Te Matau ā Pohe
Our bridge our people
Official opening 27 July 2013
Whangarei comes of age

The largest and most exciting civil engineering project in Whangarei’s history represents a coming of age for the District.

“Te Matau ā Pohe, the Lower Hatea River Crossing, is a major transport route, expected to carry more than 8000 vehicles a day from its opening. It is also an internationally significant piece of architecture and engineering.”

Whangarei District Council Chief Executive Officer Mark Simpson.

"It is proof of the excellence we have in Whangarei and New Zealand to deliver a world class product. The new crossing for the Hatea River went on to the drawing board formally in 1995 when a 20-year plan of major road and rail projects was embarked upon to improve a network that had become haphazard and inefficient."

After completing several of the nodes on the network, the Council of the day started looking more closely at the project in July 2008. Mr Simpson said that over the next few years talk of a weir that would keep water at a higher level in the Town Basin generated plenty of public debate, while Council discussed building options, public/private partnerships, funding and designs. Discussions began in earnest with the New Zealand Transport Agency (NZTA) and in 2009 there was a breakthrough.

"The agency included funding for the crossing in its $3.17 billion Northland Transport Programme for 2009-2012, subject to resource consent and a number of other conditions being met," said Project Manager, Mark Seakins of Seakins Engineering.

"Our consultants examined the cost of a bridge, the cost of a bridge with lock, and the cost of future-proofing a bridge so a lock and weir could be constructed at a later date. An economic benefit analysis was also commissioned. When we first started looking at the project, we investigated about 10 different options including all different routes, different bridge locations and weir and tunnel options," said Project Manager, Mark Seakins of Seakins Engineering.

"A careful analysis of the pros and cons of each option was assessed and weighed against the current and future needs of Whangarei. In the end, Council chose to proceed with a bridge option in its current location with a new road across Pohe Island."

"The site for the crossing was selected between Pohe Island and Port Road, the narrowest point in the river in that area. The estimated cost of the project at the time was $34 million."

Opus International Consultants was engaged to help develop a scheme assessment and concept design for the bridge and the road across Pohe Island.

"This was a critical step in the project as we used this in the funding applications to NZTA, as well as the resource consent applications and later in the contract document," said Mr Seakins.

By November 2009 the decision was made to build a lifting bridge, with a section that would tilt up to allow yachts to pass.

Three objectives set for the project were to:

- Provide of a critical road network link for the city
- Provide an economic stimulus for local businesses in the city
- Achieve an iconic bridge on the marine approach to the city

"At the time the project was described as a one-off opportunity to create a lasting landmark out of a piece of the transportation network," said WDC CEO, Mark Simpson.

"We had the chance to create something very special which will have spin-offs in community pride and tourism far beyond its value as a bridge."

This perspective set the direction for all of the development to come. Preliminary concepts for the bridge focused on the marine environment and historic Maori connection with Whangarei Harbour, and resource consent applications were submitted in February 2010.

By July 2010 independent commissioners had granted a raft of coastal, discharge and water permits and land use consents associated with the bridge and road construction either side of the river. The NZTA approved funding, a decision was made to build a bridge that had the potential for later development of a weir, and the budget was re-set at $30 million, of which $14.5m was to be funded by NZTA. Council then called for tenders from companies willing to manage the project from design to execution.

“Council decided from the outset that it wanted to get the contractor on board as early as possible in the design process so that it would have the flexibility to come up with the best design possible,” said Project Manager, Mark Seakins of Seakins Engineering.

"With this in mind, we developed an Early Contractor Involvement contract which enables the contractor to work with Council in a collaborative manner to develop the design. This kind of contract is awarded before we even know what the design will look like, so we had to make sure we hired the best contractor for the job. We wanted a contractor with experience and track record in building these types of projects, as well as having a strong team and excellent project management skills. A focus of the contract was also to encourage as much work as possible to be done by local companies." Duncan Peters of Peters & Cheung, the Auckland-based structural engineers to the Transfield Services/McConnell Dowell Joint Venture, contacted Eadon Consulting, a UK engineering company which specialises in moving structures. They in turn contacted Knight Architects, who designed the award winning Gateshead Millennium Bridge in the UK.

The inclusion of Eadon Consulting and Knight Architects in their bid was instrumental in the Transfield Services/McConnell Dowell Joint Venture being shortlisted in April 2011 and then winning the contract in October 2011.

"We were very impressed by the calibre of the team offered by the Transfield Services/McConnell Dowell Joint Venture. Not only did they have the best design and construction team, they had a mechanical designer in Eadon Consulting which has built 15 or so lifting bridges around the world as well as renowned bridge architects, Knight Architects," Mr Seakins said.

"The decision to award the contract to the joint venture paid dividends straight away with the distinctive fish hook design developed by Knight Architects and accepted by Council within the first month. The design and construction teams then kicked in to make this design a reality. The dedication and skill of the teams has been reflected in the quality and beauty of the finished product. They should be very proud of what they have created."

Timeline

June 2009
Feasibility study of bridge route and lock options

September 2009
Council decides to build bridge on current route

November 2009
Funding application to NZTA

February 2010
Consent applications lodged

May 2010
Consent hearings

July 2010
Consents obtained

November 2010
Tenders called for design and construction of project

April 2011
Shortlisted to the McConnell Dowell/Transfield Services Joint Venture

May 2011
Funding confirmed by NZTA

Fish hook design developed by Knight Architects and adopted by Steering Committee

October 2011
Design and Construction contract awarded to McConnell Dowell/Transfield Service Joint Venture

November 2011
Sod turning and roadworks start

March 2012
First bridge pile installed

May 2013
Bascule section launched and first bridge lift

July 2013
Opening ceremony
THE HISTORY OF BRIDGES

Te Matau ā Pohe, Pohe's fishhook, continues a tradition of bridge building in Whangarei.

With 15 bridges within 200 metres of Whangarei Harbour, the area has been described as a delta by some, and the Venice of the South Pacific by others. Not only are there multiple streams and rivers entering the perimeter of the harbour, the central business district has several winding through including Raumanga Stream, Waiaoria Stream and the Hatea River.

**Swing Bridge 1904**

The first bridge across the Town Basin was a swing bridge in the same location as today's Victoria Bridge.

**Onerahi Railway Bridge 1910**

The Onerahi Railway Bridge also known as the 'Gull Roost', completed and first used in 1910.

**Victoria Bridge 1936**

Victoria Bridge across the Hatea River at the Town Basin during construction in 1936.

**John Street Bridge 1973**


**Victoria Bridge Extension 2005**

In 2005 the Dent/Quay St alignment saw two extra lanes added to the 1936 Victoria Bridge (in the foreground) and the John St Bridge stopped.

**Canopy Bridge 2011**

In 2011 a programme of improvements at the Town Basin saw an award winning canopy built above the John St Bridge, renamed the Canopy Bridge.
INSPIRING OUR COMMUNITY

From preschoolers to octogenarian Mr Wright from Riverside, interest in Te Matau ā Pohe spanned generations. People working on the project have enjoyed the great feedback from the community from beginning to end.

Seven-year-old Brianna Kessell emailed in her idea to paint the bridge’s J-beams like Harold the Giraffe from the Life Education Trust’s programme in schools. To Brianna, the beams look giraffe-like in shape and the concept would recognise our valuing of healthy, happy children.

Hi my name is Brianna Kessell. I am 7 year’s old. I would like to write about the new bridge by the Toll stadium. I think that the pointy bits that go way up in the sky look like two giraffes. I thought we could make them look like Harold the giraffe. Harold is a giraffe who is part of life education, going around schools, helping people make good choices and decisions that can help them learn and stay healthy.

It would help children remember to make good choices their whole life when they see Harold on the bridge.

Visitors to Whangarei would think that our city cared about all the children.

Everyone would also think that it is pretty cool and different to see a giraffe on a bridge.

Yours sincerely,
Brianna Kessell

Retired engineer, John Wright, can see the bridge from his home and has kept a regular and watchful eye on its construction. His almost daily visits to the site have made him a well-recognised and popular visitor, so much so that site workers gave him his own hard hat and vest.

The recent birthday card his daughter Helen Applegate painted for him is pictured below.

Locals out for a walk on a sunny day stop to admire progress on the Lower Hatea River Crossing.

Children from Christopher and Robin Preschool have been studying, designing and making models of Te Matau ā Pohe. From left, Tyla Dinsdale, Avalon Horgan, Teni Lamb, Corbett Rumney and Lewis Newton with their models.

Jackson Hawkins (10) and Zinzan Hawkins (8) from Maungatapere School enjoy one of the first light trials on the bridge.

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Jackson Hawkins (10) and Zinzan Hawkins (8) from Maungatapere School enjoy one of the first light trials on the bridge.
$17.5M LOCAL SPEND

Te Matau ā Pohe has provided more than a transport link for drivers and a scenic feature for the District – it has also injected $17.5 million into local businesses.

The overall cost of the five-year bridge project was $32.2 million of which $14.5 million came from the New Zealand Transport Agency. The rest was funded by ratepayers. Of the total spend, $17.5 million was with local companies. That money buffered some local businesses against the global economic crisis, enabled many people to enjoy stable employment and develop and refine expertise. Several construction staff and adult apprentices completed their time during the project – enhancing their employment opportunities for years to come.

Nearly all of the spend on the bridge has been in New Zealand – about 93% – with just over $2 million being spent off-shore on the hydraulics from Holland and large steelwork for the bascule from China.

The bridge is now part of the fabric of the District’s history. The people who worked on it, the families they supported, and the teams that gained skills here will all pass their involvement in this project on to future generations.

Te Matau ā Pohe has become a catalyst for and symbol of change in Whangarei.

This summer it will be linked into the Loop Walkway, connecting it to the Town Basin via a 4.2km concrete footpath and a new foot bridge across the Waiarohia River between Port Road and Hihiaua Peninsula.

Work on the walkway will begin in October when the ground starts to dry out after winter.

The Loop Walkway will extend the range of experiences people can enjoy while getting to know the unique environment of the Town Basin, William Fraser Memorial Park on Pohe Island and the rivers and bridges.

The car parking area between Quay Street and the Town Basin will also be developed into an open park with many features.

This work, combined with the proposed Hundertwasser Art Centre, will create a diverse recreational space for people to enjoy in infinite ways, 24-hours a day.

The local companies that played vital roles in the project included:

- Allied Concrete and Advanced Concrete Pumps
- Allied Work Force
- Alter Natives
- Bay Engineering
- BOC, Whangarei
- Bridon Cookes, Whangarei
- Bunnings Warehouse
- Busck Prestressed Concrete
- Cates Transport
- Cowleys Hire
- Croft Poles
- Donovan Group
- Donovan’s Trade Supplies
- Downers, Whangarei
- Downtown Tools
- Fairview Aluminium
- Fell Engineering
- GHK Piling
- Griffiths and Associates
- Hirepool
- Hirequip
- Hynds Pipe Systems
- Humes Pipe Systems
- Jackson & Edge
- Lionel Thorne Fencing
- Mac Dow - Local Labour
- Macsway Scaffolding
- Mclaws Global
- McKay Electrical
- Mico Plumbing
- Northern Civil Consulting Engineers
- Northland Scaffolding
- Northpower
- NZL
- Opus International Consultants
- Richardson Stevens
- Rudoeps Painting
- Seakins Engineering Solutions
- South Pacific Industrial
- Stork Technical Services
- Te Aratika Drilling
- Toll United
- Total Marine Services
- Tractaranz
- Transfield Services
- Tonkin and Taylor, Whangarei
- Ullrich Aluminium
- Vulcan Steel
- Winstones Otaika

SENSE OF PLACE

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Two decades of development

“Te Matau ā Pohe is a signal of improvements across the District is starting to mature, engineering. It is a sign that our road link and world-class facilities. It is far more than a significant investment, but will be getting under way near Kensington Avenue, and work will be getting under way year by year South End Avenue.”

Mr Simpson said the major push for this funding was in the road area, but the approach to development of the District started with good planning and successful transition in the road area, strengthening performance across a wide range of council-controlled areas. This also strengthened bills for funding.

“The results have been huge developments in the past 20 years in water supply, sewage management, sporting and cultural facilities.

“With Te Matau ā Pohe opening we have just one more project to complete out of the 20/20 plan, the Mill and Nixon Street intersection upgrade, which will begin next year. By then the NZTA will have completed its work on the intersection of State Highways 1/14. Planning will be advanced on improving the safety of the stretch of Western Hills and Mano Street to Kensington Avenue, and work will be getting under way year South End Avenue.”

“Te Matau ā Pohe represents the completion of a sustained programme of improvements. It is a significant road link and world-class engineering. It is a sign that our District is starting to match to reap the rewards of a long, hard, consistent programme of improvements across the board.”

Roading projects completed in the past 20 years:

- Kamo Bypass Stage 1 saw State Highway One diverted away from the busy urban environment of Kamo, along a bypass from the intersection of Kamo Hill to Spring Rd. This project was completed in December 2000.
- The Five Finger roundabout replaced the complicated intersection of Lower Bank Street, Walton Street, Railway Road and Tarena Road, a bridge over the Wharariki Stream and a rail bridge over the other interaction. The work cost $3 million of which 52% was funded by Transfund (predecessor to the New Zealand Transport Agency). This intersection carries 25,000 vehicles a day.
- The Dext and Daisy Street realignment in 2001, $6.2 million, 50% funded by Transfund. It aimed to reduce congestion and improve road efficiency,
- Four-laning of Western Hills Drive 2011,
- Upgrading treatment plants to the highest standard
- New Hatea pipeline
- Proposed Hundertwasser Ar
- Teaching pool to be built

With a topography that squeezes the City into a narrow north-south running valley with State Highway One along the western side, District arterials coming in from the north, northeast, east and south, and a web of city roads, the City, we have always faced challenges getting the best out of this network.

Our vision is to see traffic able to travel freely up and down State Highway One and to flow across town to access main arterial routes, quickly, efficiently and safely, while eliminating confusing congestion in the inner city streets.

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A MYRIAD OF PARTNERSHIPS

Creating this spectacular bridge involved a number of partnerships. Partnerships between Council and tangata whenua; partnerships between contractors and designers; partnerships with marine users and partnerships with the community.

Any bridge across the Hatea had to provide boat access to and from the Town Basin, so it was vital for marine users to be involved in its development.

The Northland Regional Council Harbour Master and representatives of the Whangarei Marina and Riverside Drive Marina were contacted so we could make sure we fully understood what they needed and they fully understood what we would be doing. This partnership continued throughout the build with feedback going between the users and the project managers regularly, often on a daily basis.

The partnership between Ngati Kahu o Torongare and Parawhau, who provided invaluable input to the design and ultimately the naming of Te Matau ā Pohe. Their involvement with the design, the naming and through to the dawn blessing as we opened the bridge has been exceptional.

The funding partnership between Council and the NZTA that provided the money to do the work, without the NZTA’s support this build would not have been possible.

The partnership between Council and the joint venture partners and contractors. McConnell Dowell and Transfield Services formed a partnership (Joint Venture) specifically for the job.

A contract was developed that ensured that if the project came in under budget, the benefit would be shared by Council and the Joint Venture (JV), and if it came in over budget, the additional costs would be shared between the JV and Council. This gave all parties a strong incentive to be as cost effective as possible and deliver on time.

The JV’s goal was to jointly deliver a zero harm, award winning project that exceeds the aspirations of the partners and the community.

These goals and partnerships provided an excellent focus and commitment to this project that has been recognised and remarked upon by all involved.

Finally, the partnership with the community. This project has captivated many and the turn out to the opening has shown just how much people wanted to see Te Matau ā Pohe in action. We trust they will enjoy using it for generations to come.

WHAT IS A BASCULE?

There aren’t many rolling bascule bridges in the world, and there is certainly none other that looks like Te Matau ā Pohe.

Only one other rolling bascule bridge has been built in New Zealand, a much smaller one that is no longer functioning at Auckland’s Viaduct Basin.

Rolling bascule bridges use counterweights and the laws of gravity to roll back on a track. As the weighted end of the bascule lowers, the platform end is lifted. The same happens in reverse when the bridge platform is lowered.

The counterweight in Te Matau ā Pohe is steel in the tips of the two projecting hooks that tip backwards when the platform is raised.

Because gravity works on the counterweights to do some of the tipping/rolling work, far less energy (electricity) is needed by the hydraulic rams that start the lifting process and control the lowering process.

The system on Te Matau ā Pohe is so efficient that only one ram would be needed to lift the bascule, but two rams keep it level and make it extra safe.

Another unique aspect of Te Matau ā Pohe is that the bascule is set near the centre of the bridge. It is more common for the rolling parts of bascule bridges to be set near the land on one or other side of a river.

One engineer working on Te Matau ā Pohe said it could be seen as three bridges; the first from Port Road to the bascule, the second the bascule bridge itself and the third from the bascule to Dave Culham Drive.
BUILDING THE BRIDGE

The project involved working over the water, under the water, both as the tide came and went; on a landfill complete with rubbish, methane and widely ranging ground densities and drainage; between busy roads and close to businesses, homes and shopping areas. It involved electrical, electronic, mechanical and hydraulic engineering; dust, noise, mud, heavy components, cranes, trucks, tar seal, concrete, welding, and shifting huge objects. It meant slowing down traffic and delaying boats, weathering scorching summer days and winter’s horizontal rain and wind. While ‘challenging’ was a common word on site so was ‘rewarding’.

This build included:

- 1km of new two-lane road over the old Pohe Island Landfill
- two double-lane roundabouts at Okara Drive and Port Road
- a single lane roundabout at Riverside Drive
- dedicated cycle lanes and footpaths at the roundabouts and across the bridge
- associated earthworks, drainage and ancillary works
- a 265m long multi-span bridge spanning the Hatea River
- a central lifting section
- hydraulic, mechanical and electrical control systems
- pontoons, and guiding piles
- dredging
- reclamation works
- a control room located near Port Road.

BUILDING THE ROADS

Much of the ground on the Pohe Island side of the bridge is former landfill, with old decaying refuse contained under a clay cap. Because it is beside a river, the ground is also soft.

To ensure the bridge approach from this side was not affected by excessive settlement, rubbish underneath it needed to be removed and replaced with fill. The clay cap had to be replaced to ensure leachate and gases remained contained, and the structure on top of it needed to be light as well as strong and stable.

This provided a good opportunity for innovation and recycling as blocks of polystyrene removed from pontoons at Tutukaka Marina and stored for several months were then laid on top in this area, to form a strong but light foundation.

On the Port Road side of the river, the approach to the bridge received a different treatment. 300 piles, a lot like wooden power poles, were driven down to the rock beneath to provide a solid foundation for the bridge approach embankment.

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Te Matau ā Pohe

WHANGAREI LOVE IT HERE!
WHAT IS THE BRIDGE MADE OF?

This bridge was a large and complicated piece of engineering and the list of materials used gives some idea of the scale and range of the project.

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<tbody>
<tr>
<td>Piles</td>
<td>610 mm diameter 3640 lineal metres</td>
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<tr>
<td>Reinforcing Steel</td>
<td>260 tonnes in the foundations, piers and abutments</td>
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<td></td>
<td>21 tonnes in the precast concrete panels</td>
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<tr>
<td>Concrete</td>
<td>1700 cubic metres in the foundations, piers and abutments</td>
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<td>806 cubic metres in the precast concrete panels</td>
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<tr>
<td>Structural Steel</td>
<td>367 tonnes in the fixed spans</td>
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<td>390 tonnes in the bascule span</td>
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<tr>
<td>Handrail</td>
<td>579 metres of steel panels</td>
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<td></td>
<td>579 metres of profiled Tonka hardwood</td>
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<tr>
<td>Crash Barriers</td>
<td>696 metres of steel tube panels</td>
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<tr>
<td>Electrical</td>
<td>7 kilometres of electrical cable</td>
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<tr>
<td></td>
<td>1 kilometre of fibre optic cable</td>
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<tr>
<td></td>
<td>1 kilometre of strip lighting</td>
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<tr>
<td></td>
<td>320 lights</td>
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<tr>
<td></td>
<td>12 cameras</td>
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<tr>
<td>Hydraulic</td>
<td>5000 litres of oil</td>
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<td></td>
<td>600 metres of pipe</td>
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<tr>
<td></td>
<td>2 rams weighing 8 tonne each extending to 18.5 metres</td>
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<tr>
<td></td>
<td>4 x 30 kilowatt displacement piston pumps producing</td>
</tr>
<tr>
<td></td>
<td>800 litres per minute @ 165 psi</td>
</tr>
<tr>
<td>And holding it all together?</td>
<td>More than 20,000 bolts and screws</td>
</tr>
</tbody>
</table>
The Fishhook of Pohe

Te Matau ā Pohe – translated as ‘The fishhook of Pohe’ – is named after the Maori chief who welcomed the first English settlers to Whangarei.

Council considered that the name best represented the historical and cultural factors important to the Whangarei District.

The original Pohe Island lay off Riverside Drive and the land in between was reclaimed to form the land that is now referred to as William Fraser Memorial Park on Pohe Island.

It lies within Ngati Kahu O Torongare territory. Wiremu Pohe was a chief of Ngati Kahu. He was also related closely to the hapu of Parawhau whose territory lies on the eastern side of the Hatea River or the Port Road side of the river.

Pohe is the chief who welcomed the first English settlers to Whangarei. He was very skilled in manufacturing fish hooks using traditional materials and styles. His hooks were so practical, many of the settlers used his hooks in preference to the standard English hooks made of steel.

He was also instrumental in building bridges between the two cultures during the first years of English settlement amongst Maori. Pohe used his ranking to protect many of the first settlers from being killed.

Council looked for an inspirational name that fitted the area, aspirations of the people of our District and our history and culture.

Te Matau ā Pohe came from a panel of kaumatua representing Te Parawhau (Taipari Munro), Ngati Kahu O Torongare (Richard Shepherd), Ngati Wai (Te Warihi Heteraka) and Buster Whautere representing Urban Maori.

Council expresses sincere thanks to everyone who made a suggestion for the bridge.

There were some very considered suggestions, so we hope everyone is pleased with the thinking behind this decision.

Dave Culham Drive

Three men who played important roles in Whangarei’s history were discussed when Council selected the names of the new bridge across the Hatea River and the road between it and Riverside Drive. The bridge has been named Te Matau ā Pohe, the fish hook of Pohe, after chief Wiremu Pohe. The road to the bridge has been named Dave Culham Drive, after the recently deceased, prominent local businessman and engineer.

His name was one of three considered along with William Fraser Drive and Iwitahi Drive from almost 60 names put forward by the community in April and May. Dave Culham was a business man, former District councillor and supporter of community groups and sporting organisations.

He had a significant influence on the lives of hundreds of Whangarei people and on the City itself in the past half a century. William Fraser was also a strong candidate, so although his name is not on the road, it is good to know that he is already recognised through the name of the park William Fraser Memorial Park on Pohe Island. It was great to see the public put such a lot of thought time and effort into all the suggestions for both the bridge and the road. We had some really good material to choose from.

Architect Martin Knight reflects

Although Knight Architects is used to designing bridges all around the world it is unusual to be the author of a design quite so far away, and the team has had to work particularly hard to ensure communication has remained effective throughout every stage of the project.

Sometimes the distance has been frustrating but more often the emotion is one of excitement – to be woken by dramatic new photographs of progress on site is the best way to start a new day!

In recent weeks the sense of anticipation has steadily grown: first as the approach spans were completed; then the arrival and assembly of the distinctive “J-beams”; before the deck was finally launched across the Hatea River and the bridge became a reality.

Of course, the highlight was when the deck was triumphantly raised for the first time and we could all see the full effect of this extraordinary new landmark.

From a distance such events appear seamless and straightforward however I have no doubt about the skill, ingenuity and commitment of the site team that has delivered this unique project. Many of the key players are local and the sense that this bridge – their bridge – is very special is certainly apparent from half way around the globe.

I was first drawn to New Zealand by very good friends in the Bay of Islands who introduced me to the natural beauty of the country, especially the coastline, and to the profound spiritual and cultural history. The concept design for the moveable bridge combined the functional and efficient form of a rolling bascule with a distinctive architectural shape, inspired by images of te matau, the Maori fish hook. Function and form, engineering and architecture, are perfectly integrated and completely indivisible in this design and I am delighted the bridge has been named Te Matau ā Pohe. As a bridge architect I always seek to reinforce a sense of place and I am proud that we have achieved something of lasting quality in Whangarei.
On behalf of everyone at Council we would like to thank all the residents of Whangarei who have supported this project.

We would like to thank those affected by the roadworks during construction particularly those travelling from Onerahi, the residents of Riverside Drive and surrounding streets for their patience.

A special thank you to the kaumatua and kuia who led the beautiful dawn blessing. The waka crews and the Lions (led by Colin Twyman) for their invaluable support and Brian Caulton and John Hazelden from the Whangarei Marina and Coastguard.

To all those who joined the parade and the flotilla and came along to watch we appreciate your involvement in making it a great day for Whangarei.

It has been great to see Whangarei so alive, excited and engaged.