NZ TRANSPORT AGENCY
WAKA KOTAHI

Roads of national significance

Completing the
Western Ring Route

SH16 Causeway Modified Competitive Alliance Procurement

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New Zealand Government

Contracting models

- The NZTA uses a range of contracting models
  - **Measure and Value (M&V)** is typically used where contracting skill sets are lower or the work is considered to be “standard”
  - **Design and Construct (D&C)** is typically used where there is considered to be some opportunity to innovate or use Contractor expertise to design risk out of the project
  - **Early Contactor Involvement (ECI**) – was used during the GFC primarily to provide workload certainty to Contractors but it was also recognised that a contractor with the appropriate mindset could add value to the outcome
  - **Alliancing** is currently the “premium” contract model used where there are special features associated with the project, where the project is very complex and/or where consenting risks are still to be resolved.
  - **Public Private Partnerships (PPP’s)** –as used on Transmission Gully. Payment regime significantly different to others as NZTA payments spread out over extended period

Project Alliancing Background

- First used in the UK Oil and gas infrastructure in early 1990's
- Then became widely used in Australia with a number of pre Olympic's infrastructure upgrades
- NZTA's predecessor Transit recognised potential benefits and first used the model on Grafton Gully in 2000
- Since then eight SH projects have been successfully delivered as Alliances (Pure and Competitive) within 3-4% of the Target Outturn Cost (TOC) agreed at the start of the project
- The most successful to date was the Manukau Harbour Crossing (MHX) – a Competitive alliance delivered significantly ahead of the 2011 RWC and some 4% below TOC
- Currently there are 4 alliance projects underway – Waterview, SH16 Causeway in Auckland, Memorial Park and Mackays to Peka Peka in Wellington.

Causeway - The Challenge

- Causeway Westbound widening required by December 2016 – power supply to Tunnels
- Complex geotechnics – soft ground conditions and interpretations around data.
- Specimen design $'s -70% above ground, 30% in Ground improvements
- Traffic management and capacity challenges
- Interfaces with adjacent projects – Waterview, Te Atatu and other projects along WRR
- Ensuring maximum industry interest in project
- Equitable process - Adjacent project/s contractors not advantaged

Causeway - The "Solution"

- A desired outcome was to ensure that the final design and associated assumptions was refined in conjunction with NZTA and its advisors
- NZTA was looking for the Innovation and Value for Money that is driven by a Competitive Alliance while looking for the certainty of Product and alignment between NZTA and the Contractors/Designers that is found in a Pure Alliance

Modified Competitive Alliance Process

- Stage 1 – Traditional ROI
  - clearly setting out the NZTA's modified 4 stage procurement process
- Stage 2 – Traditional SIA
  - Given range of potential solutions decided to allow for 3 short listed Consortia
  - Decision also partially based on desire to develop Alliance market by allowing great exposure to Alliance process
- Stage 3 – RFP
  - A shorter 10 week process with 4-5 specific workshops and 2 interactive meetings with each Proponent
  - Retain the Certificate A Preliminary Conceptual Design – focussing on Engineering solutions (Safety Audit not required until Stage 4 when dealing with Preferred Proponent
  - Evaluation and identification of Preferred Proponent through a mixture of Non-Price Attributes and a Guaranteed Maximum Price (GMP)

Modified Competitive Alliance Process

- Stage 4 – Interim Project Alliance Agreement (IPAA)
  - GMP expected to make appropriate allowance for TOC development risk
  - Further workshops with Preferred Proponent to develop agreed solution and associated TOC.
  - If TOC reconciled for less than or equal to GMP then Project Alliance Agreement (PAA) entered into, if not then repeat the IPAA process with second placed consortia.

What did we discover on Journey – Positives

- **Three shortlisted Consortia**
  - Appropriate in 2012 when workloads were lighter
  - Gave opportunity to grow industry (Downer/Heb's winning MPA)

- **Geotechnical solution differences not as great as was expected**

- **"Unexpected" outcome was geometric solution that proposed widening on one side only**
  - 4th Stage allowed for NZTA/Consortia to work together and obtain necessary consent approvals before PAA signed

What did we discover on Journey – Positives cont

- **Greater alignment and understanding of Product achieved before PAA with TOC= GMP signed**
  - Safety audit closed out, Alignment reached out geotechnical parameters and assumptions
  - Open and Frank discussions able to be held with Preferred Proponent
  - Full(er?) understanding of Risks and issues by all as Alliance Management Team (AMT) and Project Alliance Board (PAB) fully functioning in this period.
  - Valuable learning for new entrants – Heb and Downers went on to win the Memorial Park Alliance

- **"Housekeeping" sorted during IPAA phase**
  - Insurance requirements dealt with
  - Project control systems established
  - Design development advanced

What did we discover on Journey – Negatives

- **Clarity on GMP vs TOC**
  - Was offering a GMP in a competitive environment and Consortia taking all risks (50/50) in the IPAA phase appropriate??

- **Including a major scope change (Variation) was complicated**
  - The SH16/SH20 Flip proved a complex issue and "distraction" to original intent
  - GMP assumptions re programming, traffic management etc proving complicated and this variation still not resolved
  - As per previous learning's – it is Never a good idea to add major scope changes after Contract award

- Variation Distraction probably set the Project "Health and Culture" back by 6 months

Questions

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Thank You