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New Cable Installation Technology used in
132kV 'City Grid' Project, Brisbane – Australia.

Cable support structures
on Captain Cook Bridge



Duct camera system
'Robolex'™



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Installation of Cables on Captain Cook Bridge

Issues

- Cable circuits needed to cross the Brisbane river (600m). To avoid the need for directional bore, use of the bridge was chosen
- The bridge required a gantry structure to support the cable as well as a special support device for the cables where the bridge expands and contracts.



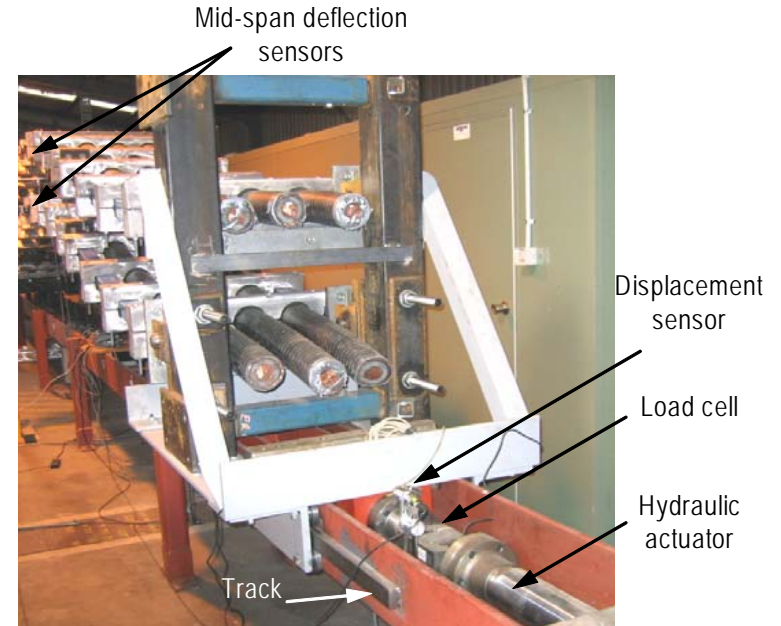
Project issues

- Design of Gantry and structure
- Approval from Roads authority
- Testing of 'Dilatation Device' to validate design



Testing to validate Design

- Installation of full scale device with actual cables to verify performance
- Instrumentation to record effects of:-
 - Bow and Cable stiffness
 - Bow spring endurance
 - Cable curvature and strain
 - Cable flexural characteristics
 - Vibration clamping
- Verification and benefits



Inspection of Pipes and Conduits

Current system uses CCTV inspection

This is:-

1. Expensive
2. Time consuming

New system reduces cost and time

1. On board monitoring
2. Inspection can be done – not in ‘real time’
3. Provides better use of labour and resources
4. Permanent record for Inspector
5. Low cost, flexible system
6. Enables more detailed examination of the pipe/duct



8m

