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Matakana Link Road Project

Recommendations

That the Board:

- i. Receives this update on the Matakana Link Road Project.
- ii. Notes the risks identified in relation to appeals, land purchase and funding.
- iii. Approves the procurement approach for a traditional, Lowest Price Conforming (LPC) competitive tender to Auckland Transport's Tier 1 physical works panel, seeking tender prices for Stage 1 and Stage 1B designs.
- iv. Notes management will seek approval for contract award following procurement, including assessment of Stage 1 or Stage 1B scope affordability within the \$62.2 million funding envelope, with a business case for any residual funding to deliver Stage 1B if outside the funding envelope.
- v. Notes that the New Zealand Transport Agency approval is granted for Stage 1 design and will be needed for Stage 1B.

Executive summary

1. The Matakana Link Road (MLR) project is a new 1.35km green fields road proposed to improve resilience and facilitate planned growth in the Warkworth area.
2. In late 2018 a Notice of Requirement (NoR) and associated resource consent applications were lodged with Auckland Council (AC). The NOR was for the construction, operation and maintenance of a four-lane urban arterial, which was to be delivered in two stages. Stage 1 was to provide two lanes of traffic and a shared path to be delivered by October 2021 (subject to no appeals), to align with the planned opening of the NZ Transport Agency's (Transport Agency) Pūhoi to Warkworth State Highway project (P2Wk). Stage 2 would upgrade the road to four lanes when required in the future, between 2026 and 2036.
3. The applications have been heard by Independent Commissioners on behalf of AC. On 6 June 2019, AC granted the resource consents and recommended confirmation of the NoR. The resource consents are now open to appeal and the NoR will be open to appeal following Auckland Transport's confirmation or otherwise of AC's recommendation and conditions.
4. The MLR will tie into an intersection with State Highway 1 (SH1) which, together with approximately 60 metres of the MLR approach, is being constructed by the Transport Agency. AC granted the Transport Agency's resource consents and recommended confirmation of the NoR on 9

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May 2019. At the time of writing this report two appeals have been received in relation to the resource consents granted for the Transport Agency's portion of work.

5. Negotiations to acquire the land required for the full four lanes of the MLR have been progressing and are expected to be completed early in the 2019/2020 financial year.
6. Since the NoR and associated resource consents were lodged, the two lane Stage 1 design has been Value Engineered (VE). The VE process has identified a number of savings and cost reduction opportunities and these have been used to revise the Stage 1 design to provide approximately 800m of future four lane capacity along the MLR from SH1 to just prior to the bridge crossing within the approved \$62.2 million funding.
7. Safety of operating at four-lanes for only part of the road on day one as opposed to the full length is currently being assessed with potential mitigations (including only marking two-lanes).
8. Additional opportunities for savings could be achieved through land purchase negotiations, tender price tension and collaboration with adjacent land owners regarding earthworks spoil onsite. If this could be achieved, there is potential for the additional four-lane capacity in Stage 1 to be continued further across the bridge (Stage 1B), for the approved budget.
9. The Transport Agency has advised initial acceptance of the existing \$62.2 million budget, with optimised scope delivery for Stage 1. The Transport Agency has caveated this initial funding confirmation to the extent that it does not anticipate further funding scope changes for the project, therefore, Stage 1B would need further funding scope approval from the Transport Agency.
10. The Transport Agency needs to confirm that the SH1/MLR intersection will be constructed for four-lane capacity.
11. Design and procurement for construction of the Matakana Link Road will continue to be finalised in parallel with any appeal process.
12. It is proposed to progress with a traditional competitive tender at Lowest Price Conforming (LPC) through the AT Tier 1 Physical Works Panel. Two tender prices will be sought; Stage 1 (800m of four-lane) and Stage 1B (full four-lane).
13. Upon analysis of the tender prices, management will confirm the extent of any four-lane scope that is achievable within the approved \$62.2 million funding envelope and assess a business case for residual funding needed for delivering full four-lane scope within a single Stage 1, as part of seeking contract award approvals.

Previous deliberations

14. At the May 2018 meeting, the AT Board resolved

That the Board:

- i. Receives the report.

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- ii. Approves the Matakana Link Road be designed and constructed in one stage as a four-lane urban arterial road at a project cost of \$89 million (inflated) subject to confirmation of an increased level of co-investment and advance funding from the NZ Transport Agency (Transport Agency).
 - iii. Confirms the Matakana Link Road project funding of \$89 million (inflated) in the draft Regional Land Transport Plan 2018.
 - iv. Approves to proceed with notification of Notice of Requirement (NoR), private land purchase and detailed design for the four lane urban arterial Matakana Link Road.
15. At the August 2018 meeting, the AT Board resolved to revise the project scope and reduce the capital investment of the Matakana Link Road project to reflect a staged approach.
- That the Board:
- v. Receives the Matakana Link Road - Alternative Options report.
 - vi. Notes the revised project scope that reduces initial capital investment whilst meeting the forecasted transport demand of the expected population growth.
 - vii. Approves re-lodgement of the Matakana Link Road designation to reflect staging towards the ultimate (four lane) solution.
 - iv. Approves the commencement of negotiations with landowners on the four-lane footprint.
 - viii. Approves revision of the funding application to the New Zealand Transport Agency to reflect a staged approach to construction of Matakana Link Road.
16. At the May 2019 meeting, the AT Board received a deputation from Councillor Sayers, One Warkworth business association and residents and ratepayers associations to progress a single stage four-lane construction of the MLR.

Strategic context

- 17. Auckland Council's Auckland Unitary Plan identifies over 432 hectares of 'future urban' zoned land to the north and north east of Warkworth town. Some of this land which is currently used for rural activities has been 'live zoned' to enable urbanisation in the near future. The proposed Matakana Link Road will support desired urbanisation.
- 18. The Matakana Link Road was identified in the approved Supporting Growth programme business case as a priority connection necessary to support planned development in Warkworth and connectivity to the Pūhoi to Warkworth project. Auckland Council's Future Urban Land Supply Strategy identifies that by 2022 and 2027 respectively, Warkworth north and north east will be 'development ready' i.e. bulk infrastructure should be in place and ready for urban development.

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19. The proposed Matakana Link Road, which will connect SH1 and Matakana Road, will provide a resilient alternative route around the frequently congested Hill Street intersection for traffic traveling to the east coast settlements of Leigh, Omaha, Sandspit and Snells Beach, thereby contributing to the strategic theme of Auckland Transport (AT) Statement of Intent 2017/2018 – 2019/2020 to 'Build network optimisation and resilience for travel times'.
20. Refer to **Attachment 1** for details around the integration of the Matakana Link Road project with the surrounding land uses and other infrastructure projects proposed for the Warkworth area.

Background

21. In March 2018, the Matakana Link Road project was placed on hold due to the concerns raised related to the affordability and changes in land use assumptions.
22. At the May 2018 meeting, the AT Board approved funding for the full single stage four-lane construction of the Matakana Link Road project at a value of \$89 million (inflated).
23. In August 2018 the AT Board resolved that the Matakana Link Road project would be two-staged to provide initially two-lanes and subsequently four-lanes later to align with changes in land use assumptions and to address affordability concerns. The cost estimate for the stage 1 project was \$55 million to \$66.5 million. Risks regarding public perception were noted.
24. The Transport Agency approved funding of \$62.2 million in October 2018 for Stage 1 of the revised implementation approach for the Project, where Stage 1 generally consisted of a two-lane road with walking and cycling provisions provided on one side only.
25. AT representatives met with the Rodney Local Board and Warkworth community groups at the end of 2018 and early 2019, following the decisions to stage the project. A commitment was made by AT to explore alternative staging options while still keeping within the available budget of \$62.2 million.
26. This report outlines the progress to date since these decisions were made.
27. The AT Board received deputations from Councillor Sayers and representatives of the Warkworth community at the May 2019 AT Board meeting, seeking a single stage four-lane construction for the MLR.

Value Engineering

28. The detailed design contract was approved in November 2018 after being placed on hold since March 2018 while confirmation of the scope and budget was being sought. As part of this contract, a value engineering exercise was completed.
29. As part of this work, efficiencies and changes were identified relating to:
 - a. Vertical and Horizontal alignment

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- b. Bridge design
 - c. Land Stability design
 - d. Co-ordination with adjacent land development plans
 - e. On-site mitigation
30. This in turn resulted in:
- a. Reduced earthworks
 - b. Reduced ground improvements
 - c. Reduced land requirements
 - d. Reduced risks during construction
 - e. Reduced risks to environmental impacts
 - f. Reduced risk to land negotiations.
31. The changes resulted in the ability to utilise the savings to produce a revised value engineered Stage 1 design, which could enable approximately 800m of four-lane capacity to be provided along the Matakana Link Road within the approved funding envelope of \$62.2 million.
32. Refer to **Attachment 2** and **Attachment 3** for design details.

Stage 1 Design

33. The current design still proposes to stage the full four-lane delivery of the Matakana Link Road project. However, due to the value engineering exercise, the Stage 1 design now includes the ability to provide approximately 800m of four-lane capacity along the Matakana Link Road, from SH1 up to just prior to the new bridge within the \$62.2 million budget. A two-lane capacity road would be provided along the bridge and remaining Matakana Link Road section up to Matakana Road.
34. While the proposal will enable four lanes to be provided along the first 800m of the new road, speed management needs to be considered as traffic volumes are not expected to be high enough to warrant four lanes in the short to medium term. This could be a two-lane marking mitigation in the short to medium term however this is still being assessed.
35. When traffic demand exceeds the capacity provided in the Stage 1 design, the road can be remarked to four lanes, and Stage 2 can be implemented along the remaining section of Matakana Link Road, including the addition of a second bridge. This is not currently expected to occur until 2036 based on current modelling.

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Stage 1B Design

36. With the potential for further savings to be made from land purchase negotiations, market tension during construction, co-ordination with adjacent development and innovation from alternative tenders, the value engineered cross section which provides capacity for four lanes could be extended further across the bridge up to the connection with Matakana Road, effectively providing for a predominant single stage four-lane construction, subject to intersection treatments at each end of the MLR.
37. This design (Stage 1B) is proposed to be designed in parallel with the current Stage 1 design.
38. Both designs will be tendered to determine the extent of scope delivery within the available budget of \$62.2 million, assuming final scope acceptance by the Transport Agency.

NZ Transport Agency Funding Risk

39. The Transport Agency has advised of initial acceptance of the existing \$62.2 million budget, with optimised scope delivery for Stage 1. NZTA has caveated this initial funding confirmation to the extent that it does not anticipate further funding scope changes for the project to increase the funding beyond \$62.2m.

Designation Risk

40. A hearing for the Transport Agency portion of works (MLR/SH1 intersection and MLR Stub Road) was held between 12 March 2019 and 13 March 2019. AC granted the Transport Agency's resource consents and recommended confirmation of the NoR on 9 May 2019.
41. A hearing for the MLR project was held between 27 March and 1 April 2019. AC granted the resource consents and recommended confirmation of the NoR on 6 June 2019. The resource consents are now open to appeal and the NoR will be open to appeal following Auckland Transport's confirmation or otherwise of AC's recommendation and conditions.
42. Two appeals have been lodged in respect of the Transport Agency resource consents; the appeal period for the Transport Agency's NoR is still open. The key issues raised in the appeals received are the location of the SH1/MLR intersection, timing of earthworks for the Transport Agency's third lane and the stormwater management system proposed. Appeals may be lodged on the MLR resource consents and NoR in relation to similar matters due to the interrelated nature of the projects. Refer to **Attachment 4** for an overview of project interactions.
43. Detailed design is progressing to minimise any potential delays with this process and engagement with affected land owners is continuing to minimise the risk of further appeals on other matters.

Land Negotiations

44. Negotiations with affected land owners are continuing.

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45. Two properties have been purchased, and the remaining three are in negotiations. These three property owners submitted on the MLR NoR and there is a risk they may appeal. In particular, these land owners want to secure access onto the new road which will be a limited access road.
46. Continued engagement with these land owners is occurring to address outstanding submission points and to minimise potential appeals and delays to land purchases.

Construction

47. Following discussions with the Local Board and Warkworth community groups, it is proposed that two designs (Stage 1 and Stage 1B) will be tendered.
48. This follows the opportunity identified that further savings may be made by market tension, a reduction in land purchase costs, and innovation from alternative tenders.
49. The approach would be to tender the Stage 1 VE design which proposes four lane capacity up to 800m along the MLR, and the Stage 1B design which would propose to extend the four lane capacity design along the full length of the MLR, from SH1 up to the intersection with Matakana Road. This would confirm the extent of scope delivery within the existing funding envelope and any residual funding gap which would require a business case.
50. Various delivery models have been explored in relation to the construction of MLR. These include a traditional approach, Early Contractor Involvement, Direct Appointment (Unsolicited Proposal from NX2 – The Transport Agency Public Private Partnership contractor).
51. A summary of the assessment is outlined in **Attachment 5**.
52. A traditional approach has been adopted and a procurement plan is currently being prepared.
53. The evaluation method for this tender is proposed to be Lowest Price Conforming (LPC). This has been considered as the project design/construction is relatively simple and the value of the contract falls within the Panel 1 of pre-approved contractors.
54. Tender for construction is programmed to occur in August 2019, subject to confirmation of the designation with no appeals.
55. The contract value is expected to be in the order of \$40 million. This value will be refined as part of the completion of the detailed design and cost estimation to be completed by July 2019.

External Consultation/Engagement

56. Following the AT Board and the Transport Agency funding approvals to stage the Matakana Link Road project, various meetings were held with the Rodney Local Board and Warkworth Community Groups.

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57. Senior staff were present at these meetings and a commitment was made to consider provision of four lanes as part of the Stage 1 construction, provided the total project cost remained within the approved funding envelope.
58. The project team have continued to engage with affected land owners to address the risks associated with consents and land negotiations.

Next steps



Activity	Date
Confirm Transport Agency funding subsidy	June 2019
Complete the detailed design	July 2019
Confirm AT designation (subject to appeals) Construction tender released	August 2019
Land settled (subject to appeals) Complete tenders evaluation	September 2019
Construction contract awarded (subject to funding, appeals and land)	October 2019
Commence construction works	November 2019

Attachment

Attachment Number	Description
1	Warkworth Structure Plan
2	MLR Overview
3	Stage 1 Cross Section
4	NZTA/AT Project Interactions
5	Construction Procurement Assessment

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Document ownership

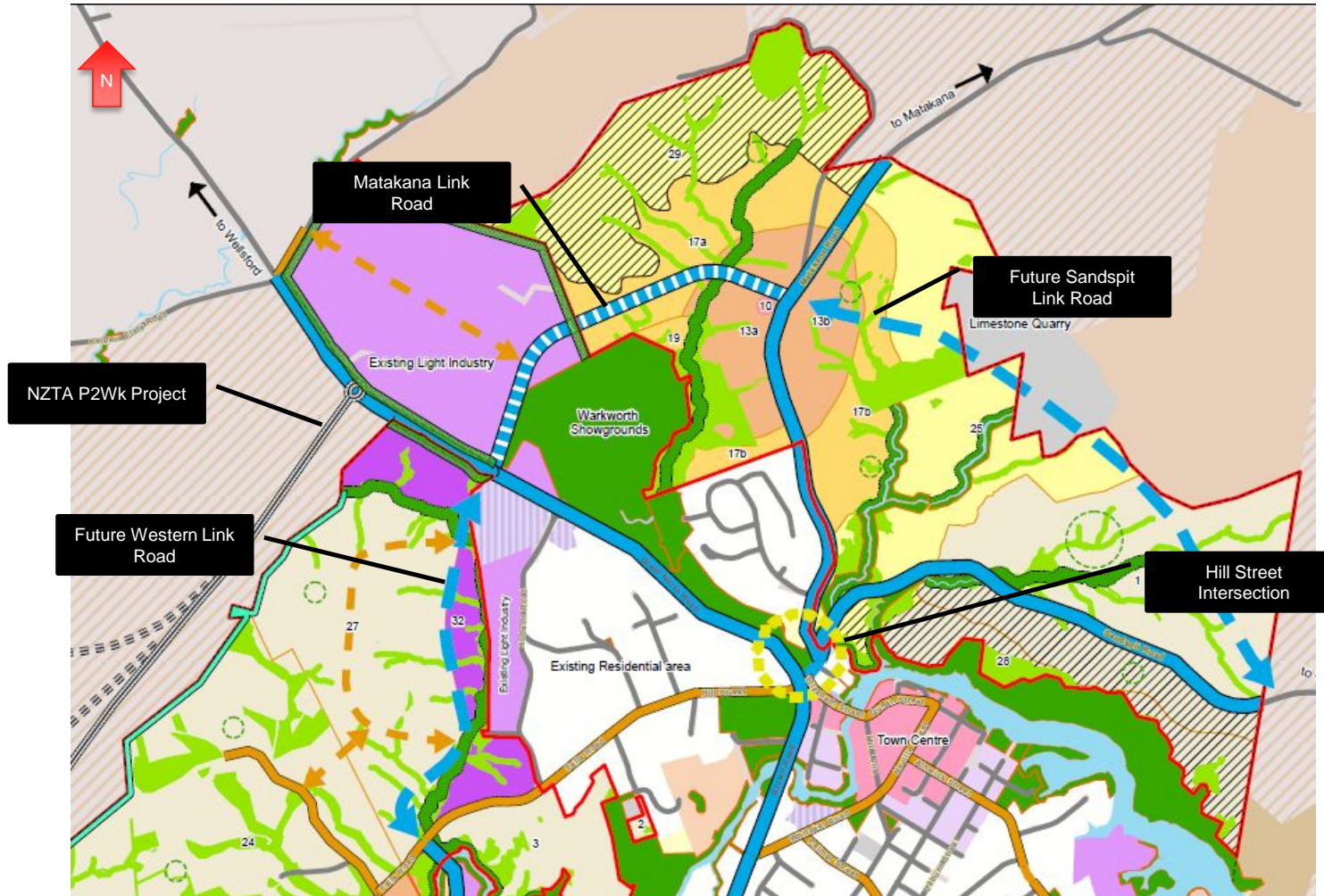
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Approved for submission	Shane Ellison Chief Executive Officer	

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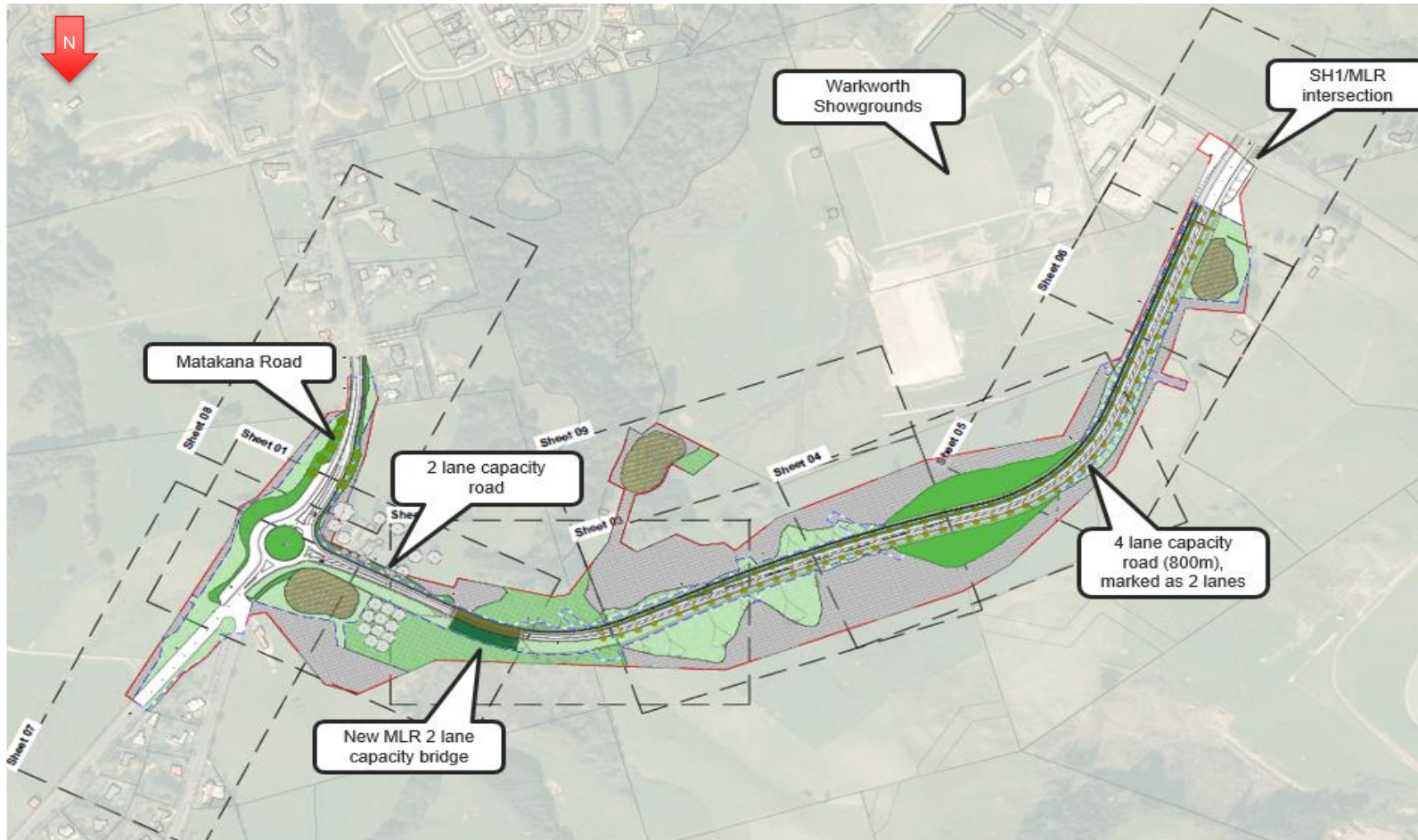
Glossary

Acronym	Description
MLR	Matakana Link Road
NoR	Notice of Requirement
AC	Auckland Council
Transport Agency	NZ Transport Agency
P2Wk	Pūhoi to Warkworth
VE	Value Engineered
SH1	State Highway One
AT	Auckland Transport

Attachment 1 – Warkworth Structure Plan

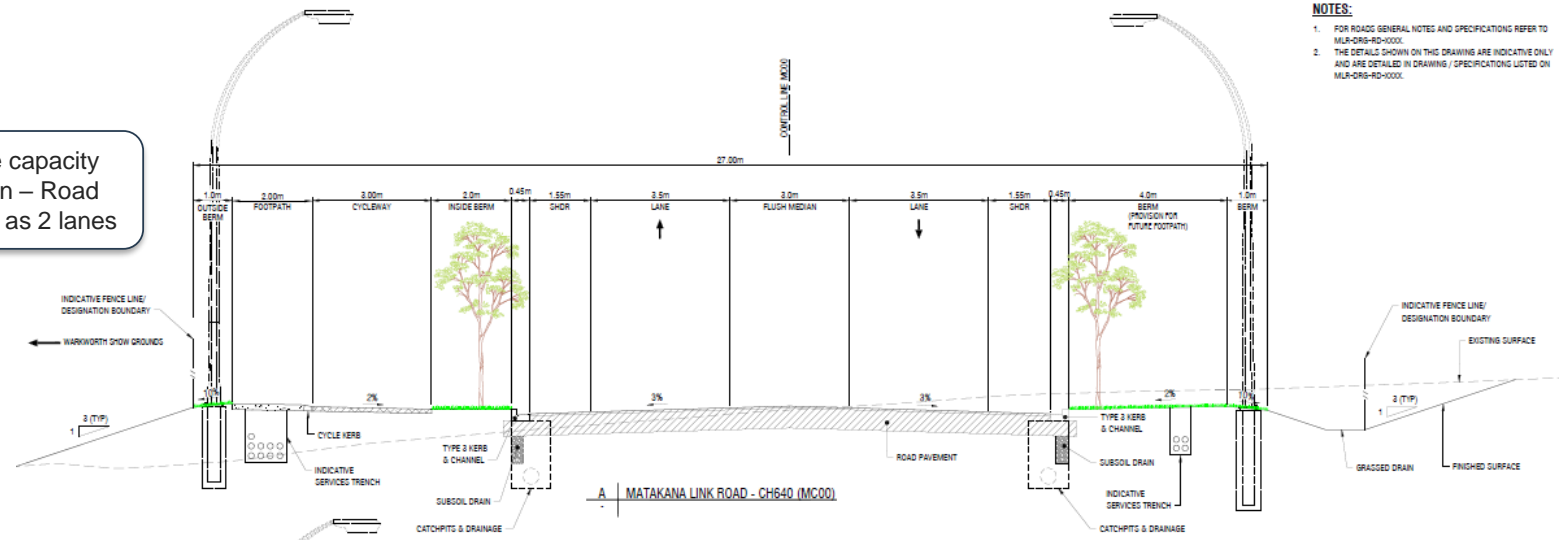


Attachment 2 – MLR Overview



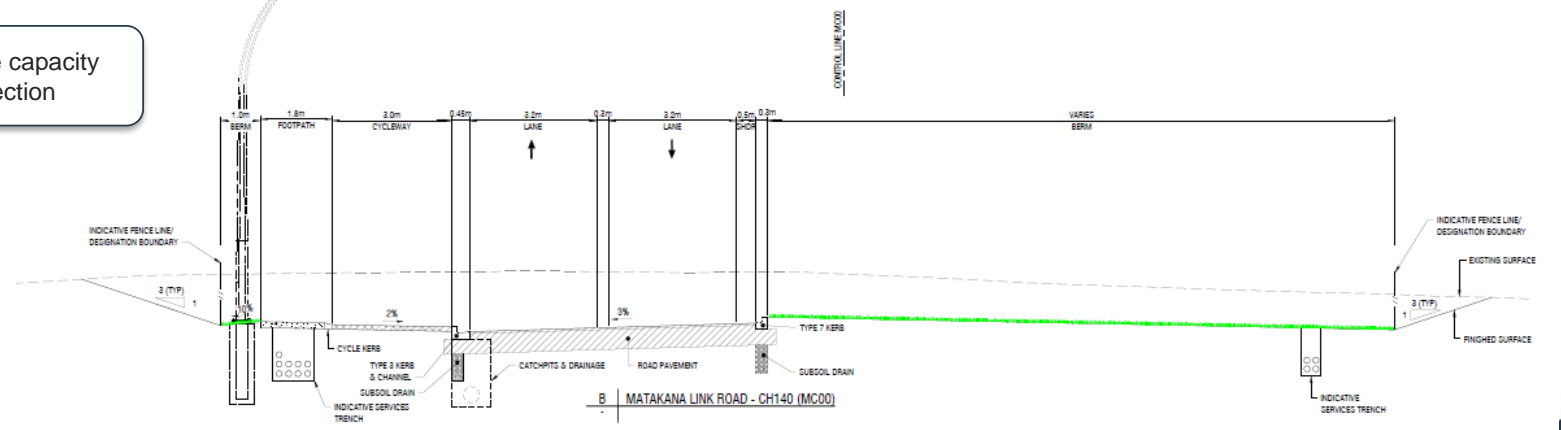
Attachment 3 – Stage 1 Cross Sections

4 lane capacity section – Road marked as 2 lanes



- NOTES:**
1. FOR ROAD GENERAL NOTES AND SPECIFICATIONS REFER TO MLA-DRG-RD-1000.
 2. THE DETAILS SHOWN ON THIS DRAWING ARE INDICATIVE ONLY AND ARE DETAILED IN DRAWING / SPECIFICATIONS LISTED ON MLA-DRG-RD-1000.

2 lane capacity section



Attachment 4 – NZTA/AT Project Interactions



Attachment 5 – Construction Procurement

Following local board and public meetings in late 2018, questions were raised around the construction procurement and if there were opportunities to reduce costs by engaging a contractor early, or engaging local contractors. These suggestions were made in an effort to reduce costs to enable four lanes to be constructed. Consideration of various approaches were undertaken but ultimately a traditional approach is being adopted.

Key Influencers	Traditional	ECI	NX2
Timing <ul style="list-style-type: none"> Construction must be completed by Oct 2021 	<ul style="list-style-type: none"> Detailed design tendered in late 2017 Tender placed on hold due to design changes Contract awarded in late 2018 Design due for completion by July 2019 to enable tender for construction in late 2019 and completion by end 2021 	<ul style="list-style-type: none"> It would take approximately 2-3 months to procure By which time the detailed design would largely be completed 	<ul style="list-style-type: none"> Unsolicited offer received Reviewed by procurement Offer rejected
Land <ul style="list-style-type: none"> Land purchase not confirmed Land development and varying stages Continuous changes to design and mitigation requires flexibility 	<ul style="list-style-type: none"> Design contract was flexible to enable changes Negotiations with adjacent land owners enabled value engineering to be achieved Holds no risk to construction contract if land not acquired. 	<ul style="list-style-type: none"> Could provide construction management certainty for adjacent land owners. Risk that land would not be acquired putting significant contract at risk (\$33M construction) 	<ul style="list-style-type: none"> Unlikely to provide flexibility in design without significant cost Risk that land would not be acquired putting significant contract at risk (\$33M construction)
Consents <ul style="list-style-type: none"> Designation not confirmed Potential appeals 	<ul style="list-style-type: none"> Detailed design undertaken in parallel to hearing process enabled mitigation of several key submission points. No risk to construction contract if designation appealed. 	<ul style="list-style-type: none"> Timing would not have enabled design to be undertaken in parallel with hearing process Benefit of providing greater construction management detail Risks to contract if designation appealed (\$33M construction) 	<ul style="list-style-type: none"> Risks to contract if designation appealed (\$33M construction)
Design complexity <ul style="list-style-type: none"> Greenfields road Simple bridge Land slide design 	<ul style="list-style-type: none"> Relatively simple design Address land slide design through engagement of specialist contractor 	<ul style="list-style-type: none"> No significant benefit could be provided Possible benefit of having a specialist design for landslide 	<ul style="list-style-type: none"> No significant benefit could be provided Possible benefit of having a specialist design for landslide Possible benefit in co-ordination of works with NZTA workstream
Price Tension <ul style="list-style-type: none"> \$62.7M Build more if within budget 	<ul style="list-style-type: none"> Competitive tendering process, Tier 1 Measure and Value rates could apply to building more road if further savings identified Opportunity to tender two designs, one for Stage 1 800m of four lanes, second for Stage 1 with four lanes across the bridge. 	<ul style="list-style-type: none"> No price tension available If ECI contractor not guaranteed construction, no benefit in ECI for design Specialist advise and consultants involved in ECI confirmed price is often an issue when negotiating for construction 	<ul style="list-style-type: none"> No price tension Unsolicited offer received Reviewed by procurement Offer rejected Procurement policies for supplier selection of significant value