BRIDGE
Isthmus is a New Zealand-based practice with an international profile in landscape architecture, urban design and landscape planning. We are a design-focused, collaborative and innovative team with offices in Auckland, Tauranga and Wellington. Established in 1988, the company is led by four Directors and six Associates and currently employs over thirty staff. Our track record reflects a solid reputation for reliable delivery and features an outstanding range of award-winning built work. We are committed to design excellence, placemaking and sustainable practices.

Isthmus work on projects in a ‘big picture’ context, providing clients with integrated solutions and taking complex projects through to implementation. We have specialist skills and expertise in design planning, urban design, geospatial, communication, landscape ecology, and contract documentation that add value to our core landscape architecture practice. We create the right team for the right project, drawing on the specialist skills within the practice. We foster a culture of collaboration with other professional disciplines including architecture, planning and engineering to facilitate a creative, problem-solving, design-led process. Good communication with clients and effective consultation with stakeholders is a key focus of our work.

We have a commitment to design leadership and are constantly searching for the essence of the site, its natural character and cultural relationships. Our designs attempt to define a sense of New Zealand style and represent our shared identity to create meaningful, contemporary and sustainable places. Our values influence our design approach with a commitment to balancing cost and program with design outcomes. We take an instinctual response combined with an analytical approach; we enquire by design and challenge assumptions. We balance design integrity with pragmatism to develop buildable and appropriate solutions and establish a clear and common vision through engaging with the client, the community and other professional disciplines.

We take a strategic view on bridges as they often form the key urban design move that ‘unlocks’ a project by connecting communities and assisting movement through the landscape, whether by vehicle, bike or walking. Concurrent with this broad view we work with materials and the composition of elements to develop designs that respond to their context, explore a narrative and offer high levels of visual, functional and recreational amenity.

The four projects that follow are all broader projects that include a bridge signature element within the overall network. These projects have been design-led and have involved a collaborative process with specialist engineers working together on a shared vision.

1. **TE PURU BRIDGE** Manukau City Council. 2006-2010

2. **ONEHUNGA FORESHORE BRIDGE** Auckland Council + NZTA 2010 - current

3. **ALBANY HIGHWAY - DAYS BRIDGE** Auckland Transport 2011 - current

Background
Te Puru Bridge is the major design intervention for the ongoing project to form a coastal walkway along the coastline between Beachlands and Maraetai in eastern Manukau City. The Bridge spans the lower tidal reaches of the Te Puru Creek between Te Puru Park (Manukau City Council) and Omana Regional Park (Auckland Regional Council) and is a connection that has been long anticipated by both the Beachlands and Maraetai communities as it allows safe recreational movement between the parks and settlements avoiding the busy State Highway.

Several places of spiritual, cultural and historical significance have been identified in the vicinity. The area has always been a popular gathering place and Omana Regional Park houses an archaeological site of great importance to the local Maori tribe. The new Te Puru Bridge is bookended by these sites and the boardwalk associated with the bridge skirts and briefly crosses evidence of considerable passage in the past. Waiheke Island is to the north and there is a relationship between the island and the mainland in this area stretching back into the past; a relationship between the land and the sea, a bridge building tradition that the Te Puru Bridge continues in a more tangible manner.

Project Description
The bridge was designed to meet the site's unique sense of place. The bridge is conceived as a fishing structure or simple boat jetty; both notions compatible with the past history of the site. The design has taken the essence of these structures and reinterpreted them to provide a unique informally relaxed feel. Old piles mixed with new, end caps, pile spacing’s, free standing piles and directional timber are all designed to develop this character. It builds on history but is not old, rather an interpretation; and intentionally touches the land (and sea) lightly. The bridge elevation is set to accommodate the two boats still moored upstream; one of which still transits between Waiheke Island and the mainland from this location. This elevation pitches the substructure of the bridge into the tops of the mangroves and affords good views up and down stream from deck level and the low key seating at the east abutment, as well as providing a high tide leaping platform for local children.

The brief from Manukau City Council was to provide a passageway to accommodate both pedestrians and bicycles. The bridge transitions from the formalised Te Puru Park portion of the walkway into the narrower less formal Omana Regional Park section. The bridge substructure has been kept intentionally thin by using a steel subframe and by compressing the joists and bearers into a single plane. The substructure is set back into shadow under the bridge and fronted by articulated timber brackets. The paint system on the steel work is deliberately recessive and allows the bridge to key into and be anchored by the shadows of the surrounding vegetation. Enthusiastic comments from local users indicate that the bridge has been well received and appreciated.
ONEHUNGA FORESHORE BRIDGE
Auckland Council + NZTA 2010 - current

Background
The Onehunga Foreshore Restoration project seeks to re-establish the natural character of Onehunga Bay to the southside of State Highway 20 through the creation of 6.8ha of usable parkland and rocky promontories as well as dynamically stable gravel and sandy beaches. A new gateway pedestrian and cycle bridge is the signature element for the project and will provide a seamless connection between Onehunga Bay Reserve and the new coastal parkland and beaches at the eastern. The bridge will form part of a recreational loop and connect with the Waikaraka Cycleway and the future Taylors Bay coastal walkway.

Project Description
The bridge design was lead by Isthmus who developed the key concept and aesthetic elements of the proposal within the parameters determined by the Principals Requirements. This included the need to balance the gateway directive with the need to ‘fit’ and being keeping with the Onehunga environment and to completely span the motorway. A key component of the concept was for the bridge to belong to the land and therefore the Onehunga community and this differentiated it from the series of cable stay bridges currently on the motorway network. With the concept embedded Isthmus worked with the URS bridge engineers to develop a steel truss system that could be clad. Similarly Isthmus worked with Tonkin and Taylor Civil and Geotechnical engineers to develop the form of the abutment mound and degree of cladding.

The bridge and approaches provide a gateway that is elegant, low and unobtrusive as well as being responsive to coastal and heritage values through material selection and detailing. Constructed over a steel truss and with a concrete deck the bridge has a hardwood timber balustrade to the windward side and a ‘folded flax’ marine grade weathering steel balustrade to the leeward side. The timber balustrade element references the wharf and maritime history of the port of Onehunga, once a thriving west coast port as well as major trade node for Maori. The folded flax speaks of the vegetation that formerly grew on the coast as well as its use as a raw material by Maori.

The bridge is embedded into earth embankments at each abutment to ensure that the bridge feels part of the land rather than the motorway; each embankment cut is partially faced in exposed basalt aggregate panels to reference the local volcanic crater. The 5m wide bridge completely spans the motorway and has a 48m central span and two 16m back spans. The spans are supported by two concrete piers. Concrete upstands on the piers are detailed as entrance features and suggest a traditional palisade post in the approach and departure directions while the developing pier form below the bridge deck is suggestive of an anchor stone when viewed from oblique angles.

Contact:
david.irwin@isthmus.co.nz

Budget: $28m

Client / Referee:
City Development Committee
Auckland City Council

Isthmus Project Team:
David Irwin
Helen Kerr
Sean Burke
Alan England
Hanna O’Donoghue

Key Collaborators:
Fulton Hogan
Tonkin & Taylor
URS
Background
The upgrade of the 4km stretch of Albany Highway between the Upper Harbour Motorway (SH18) and Dairy Flat Highway (SH17) is essential for reducing congestion, improving safety for all road users (including the area’s 5,000 school students) and encouraging the use of all modes of transport. The road will be widened to 4-lanes plus off road cycle lanes and wider footpaths in both directions. Isthmus have provided Urban Design and Landscape Architecture services in both the Scheme Assessment Report (SAR) and the Notice of Requirement (NoR) process.

Project Description
Isthmus were responsible for developing the Urban Design and Landscape Framework which established the design principles and parameters for: pedestrian and cycle pathways, medians, intersections, mid-block crossings, pedestrian refuge islands, driveways and shared accessways, retaining walls, street furniture, boundary walls, protection of existing vegetation, planting within the berm planting within property boundaries, stormwater, Days Bridge and utilities. We also developed individual mitigation plans for properties affected by acquisition, recommendations for properties where existing encroachments are to be removed, and recommendations relating to the protection of particular amenity and notable trees.

Isthmus worked closely and proactively with the engineering consultants (GHD) on the design of Days Bridge over the Oteha stream. The design objective for bridge was, “to enhance motorist, pedestrian and cyclist amenity and meet required best practice traffic and engineering design standards”.

The parapet design avoids surface decoration, such as the application of motifs, and instead employs clean simple lines, finishes and recessive colours. A folded steel balustrade sits on top of the precast concrete TL4 / 5 Bridge parapets and returns to cloak the bridge deck and screen attached services.

Slots, referencing classic Ministry of Works bridges, are cut in the steel balustrade to allow views down into the stream. At night these will be lit internally by LEDs to create a distinctive element along the highway.

Contact:
ralph.johns@isthmus.co.nz

Client / Referee:
Brian Devitt
Auckland Transport
021 756 312
Brian.Devitt@aucklandtransport.govt.nz

Isthmus Project Team:
Gavin Lister
Lisa Rimmer
Andrew Norriss

Key Collaborators:
GHD
Arborlab
Background
The Sylvia Park site occupies 24 hectares and is bisected by the South Eastern Arterial Road (SEART). The site was previously utilised for military storage, car sales facilities, and prior to this, it was a stud farm. To Maori, the site is important as it was a strategic point on a portage route between the east and west coasts and includes, a now covered, stream with cultural and spiritual significance.

Project Description
As a major new Auckland and regional destination, Sylvia Park brings together and celebrates the richness of Auckland’s landscape within a functional commercial environment. These concepts are expressed through built forms, and in the use of materials, colour, water and representative planting. The objectives were: to create a high quality central core for the community where people can gather, live, shop, meet, eat, work, play and learn; to respect and enhance the relationship between the urban centre and the broader natural landscape; to provide a vibrant, open and dynamic environment that allows for future growth and development.

SEART Park is one of four key landscape design features of the site and was designed to enliven the underside of the motorway overpass. The main design elements are vibrantly painted vertical steel poles bringing life, energy and excitement into this potentially negative space. These poles are populated randomly with gradual changes in height and colour forming informal gathering spaces within the poles to provide opportunities for weekend markets, art, performance and product displays. Lighting is incorporated in selected poles. Lighting of the 200m long soffit attractively highlights the structure which will be visible from a distance and will provide a good navigational reference point for visitors around the site.

Organic shaped seats are provided to further contrast the highway structure and the forest of poles. Lighting is incorporated within the seats to provide a glowing effect at night.

Contact:
david.irwin@isthmus.co.nz

Client / Referee:
Alan McKinnon,
Development Manager,
Kiwi Income Property Trust
09 357 8414

Isthmus Project Team:
David Irwin
Tim Fitzpatrick
Grant Bailey
Nada Stanish
Yoko Tanaka

Key Collaborators:
Jasmax - Architecture,
Clinton Bird - Urban Design.

Photographer: Simon Devitt

Publications:
Book: Street Furniture. Chris van Uffelen, Braun Publishing. Germany. 2010

Awards:
2008 NZILA: Gold Award, Commercial/ Industrial/ Institutional.
2008 NZILA: Silver Award, Rural/ Park/ Recreational.
2006 NZILA: Silver Award, Visionary Landscape.