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# Pr8701 - Specification for Asset Information



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## Document Details

Document Sponsor	Infrastructure Technical Standards Committee
Document Owner	Manager, Capital Delivery, SIS
Subject Matter Expert	Project Support Services Manager
References	<a href="#">Pr8843</a> - Specification for Drawing, Document and Equipment Tag Numbering <a href="#">Pr10360</a> - Project Information Requirements <a href="#">F10844</a> - Operational Readiness Checklist <a href="#">F8586</a> - Design Report

## Version History

Revision	Reviewed by	Approved by	Date approved	Revision type
5.0	Ben van Wegen, Manager Capital Delivery	Ben van Wegen, Manager Capital Delivery	25/11/2019	Periodic Review, inclusion of version history table
6.0	Laura Bryson, Policy & Documents Advisor	Laura Bryson, Policy & Documents Advisor	21/02/2020	Minor admin amendment to update reference title for Pr8843 and remove obsolete Pr9080 (as superseded by SEQ Asset Information Specification).
7.0	Laura Bryson, Policy & Documents Advisor	Laura Bryson, Policy & Documents Advisor	18/05/2020	Minor admin amendment to update reference title for Pr10360
8.0	Andrew Currie, Project Support Services Manager	Andrew Currie, Project Support Services Manager on behalf of Manager Capital Delivery	08/02/2021	Reviewed as part of Capital Works Reform program. Updates to references section, replacing F10435 - Project Deliverables Checklist with F10844 - Operational Readiness Checklist and template admin update.



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## 1. Introduction

- 1.0.1 The purpose of this Specification is to define Unitywater's requirements for the asset information documentation that is to be provided to Unitywater upon completion of construction and commissioning of projects undertaken for and on behalf of Unitywater.

## 2. Scope

- 2.0.1 Asset information comprises a suite of design, construction, commissioning, operating and maintenance documentation related to an asset or assets presented in a specified format.
- 2.0.2 In addition to providing information on operation and maintenance of an asset, the asset information provides a reference inventory for any future augmentations, operational modifications and assets that have been decommissioned.
- 2.0.3 Asset Information consist of two parts:
- Design Documentation
  - As Built Documentation

### 2.1 Responsibilities

- 2.1.1 Design Documentation shall be developed by the designer during the design phase of a project.
- 2.1.2 As Built Documentation shall be developed by the Constructor during the construction phase and finalised upon completion of commissioning.
- 2.1.3 'Practical Completion' will not be granted to the Constructor until all As Built documentation has been submitted to the satisfaction of Unitywater.

### 2.2 Applicable Sections

- 2.2.1 There are two Operational Readiness Checklist (F10844), one specifying the requirements for design documentation and the other the requirements for As Built documentation.
- 2.2.2 Unitywater will provide a completed checklist which is unique to each project and identifies all asset information required including the form of submission.
- 2.2.3 If any of the sections or subsections have been identified as Not Applicable in the Operational Readiness Checklist (F10844), then there is no requirement to provide Asset Information related to that section or subsection.
- 2.2.4 The Operational Readiness Checklist (F10844) will nominate whether a new document is required or updating of an existing document
- 2.2.5 Where new CAD drawings are required Unitywater will provide a CAD template file, Unitywater drawing number and any process tag numbers.



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### 3. Design Documentation

Design Documentation may comprise some or all of the following depending on the complexity of the project scope:

#### 3.1 Design Report

Unitywater will provide a copy of the design report template (F8586 - Design Report) to be completed by the Designer. The report shall contain, but be not limited to, the design criteria, land tenure, location, environmental issues, consultation with external parties, construction / operational issues, commissioning, safety in design and constraints that are relevant to the design. The report is to be RPEQ certified.

#### 3.2 Design Report Attachments

Includes all associated reports used to support the design report.

#### 3.3 Design Report Calculations

Includes all calculations used to support and validate the design.

#### 3.4 Design Drawings

- F8586 - Operational Readiness Checklist – Design Documentation will specify the level of design (concept or detailed) required and whether an update to existing drawings or creation of new drawings is required.
- Design drawings shall be completed and approved by Unitywater in accordance with:
  - SEQ Asset Information Specification; and
  - Pr8843 - Specification for Drawing, Document and Equipment Tag numbering.

Where Unitywater provide drawings of existing infrastructure in a standard other than those mentioned above the Designer shall, during the course of design, amend such that they comply with the current standards.

#### 3.5 Digital Engineering (2D or 3D Models)

2D CAD models are historically the accepted standard for submission of a digital design. Building Information Modelling (BIM) or other 3D graphic models are a relatively new method of digital design. Where BIM is nominated as the preferred method design, Unitywater will specify the associated Level of Detail (LOD). BIM Models shall be prepared and submitted in accordance with Pr10360 - Project Information Requirements.



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### 3.6 Operational (Asset) Contingency Plans

Unitywater has operational contingency plans for critical assets which provides guidance on how to operate the network in the event of the asset failing. For existing critical assets the Designer will be required to update the existing asset contingency plan. Where new critical assets are being created the Designer will be provided with a template to develop a new asset contingency plan.

## 4. As Built Documentation

As Built Documentation asset information may comprise any of the following:

### 4.1 Drawings

- Drawing Register
- Civil
- Electrical
- Mechanical
- Structural
- Building
- Process and Instrumentation (P&ID's)
- Process Flow
- Hydraulic Grade
- Mass Balance
- Hazardous Area Site Plans

The form of documentation will vary according to the complexity of the works. Where both CAD and PDF's are specified for the same deliverable the PDF shall be in the format of a Smart PDF derived from the CAD file.

### 4.2 Digital Engineering Models

This is a relatively new method of capturing asset information and includes Building Information Modelling (BIM) or other 3D graphic models. Where BIM is nominated as the preferred method of asset capture, Unitywater will specify the associated Level of Detail (LOD). BIM Models shall be prepared and submitted in accordance with Pr10360 (Project Information Requirements)

### 4.3 Active and Decommissioned Assets

Generally, Unitywater will provide an Excel template to be populated with Active asset information. This template is configured to allow asset information to be directly imported into Unitywater's Asset Management System (Maximo). This also includes identifying any assets that may have been decommissioned during the project.



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### 4.4 Manuals

- Standard Operating Procedures (STP's only)
- Unit Process Guidelines (STP's only)
- Operations Manual
- Maintenance Routines (active assets only)

**Operations Manual** shall be site specific and include sufficient information for the operation of the asset in its entirety. The information to be supplied shall include, but not be limited to, the following (where applicable):

- i. Site Specific Asset Operating Procedures – a step-by-step procedure detailing:
  - HMI / SCADA Operation;
  - Checks before Starting;
  - Starting;
  - Continuous Operation;
  - Stopping;
  - Emergency Stopping;
  - Isolating of Asset Components;
  - Abnormal Operation as applicable;
- ii. Acceptable ranges for operational control;
- iii. Equipment settings:
  - Final commissioned settings.

**Maintenance Routines** comprise the list of vendor recommended maintenance routines for each active asset. These will be submitted on the same template as Active and Decommissioned Assets (see Section 4.3 above).

### 4.5 Commissioning

- ITP's
- Process Performance Test Reports
- Commissioning Report
- Training Records
- Training Material

### 4.6 Warranties

- Warranty Register

### 4.7 Media

- CCTV Footage
- Photo's



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### 4.8 Certificates of Registration

- Lifting Equipment, Davits and Fall Arrest Points
- Pressure Vessels
- Dangerous Goods / Materials
- Electrical
- Fire
- Backflow Prevention (RPZ's)
- Cathodic Protection

### 4.9 Control Systems

- Functional Description;
- Functional Specification.

### 4.10 Operational Contingency

- Asset Contingency Plan.