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# Construction of the Breakwater Road Cycleway Napier

*“The Devil is in the Detail”*

*Presented by  
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# Presentation Outline

- Background
- Location of site
- Design phase
- Tendering
- Construction phase



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# Background

- Project initiated by Rotary Pathways Trust
- Trust has 10 year plan to build cycle network in Hawkes Bay region started 2003
- Currently at Stage 4 of 7 stages
- Project funding
  - 47% from Land Transport New Zealand subsidy
  - Balance from Napier City Council



# Location of Site

Napier Airport

Area of Works

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## Design Phase

- Design generally in accordance with Transit's Supplement to Austroads GTEP Part 14
- Cycleway 1.6km long, typically 3.5m wide
- Concrete cantilever specifically design by Maunsell as design subconsultant
- Consulted with Transit, Napier City, Port of Napier and Ontrack



# Design Phase cont'd

- Combined pedestrian & cycleway
- Included signage

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## Tendering

- Physical works let as a Transit contract
- Four (4) week tender period
- 15 set of tender documents issued to potential tenderers
- Potential tenderers located from Wellington to New Plymouth, Tauranga & Hawke Bay
- Received four (4) tenders





## Tender cont'd

- Tenders evaluated using LTNZ's Lowest Price Confirming method.
- Winning tenderer was Tuck Contractors Ltd from Hastings.
- Project budget was \$600,000 Excl GST.
- Contract period was originally 8 weeks.



# Construction Phase



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# Construction Phase cont'd



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# Construction Phase cont'd



Existing gabion wall

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Footpath over gabion wall before cantilever construction, overlooking Breakwater Beach





# Construction Phase cont'd



Cantilever construction propped falsework

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# Construction Phase cont'd



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Cantilever construction to extend cycleway above existing gabion wall





# Construction Phase cont'd



Completed cantilever

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# Construction Phase cont'd



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# Construction Phase cont'd



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Rail level crossing at western end before works commenced



# Construction Phase cont'd



Rail level crossing at western end during construction



# Construction Phase cont'd



Completed rail level crossing with maze fencing  
at western end

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# Construction Phase cont'd



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# Construction Phase cont'd



Gate 3 heavy truck entry into Port of Napier  
before works started

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# Construction Phase cont'd



Gate 3 heavy truck entry into Port of Napier  
pedestrian & cyclist crossing



# Construction Phase cont'd



Completed pedestrian & cyclist crossing Gate 3 heavy truck entry at Port of Napier

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# Construction Phase cont'd



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# Construction Phase cont'd



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Typical steel reinforcing dowels between successive sections to minimise differential settlement





# Construction Phase cont'd



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# Construction Phase cont'd



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Checking to match kerb & channel levels to existing pavement



# Construction Phase cont'd



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# Construction Phase cont'd



Rail level opposite Coolstore

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# Construction Phase cont'd



Completed rail level opposite Coolstore

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# Construction Phase cont'd



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# Construction Phase cont'd



Guardrail installation at chainage 600m

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# Construction Phase cont'd



Completed guardrail end terminal

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# Construction Phase cont'd



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# Construction Phase cont'd



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Cycleway at eastern end by Port's Gate 1 entry





# Construction Phase cont'd



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Completed cycleway at eastern end by Port's Gate 1 entry



# Construction Phase cont'd



Completed cycleway at eastern end by Port's Gate 1 entry

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# Summary

- Project is Pathways Trust initiative
- Stage 4 of 7 stages
- Project funding from LTNZ and NCC
- Constructed by Tuck Contractors Ltd
- Project budget \$600,000.00



# Summary cont'd

- Key design features
  - » Two rail level crossings
  - » Two heavy truck crossings into Port
  - » Concrete cantilever over Breakwater Beach

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# Acknowledgements

- Mike Wong, Transit New Zealand
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**WORKS END**