



# **Australasian Railway Consultancy Services (ARCS)**

## **Reference Projects**

**Project Location:** Perth Transport Authority – MRWA/PTA Freeway Monitoring  
Perth, WA

**Project/Description:** ARCS are currently managing joint WA Main Road PTA rollout of combined corridor monitoring for the Southern Railway/Freeway involving 100 cameras. The programme is part of a rail safety initiative to detect intrusions into the rails reserve

The work is in progress

*Key Parties Involved:* PTA, MRWA

*Contract Form:* Project Engineering and Management Consultancy

*Value:* The total value of the project is approximately \$3M

*Time and Cost Performance:*

*Major problems:*

*LTI rate:*

*Referee:*

- PTA Project Implementation Manager - Mr Brian Blagaich,  
089326 2506

**Project Name:** Perth Transport Authority – Freeway Intrusion Detection

**Project Location:** Perth, WA

**Project/Description:** ARCS were involved in the proto-typing of a fibre based infrarometer system to detect the ingress of objects from the road reserve to the rail reserve.

The prototype is complete and proved successful. The result are now being considered by the WA government for funding

*Key Parties Involved:* PTA, DDN, HBS

*Contract Form:* Project Engineering, Design and Management

*Value:* The total value of the project is approximately \$100K

*Time and Cost Performance:*

*Major problems:*

*LTI rate:*

*Referee:*

- PTA Project Implementation Manager - Mr Brian Blagaich,  
089326 2506

**Project Name:** Perth Transport Authority – 32 Day Storage Upgrade

**Project Location:** Perth, WA

**Project/Description:** ARCS were involved in the management and technical advice for upgrade of the CMR Storage system to a 32 day storage capability. The project involved the introduction of a 4Pb SAN and virtualisation of server applications.

The work is complete.

*Key Parties Involved:* PTA, DDN, HBS

*Contract Form:* Project Engineering and Management Consultancy

*Value:* The total value of the project is approximately \$3M

*Time and Cost Performance:*

*Major problems:*

*LTI rate:*

*Referee:*

- PTA Project Implementation Manager - Mr Brian Blagaich,  
089326 2506

<b>Project Name:</b>	Perth Transport Authority - Relocation of the Central Monitoring Room
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	ARCS are involved in technical design and superintendence of the construction of the new Central Monitoring Room for PTA
<i>Key Parties Involved:</i>	The work is current and ongoing. PTA, Woodhead, DRML, AECOM, HBS
<i>Contract Form:</i>	Project Superintendency/Consultancy
<i>Value:</i>	The total value of the project is approximately \$4.0M
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"> <li>PTA Project Implementation Manager - Mr Brian Blagaich, 089326 2506</li> </ul>


<b>Project Name:</b>	<b>Perth Transport Authority – Retesting and Integration of the Perth Underground Complex Tunnel Control Systems including Fire Protection</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	ARCS are involved in technical review, commissioning and retesting of the TCS
<i>Key Parties Involved:</i>	The work is complete. PTA, United Group, LKJV, Schneider
<i>Contract Form:</i>	Project Engineering, Commissioning, Consultancy
<i>Value:</i>	The total value of the project is approximately \$1.0M
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"> <li>PTA Project Implementation Manager - Mr Brian Blagaich, 089326 2506</li> </ul>

<b>Project Name:</b>	<b>Perth Transport Authority - Train Control System Contract Superintendence</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	ARCS are involved in the superintendence and technical advice for the Train Control System works for the PTA being installed and commissioned in the PTC in East Perth. The train control system interfaces to the entire PTA urban area including the New Metro Rail Project. The project also includes the provision of Train Control, Train Planning and Scheduling, Customer Information Systems and associated field works.
<i>Key Parties Involved:</i>	The work is ongoing. PTA, NMR, Ansaldo STS
<i>Contract Form:</i>	Project Superintendency/Consultancy
<i>Value:</i>	The total value of the project is approximately \$10M
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"> <li>PTA Project Implementation Manager - Mr Brian Blagaich, 089326 2506</li> </ul>

<b>Project Name:</b>	<b>Queensland Rail – SE Queensland SMARTS Project</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	ARCS are involved in the design, development and deployment of a number of technology solutions to allow QR to better monitor and manage their rail infrastructure. Sub-projects include, Rail temperature monitoring, Bridge impact detection, Level crossing monitoring and Pantograph monitoring
<i>Key Parties Involved:</i>	The work is ongoing. ARCS, QR
<i>Contract Form:</i>	Engineering Design and Project Management
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"><li>• QR – Project Co-ordinator Paul Lilwall, ☎ 0407 036 208</li></ul>

<b>Project Name:</b>	<b>WestNet Rail - Train Control System Contract</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	ARCS are involved in the development and provision of technical advice for the centralisation of Train Control for the WNR being installed and commissioned in the new MidSig Control Centre in Midland WA. The train control system is an extension of the train control system installed as part of the PBI project and will control the entire Freight rail Network for WNR. The project includes the extension of the existing Train Control System (Phoenix), the decommissioning of the existing train control systems (Paragon) and the installation of new associated field works at selected locations throughout the state.
<i>Key Parties Involved:</i>	The work is ongoing. WNR, Ansaldo STS
<i>Contract Form:</i>	Project Superintendency/Consultancy
<i>Value:</i>	Confidential
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"><li>• WestNet Rail Control and Communications Manager - Mr John Ursich, ☎ 0411 884 575</li></ul>

<b>Project Name:</b>	<b>Public Transport Authority - Relocation of Summer St Feeder Station</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	<p>This work involved the relocation of the Claisebrook Feeder Station for the Westrail Traction system. The Feeder Station was required to be located due to the Graham Farmer Freeway works. The work was completed in 1998.</p> <p>Two roles were undertaken:</p> <ul style="list-style-type: none"> <li>• Westrail Control and Communications Co-ordination Engineer</li> <li>• Westrail SCADA and relocation staging</li> </ul> <p>The role of co-ordinating engineer required the liaison and interfacing with Westrail Electrical Systems personnel, Westrail Operations personnel, Main Roads project personnel, BCJV project personnel, consultants and contractors. This role also included staging planning.</p> <p>The role of SCADA engineer and staging required the implementation of a split interlocking system with cross system interlocks which allow the safe operation of the split system during staging. The project was successful and the staging works was completed without any loss of train services. The Project sponsor was the WA Main Roads.</p>
<i>Key Parties Involved:</i>	The work is complete.
<i>Contract Form:</i>	MRD, Westrail, BCJV Discipline Manager
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	Staging of split control across two different systems while ensure safe operations
<i>LTI rate:</i>	
<i>Referee:</i>	<p>Westrail Control and Communications Systems Manager - Mr John Ursich, ☎ Phone 9326 2402</p> <p>Westrail Senior Electrical Engineer – Mr Rashid Saminakay ☎ Phone 9326 2937</p>

<b>Project Name:</b>	<b>WAGR (now PTA) - Security Initiatives Project USIP</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	<p>ARCS were engaged by the WAGR to project manage the introduction of a number of security initiatives to the urban passenger network. The work involved the provision of:</p> <ul style="list-style-type: none"> <li>• Replacement of the Passenger Information System</li> <li>• Implementation of the Long Line Public Address System</li> <li>• Station SCADA for 47 stations</li> <li>• Introduction of WAN/LAN fibre backbone for the system, including a 1Ge network across all urban stations.</li> <li>• Digital CCTV monitoring network with Central Management.</li> <li>• Barrier gates and fencing</li> <li>• Improvements to station lighting and electrical systems</li> </ul> <p>The work was complementary to the Control and Train Information Project and involves identifying client requirements, preparation of RFT documentation, calling of tender, tender evaluation, project management and superintendence.</p> <p><b>The work is complete and was awarded the Institute of Engineers WA “Overall Winner Engineering Excellence Award 2006”.</b></p>
<i>Key Parties Involved:</i>	WAGR now PTA and WA Police
<i>Contract Form:</i>	Project Manager/Consultancy
<i>Value:</i>	The total value of the work is approximately \$30M
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<p>AUSTRALASIAN RAILWAY CONSULTANCY SERVICES</p>  <p>089526 2506</p>

<b>Project Name:</b>	<b>Development of the PTA's Communications Network Asset Management Plan.</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	<p>ARCS were engaged by the PTA to facilitate and assist in the preparation of the Asset Management Plan for the PTA's Communications Infrastructure.</p> <p>The work included identifying assets and asset condition, creating the framework and plan structure in accordance with PASS 55, gathering requirements, conduct management briefings and facilitated workshops, prepare of draft plans and documentation, development of maintenance and financial plans for each asset type and project management.</p> <p>ARCS also provided the PTA with strategic technical advice and planning for the future directions of the communication network.</p>
<i>Key Parties Involved:</i>	PTA
<i>Contract Form:</i>	Consultancy
<i>Value:</i>	Confidential
<i>Referee:</i>	<p>Hugh Smith Executive Director Strategic Asset Management Development Public Transport Authority of Western Australia T (08) 9326 2686</p>

<b>Project Name:</b>	<b>Development of the PTA's Network Systems Asset Management Plan.</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	<p>ARCS were engaged by the PTA to facilitate and assist in the preparation of the Asset Management Plan for the PTA's Network Systems Infrastructure.</p> <p>The work included identifying assets and asset condition, creating the framework and plan structure in accordance with PASS 55, gathering requirements, conduct management briefings and facilitated workshops, prepare of draft plans and documentation, development of maintenance and financial plans for each asset type and project management.</p> <p>ARCS also provided the PTA with strategic technical advice and planning for the future directions of the network systems infrastructure.</p>
<i>Key Parties Involved:</i>	PTA
<i>Contract Form:</i>	Consultancy
<i>Value:</i>	Confidential
<i>Referee:</i>	<p>Hugh Smith Executive Director Strategic Asset Management Development Public Transport Authority of Western Australia T (08) 9326 2686</p>

<b>Project Name:</b>	<b>Development of the PTA's Control Systems Asset Management Plan.</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	<p>ARCS were engaged by the PTA to facilitate and assist in the preparation of the Asset Management Plan for the PTA's Control Systems Infrastructure.</p> <p>The work included identifying assets and asset condition, creating the framework and plan structure in accordance with PASS 55, gathering requirements, conduct management briefings and facilitated workshops, prepare of draft plans and documentation, development of maintenance and financial plans for each asset type and project management.</p> <p>ARCS also provided the PTA with strategic technical advice and planning for the future directions of the control systems infrastructure and technology.</p>
<i>Key Parties Involved:</i>	PTA
<i>Contract Form:</i>	Consultancy
<i>Value:</i>	Confidential
<i>Referee:</i>	<p>Hugh Smith Executive Director Strategic Asset Management Development Public Transport Authority of Western Australia T (08) 9326 2686</p>


<b>Project Name:</b>	<b>Development of a QR Network's Telecommunications Asset Management Plan for QR Network</b>
<b>Project Location:</b>	Brisbane QLD
<b>Project/Description:</b>	<p>ARCS were engaged by QR Network to provide technical advice, strategic planning and management for the development of the Strategic Asset Plan for QR Network's Telecommunications Backbone Network</p> <p>The work included identifying assets and asset condition, creating the framework and plan structure in accordance with PASS 55, gathering requirements, conduct management briefings and facilitated workshops, prepare of draft plans and documentation, development of maintenance and financial plans for each asset type and project management.</p> <p>ARCS also provided QR with strategic technical advice and planning for the future directions of the telecommunication network.</p> <p>The work is complete.</p>
<i>Key Parties Involved:</i>	QR Network
<i>Contract Form:</i>	Project Manager/Consultancy
<i>Value:</i>	Confidential
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"> <li>• QR Network Manager Signalling and Communications - Mr Barney Schubert, ☎ 07 3235 2020</li> </ul>

<b>Project Name:</b>	<b>WestNet Rail, Development of a Strategic Plan for Train Control and Operational Systems.</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	<p>ARCS are engaged by WestNet Rail to provide technical advice, strategic planning and management for the development of a Strategic Plan for WestNet Rail Train Control and Operational Systems</p> <p>The work included identifying assets and asset condition, creating the framework and plan structure, gathering requirements, conduct management briefings and facilitated workshops, prepare of draft plans and documentation, development of maintenance and financial plans for each asset type and project management.</p> <p>ARCS also provided WestNet Rail with strategic technical advice and planning for the future directions of the train control and operational systems infrastructure and technology.</p>
<i>Key Parties Involved:</i>	The work is complete. WestNet Rail
<i>Contract Form:</i>	Project Manager/Consultancy
<i>Value:</i>	Confidential
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"><li>• WestNet Rail Control and Communications Manager - Mr John Ursich, ☎ 0411 884 575</li></ul>


<b>Project Name:</b>	<b>Transport Infrastructure Development Corporation Technical Advice</b>
<b>Project Location:</b>	Sydney, NSW
<b>Project/Description:</b>	<p>ARCS provided technical advice for the CIMS including Train Control Systems, passenger information etc works for TIDC being installed and commissioned in the Sydney. The project also includes the provision of Train Control, Customer Information Systems and associated field works.</p> <p>The work included identifying assets and asset condition, gathering requirements, conduct management briefings and facilitated workshops and preparing draft plans and documentation.</p>
<i>Key Parties Involved:</i>	The work is complete. TIDC, Railcorp
<i>Contract Form:</i>	Project Consultancy
<i>Value:</i>	
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"><li>• TIDC System Manager Mr Darin O'Brien, ☎ 0417 330 560</li></ul>



**Project Name:** BHPB Rail Technology System Contract  
**Project Location:** Perth, WA  
**Project/Description:** ARCS are involved in the complete project development, requirements analysis, and preparation of specifications and provision of technical advice for the Rail Technology System for BHPB. The RTS will replace the existing train control, SCADA, train planning and scheduling systems installed at BHPB Port Hedland operations.  
 The work is complete.  
*Key Parties Involved:* BHPB  
*Contract Form:* Technical Advice, Project Management, Superintendency/Consultancy  
*Value:* Confidential  
*Time and Cost Performance:*  
*Major problems:*  
*LTI rate:*  
*Referee:*

- BHPB RTS Project Manager - Mr John Lamberti,  
 0439 978 084

**Project Name:** Queensland Rail, Five Year Strategic Plan for QR Operational Systems.  
**Project Location:** Brisbane, QLD  
**Project/Description:** ARCS were engaged by Queensland Rail to provide technical advice, strategic planning and management for the development of the Five Year Strategic Plan for QR Operational Systems  
 The work involves identifying client requirements, client agreement and sign-off, preparation of documentation, management of estimates, evaluation, project management and superintendence.  
 The work is complete.  
*Key Parties Involved:* Queensland Rail  
*Contract Form:* Project Manager/Consultancy  
*Value:* Confidential  
*Time and Cost Performance:*  
*Major problems:*  
*LTI rate:*  
*Referee:*

- QR General Manager Operations Network Access Group QR – Mr Ian Dall,  
 Phone 07 3235 2871

**Project Name:** Queensland Rail, Preparation of the specification and associated documentation for the new Train Control System (RTCOS)  
**Project Location:** Brisbane, QLD  
**Project/Description:** ARCS were engaged by Queensland Rail to develop the specification and associated documentation for the replacement of their current Train Control System. (RTCOS)  
 The work involves identifying client requirements, client agreement and sign-off, preparation of documentation, management of estimates, evaluation, project management and superintendence.  
 The work is complete.  
*Key Parties Involved:* Queensland Rail  
*Contract Form:* Project Manager/Consultancy  
*Value:* Confidential  
*Time and Cost Performance:*  
*Major problems:*  
*LTI rate:*  
*Referee:*


- Queensland Rail Operations Network Access Group QR – Mr Ian Dall,  
 Phone 07 3235 2871

**Project Name:** WAGRC, Control and Train Information Project  
**Project Location:** Perth, WA  
**Project/Description:** ARCS were engaged by WAGRC to provide technical advice, strategic planning and project management for the upgrade of the Urban Train Control facilities including the following:

- Replacement of the Suburban Signalling Computer
- Replacement of the Passenger Information System
- Implementation of the Train Information/Control System for Urban Passenger
- Implementation of the Long Line Public Address System
- Replacement of the Urban Traction Power Control SCADA Office System
- Upgrade of the communications facilities for the above.


The work involved identifying client requirements, client agreement and sign-off, preparation of RFT documentation, calling of tender, tender evaluation, project management and superintendence.

*Key Parties Involved:* WAGRC  
*Contract Form:* Project Manager/Consultancy  
*Value:* The total value of the work is approximately \$4.5M  
*Time and Cost Performance:*  
*Major problems:* Funding approvals  
*LTI rate:*  
*Referee:*

- Westrail Control and Communications Manager - Mr John Ursich,  
 Phone 0411 884 575

**Project Name:** WestNet Rail Train Control System Contract Superintendence (PBI Project)  
**Project Location:** Perth, WA  
**Project/Description:** ARCS were involved in the superintendency of the Train Control System works for the new Freight Control system being installed and commissioned in the Westrail centre in East Perth. The train control system interfaces to new processor based Interlocking in the entire Westnet Rail Freight area and is the 1<sup>st</sup> installation of PBI on existing network.

*Key Parties Involved:* WAGR, Westnet Rail ARG, MHM Engineering, Union Switch and Signal  
*Contract Form:* Project Superintendency/Consultancy  
*Value:* The total value of the project is approximately \$20M  
*Time and Cost Performance:*  
*Major problems:*  
*LTI rate:*  
*Referee:*

- Westnet Control and Communications Manager - Mr John Ursich,  
 Phone 0411 884 575

<b>Project Name:</b>	<b>WestNet Rail, Audit of current CATOS Systems including preparation of the specification for the replacement of the system</b>
<b>Project Location:</b>	Perth, WA
<b>Project/Description:</b>	ARCS were engaged by WestNet Rail to conduct an audit of the current CATOS, provide technical advice, strategic planning and management for the development of the specification for the replacement this system.  The work involves identifying client requirements, client agreement and sign-off, preparation of documentation, management of estimates, evaluation, project management and superintendence.  The work is complete
<i>Key Parties Involved:</i>	WestNet Rail
<i>Contract Form:</i>	Project Manager/Consultancy
<i>Value:</i>	Confidential
<i>Time and Cost Performance:</i>	
<i>Major problems:</i>	
<i>LTI rate:</i>	
<i>Referee:</i>	<ul style="list-style-type: none"><li>• Westnet Control and Communications Manager - Mr John Ursich, ☎ Phone 0411 884 575</li></ul>