

Rail Infrastructure Management

Asset Management Handover Requirements Standard

AM4-DOC-000940



| | Name | Title | Signature | Date |
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DOCUMENT AMENDMENT RECORD

| REV | CHANGE DESCRIPTION | DATE | COMMENTS |
|---------------------------|--------------------|----------|----------|
| 0 | Original issue | 3/5/2018 | |
| | | | |
| Document Review Schedule: | | 5 yearly | |

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1. Introduction

Under the functions of configuration control and asset stewardship, the DPTI Rail Infrastructure Management section is responsible for setting up requirements for the handover of DPTI rail assets.

The detailed process and specifics of asset handover are likely to vary and depend on the organisations involved and the applicable contractual obligations. The requirements specified in this document have been developed to provide a standard but flexible framework that facilitates the development and transfer of project specific handover arrangements.

Some of this standard describes the asset handover that occurs at the end of the implement stage (the delivery and readiness stage of a project) but the principles and requirements apply to asset handover at any time in the asset life cycle.

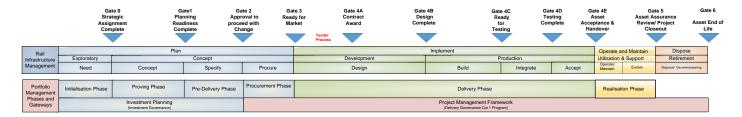


Figure 1 Asset Life-Cycle aligned to the PMO Gateways

2. Purpose

The purpose of this document is to define the requirements for efficient handover of assets and to prevent or minimise additional costs, delays and safety risks which may arise from the asset handover.

3. Scope

This document establishes the standard technical requirements for the handover of rail assets from one party to another. It includes works which have a staged handover.

The requirements in this document cover rail assets and associated asset information and asset technical documents, drawings and records.

The requirements of this standard are expected to be further refined for specific circumstances by organisations implementing the requirements of this document.

The requirements of this document apply to DPTI Rail Infrastructure Management, its agencies and parties performing engineering work for DPTI Rail Infrastructure Management. This includes authorised engineering organisations and operators and maintainers.

Parties applying asset handover are expected to have their own detailed procedures tailored to their situation. These procedures must clearly define the roles and responsibilities of those delivering assets (contractor and/or projects) and include the escalation process for issues and reporting.

Document Controller:

4. Supporting Information

4.1. Related Documents

| DOCUMENT NAME | DOCUMENT NUMBER |
|---|-------------------------------|
| Asset Handover Plan – Template | Knet 11288751 |
| Asset Handover Certificate – Template | Knet 11288622 |
| Certificate of Signalling – Conditional (template) | QPF-401-9 |
| Certificate of Signalling (template) | QPF-401-8 |
| Certificate of Tram/Train Running Infrastructure (template) | FO-EM-NS-203 |
| Certificate of Tram/Train Running Overhead (template) | FO-EM-EE-240 |
| Engineering Notice Procedure | PR-AM-GE-847 |
| Asset Management Technical Data Requirements Specification | PTS-MS-05-AM-PRC- 00000091 |
| Punch List Management Procedure for Public Transport Projects | PR-AM-GE-762 |

4.2. References

- Rail Safety National Law (South Australia) Act 2012
- Schedule 1 of the National RSNL Regulations 2012
- Office of the National Rail Safety Regulator Guidelines:
 - Asset Management Guideline V 1.0 Nov 2014
 - Preparation of a Rail Safety Management System Guideline V1.0 20 January 2013
 - Major Projects Guideline
 - Effective Control and Management of Rail Operations Guideline
- T MU AM 01005 ST Asset Handover Requirements, Version 1.0, Issue Date 5 February 2015, Transport for NSW

4.3. Acronyms

| ACRONYM | FULL NAME |
|---------|--|
| DPTI | Department for Planning, Transport and Infrastructure |
| RSNL | Rail Safety National Law |
| SFAIRP | So Far As Is Reasonably Practicable – to achieve the best possible safety outcomes, to the extent that is "reasonably practicable" |

4.4. Definitions

| TERM | DEFINITION |
|--|--|
| DPTI Infrastructure Management | DPTI department responsible for Rail Engineering, Asset Management and control of technical documents, drawings and records. |
| Asset Information | Combined set of data required to support the management of assets over their life cycle. |
| Asset technical documents drawings and records | Documentation describing an asset's physical and functional characteristics including interfaces and subsequent changes. May include product design, realisation, verification, operation and support documentation. |

5. Definition of Technical Handover Requirements

The technical handover requirements confirm the nature and configuration of the assets to be handed over. They include the following:

- o information describing the assets that will be handed over.
- o condition of the assets during handover, for example, description of any defects, and
- safety and operational arrangements are in place when receiving assets handed over.

Document Number: AM4-DOC-000940
Knet No:11288747
Version Number: 17 April 2018
Document Owner: Rail Infrastructure Management

Issue Date:23/2/2018 Last Issue Date: Last Printed: 10/05/2018 5:04:00 PM Document Controller: Parent Doc. Title:
Parent Doc. Knet No:
Parent Doc. No:
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Planning the Asset Handover

Asset handover takes place in the context of the development and delivery of an asset. A project responsible for adding new, altering (including relocation) or decommissioning assets shall include a strategy for the overall delivery of an asset and shall be initiated early in a project life cycle as there may be substantial interdependencies that are required to be addressed prior to finalising a proposed solution.

The asset handover plan shall commence during the planning stage of the asset life cycle and included as one of the topics in the initial design as the design solution can affect the asset handover and method of delivery.

The asset handover plan is prepared by the delivering party and forwarded to the receiving parties and other relevant stakeholders for review and agreement at Gate 4B. The following factors shall be taken into account:

- appropriateness to the complexity of the project
- risk
- readiness
- effects on the rail network and customers
- other impacts on stakeholders

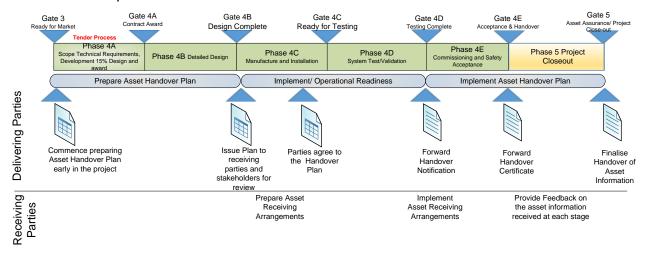


Figure 2 Typical timeline for asset handover planning.

6.1. Asset Handover Responsibilities

Asset handover planning consists of both preparing to deliver assets and preparing to receive assets. For this reason, all parties delivering or receiving assets shall contribute to the development of plans for asset handover.

The delivering organisation shall be responsible for the handover plan and associated activities and the responsible person in the delivering party shall sign off the asset handover notification and certificate.

Note: Multiple parties may be involved in the process as specified in different contract delivery models and are required as a signatories on the certificate for handover to Rail Infrastructure Management. .

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6.1.1. Responsibilities of the delivering party

The delivering party shall be responsible for the following:

- prepare a handover plan that supports and describes one or multiple staged handovers after engagement with the receiving party or parties as per 6.2.
- update the handover plan throughout the course of the project when changes are required and obtain agreement from the receiving party or parties on any updates,
- provide the handover plan to DPTI Rail Infrastructure Management,
- the provision of accurate and complete asset information and technical documents, drawings and records for inclusion in asset information repositories and
- negotiate project specific handover arrangements, address and correct issues, advise actions taken as raised by the receiving party or parties where practical and reasonable.

6.1.2. Responsibilities of the receiving party

The receiving party shall be responsible for the following:

- review and provide feedback on proposed handover arrangements to the delivering party in a timely manner,
- facilitate the handover of assets to make arrangements to accept the assets,
- confirm receipt and process of the asset information, technical document, drawings and records provided by the delivering party and,
- provide feedback to the delivering party for issues related to the asset information, technical document, drawings and records.

6.2. Asset Handover Plan

An asset handover plan shall establish the following:

- a) Handover Events
 - number of asset handover events for the project
 - scope of each asset handover to include assets that will be handed over eg existing, new, altered (including relocated) or decommissioned assets.
 - asset information that will be handed over at each asset handover event, agreed timeframes for delivery of notifications or any other material from the delivering party to the receiving party,
 - System and Safety Assurance Documentation and
 - Inspection, Test and Commissioning test results and certificates.

b) Timing

- o timing and sequence of the asset handover events,
- o a description of any commissioning events that will precede a handover,
- agreed timeframes for delivery of notifications or any other material from the delivering party to the receiving party.

c) Readiness

- any other requirements before asset handover such as training of personnel and competence training,
- o the system is maintenance ready.
- o the system is operational ready,
- o roles and responsibilities for the asset handover,
- requirements for readiness and a program to ensure readiness is managed and achieved.

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The amount of detail in the asset handover plan should suit the complexity and risk of the handover.

Depending on the size and complexity of asset handover planning, a Contract Management or Project Engineering Management Plan may also be used to capture handover planning details.

6.3. Asset Information Buildup

Asset information shall be provided progressively over the life of the asset. An example is shown in Figure 2.

At asset handover, asset information and technical documents, drawings and records shall be updated and provided to DPTI Rail Infrastructure Management.

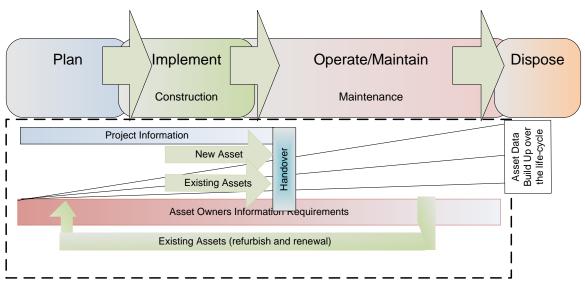


Figure 3 Example of asset data build-up across the life cycle including transition to handover

7. Delivering Asset Information and Documentation for Asset Handover

The asset information and technical documents, drawings and records shall be delivered to the Rail Infrastructure Management information custodians in accordance with PTS-MS-05-AM-PRC-00000091 - Asset Management Technical Data Requirements Specification and Master Specification RW60.

Where there is asset information and/or technical documents, drawings and records to be provided after commissioning, the asset handover plan shall describe the details.

8. Asset Handover Notification

Prior to asset handover the delivering party shall notify the receiving party of the forthcoming asset handover for each handover event. In determining the lead time for the notification, factors including the complexity of the project and associated risks should be taken into account. The timing for notification shall be agreed between the delivering party and the receiving party when developing the handover plan. The lead time for the notification shall be documented in the asset handover plan.

The delivering party shall formally notify the receiving party as soon as it becomes aware of a possible delay to the intended handover.

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9. Authority to Commence Dynamic Testing

The submission for Authority to Commence Dynamic Testing shall occur sufficiently in advance of the planned handover for whole of system testing and commissioning. Refer to Appendix A. Note: Authority to Commence Dynamic Testing is dependent on access arrangements and additional staged handover certification which may be required.

10. Asset Handover Certificate

The delivering party is responsible for preparing an asset handover certificate, template KNet: 11288622 and to provide the certificate to receiving party prior to asset handover within a timeframe agreed to by both parties.

The delivering party shall assure itself that the receiving party is ready for the handover and keep records of any confirmation requested.

10.1. Content of the Asset Handover Certificate

The handover certificate shall show evidence and detail prior to handover and items listed have been submitted and accepted in accordance to contractual obligations

An asset handover certificate shall include the following:

- time and date of asset handover and
- contact information of the person in the delivering organisation responsible for the asset handover and the details of authorisation of the change to and transfer of responsibility by the contractor, project and Rail Infrastructure Management.

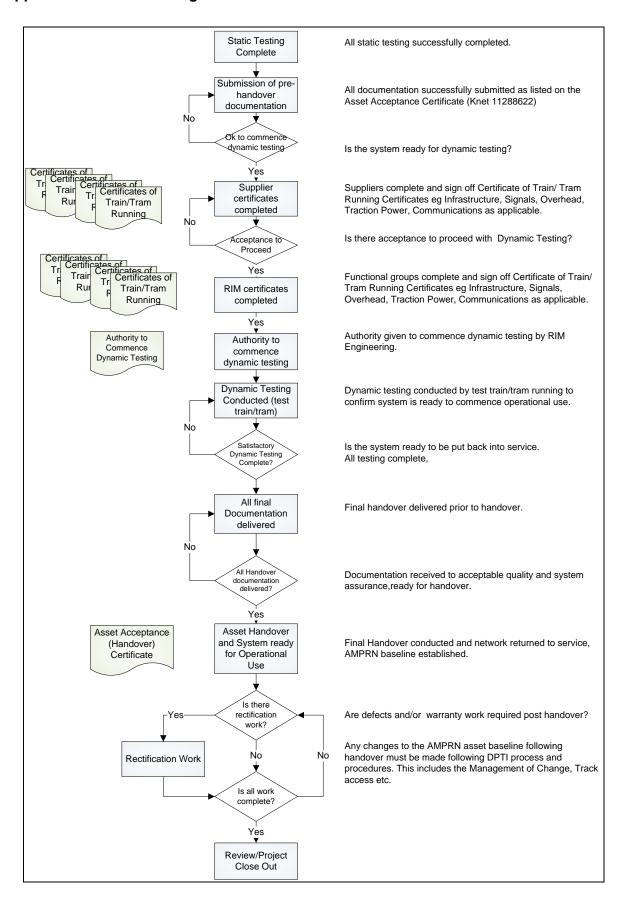
The handover certificate shall show evidence at handover in accordance to Asset Management Technical Data Requirements Specification PTS-MS-05-AM-PRC-00000091:

- a contractor's deliverable list is supplied,
- a defect list has been submitted.
- as-built drawings have been delivered.
- a punchlist has been submitted with outstanding actions and activities,
- a Certificate of Signaling has been completed if applicable (form QPF-401-8),
- Track inspection records and Certificate of Train Running Infrastructure (form FO-EM-NS-203) has been submitted if applicable,
- Certificate of Train/Tram Running Overhead (form FO-EM-EE-24) has been submitted if applicable,
- Engineering and/or Employee Notices has been submitted if applicable,
- Any conditions and limitations are identified clearly and specified appropriately rectification details.

11. Post Handover

Any work required post Asset Handover will be in accordance to DPTI standards, processes and procedures.

Appendix 1 Commissioning and Return to Service Process



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