are many complex or difficult stakeholder interfaces and relationships. - High collaboration. - Highly flexible.	- Used mainly for complex or high-risk projects with uncertain scope, risks or technology. - Low risk transfer. - Difficult to set accurate cost targets with limited design details where such targets are required early in the delivery process. - The 'GMP' is negotiated at the end of stage 1 which may make it more difficult to verify value for money - Used mainly on low capital value projects

SAF Criteria	Effectiveness
Risk Transfer	Low to Medium
Time to market	Short
Flexibility	High
Price Certainty	Low to Medium
Innovation & Incentive	Medium

13. Appendix D – Phase 4 Report– Market Analysis and Sounding and Workshop Presentation



Monaro Highway Upgrade Program

Phase 4 - Market Sounding

7/1/2021

3524.300



Monaro Highway Upgrade Program

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Date: 7/1/2021
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Project Manager: Jonathan Key
Author: Jonathan Key
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Document history and status

Revision	Date	Description	Author	Checked	Reviewed	Approved
A	17/12/2020	Draft for Comment	Jonathan Key	Mark Anslow		
B	07/01/2021	Final – Incorporating Client feedback	Jonathan Key	Mark Anslow		

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Executive Summary

This report concludes Phase 4 **Market Analysis and Sounding Phase** of the Procurement Options and Delivery Model Study.

To achieve the project objectives, an appropriate well considered procurement strategy was developed in Phase 2 of this study. The aim of the strategy was to support the delivery of an effective long-term road solution that provides an asset with 'whole of life value for money'. The strategy considered appropriate risk transfer between contractors, consultants, the client and other service providers. A number of potential delivery models were recommended to progress to Phase 3.

In Phase 3, the Multi Criteria Analysis (MCA) process identified Develop, Design and Construct (DD&C) as the preferred model for the delivery of Package 1B of the Monaro Highway Lanyon Drive Interchange project. This model scored the highest overall weighted score. Of note, this model also scored the highest overall unweighted score.

The objective of Phase 4 was to complete the **Market Analysis and Sounding Phase** which is a key component of the ACT Government Single Assessment Framework process to undertake market sounding to identify key players, determine market capacity, determine market appetite for the preferred delivery model and consider whether there is enough competition to drive 'value for money' outcomes.

The study team followed the approach outlined below:

- **Identified Key Players** - The preliminary prequalification for Monaro Highway was assessed against the total project budget of \$200m which resulted in an original prequalification level of Financial F75 Road R4 and Bridge B4. The initial analysis of the market capacity was undertaken by reviewing the ACT Prequalified Contractors Under the National Prequalification System for Civil (Road and Bridge)
- This was initially undertaken in April 2020 and reviewed in October 2020 when the revised National Prequalification System for Civil (Road and Bridge) Construction Contracts was released.
- **Assessment of opportunities for local industry involvement.** – Reviewing of early contractor works and other packages within Lanyon Interchange and Isabella Drive.
- **Industry engagement** – Engagement with the ACT branches of the Master Builders Association (MBA), the Civil Contractors Federation (CCF) and Consult Australia (CA) to undertake market sounding of the proposed Develop Design and Construct Delivery Model from the point of view of the civil engineering contractors and civil engineering designers. This was undertaken in two stages:
 - **Stage 1- Questionnaire:** A project briefing document and questionnaire was submitted to the three industry bodies.
 - **Stage 2 - Industry Briefing Workshop:** A workshop was held 18th November 2020 and attended by MBA, CCF and CA who represented civil designers and contractors. A number of suppliers also attended the workshop to get an overview of the project and determine opportunities to be involved in the project at a later stage.

Market Capacity

The preliminary prequalification for Monaro Highway Upgrade Program was originally estimated as F75 R4 & B4. The potential capacity of the market was then identified by reviewing the National Prequalification System register for the ACT Government and there were seven contractors that met this criteria. The TfNSW prequalification register was then reviewed and a further 30 prequalified Contractors were identified.

Throughout the project we revised the prequalification threshold to F50, R4 and B3 taking into consideration the specific scope of Lanyon Drive Interchange project being smaller than the whole Monaro Highway Upgrade Program and the desire to generate more opportunities to local contractors. This review prequalified a further seven contractors with 2 in the ACT and 5 from NSW. This means that the market capacity has 43 Contractors that meet the current proposed prequalification level for the project.

It should be noted, that 16 (of the 43) Contractors prequalification status have already expired.

In assessing the list of National Prequalification register, a further ten Contractors were identified that were Pre-qualified in ACT/ NSW and had missed the prequalification criteria by 1 element, eg they had B2 instead of B3 but had R4 and a Financial limit of \$50m or over.

Market Appetite

The questionnaire and market sounding engagement confirmed that there is a strong appetite to tender and deliver the project. The market sounding indicated a preference for Traditional/ Construct Only but were comfortable using a Develop Design and Construct (DD&C) delivery method.

Local Industry Opportunities

There are possible opportunities as a Principal Contractor for the project for ACT based contractors with the correct level of prequalification. Other opportunities for local industry involvement may be available through sub-contract works, design works and supply contracts to the Principal Contractor. During the industry briefing the participants advised that they were not too keen to partner up with T1 Contractors, they however welcomed the opportunity to team up locally. In addition, the market was very grateful to be given advance notice of the early utilities work, as well as the future projects around Package 1C at Lanyon Drive and the Isabella Interchange that will include detail design, early relocation of utilities and construction packages.

Value for money / competition

There is a potential pool of 43 civil engineering contractors who are suitably prequalified on the ACT Government and NSW NPS prequalification registers. This indicates that there is sufficient competition to achieve a value for money outcome in tendering.

1. Terms and Definitions

Terms and definitions, including acronyms referred to in this report appear in the following table:

Term	Definition
ACT	Australian Capital Territory
ACTIA	Australian Capital Territory Insurance Authority
CM	Construction Management
DCMO	Design, Construct, Maintain and Operate
DC&M	Design, Construct Maintain
DD&C	Develop, Design & Construct
DN&C	Design, Novate and Construct
D&C	Design and Construct
DP	Delivery Partner
ECI	Early Contractor Involvement
EOI	Expression of Interest
ETI	Early Tender Involvement
GCS	General Contract Sum
GMP	Guaranteed Maximum Price
GOV	Government
IDP	Infrastructure Delivery Partner
KPI	Key Performance indicator
O&M	Operations and Maintenance
MC	Managing Contractor
MCA	Multi Criteria Analysis
NPV	Net Present Value
PMA	Project Management Agreement
PDS	Procurement Delivery Strategy
PPP	Private Public Partnership
RMP	Risk Management Plan
RFT	Request for Tender
RR	Risk Register
SAF	Single Assessment Framework
TCCS	Transport Canberra and City Services
TOC	Total Outturn Cost
WHS	Work Health and Safety

2. Background

2.1 Project Overview

Jacobs has been commissioned by the Infrastructure Delivery Partners Group (IDPG) on behalf of the ACT Government (Transport Canberra and City Services, TCCS) to deliver feasibility and preliminary design services for the Monaro Highway Upgrade Program, Hume, ACT. The project includes assessment and preliminary sketch plan (PSP) design of suitable upgrade options for the Monaro Highway between the Alexander Maconochie Centre and Isabella Drive, including grade separation of Lanyon Drive and Isabella Drive at the Monaro Highway. The project also includes examining the upgrades to Johnston Drive further to the south, and the preparation of PSP designs for two heavy vehicle lay-bys.

The Monaro Highway is a key arterial route connecting to the Majura Parkway at the northern end and continuing south to Cooma and then on to intersect with the Princes Highway in Victoria. Within the ACT, it also provides part of the key link between Queanbeyan and Canberra City, and is a key connection between southern suburbs and the industrial areas of Hume and Fyshwick.

In November 2019, the Federal and ACT Governments announced that construction of the project would commence during financial year 2020/21, approximately one year earlier than originally planned. The Lanyon Drive interchange was subsequently identified as the preferred location for an early works package, and a feasibility stage layout was chosen to progress to PSP. The PSP design for Lanyon Drive is currently underway by Jacobs. The following figure shows the key features of the Lanyon Drive Interchange.



Figure 1 – Monaro Highway Lanyon Drive Interchange scope of works

The Lanyon Drive Interchange project has been further split into two projects which will be delivered separately. Package 1B is the works within the Designated Land road reserve and generally comprises the new southbound flyover and the main highway upgrades (and is the subject of this Market Sounding workshop). Package 1C is the work within Territory Land, with minor associated works in Designated Land, and generally comprises the upgrades to Lanyon Drive, the highway ramps and the extension to David Warren Road.

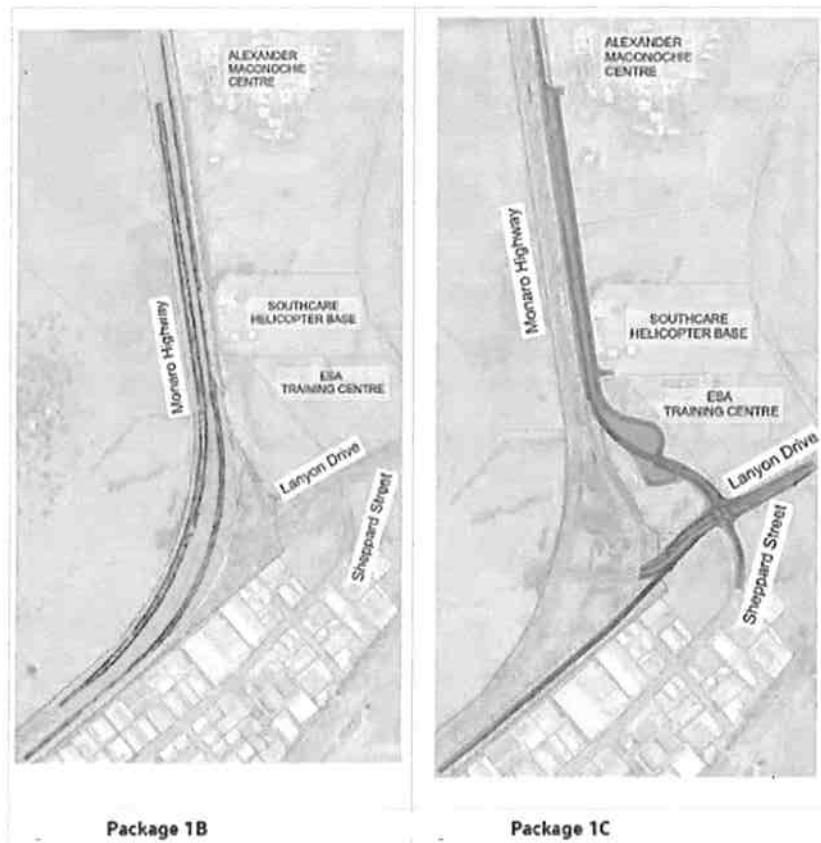


Figure 2 – Monaro Highway Lanyon Drive Interchange Scope of Works Packages

2.2 Project Success Criteria

The high-level success criteria for the project include:

Project Delivery

- No WHS incidents during construction;
- Achieve 'value for money' in delivery, (the project budget for entire Monaro Upgrade is \$200m);
- Substantial works commencing on site before June 2021;
- Deliver the project with minimum impact on local heritage and the environment;
- Address and incorporate stakeholder concerns (where possible) and
- Meet policy guidelines, (e.g. Local Industry Participation Policy, Secure Local Jobs, Indigenous Participation).

Project Performance Outcomes

- Increase posted road speed to 100km/h (in line with the rest of Monaro highway);
- Improve travel times in AM and PM peaks for current and future (2031 and 2041) traffic demands; and
- Minimal impact to existing traffic during construction.

3. Procurement Options and Delivery Study

In addition to the feasibility and preliminary design services, Jacobs has been commissioned to undertake a Procurement Options and Delivery Model Study specifically for the Lanyon Drive Interchange, Package 1B. Jacobs were engaged to provide:

- Evaluation and assessment of risks associated with the nature of the works and staging;
- Evaluation and assessment of procurement and delivery models for the construction of the Lanyon Drive Interchange;
- Multi criteria analysis (evaluation of selected delivery models 'v' weighted selection criteria e.g. budget and schedule certainty, flexibility for changes, whole of life cost, innovation etc);
- Market sounding for the project (key players, market capacity, market appetite); and
- Reporting of findings and advice to identify the most appropriate delivery model (while minimising Territory risks, maximising 'value for' money and enabling early works to commence).

The key output being the recommendation of a delivery model to progress to RFT phase.

3.1 Methodology

Jacobs have structured the study into five phases.

Kick-Off Phase. Initial review of information provided by TCCS and confirmation of objectives and deliverables.

Phase 1 is the Risk and Opportunity Assessment Phase. In this phase Jacobs reviewed the existing strategic risk register. Jacobs developed the risk assessment methodology using ACTIA guidelines to assess the program risks, site risks and delivery risks. Through a desktop study and a workshop, Jacobs captured new risks, assessed their risk rating and identified potential mitigation strategies for each risk, with particular focus on procurement related risks. The same approach was taken for potential opportunities.

Phase 2 is the Delivery Models Phase. In this phase Jacobs reviewed the possible delivery models and procurement options available. Jacobs compared the advantages and disadvantages of each delivery model and provided guidance on the applicability of each, based on the project's unique factors and the ACT government's risk appetite. This phase resulted in a delivery model shortlist for inclusion in Phase 3 Multi Criteria Analysis and Phase 4 Market Sounding.

Phase 3 is the Multi Criteria Analysis (MCA) Phase. The MCA generates a ranking of the shortlisted delivery models in order of preference based upon the predetermined criteria and agreed weightings for each criterion and recommends a preferred procurement strategy.

Phase 4 is the Market Analysis and Sounding Phase. A key component of the ACT Government Single Assessment Framework process is undertaking market sounding to identify key players, determine market capacity, determine market appetite and consider whether there is enough competition to drive 'value for money' outcomes. This is conducted through a market analysis exercise, and consultation with the various industry bodies, and incorporates identified comments on identified issues.

Phase 5 is the submission of the Draft Report to the TCCS Project Management Group for review. The report confirms the selected delivery model or models based on the above assessments. A final report is to be issued following TCCS feedback.

4. Phase 4 – Market Analysis and Sounding

4.1 Phase 3 Objective

To achieve the project objectives, an appropriate well considered procurement strategy was developed in Phase 2 of this study. The aim of the strategy was to support the delivery of an effective long-term road solution that provides an asset with 'whole of life value for money'. The strategy considered appropriate risk transfer between contractors, consultants, the client and other service providers. A number of potential delivery models were recommended to progress to Phase 3.

In Phase 3, the Multi Criteria Analysis (MCA) process identified Develop, Design and Construct (DD&C) as the preferred model for the delivery of Package 1B of the Monaro Highway Lanyon Drive Interchange project. This model scored the highest overall weighted score. Of note, this model also scored the highest overall unweighted score.

The objective of Phase 4 was to complete the **Market Analysis and Sounding Phase** which is a key component of the ACT Government Single Assessment Framework process to undertake market sounding to identify key players, determine market capacity, determine market appetite for the preferred delivery model and consider whether there is enough competition to drive 'value for money' outcomes.

4.2 Phase 3 Approach

The study team followed the approach outlined below:

- Identify key players
- Determine market capacity
- Determine market appetite
- Consider if there is sufficient competition to drive value for money outcomes

4.3 Identify Key Players

The preliminary prequalification for Monaro Highway was assessed against the total project budget of \$200m which resulted in a prequalification criteria of Financial 75, Road 4 and Bridge 4. The initial analysis of the market capacity was undertaken by reviewing the ACT and NSW Prequalified Contractors Under the National Prequalification System for Civil (Road and Bridge) in April 2020. This was subsequently reviewed in October 2020 when the update National Prequalification System for Civil (Road and Bridge) Construction Contracts was released.

The assessment of market capacity discussion in Section 4.2 identifies a total of 43 contracting organisations as potential key players for the project. Given the number of potential contractors to undertake the work, and the early nature of the industry engagement, the project team identified that the most appropriate key players to be consulted were the appropriate industry organisations representing the potential contractors and designers. The key players identified were:

- Master Builders Association - ACT Branch (MBA)
- Civil Contractors Federation – ACT Branch (CCF)
- Consult Australia – ACT Branch (CA)

Engagement with the three industry organisations to undertake a market sounding of the proposed Develop Design and Construct Delivery Model from the viewpoint of civil engineering contractors and civil engineering designers was undertaken in two stages:

4.3.1 Stage 1 – Questionnaire

A Project briefing document and questionnaire was submitted to the three industry organisations. The questionnaire below is the collective response from MBA and CCF. During the industry briefing CA, agreed with the position of the MBA and CCF. Response 3.1 and 3.2 are specifically from one of the contractors.

2.1	What is the market's interest/ appetite to respond to a Develop, Design & Construct RFT for the delivery of a major roads upgrade in 2021?					
	☐ No Interest	☐ Little Interest	☐ Some Interest	☐ Good Interest	☒ Overwhelming Interest	
2.2	What is the market's capacity to deliver the project?					
	☐ No Capacity	☐ Little capacity	☐ Some capacity	☐ Good capacity	☒ Significant capacity	
2.3	What is the market's capability to deliver the project which includes an approximate 200m long, six span viaduct ?					
	☐ No experience	☐ Little experience	☐ Some experience	☐ Good experience	☒ Significant experience	
2.4	A two-stage tender process is currently envisaged. ie EOI, shortlist then RFT. What is the industry's view on this approach?					
	☐ Disagree with the approach	☐ Slightly disagree	☐ Indifferent	☐ Support the approach	☒ Strongly support the approach	
2.5	How many contractors do you feel is appropriate to shortlist for the RFT?					
	☐ 1 Contractor	☐ 2 Contractors	☒ 3 Contractors	☐ 4 Contractors	☐ 5 or more Contractors	
2.6	If the prequalification level is set at F50 or F75, what is the local industry interest to team up with a Contractor that is pre-qualified?					
	☐ No Interest	☒ Little Interest	☐ Some Interest	☐ Good Interest	☐ Very happy to team up	
2.8	To what level does industry feel the design should be developed prior to the release of the RFT?					
	☐ 100% Concept	☐ 50% Detailed Design	☒ 80% Detailed Design			
2.7	What appetite would the industry have for taking the risk on:					
	Planning approvals	☒ No appetite	☐ Little appetite	☐ Some appetite	☐ Good appetite	☐ Significant appetite
	Contaminated soil	☐ No appetite	☐ Little appetite	☒ Some appetite	☐ Good appetite	☐ Significant appetite
	Unexpected environmental conditions	☐ No appetite	☐ Little appetite	☒ Some appetite	☐ Good appetite	☐ Significant appetite
	Traffic management	☐ No appetite	☐ Little appetite	☐ Some appetite	☐ Good appetite	☒ Significant appetite
	IR Issues	☐ No appetite	☐ Little appetite	☐ Some appetite	☐ Good appetite	☒ Significant appetite
3.1	What benefits do you believe an Early Contractor Involvement (ECI) bring to the project? (eg Innovation, speed to market etc).					
	Having personal successful experience on Early Contractor Involvement and Alliance delivery models in other states. I believe these delivery models are an excellent way to optimise the design, establish risk and opportunity and the parameters for risk and opportunity sharing. Early Contractor Involvement with the right team has the ability to optimise the design and construction.					
3.2	What is your understanding of the ACT Indigenous Participation Policy, and what are your thoughts as to how this could be successfully implemented on our project?					
	Wodens have been committed to Indigenous Participation for decades and have directly employed several indigenous Australians over the years as well as currently directly employing 3 indigenous Australians. The policy provides criteria for the engagement of Indigenous which is not unreasonable.					

4.3.2 Stage 2 – Industry Briefing

The Study team facilitated a joint market sounding meeting of the ACT Branches of the Master Builders Association (MBA) the Civil Contractors Federation (CCF) and Consult Australia (CA). This meeting was held on the 18th November 2020. A number of associated contractors and suppliers also attended the meeting. The list of participants is on slide 4 of the Presentation Pack which is attached to Appendix A.

The market sounding attendees were given a brief background to the overall Monaro Highway Upgrade project and were advised of the specific component of work associated with the upcoming Package 1B at the Lanyon Drive Interchange. A summary of the process used to reach the current preferred DDC procurement methodology was then provided.

The study team then presented the results of the questionnaire and this was followed by a group discussion to unanimously confirm the results.

The meeting then progressed with a series of questions and answers which are documented below:

#	Question Raised by Industry / Lanyon Drive Interchange and Monaro Highway Upgrade.
1	Question: What are the main reasons for not choosing an Alliance form of contract? Response: We believe the risk profile of Monaro Highway Lanyon Drive Interchange (LDI) does not warrant an Alliance delivery model because the project risks are definable and can be managed using more familiar delivery models. Further, the complexity and time to market of an Alliance model is not suitable for a project of this scale nor is there sufficient time for this on the LDI project. In addition, the ACT Gov does not generally use the Alliance delivery model. To get this model approved would require 6 -12 months to get it established and through Cabinet.
2	Question: Is the Government set on using a Develop Design and Construct (DD&C) model for the LDI? Is there an opportunity to change the model? Response: The DD&C model has been fixed for the LDI early civil works package. We have gone through a detailed procurement model review and shortlisting process. In the multicriteria analysis workshop the DD&C delivery model was the clear favourite based on our requirements. The Territory is familiar with the DD&C model and this delivery model allows us to go to market quickly. The Territory and the Commonwealth have provided early funding which needs to commence promptly. This funding will create opportunity for industry and the overall economy. For the main LDI package we will use DD&C. There will then be other opportunities for smaller packages which we will be design only or construct only throughout the project.
3	Question: Is there a requirement to start spending on the project? Response: Yes. For stimulus purposes and also to comply with the Prime Minister's and Chief Minister's commitments to the project. Through lessons learnt, we know that there is a benefit to relocating utilities early to de-risk subsequent stages of the project, so that work is being focus on first.
4	Question: Is 3 the preferred number of Contractors selected from the EOI process? Response: 3 is usual amount but this could be increased. This partly depends on the risk of the project
5	Question: Would Government accept 2 Contractors from the EOI process? Response: Yes, however, in the past we have sometimes had 1 contractor drop out due to reasons such as key personnel are no longer available, or they have won another project and no longer have the capacity. These circumstances create challenges in the evaluation and award process. Therefore 3 is preferred.

6	Question: When would the EOI be released for the LDI? Response: Early 2021. A couple of months before RFT. After PSP design is completed. The RFT cannot be awarded until NCA Works Approval is obtained.
7	Question: Is the Government going to undertake an ECI Process? Response: Potentially, but it is not seen as essential for the LDI project.
8	Question: Would the Government run an EOI process in parallel with obtaining NCA Works Approval? Response: Yes. However, we would not award the contract until we have received the Works Approval.
9	Question: If the project is set to a prequalification level F75, then local industry would be concerned. There is little interest to partner up with national Tier 1 contractors. If it was F50, then local industry would be satisfied. Response: Agreed, F50 is what we are working towards and should be appropriate. Financial assessment of any Joint Ventures will be required beforehand. JVs need to be analysed and their existing commitments need to be assessed.
10	ACT Gov Question: Would Prequalification level B3 be an issue with industry? Industry Response: No, industry is happy with F50, R4 & B3. There is industry capacity to deliver.
11	Question: To what level will the design be done before tender? Response: A Preliminary Sketch Plan (PSP) design will be done to a fairly detailed level.
12	Question: Is the look and feel of the bridge quite important to NCA? Response: Yes, the overall appearance of the bridge is of importance to the NCA, particularly from above and from the sides, but less so from underneath. NCA are familiar with what we have currently proposed (Super T) and they are comfortable with it.
13	Question: Will the PSP design be incorporated into the LDI D&C tender documents? Response: Yes
14	Question: Is the LDI design locked in? If it is, then there is likely to be less innovation opportunities? Response: The design will be done to a detailed PSP level. Industry can bring smarts and innovation to delivery and staging, as well as some components of the design such as the bridge and pavements.
15	Question: Will the pavement design been finalised? Response: The PSP design includes proposed pavement designs for the various parts of the project. The DD&C contractor will have the opportunity to review and optimise the pavement designs.

16	Question: Has the Territory done geotechnical investigations? Response: Yes, investigations have been done on the existing pavement, some of the bridge foundations and embankment areas. The reports will be issued as part of the RFT
17	Question: Is there any contaminated soil? Response: Not that we are aware of. It is however, a road reserve that has been operational for the last 50 years.
17	Question: Contaminated soil is a small likelihood but has a big consequence, so it should be a latent condition. For example on an existing project it is costing \$800/ tonne to dispose of. Response: Adverse ground conditions would likely be a shared risk under GC21 if it is uncovered. Most of the general fill will be imported and probably Principal supplied.
18	ACT Gov Question Where does industry see most opportunity to innovate. For example, the type of bridge structure? Industry Response: If the bridge concepts are fixed with the NCA, then there is little opportunity to innovate. The Contractor can design and deliver the bridges differently eg cast in situ. If we are limited to cosmetic changes like changing a parapet, that offers little opportunity to innovate or value add. Industry is happy with DD&C but would prefer to do a Construct Only delivery especially with 80% of the design already done. Similarly, having the fill material supplied by the Principal also limits innovation. Overall, innovation will be difficult.
19	Question: What are the opportunities in the other packages for designers to get involved? Response: There will be opportunities for design works in the Territory Land adjacent to the LDI (ie service roads, ramps and works on Lanyon Drive itself) as well as the Isabella Drive Interchange. Packaging options are still being examined.
20	Question: Is it possible to meet the expenditure targets by going with a Construct Only, rather than DD&C? Response: Not really for the LDI project. In other upcoming projects the ACT Government will still consider Construct only. In this project, the Government would like to commence work as early as possible and that involves sharing some of the risk. The government believe the DD&C model is the most appropriate delivery model for the LDI as has been demonstrated by the MCA scoring.
21	Question: Could the Government get the RFT out to market sooner? Otherwise design will likely not commence until late 2021 Response: The Territory is aiming to get the EOI and RFT out to market as soon as possible.
22	Question: It is acknowledged that it is too late to do an ECI on the LDI, but it would still make sense for Isabella. Response: Agreed. For Isabella it is a possibility.

23	ACT Gov statement: Targeted expenditure on Indigenous participation is currently set at 1.5% of the project budget and this will increase to 2.5%. This will be a requirement of the contract. We have seen great efforts from industry especially with civil contractors and their subcontractors in this regard. Industry comment was sought. Industry Question: It is preferred if the Government does not constrain how the 1.5% or 2.5% is spent, such as by specifically stating funds be expended only through Indigenous Owned entities, since there are very few such organisations. It is preferable that as much flexibility as possible is given such as by employing individuals or by training. RMS already provides this flexibility and it allows targets to be more readily achieved with better outcomes. ACT Gov Response: The ACT Government is comfortable in principle with allowing such flexibility and we will review the current requirements.
25	Question: What is the IR Risk on the project? Response: As the project is partly Federally funded, there will be Federal IR requirements that need to be adhered to as well as the usual ACT requirements.
26	Question: Will the Territory consider and welcome Joint Ventures (JVs)? Response: The Territory is happy with JVs being submitted. Guidelines are currently being updated. MPC's Noel Bradfield is leading this. Noel's details can be provide so Contractors can discuss what is required for pre-qualification. JVs will need to be approved before RFTs are submitted.
27	Question: Industry is very appreciative of having this workshop. In general, Industry would like to see as many projects as possible designed and sitting on the shelf ready for construction when funding becomes available. How do we encourage more of this to be done. Response: TCCS is trying to have more designs completed in advance. We would welcome Industry lobbying to achieve this. There is a possibility that standards may change, but this is probably a low risk and worth taking to have projects ready to go to tender.
28	Question: Icon Water is generally a risk on these types of projects? Response: Historically yes, and this needs to be managed appropriately.
29	Question: What are the next steps? Response: Advance tender notice. The Territory will try and get this out 2 months before the EOI
30	Question: Would Major Projects Canberra be happy to present the pipeline of future works to an MBA/CCF forum? Response: Yes, happy to present this.
31	Industry Statement: Thank you once again for hosting this event, it has been very informative. We are happy that you have broken the projects into multiple packages. Territory Response: Thank you for participating. Yes, we have packaged the project into multiple stages so that local industry involvement is achieved as much as possible.

Table 1 – Industry briefing questions and responses

4.4 Market Capacity

The Monaro Highway Lanyon Drive Interchange project is a significant infrastructure project as explained in Section 2. Package 1B is the works within the Designated Land road reserve and generally comprises the new southbound flyover and the main highway upgrades. The flyover comprises a six span bridge structure approximately 200m long.

Given that the selected delivery model is a form of design and construct, the principal contractor undertaking the works will be required to have demonstrated design management experience. To assess the ability of the market to achieve this, an analysis of the number of potential principal contractors able to undertake the work has been completed by the study team.

The study team, reviewed and established the preliminary National Prequalification Scheme (NPS) levels required for the project as: F75 R4 & B3. The 'National Prequalification System for Civil (Roads and Bridge) Construction,' has been adopted by the ACT Government. The prequalification ratings represent a financial capacity of \$75m per year, the second highest level of bridge construction technical prequalification (B3) and the second highest road construction technical capacity (R4).

The potential capacity of the market was then identified by reviewing the National Prequalification System register for the ACT Government and there were 7 contractors that met the criteria. Contractors who hold NPS prequalification in one jurisdiction can request mutual recognition of the NPS prequalification in other government jurisdictions. The TfNSW prequalification register was then reviewed and identified a further 30 Contractors.

Throughout the project the prequalification threshold was revised to F50, R4 and B3 taking into consideration the specific scope of Lanyon Drive Interchange project being smaller than the whole Monaro Highway Upgrade Program and the desire to generate more opportunities to local contractors.

With the preliminary prequalification levels set, the study team have reviewed the number of eligible prequalified contractors able to meet the preliminary NPS criteria of F50, R4 & B3 on the prequalification registers maintained by the ACT Government and NSW. This review prequalified a further 7 contractors with 2 in the ACT and 5 from NSW. This means that the market capacity has 43 Contractors that meet the prequalification criteria for the project.

Table 2 shows the details of the contractors that meet the preliminary NPS levels as at October 2020. This shows that there are currently 6 contractors listed on the ACT prequalification register and 30 listed on the NSW RMS prequalification register who have a NPS prequalification level suitable to tender the project. Based on this preliminary analysis, the study team assessed that there are a sufficient number of contractors listed on the ACT or NSW prequalification registers able to tender for the works. It should be noted, that 16 Contractors Prequalification status have already expired.

For reference the prequalification status of a contractor can be either Full or Conditional as reflected on the following tables:

Prequalified ACT Contractors

Jurisdiction	Assessing Road Authority	Contractor	Road 4	Bridge 3	Financial \$m	Expiry date	Pre-qual Status	Count
ACT	TMR	Downer EDI Works Pty Ltd	R5	B3	F150+	30-Apr-22	C	1
ACT	TfNSW	Ferrovial Agroman (Australia) Pty Ltd	R5	B4	F150+	26-Jul-20	C	2
ACT	Main roads	Georgiou Group Pty Ltd	R5	B4	F150+	11-Feb-23	F	3
ACT	DOT	John Holland Pty Ltd	R5	B4	F150+	27-Jul-23	F	4
ACT	TMR	Seymour Whyte Construction Pty LTD	R5	B4	F150+	30-11-22	F	5
ACT	Main Roads	WBHO Infrastructure Pty Ltd	R5	B4	F150+	03-Apr-22	C	6
ACT	TfNSW	Abergeldie Contractors Pty Limited	R4	B4	F100	05-Apr-20	C	7
ACT	ACT	Huon Contractors Pty Ltd	R4	B3	F50	19-Dec-22	F	8

Prequalified NSW Contractors

Jurisdiction	Assessing Road Authority	Contractor	Road 4	Bridge 3	Financial \$m	Expiry date	Pre-qual Status	Count
NSW	TMR	Acciona Construction Australia Pty Ltd	R5	B4	F150	30-Sep-20	C	9
NSW	TMR	Albem Operations Pty Ltd (see notes)	R3	B4	F150+	30-Apr-22	F	10
NSW	TMR	Bielby Holdings Pty Ltd	R5	B4	F150+	31-Jul-23	F	11
NSW	TMR	BMD Constructions Pty Ltd	R5	B4	F150+	31-Dec-22	C	12
NSW	TfNSW	Bouygues Construction Australia Pty Ltd	R5	B4	F150+	10-Aug-23	C	13
NSW	DPTI SA	Civil & Allied Technical Construction Pty Ltd	R4	B3	F100	30-Nov-20	F	14
NSW	TfNSW	Daracon Contractors Pty Ltd	R5	B3	F150	02-Mar-20	F	15
NSW	Main Roads	Decmil Australia Pty Ltd	R3	B3	F150+	26-Nov-21	F	16
NSW	TMR	Ertech (Queensland) Pty Ltd	R4	B4	F150+	30-Jun-20	C	17
NSW	TfNSW	Ertech Pty Ltd and Georgiou Group Pty Ltd	R5	B4	F150+	07-Feb-21	C	18
NSW	DOT	Fluor Australia Pty Ltd	R5	B4	F150+	20-Dec-20	F	19
NSW	DOT	Fulton Hogan Construction Pty Ltd	R5	B4	F150+	27-Jan-23	C	20
NSW	TMR	Fulton Hogan Seymour Whyte Joint Venture	R5	B4	F150+	30-Sep-21	F	21
NSW	TfNSW	Gamuda Berhad t/a Gamuda (Australia) Branch	R5	B4	F150+	28-May-22	F	22
NSW	TMR	Ghella Pty Ltd	R5	B4	F150+	30-Sep-20	C	23
NSW	TMR	Golding Contractors Pty Ltd	R5	B4	F150+	30-Jun-21	F	24
NSW	TfNSW	GS Engineering & Construction Australia Pty Ltd	R5	B4	F150+	22-Aug-21	C	25
NSW	DOT	Laing O' Rourke Australia Construction Pty Ltd	R5	B4	F150+	19-Oct-20	F	26
NSW	TfNSW	Lendlease Engineering Pty Ltd	R5	B4	F150+	22-Jul-22	F	27
NSW	DOT	McConnell Dowell Constructors (Aust) Pty Ltd	R5	B4	F150+	16-Jul-21	C	28
NSW	Main Roads	NRW Contracting Pty Ltd	R5	B4	F150+	30-Jun-20	C	29
NSW	Main Roads	NV BESIX S.A	R5	B4	F150+	27-May-21	F	30
NSW	TfNSW	Obayashi Corporation	R5	B4	F150+	17-Oct-20	F	31
NSW	TMR	Rizzani de Eccher Australia Pty Ltd	R5	B4	F150+	12-Dec-19	C	32
NSW	TfNSW	Salini Impregilo SPA	R5	B4	F150+	26-Jul-20	F	33
NSW	TMR	Samsung C&T Corporation	R5	B4	F150+	26-Jul-20	F	34
NSW	TMR	SEE Civil Pty Ltd	R4	B3	F150	28-Feb-21	F	35
NSW	TfNSW	STRABAG AG	R5	B4	F150+	11-Apr-22	C	36
NSW	DSG Tas	VEC Civil Engineering Pty Ltd	R4	B4	F150+	11-Oct-21	C	37
NSW	TfNSW	Watpac Construction Pty Ltd	R5	B4	F150+	19-May-23	C	38
NSW	TfNSW	Nace Civil Engineering Pty Limited	R5	B3	F100	23-May-20	C	39
NSW	TMR	SGQ Pty Ltd	R4	B3	F100	31-Dec-21	F	40
NSW	DSG Tas	Hazell Bros Group Pty Ltd	R4	B3	F75	31-Mar-20	F	41
NSW	TMR	McIlwain Civil Engineering Pty Ltd	R5	B4	F75	30-Sep-20	C	42
NSW	TfNSW	Robson Civil Projects Pty Ltd	R4	B3	F50	04-Apr-20	F	43

In assessing the list of National Prequalification register, a further 13 Contractors were identified that were Prequalified in ACT/ NSW and had missed the prequalification criteria by 1 element, eg they had B2 instead of B3 but had R4 and a Financial limit of \$50m or over.

Contractors missing out on 1 Criteria

Jurisdiction	Assessing Road Authority	Contractor	Road 4	Bridge 3	Financial \$m	Expiry date	Pre-qual Status	Count
NSW	TMR	Albem Operations Pty Ltd	R3	B4	F150+	30-Apr-22	F	1
NSW	TfNSW	Arengo (NSW) Pty Limited	R3	B4	F100	05-Mar-20	F	2
NSW	TfNSW	Burton Contractors Pty Ltd	R4	B2	F100	03-Jul-20	F	3
NSW	TMR	Brady Marine and Civil Pty Ltd	R2	B4	F50	23-Mar-23	F	4
NSW	TMR	Canstruct Pty Ltd	R2	B4	F150	30-Sep-22	F	5
NSW	TMR	FK Gardner & Sons Pty Ltd	R4	B2	F150+	31-Mar-20	F	6
ACT	ACT	Guideline (A.C.T) Pty Limited	R4	B3	F25	02-Apr-20	F	7
NSW	Main Roads	Highway Construction Pty Ltd	R4	B2	F100	01-Feb-20	F	8
NSW	TMR	JF Hull Holdings Pty Ltd	R3	B4	F150+	31-Mar-23	F	89
ACT	Main Roads	Maca Civil Pty Ltd	R4	B2	F150+	05-Sep-21	C	10
NSW	TfNSW	Quickway Constructions Pty Ltd	R2	B4	F50	04-Sep-22	F	11
NSW	TfNSW	Ward Civil & Environmental Engineering Pty Ltd	R4	B2	F75	10-Apr-20	F	12
ACT	ACT	Woden Contractors Pty Ltd	R4	B4	F25	15-Oct-20	F	13

Winslow Constructors and Winslow Infrastructure has been added below as they are qualified in financially in ACT but not in Road and Bridge. However, in Victoria they satisfy the qualifying criteria.

Jurisdiction	Assessing Road Authority	Contractor	Road 4	Bridge 3	Financial \$m	Expiry date	Pre-qual Status	Count
ACT	DOT	Winslow Constructors Pty Ltd	R3	B2	F150+	27-Feb-21	F	1
VIC	DOT	Winslow Infrastructure Pty Ltd	R4	B3	F75	18-Oct-21	F	2

4.5 Market Appetite

The questionnaire and market sounding meeting held with industry representatives of both the designers and civil contractors, the respective industry representatives advised that there was a good market appetite for both the design and construction works.

The market sounding indicated a preference for Traditional/ Construct Only but were comfortable using a Develop Design and Construct (DD&C) delivery method.

4.6 Local Industry Opportunities

There are possible opportunities as a Principal Contractor for the project for ACT based contractors with the correct level of prequalification, other opportunities for local industry involvement may be available through sub-contract works, design works and supply contracts to the Principal Contractor. During the industry briefing the participants advised that they were not too keen to partner up with T1 Contractors, they however welcomed the opportunity to team up locally. In addition, the market was very grateful to be given advance notice of the early utilities work, as well as the future projects around Package 1C of the Lanyon Drive Interchange and the Isabella Interchange that will include detail design, early relocation of utilities and construction packages. In summary, the project potentially offers a range of opportunities for the involvement of the ACT local industry.

4.7 Value for money / competition

There is a potential pool of 43 civil engineering contractors who are suitably prequalified on the ACT Government and NSW NPS prequalification registers. This indicates that there is sufficient competition to achieve a value for money outcome in tendering.

5. Summary of market analysis and sounding findings

The points below summarise the key findings of the market analysis and sounding exercise for the Monaro Highway Lanyon Drive Interchange Package 1B.

- There is sufficient capacity, appetite and experience available in the ACT / NSW region to elicit a comprehensive response to a Design and Construct tender in the first half of 2021.
- There are 43 contracting organisations potentially NPS prequalified on NSW and ACT Government registers able to undertake the works.
- The DD&C approach will provide opportunities for contractors to potentially innovate in the final detailed design to align the design with their proposed methodology / equipment. This may be limited as explained in the industry response to question 18 in Section 4.3.2
- The preliminary design stage of the DD&C model should include mitigation of design issues that the Government is best able to manage. These would typically include: development approvals, environmental approvals, co-ordination with utility authorities and geotechnical investigations. Industry is willing to accept some risk on contaminated soil, unexpected environmental conditions, traffic management and industrial relations issues.
- The DD&C model has traditionally mitigated cost issues when technical and constructability issues have arisen during construction.
- The DD&C model is well understood by both ACT Government and the industry.

6. Appendix A – Industry Presentation Pack

Monaro Highway Upgrade Program

Procurement Study Phase 4

Market Sounding

17th November 2020

Agenda

Item	Lead	Approx Time
Introductions	All	9:00
Project Overview and Objectives	Stuart	9:05
Procurement Options Study journey to date • Phase 1 – Risk & opportunity • Phase 2 – Delivery options study phase • Phase 3 – Multi Criteria Analysis workshop	Jonathan	9:15
Market sounding questionnaire results / discussion	All	9:30
Close		10:30

Workshop Facilitation Guidance

- Participation – all contributions considered and included in the ideas, solution or decisions that emerge
- Cameras on please – lets make this digital workshop as real as we can
- Chat function – can be used to ask questions
- Have patience – things may take slightly longer than normal and not as easy as being all in the same room
- Be polite and courteous to each other
- Interruptions and distractions – Please be on mute if you have a noisy background
- Parking lot – Need to maintain momentum, capture unresolved items on the Teams chat function
- Outcomes, actions and questions will be properly recorded and circulated

Attendees

Person	Representing	Organisation
Jonathan Key - Facilitator	Jacobs	
Darren Smith	ACT Gov	
Leon Mayers	ACT Gov	
Jeremy Smith	ACT Gov	
Nathan Greig	ACT Gov	
Stuart Oxborrow	ACT Gov	
Michael Hopkins	MBA - Master Builder Association	
Michael Hill	CA - Consult Australia	AECOM
Nick Zardo	CCF - Civil Contractors Federation	Guideline ACT
Daniel Hill	CCF	Canberra Contractors
Anisha Sachdeva	CCF	Huon
Adam Howard	CCF	Huon
Lach Haskins	CCF	Complex Civil
Matt Haskins	CCF	Complex Civil
Ben Helmers	CCF	Wodens Contractors
Stuart Ritchie	CCF	Cord Civil
Yaaman Majeed	CCF	Group One
Anthony O'Brien	CCF	Ram Constructions
Trevor Allen	Suppliers	Canberra sand and gravel
Debra Bowman	Suppliers	Boral
Charlotte Walker	Suppliers	Boral
Joe Condi	Suppliers	EEA Australia
Jordan Luck		

Introductions

- Name
- Organisation
- What are you looking to get out of today's meeting

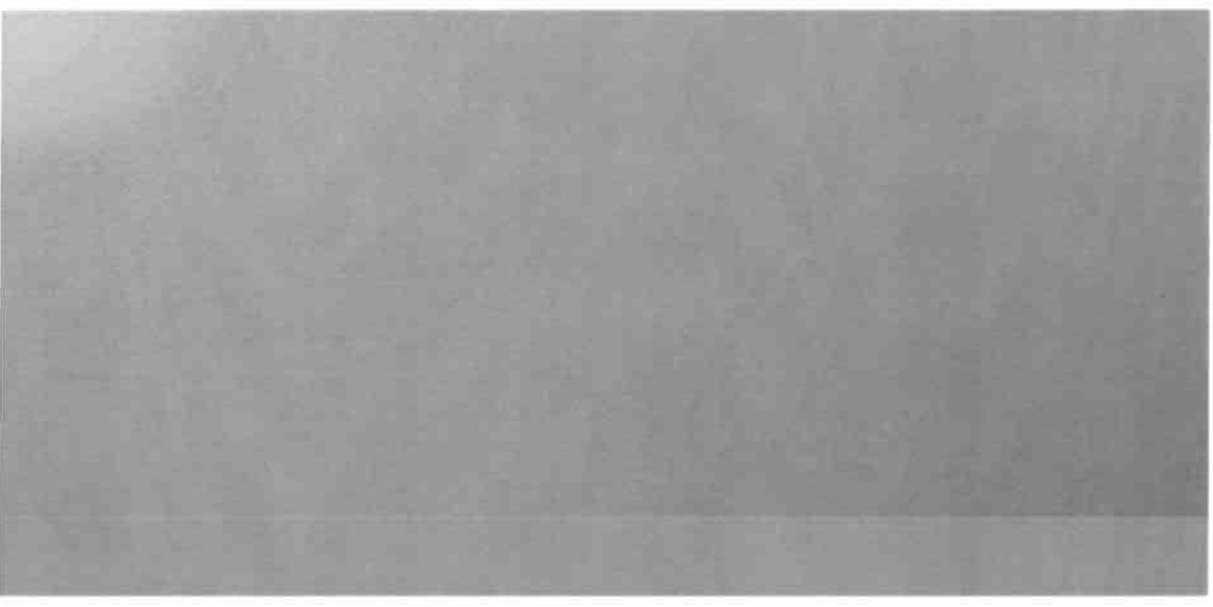
Introduction to the project

Jacobs has been engaged to undertake the PSP Design for the Monaro Highway Lanyon Drive Interchange Project.

Jacobs has also been engaged to complete a Procurement Options & Model Delivery Study to select the most appropriate delivery model for the project.

The purpose of this workshop is to communicate the outcomes of the study and to have an Industry Sounding as to the capacity and appetite to deliver using the proposed Delivery Model

Project Overview and Early Works Packages



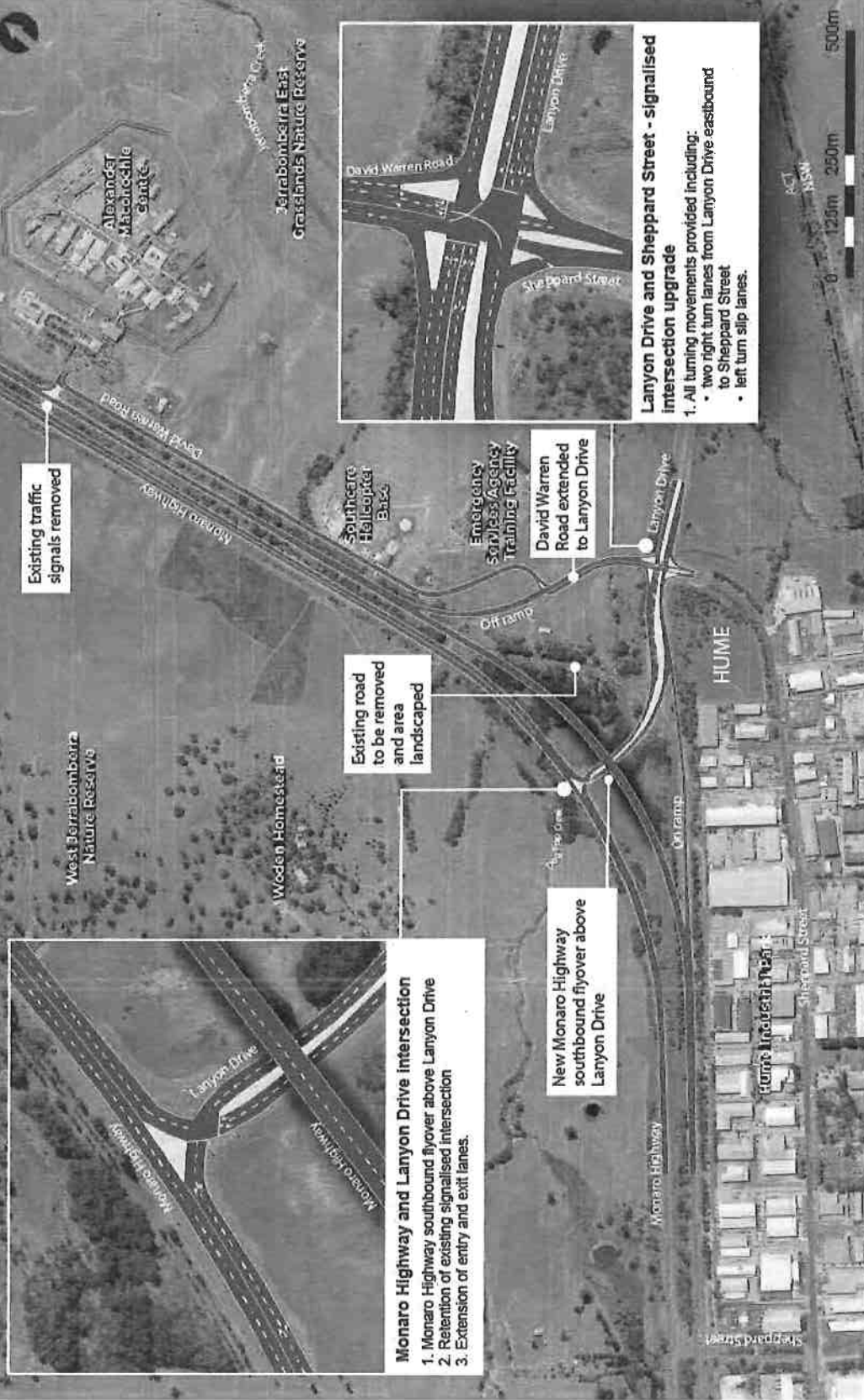
Project Overview

The Monaro Highway is a key arterial route connecting to the Majura Parkway at its northern end, continuing south to Cooma and then to the Princes Highway in Victoria. Within the ACT, it also provides part of the key link between Queanbeyan and Canberra City, and is a key connection between southern suburbs and the industrial areas of Hume and Fyshwick.

Examination of highway upgrade options through Hume commenced in 2018. In mid 2019 Jacobs were appointed to undertake feasibility and preliminary designs for the Lanyon Drive and Isabella Drive interchanges. In November 2019, the Federal and ACT Governments announced that construction of the project would commence during financial year 2020/21, approximately one year earlier than originally planned. The Lanyon Drive interchange was subsequently identified as the preferred location for an early works package, and a feasibility stage layout was chosen to progress to preliminary sketch plan (PSP).

The PSP design for Lanyon Drive is currently underway by Jacobs to provide suitable upgrade options for the Monaro Highway between the Alexander Maconochie Centre and Isabella Drive, including grade separation of Lanyon Drive and Isabella Drive at the Monaro Highway. The project also includes examining the upgrades to Johnston Drive further to the south, and the preparation of PSP designs for two heavy vehicle lay-bys.

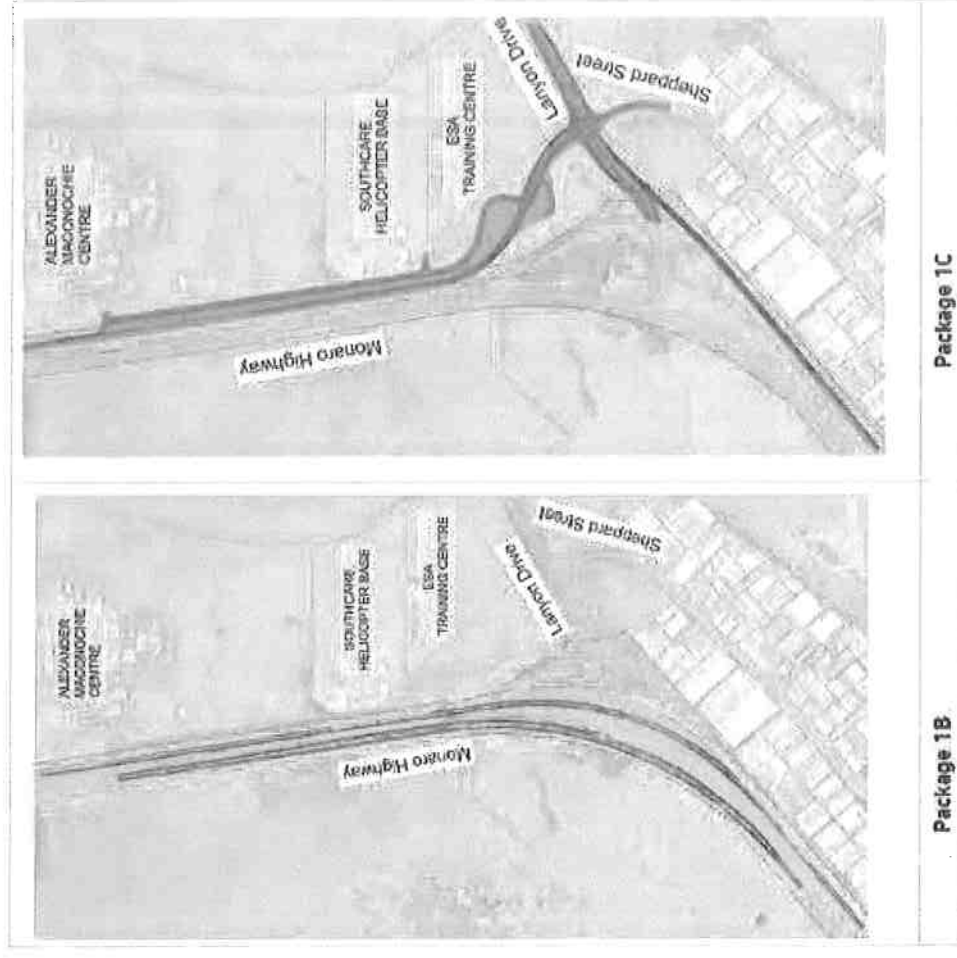
Monaro Highway and Lanyon Drive upgrade



Projects / Work Packages

The Lanyon Drive Interchange project has been further split into two projects which will be delivered separately.

- Package 1B is the works within the Designated Land road reserve and generally comprises the new southbound flyover and the main highway upgrades (and is the subject of this Market Sounding). The flyover comprises a six span bridge structure approx. 200m long.
- Package 1C is the work within Territory Land, with minor associated works in Designated Land, and generally comprises the upgrades to Lanyon Drive, the highway ramps and the extension to David Warren Road.



Works Packages

Package	Definition	Approx timing	Approx value
Utilities Detailed Design. Package 1B and 1C	Protection and relocation of utilities. Design Package currently being tendered.	December 2020	\$0.25m
Utilities – Early works Construction. Package 1B	Protection and relocation of utilities.	Early 2021 approx. 4 -6 month duration. It is envisaged that the Utility Construction Package will be run in parallel with the initial phases of early civil works package	\$10m
Design, Develop & Construct. Package 1B	Detailed Design and construction of New southbound flyover and the main highway upgrades	Start design early 2021	
Design, Develop & Construct, including relocation of utilities. Package 1C	Detailed design and construction for upgrades to Lanyon Drive, the highway ramps and the extension to David Warren Road.	Start design early 2022	
Package 2 Isabella Interchange	Detailed Design TBC	Late 2021	
Package 2 Isabella Interchange	Early relocation of utilities	Early 2022	
Package 2 Isabella Interchange	Construction	Mid 2022	

Project Objectives

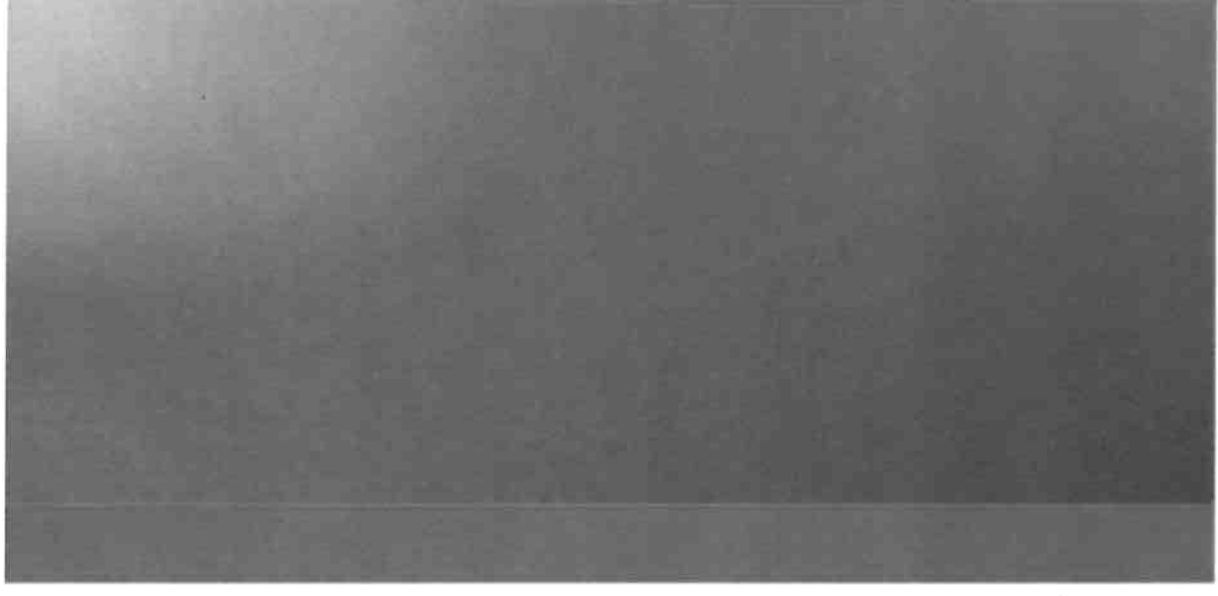
Project Delivery

1. No WHS incidents during construction
2. Achieve value for money in delivery. Project budget for entire Monaro Upgrade is \$200m
3. Substantial works commencing on site before June 2021.
4. Deliver the scheme with minimum impact on local heritage and the environment.
5. Address and incorporate stakeholder concerns, where possible.
6. Meet policy guidelines – e.g. Local Industry Participation Policy, Secure Local Jobs, Indigenous Participation.

Project Performance Outcomes

1. Increase posted road speed to 100kph in line with the rest of Monaro highway
2. Improve travel times in AM and PM peaks for current and future (2031 and 2041) traffic demands
3. Minimal impact to existing traffic during construction

Procurement Options and Delivery Assessment Studies to date



Procurement Options and Delivery Model – Studies to date

Phase 1: Risk and Opportunity Assessment

Consolidated risk register including mitigation strategies. Project Risk Profile established

Phase 2: Delivery Models Options Study Phase.

Review of possible delivery models and procurement options available. In this stage the advantages and disadvantages of proposed delivery models were compared and guidance provided on the applicability of each. This phase resulted in a delivery model shortlist for inclusion in Phase 3 Multi Criteria Analysis

Phase 3: Multi Criteria Analysis (MCA) Phase.

Workshop held to rank the shortlisted delivery models against a weighted assessment criteria.

Phase 4: Market Sounding.

Preliminary questionnaire to Industry Bodies. ie this current work.

Phase 1: Risk Opportunity Assessment

During Phase 1 a risk assessment workshop was held between Jacobs and various ACT government agencies associated with project. 80 risks were identified. Each risk was reviewed and mitigated using the strategies below:

1. Eliminate the risk
2. Transfer the risk
3. Share the risk and monitor
4. Accept the risk and monitor
5. Accept the risk, treat and monitor
6. Treat the risk and transfer residual
7. Further investigate risk
8. Treat risk and own
9. Treat risk and share

This output provides an overview of the ACT Gov risk appetite for the Project

Phase 2 Procurement Models Options Study

The following source documents were used for reference:

- ACT Government SAF Business Case Guide 2016 v2.1.
- ACT Guidelines for Public Private Partnerships.
- ACT Government – Molongolo River Bridge and John Gorton Drive Options Study 2017
- Building and Construction Procurement Guide, Principles and Options 2014 – Austroads & Australasian Procurement and Construction Council.
- Guide to Project Delivery 2014 – Austroads.
- National Public Private Partnership Guidelines 2008 – Australian Government Dept of Infrastructure and Regional Development.
- National Framework for Traditional Contracting 2015, Australian Government Dept of Infrastructure and Regional Development.
- National Alliance Contracting Guidelines, Early Contractor Involvement 2015 - Australian Government Dept of Infrastructure and Regional Development.
- Technical guidance Procurement strategy guideline 2013 – Victoria Department of Treasury & Finance.
- Jacobs – Project Contracting Strategies white paper 2018.

Phase 2 – Recommended Procurement Models

- Traditional (Construct Only).
 - Design & Construct - Performance Specification Design and Construct (PSD&C).
 - Design & Construct – Develop, Design and Construct (DD&C).
 - Design & Construct - Design, Novate and Construct (DN&C).
 - Project Management Agreement (PMA)/ Construction Management
 - Managing Contractor (MC)
-
- Early Contractor Involvement / Early Tender Involvement is an option with all models above

Phase 2 - Procurement Models – Not Recommended

- **Design & Construct - Design, Construct and Maintain (DC&M)**
- **Design & Construct – Design Construct Maintain Operate (DCMO)**
- **Alliance**
- **PPP BOOT**
- **PPP Availability**

Phase 3 – Multi Criteria Analysis

Pre – MCA Workshop	MCA Workshop
• Confirmed shortlisted Delivery Models • Confirmed project risk profile • Reviewed proposed MCA Criteria • Consolidated and agreed MCA Criteria • Agreed Scoring Regime • Agreed Criteria Weighting	• Participants anonymously scored each MCA against each Delivery Model (unweighted) • Applied Weightings • Selected Delivery Model • Agreed Delivery Model • MCA Workshop Report

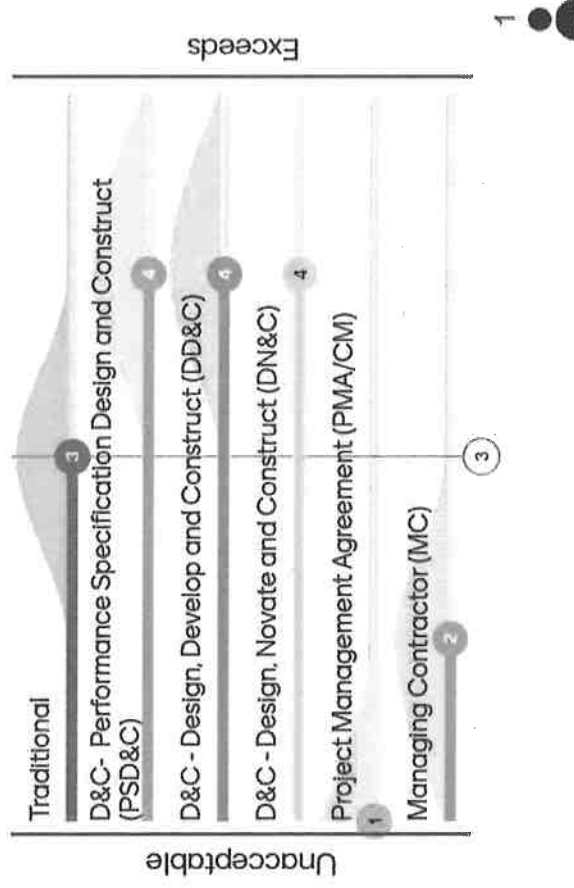
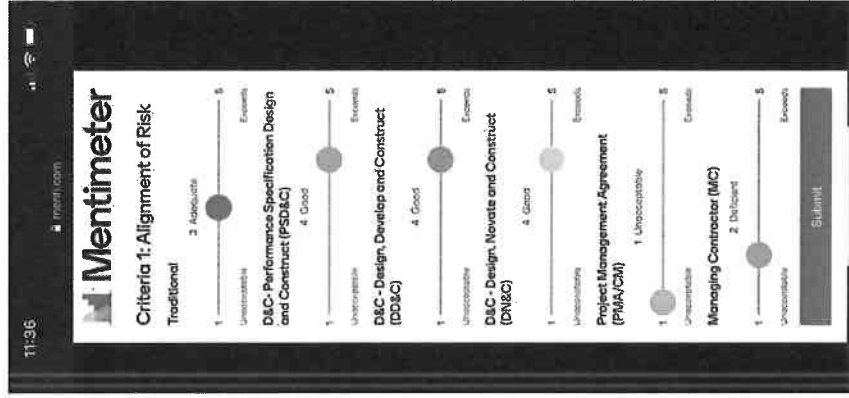
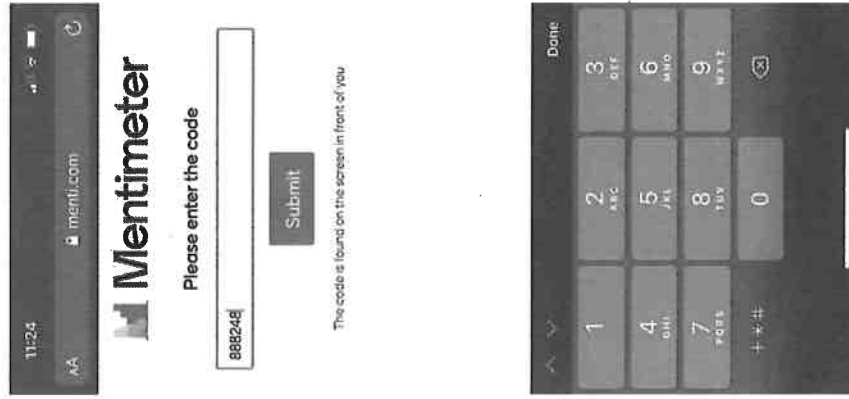
Phase 3 – Multi Criteria Analysis

#	Criteria	Definition	Weighting
1	Risk Management – Alignment of risks	The extent to which each procurement option provides incentives to manage and reduce risks via an effective and efficient risk allocation to the parties best able to manage and price risk.	15%
2	Certainty on Time / Schedule	The extent to which each procurement option provides the greatest level of certainty to the delivery of the final and key intermediate milestones on, or ahead of time.	20%
3	Certainty on Budget	The extent to which each procurement option assists the Principal to confidently predict cost (i.e. certainty around capital costs / operating and maintenance expenditure associated with the project assets / quantum of public funding where required).	25%
4	Quality, design objectives, Operations & Maintenance	The extent to which each procurement option supports achieving the Principals performance and quality requirements.	20%
5	Flexibility including future scope & design changes	The extent to which each procurement option allows the Principal to influence scope and design at any stage (Post Award) with readily definable time and costs impacts.	10%
6	Community & Stakeholder Government	The extent to which each procurement option assists the Principal in managing community and stakeholders through the delivery of the project.	5%
7	Innovation	The extent to which a procurement option provides incentives for the private sector to introduce new or change ideas, approaches, methodologies, materials and buildability options during design & construction to achieve best project outcomes	5%

Phase 3 - Scoring Matrix

Score	Definition
5	Exceeds - The Procurement Model exceeds the requirements of the Criterion.
4	Good - The Procurement Model satisfies all the requirements of the Criterion. The Procurement Model is considered a good fit against all the requirements of the Criterion.
3	Adequate - The Procurement Model Adequately satisfies the requirements of the Criterion. The Procurement Model contains few or very limited deficiencies against the Criterion, however these are considered acceptable.
2	Deficient - The Procurement Model satisfies few or very limited requirements of the Criterion. The Procurement Model is mostly deficient for use against the Criterion and unlikely to be acceptable.
1	Unacceptable -The Procurement Model does not satisfy any of the requirements of the Criterion and is unacceptable for use against the Criterion.

Phase 3 – Multi Criteria Analysis Scoring

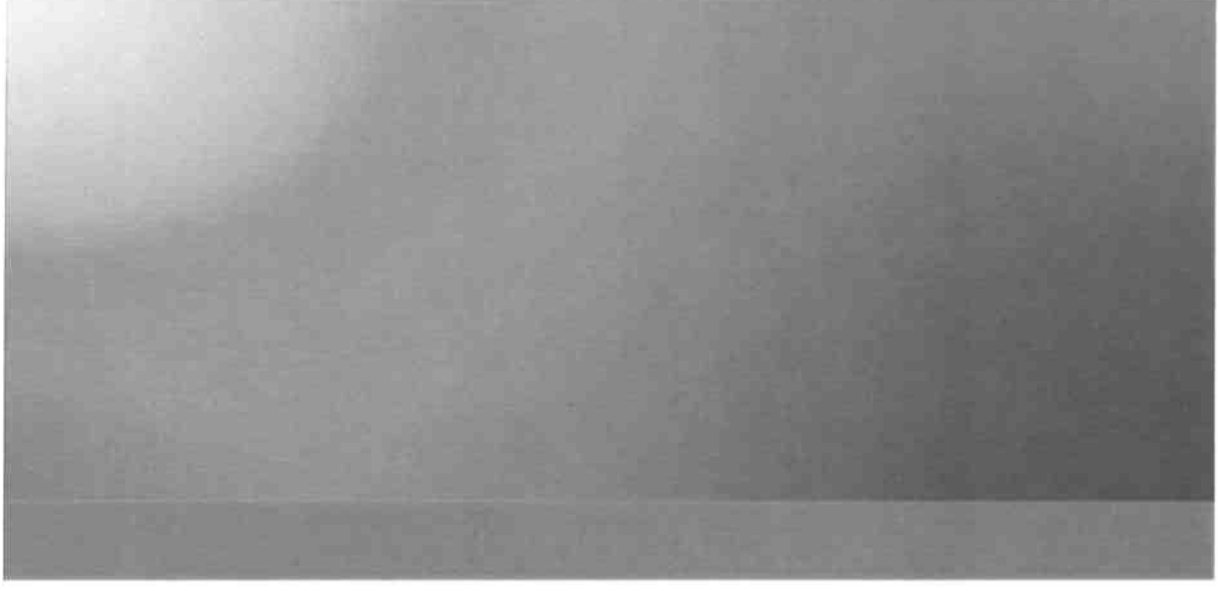


Phase 3 - MCA Results

Raw Score			Construct Only		Procurement Model				
Criteria ID	Description	Max Score	Score	Score	PSD&C	DD&C	DN&C	PMA	MC
C1	Risk Management/ Alignment of Risks	5	2.8	3.2	3.9	3.1	2.0	2.7	
C2	Certainty on Time / Schedule	5	2.9	3.1	3.8	3.4	2.6	2.9	
C3	Certainty on Budget	5	3.3	2.9	3.7	3.6	2.2	2.5	
C4	Quality, Design Objectives, Operations & Maintenance	5	3.9	2.9	3.7	3.3	2.8	3.1	
C5	Flexibility to include future scope and design changes	5	2.9	2.7	3.3	2.7	2.8	3.1	
C6	Community and Stakeholders	5	3.5	2.7	3.0	3.0	3.3	3.5	
C7	Innovation	5	2.4	3.2	3.4	3.3	2.6	3.4	
Total		35	21.7	20.7	24.8	22.4	18.3	21.2	

Weighted Score			Construct Only		Procurement Model				
Criteria ID	Description	Weight	Score	Score	PSD&C	DD&C	DN&C	PMA	MC
C1	Risk Management/ Alignment of Risks	15.0%	8.4%	9.8%	11.7%	9.3%	6.0%	8.1%	
C2	Certainty on Time / Schedule	20.0%	11.6%	12.4%	15.2%	13.6%	10.4%	11.6%	
C3	Certainty on Budget	25.0%	16.5%	14.5%	18.5%	18.0%	11.0%	12.5%	
C4	Quality, Design Objectives, Operations & Maintenance	20.0%	15.6%	11.6%	14.8%	13.2%	11.2%	12.4%	
C5	Flexibility to include future scope and design changes	10.0%	5.8%	5.4%	6.6%	5.4%	5.6%	6.2%	
C6	Community and Stakeholders	5.0%	3.5%	2.7%	3.0%	3.0%	3.3%	3.5%	
C7	Innovation	5.0%	2.4%	3.2%	3.4%	3.3%	2.6%	3.4%	
Total Rank		100%	63.80%	59.40%	73.20%	65.80%	50.10%	57.70%	
			3	4	1	2	6	5	

Phase 4 – Market Sounding



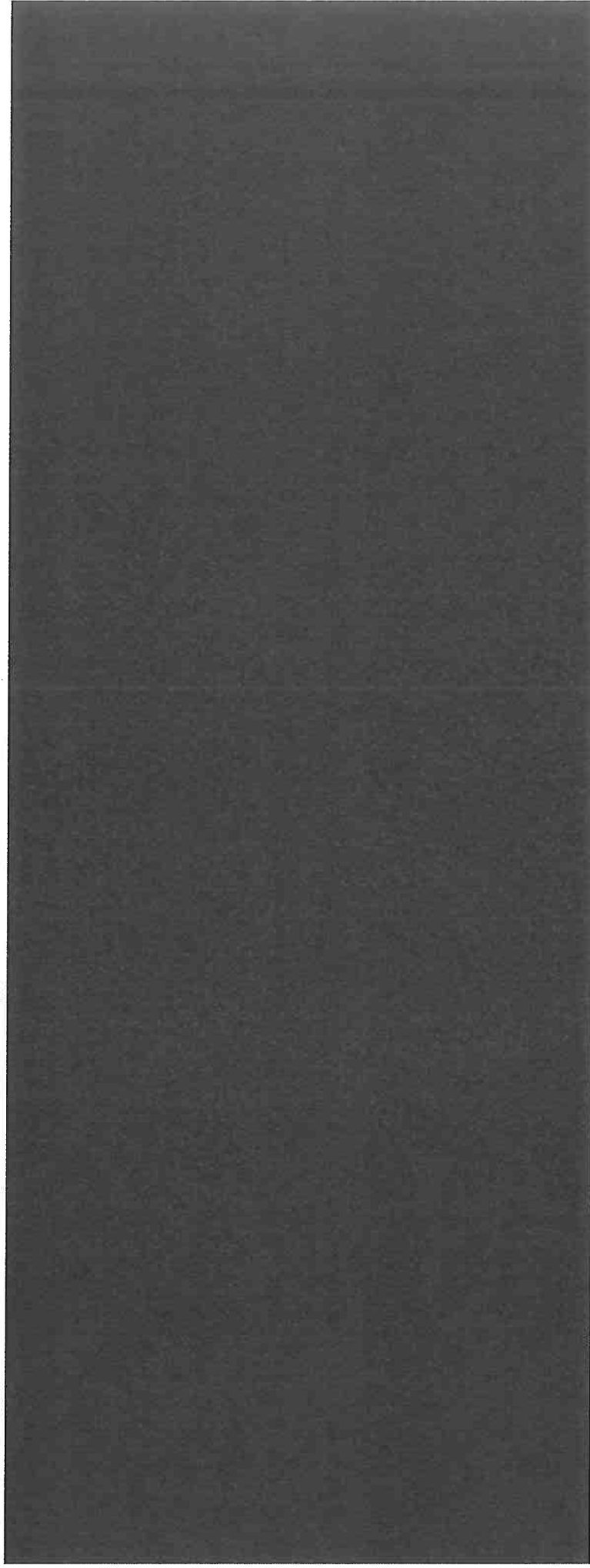
Phase 4 – Market Sounding

- Agreed Delivery Model – Develop Design & Construct
- Market Appraisal
 - Identify key players
 - Determine market capacity
 - Consider whether there is sufficient competition to drive value for money outcomes
- Market Sounding
 - Consult with key industry bodies on selected delivery model & market position
 - Likely pre-qualification requirements. F50, R4, B3 – to be confirmed
 - Expression of Interest
 - Joint ventures
 - Local industry participation

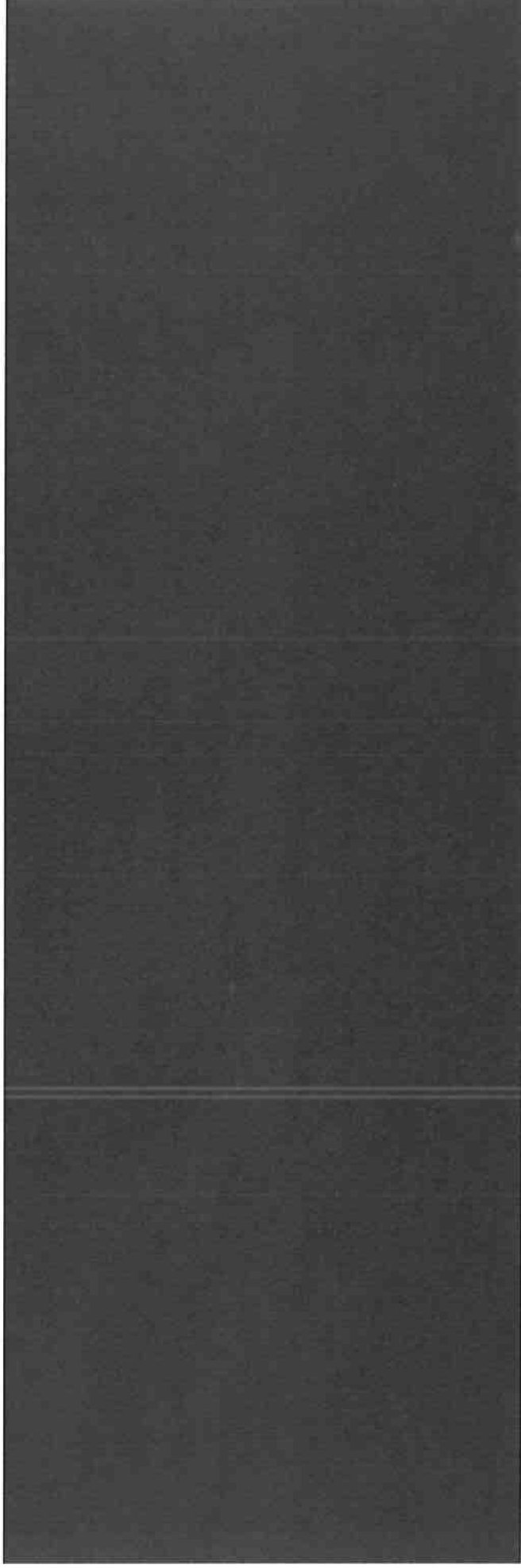
Phase 4 – Market Sounding Questions

2.1	What is the market's interest/ appetite to respond to a Develop, Design & Construct RFT for the delivery of a major roads upgrade in 2021?	☐ No Interest ☐ Little Interest ☐ Some Interest ☐ Good Interest ☒ Overwhelming Interest
2.2	What is the market's capacity to deliver the project?	☐ No Capacity ☐ Little capacity ☐ Some capacity ☐ Good capacity ☒ Significant capacity
2.3	What is the market's capability to deliver the project which includes an approximate 200m long, six span viaduct ?	☐ No experience ☐ Little experience ☐ Some experience ☐ Good experience ☒ Significant experience
2.4	A two-stage tender process is currently envisaged. ie EOI, shortlist then RFT. What is the industry's view on this approach?	☐ Disagree with the approach ☐ Slightly disagree ☐ Indifferent ☐ Support the approach ☒ Strongly support the approach
2.5	How many contractors do you feel is appropriate to shortlist for the RFT?	☐ 1 Contractor ☐ 2 Contractors ☒ 3 Contractors ☐ 4 Contractors ☐ 5 or more Contractors

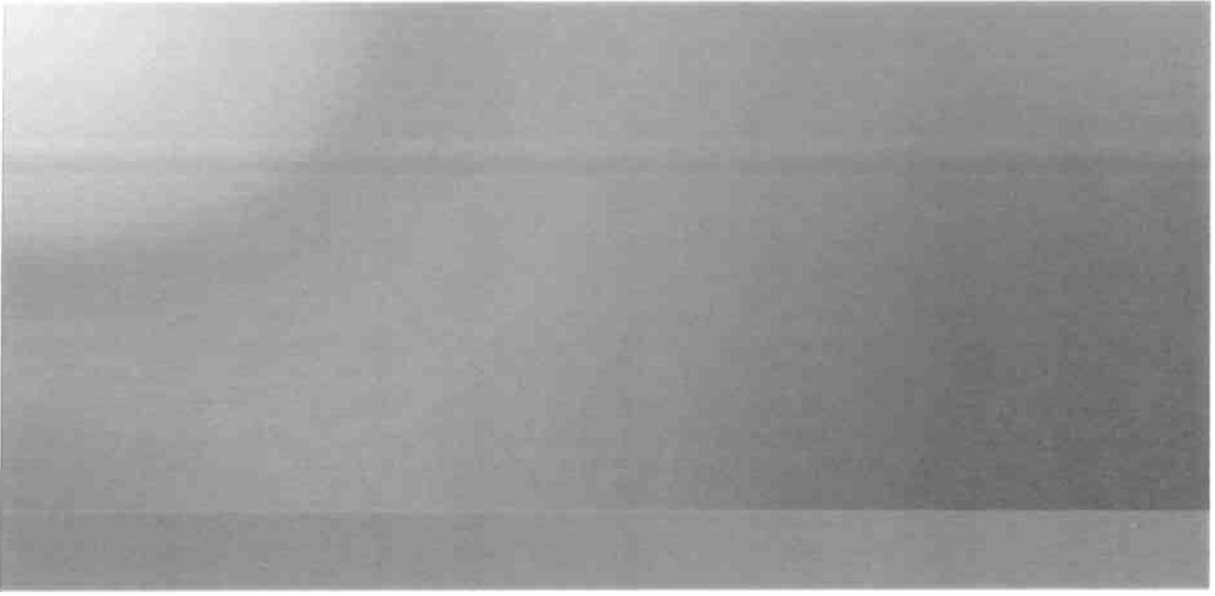
Phase 4 – Market Sounding Questions



Phase 4 – Market Sounding Questions



Thank you



Phase 4 – Market Sounding Questions

- At the market sounding meeting we would like engage with you and discuss the following questions:
 8. What benefits do you believe an Early Contractor Involvement (ECI) bring to the project?
(eg innovation, speed to market etc).
 9. What is your understanding of the ACT Indigenous Participation Policy, and what are your thoughts as to how this could be successfully implemented on our project?

Phase 4 – Market Sounding Questions

■ Prior to and at the market sounding meeting we would like engage with you and discuss the following questions:

1. What is the market's interest/ appetite to respond to a Develop, Design & Construct RFT for the delivery of a major roads upgrade in 2021? (1= No interest, 5= Overwhelming interest)
2. What is the market's capacity to deliver the project? (1= No capacity, 5= Significant capacity)
3. What is the market's capability to deliver the project which includes an approximate 200m long, six span viaduct? (1= No experience, 5= Significant experience)
4. A two-stage tender process is currently envisaged. ie EOI, shortlist then RFT. What is the industry's view on this approach? (1= Disagree with this approach, 5 = Strongly support this approach)
5. How many contractors do you feel is appropriate to shortlist for the RFT? (1= 1 Contractor, 5 = 5 or more Contractors)
6. If the prequalification level is set at F50 or F75, what is the local industry interest to team up with a Contractor that is pre-qualified? (1= Not interested, 5 = Very happy to team up)
7. To what level does industry feel the design should be developed prior to the release of the RFT? (100% concept, 50% Detailed Design, 80% Detailed Design)
8. What appetite would the industry have for taking the risk on: (Scoring 1= No appetite, 5 = Significant appetite)
 - Planning approvals
 - Contaminated soil
 - Unexpected environmental conditions
 - Traffic management
 - IR Issues

