IPWEAQ SWQ Branch Conference – 6 November 2015

O’Mara Road Upgrade Project

Large Scale Construction by Day Labour
Flexible Project Means Change

Change is upon us. Where do we want to be?

_Recurrent Ideas_

You can’t always get what you want…. But if you try sometime, you just might find you get what you need (The Rolling Stones, 1969)

Changes…. Turn and face the strain….Just gonna have to be a different man (David Bowie, 1971)
Sub-Regional Context

• **Connections**
  • Area long planned for industrial and intermodal hub
  • Toowoomba Second Range Crossing
  • Warrego Highway
  • Toowoomba-Cecil Plains Road
  • Wellcamp Brisbane West Airport
  • Inland Rail
  • Truck Logistics – Intermodal Hub
  • Toowoomba Waste Transfer Station
  • Possible TRC Super Depot
  • Possible Abattoir
  • Large scale operations for national companies – Boral, Iplex
  • Industrial Subdivision
Project Development – Scope

- Ultimate design for 4 lane road in stages with improved flood immunity to connect economic hot spots. This project to provide one carriageway with flood immunity, complete works under TSRC corridor and facilitate future development and signals.

- Widening existing carriageway – late 2014

- Stage 1A – Warrego – Witmack - Western Carriageway at ultimate level (incl bridge and dairy relocation) started in January 2015 – design completed in April 2015 - $21.1m – Bridge and Dairy by external contract.

- March 2015 – Toowoomba Waste Transfer facility added - $0.85m

- April 2015 – Eastern carriageway northern end and development intersection added - $1.1m

- May 2015 – Stage 1B South of Witmack Rd through TSRC corridor added - $4.5m

- TRC Day Labour – allows for cost effective add-on works – Stage 1B, Waste Transfer Station and portion of eastern carriageway – “Lego Block Project”. Add-ons and changing Warrego Highway requirements meant that internal agility to respond was critical and day labour conducive.
Project Development – Time Constraints

• **External Time Controls**
  • R4R Funding - $10m by December 2015
  • Development Access by December 2015
  • TSRC by December 2015
  • ERA 16 approval
  • Fish Passage works approval
  • Cultural Heritage approval
  • Procurement controls – bridge components
  • Council milestones for 2015/16
Project Development – Project Plan

- **Development of Plans and Controls**
  - Largest Day Labour Project – different approach used. **“Best for Project” at all costs as the guiding theme. Leadership and enabling over management and control**

  - Gantt Chart Development – workshop looked at order of work; production rates; buy in by team; simplified controls and decision making; carefully selected team

  - Scenario Planning – to accommodate changing scope

  - Considered delivery options – buy plant vs hire; alternative materials

  - Cost approach – stretch targets with no risk allocation; variation register

  - Risk & Opportunity Register – Management of Contingency and “No Surprises”

  - Internal Costing Daily – internally developed spreadsheet – has been adopted for other DL jobs

  - Weekly construction and PM meetings; monthly PLT

  - 0.4 FTE WHS officer
Project Development – Team Structure

• **Management Structure**
  • Collaborative PM process by C&M and Project Services. Fluid structure around design development, utilities, resumption, procurement, reporting, communications and engagement. Roadworks by C&M, bridge by Project Services.

  • Executive champion initially later developed into PMT

• **Construction Team Selection**
  • Careful selection of teams balancing task performance history with geographical location. Key roles for Construction Manager and Works Coordinator to establish progress culture and energy

  • Buy in by supervisors and junior engineers to reach targets – facilitate by enabling

  • Equal performance by non-project staff to maintain metrics on BAU matters – customers, delivery of program, quality etc.
Project Delivery - Challenges

• **Challenges**
  • Stakeholder management – businesses
  • Reporting – TRC, TMR, PQ, TRC W&W – Modern Governance requirements
  • Resumption timeframes
  • Changing requirements and time frames
  • Service provision agreements – Ergon process and lead time
  • Approval timeframes
  • Bridge construction, geotechnical and contract issues
  • Conscious of job and staff rotation – fatigue management
Project Delivery – Outcomes to Date

- Savings – approx. 20% on Stage 1st stage of works including 10% efficiency dividend; rates competitive with private sector
- Use of internal cost management tools allows daily costing and quick response to individual task targets
- Roadworks on time and under budget
- Brand capability recognition
- Zero LTI on 95,000 hours
- Proactive Design Partner – HIG
- Large Project exposure and success for the TRC team
Onwards and Upwards