Agenda

- PTA Safeworking Rules & Procedures
- Vendor Communications Portal
- Procurement Update
- Consultancy Panel and Engagement Model
- Safety Management Plans
- Engineering Assurance and Safety In Design
- Future Work Packages
- Q&A
PTA Safeworking Rules and procedures

Protecting workers and worksites whilst in the PTA Rail Corridor
What is Safeworking?

Safeworking is an integrated system of operating procedures and engineering for the safe operations of trains and the protection of people and property on or in the vicinity of the railway.

Safeworking relies on fundamental principals e.g.

- When in the danger zone workers must be protected
- Workers must have an identified safe place when on track
- The person who introduces the risk must ensure that the risk is appropriately managed
- A safety assessment must be completed before entering the Danger Zone

Major risks controlled by Safeworking are:

- Train to train collision
- Train to worker collision
- Contact with overhead line equipment
The Danger Zone
PTA Safeworking Rules and Procedures

- Introduced in November 2015
- Based on the Australian National Rules and Procedures
- Consists of 41 Rules and 8 procedures
- Alignment to units of competency

**Methods of track protection**

- **Local Possession Authority (Rule 3001)** - used to close a defined portion of track and allows multiple worksites to occupy that section of track
- **Track Occupancy Authority (Rule 3005)** — used to close a defined portion of track for a single worksite
- **Absolute Signal Blocking (Rule 3011)** — maintaining Controlled Absolute Signals at sop to exclude rail traffic
- **Lookout Working (Rule 3013)** — Give warning of approaching rail traffic to workers in the danger zone
Protection Officers

- Protection Officer (Level 1) – Lookout Working
- Protection Officer (Level 2) – Absolute Signal Blocking
- Protection Officer (Level 3) – Track Occupancy Authority
- Possession Protection Officer – Local Possession Authority
Electrical Safety

- Procedure 9030 (Safety Instructions for the Electrified Area)
- Defines roles and responsibilities e.g. Person Responsible for Electrical Safety (PRES)
- Safety measures applied to prevent machinery from encroaching within 3 -1 meters of the Overhead Line Equipment (vicinity form)
- Isolation of the Overhead Line Equipment
Accessing and working within the PTA Corridor

- All personnel will require Track Access Permit (TAP)
- Minimum TAP is a Supervised Worker (SW)
- Safeworking accredited personnel will require a Protection Officer (PO) competency
- Submit Safety Management Plan identifying risks and appropriate controls (including any applicable Rule/s)
- Once approved works will be published in the PTA Works programme
- All workers with Supervised Worker TAP must be supervised by a Protection Officer
- Protection Officer will log on to the Staysafe application prior to accessing the PTA Rail Corridor.
Vendor Communications Portal
Accessing the Portal
Your Communications

VCP, General Notices | 19/04/2016
Welcome to the Vendor Communications Portal
Welcome to the PTA Vendor Communications Portal.

On the right you will see notifications from your subscribed categories in date order. Click on the items in this notifications list to see more details and download the documents.

Please note that the Project Requirement Specifications contain links to other documents. These links will only work if you have access to the PTA’s Document Management System.

Documents

VCP - Quick Start Guide 20160623 (.pdf, 249.15 KB)
- 41 download(s)
Questions?

Contact Us

(08) 9326 2000

VCP@pta.gov.au

Head Office
Public Transport Centre, West Parade, East Perth WA 6004
PTA Consultancy Panels

- PTA Consultancy Panels 1 to 6
  - Panel 1 Project Management & Superintendence
  - Panel 2 Building Infrastructure
  - Panel 3 Rail Infrastructure
  - Panel 4 Transport Systems and Infrastructure
  - Panel 5 Road Infrastructure
  - Panel 6 Project Support
- Awarded March and April 2013
- 5 years + 3 x 12 month extension options
PTA Consultancy Panels

• Review process
• Steering Committee formed
• Recommendations and outcomes
• Termination of Panel 1 and Panel 5 effective 30 November 2016*
• Further review in progress – Panels 2, 3, 4 and 6

*unless existing service contract /s in place
Changes to the SMP approval process
SMP Approval process changes

• A recent audit highlighted that there were some 189 SMP’s that had not had correct or complete signoffs by managers.

• In the majority of cases, the works had either been cancelled or completed without full approval as the PTA representatives weren’t able to secure these approvals within the timeframe for the scheduled works.

• To prevent this happening again and to ensure approvals are received in a timely manner, a new SMP approval process has been developed.
Development of a new SMP template

- From January 3\textsuperscript{rd} 2017, the PTA representative will liaise with the contractor to development a SMP to a uniform standard that is acceptable to relevant branches.
- A draft SMP template has been developed and is currently going through the consultation process before approval and will be the basis of all future SMP’s.
- Once the SMP template has been approved, it will made available to all PTA personnel and third party contractors for use in developing an SMP for their proposed works.
What are your obligations

• Plan to be kept up-to-date;
• Each person on site must have access to the plan;
• Briefing of the works as per the SMP to given to all personnel on site;
• Copy of plan is available for inspection throughout the works;
• Inspections by PTA personnel will be carried out as per the SMP.
Key benefits

• Template for SMP’s user friendly and company has ownership of their own SMP;
• A much smoother process where the Safety Team will now liaise with both the Project Managers and the contractor to ensure there are no delays in the approval process;
• Works cannot commence until the SMP has full signoff and the “unique” number has been generated.
• Once the SMP has been sent for approval, an audit trail generated which will assist in tracking the approval process and ensure correct document control.
Network and Infrastructure Safety Team

- Dayle Treby, Divisional Safety Manager
- Craig Harper, Safeworking Coordinator
- Kevin Butler, Safeworking/SMP Consultant
- David Simhauser, Safety Compliance Officer
- Alan DeSouza, Risk and Quality Coordinator
- Trisha Abbott, OSH Coordinator
- Fiona Heart, SMS Project Officer
Engineering Assurance and Safety in Design
Engineering Assurance
Engineering Assurance

Misconceptions relating to Engineering Management for Projects procedure

*The Engineering Management for Projects (EM4P) procedure doesn’t apply to early design stages.*

If a project is being developed through IPLS, or if N&I have selected designers off a panel to develop concept or reference designs, the project must appoint engineering roles as defined in the EM4P. The EM4P is applicable in all design stages – Concept, Reference and Detailed design.

The project must have an Engineering Management Plan which describes how it intends to control the engineering, design and safety assurance through the design phases.
The responsibilities of the CPE, PE, SEM and SRE………..
EXAMPLE OF A TYPICAL STRUCTURE FOR A D&C TYPE CONTRACT

DESIGN

- Designers
  - Designer discipline 1
  - Designer discipline 2
  - Designer discipline 3

SUPPLIERS RESPONSIBLE ENGINEERS

- SRE 1
- SRE 2
- SRE 3

CONSTRUCTION

CONSTRUCTOR

- Package Manager 1
- Package Manager 2

- Subbie 1
- Subbie 2
- Subbie 3

CPE

- Attend IDR and agrees discipline design is acceptable
- Holds IDR
- Sends IDR

SEM

- Signs certificate of compliance (contained in Design report)
- Approves as-built documentation
- Signs Certificate of Compliance
- Signs FAA
- Holds Acceptance Review
- Issues DRN
- Accept

Project Engineers

- PE Discipline 1
- PE Discipline 2
- PE Discipline 3

Third party design verification report (only required if deemed necessary by the DM)

One SEM per contract (multiple contracts = multiple SEMs)
Engineering Assurance

Misconceptions relating to Engineering Management for Projects procedure

SEM and SRE responsibilities in the Construction stage.

SRE
- Ensures validation identified in the design stage is undertaken in the construction stage and results demonstrate compliance to the acceptance criteria
- Ensures works are carried out in accordance with the design.
- Checks accuracy of as-constructed documentation and that its reflects all agreed changes.
- Signs the EIS discipline documentation.

SEM
- Manages change from approved IFC submission
- Signs EIS certificate
- Approves as-constructed documentation
- Signs the Certificate of Compliance
- Signs the Certificate of Final Asset Acceptance once there is stability in the outstanding defects list.
Engineering Assurance

Where are we going?

All projects requiring design will have an Engineering Management Plan. The PTA (CPE) will develop an EMP which will outline the framework for engineering assurance.

The Supplier’s EMP must describe engineering and design assurance and management for a single project in accordance with the supplier’s own procedures. The Supplier shall demonstrate compliance to the EM4P and how this will be achieved.
Engineering Assurance

Where are we going?

Design Verification

Verification must demonstrate that components of the design map to all of the project requirements, and evidence included within the design report.
Engineering Assurance

Where are we going?

Design Validation

In the design stage the design must identify the types of validation required to prove the design meets the project intent.

If validation is required in the Concept stage, then validation results must be included in the design report.

Within the detailed design stage, the design must specify the type of validation and acceptance criteria required during construction.
Engineering Assurance

Where are we going?

Design Reports

PTA has developed Concept, Reference and Detailed design report templates outlining the minimum PTA requirements for inclusion in a design report. These are available on the Vendor Communication Portal.

The design report includes:
- Safety in Design workshop details
- Certificate of Compliance from the SEM stating that the design is safe, fit for purpose, and meets all Standards, Codes, legislation and requirements.

If the project is complex and delivered in multiple packages, then the design reports will match the packages (or grouped packages) and this delivery strategy must be outlined in the EMP.

Design Reports must be submitted prior to holding the Acceptance Review at completion of the design stage.
Safety in Design
SiD

New PTA procedure

- New procedure is available on the Vendor Communications Portal

- The procedure provides a framework for managing SiD. It is not the intention to replace a Supplier’s processes. If you perceive a clash please bring it to my attention.

- We are continuing to trial the procedure on a few projects to sense check the procedure and also to learn any contractual requirements that stem from the procedure. The intent is to provide wording in tender documents to identify what the procedure requires from the supplier.
Overview of the procedure

The procedure revolves around three components.

- **Transfer of information**
  - Compilation of pre-construction information
  - Sharing and updating pre-construction information
  - Issue Design Report
  - Identify risks on drawings
  - Residual risks transferred to operations and maintenance

- **Management of risks**
  - Principles of prevention
  - Traceability through the Design Risk Register
  - Design iteration
  - Early identification of residual risks

- **Identification of risks**
  - Early risk identification at the right time within the asset lifecycle with the right people
  - Methods for risk identification
SiD

Overview of the procedure

Process map summarises the SiD steps (pg. 22 of procedure)
## Overview of the procedure

RACI chart lists the process map steps and allocates responsibilities

(pg. 24 - 32 of procedure)

<table>
<thead>
<tr>
<th>Process (what)</th>
<th>Guidance (how)</th>
<th>Staging (when)</th>
</tr>
</thead>
</table>
| **1** Compiling information in relation to the project. This includes:  
  - Scope of the project  
  - As-built information  
  - Survey information  
  - Lessons Learned (GRC Manager, STARRS, IFRS, Ellipse)  
  - Historical asset reports  
  - Asset management plans  
  - Safety incident reports  
  - Contractor incident reports | The PTA is to gather all information relative to the works and identify if there are any gaps in information and how the gaps will be addressed.  
If there are gaps in information the Designer must:  
  - provide advice to the PTA on how the gaps can be filled and help gather the necessary additional information; and  
  - provide, as far as they are able to, the additional information promptly and in a convenient form to help other Designers and Contractors | This is done at the start of Stage 2 and before any design commences. |
| **2** Commence with concept designs to 15%. | The Designer must satisfy themselves with the existing information and use it to develop the concept design to a level of detail which is sufficient to facilitate understanding for the risk workshop. 15% is a notional percentage and for simple projects, may not be practical. The intent is to have sufficient design | Design will commence after prestart meeting with the design organisation where all available information on the project is handed over. |
The Vendor Communications Portal will be populated with learnings as they come available to share learnings by generating feedback loops back into the design from design, construction or operations and maintenance stages.

The SiD procedure describes Green, Amber and Red lists which are things which the design should either continue doing, avoid doing or stop doing. The Vendor Communication Portal now contains folders for Green, Amber and Red learnings.
As part of continuously improving the new SiD process we are developing SiD wording to go into contracts.

The type of contract will determine how much of the SiD procedure the designer will need to comply with.

A scenario where SiD wording is required:
Three design contracts are let under one project and there is also design work undertaken internally by the PTA – who does what in relation to SiD? Boundaries of responsibility must be defined.

I also welcome any queries you may have and will be happy to talk through the procedures with you.
Future Works Update
Future Program of Works

Infrastructure Planning and Land Services

Owen Thomas - Executive Director
13 February 2017
Who Are We?

- IPLS provides the PTA with professional expertise and resources in railway planning, engineering, land and environmental management.

- Key roles include:
  - To own and develop PTA’s long term vision for the rail network;
  - To identify and progress key business needs/planning objectives for the rail network; and
  - To provide support for existing systems/operations, including other divisions and major project activities.
• **Number of Staff:** 41
  - 5 in house contractors
  - 2 graduates/trainees
  - 1 above establishment
Our Teams

- **Land and Property Services**
  - Plan for and manage PTA’s land assets and dealings including acquisition, leasing, management and disposal
    - 5,000+ land parcels
    - 5,000+ kms of leased freight rail infrastructure/corridor (Brookfield Rail)
    - 550 leases to third parties generating ~$16m annual income.
    - ~$15million annual income

- **Rail Planning**
  - Identify and assess business needs including business cases and PDP’s
  - Develop medium and longer term operational plans in consultation with Transperth Train Operations and Transperth

- **Rail Engineering**
  - Provision of technical and rail design services to PTA
  - Collaboration and liaison with external stakeholders to ensure integration of rail solutions with other state and private assets.

- **Environment**
  - Provision of environmental planning, management and compliance services in order to support project development and existing operations,
  - Management of contaminated sites and development or disposal of PTA land assets.
    - 89 contaminated sites
    - 75 asbestos buildings

- **Contracts and Administration**
Where we fit in projects (typically)

Ongoing land and environmental services
IP&LS Typical Annual Budget

- Contracts budget ~$13 million

  - Teams:
    - Environment  ~$0.5m planning (includes some contract labour)
                  ~$5.0m contamination and asbestos
    - Leasing      ~$1.5m (includes existing key contract commitments)
    - Land         ~$0.8m
    - Railway design ~$1.3m (includes some contract labour)
    - Railway planning  ~$4.0m (subject to fluctuations)
Key activities

• Rail Planning
  – Planning for future network, including:
    • PTA Route Utilisation Strategy (RUS) and future evolution of the existing rail network to meet forecast demands, including:
      – Patronage demand forecasts – review and updates
      – Network operations and analysis
      – 2050 RUS vision
      – Future railcar requirements, including procurement options and depots
      – Future train lengthening on the heritage network
      – Station access and capacity analysis
    • Finalising draft business cases and PDP’s, including Yanchep and Thornlie extensions
    • Level crossing grade separations / closures
    • Upgrades to Canning Bridge and Stirling stations
    • Planning for a city of 3.5 million people, including identified network initiatives
      – New stations / network additions, including proposed:
        » Karnup Station
        » East Wanneroo Railway
        » Ellenbrook Railway?
        » Midland line extension to Bellevue
        » Armadale line extension to Byford
      – Other supporting initiatives
Key activities

• Rail Design
  – Concept and reference designs to support RUS and planned network initiatives, including:
    • Proposed extensions and new stations
    • Platform extensions and capacity of key stations
    • Depots
    • Turnbacks
    • Forward works for minor and major projects
  – Progression of multi-discipline inputs to design, including:
    • Signalling, overhead line equipment and general power requirements;
    • Structural
    • Drainage
    • Architectural
    • Quantity surveying
    • Design documentation (inc. optioneering, constructability, value engineering)
Key activities

• Land and Property Services
  – General business needs including:
    • Land valuations
    • Surveys
    • Heritage
    • Legal
    • Town planning
  – Support for projects and other PTA activities (e.g. FAL, Kenwick rail freight facility and Perth City Link land tenure).
  – Contract management for property management services for third party leasing.
  – Third party access into PTA rail reserve and Brookfield Rail freight corridor.
  – Management of operational matters in Brookfield Rail freight corridor.
Key activities

• Environment
  – General business including:
    • Contaminated sites investigations, remediation and monitoring
    • Asbestos building inspections and remediation
    • Noise and vibration monitoring of existing rail network
  – Support for projects and other PTA activities (e.g. future railcar depot planning, Perth Stadium, Kenwick rail freight facility)
<table>
<thead>
<tr>
<th>Project</th>
<th>Status</th>
<th>$ Millions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perth City Link Rail Project</td>
<td>Complete</td>
<td>$359.1</td>
</tr>
<tr>
<td>Perth City Link Bus Project</td>
<td></td>
<td>$217.4</td>
</tr>
<tr>
<td>Perth Stadium - Transport Infrastructure</td>
<td>Delivery Phase</td>
<td>$336.2</td>
</tr>
</tbody>
</table>
| • New Station & Bus Interchange, rail infrastructure  
  • Swan River Pedestrian Bridge              |                         |             |
| Aubin Grove Station                          | Delivery Phase          | $71.5       |
| • Major new interchange station, 2,000 car parking bays | |             |
| Edgewater Multi-Storey Car Park              | Delivery Phase          | $29.4       |
| • Ground plus two deck parking station       |                         |             |
| Forrestfield-Airport Rail Link              | Delivery Phase          | $1,861      |
| • 8.5km rail link to Eastern Suburbs via Perth Airport | |             |
| Radio Systems Replacement Project            | Definition/Delivery     | $119.8      |
| • Replacement of current analogue 400 MHz system with 1800 MHz voice capable LTE system | |             |
| Kenwick Facility                             | Definition/Delivery     | $65.0       |
| • Establishment of a new facility for Brookfield Rail at Kenwick | |             |
### MPU Current Projects

<table>
<thead>
<tr>
<th>Project Description</th>
<th>Definition/Delivery</th>
<th>Cost</th>
</tr>
</thead>
</table>
| **Radio Systems Replacement Project**  
- Replacement of current analogue 400 MHz system with 1800 MHz voice capable LTE system            |                            | $119.8 million |
| o EOI leading to an RFP for a competitive ECI process for a Design, Construct and (some) maintenance contract |                            |            |
| o EOI Released February 2017                                                                         |                            |            |
| o RFP late April 2017                                                                              |                            |            |
| **Kenwick Facility**  
- Establishment of a new facility for Brookfield Rail at Kenwick                                       |                            | $65.0 million |
| o Land acquisition underway                                                                         |                            |            |
| o Tender for utility works closed January 2017                                                         |                            |            |
| o Tender for Design and Construct contract April 2017                                                  |                            |            |
Network and Infrastructure
Future Program of Works
Keith Chidley Managers Programs and Projects
13 February 2017
Questions?