SAPTA

Government of South Australia
Department for Infrastructure and Transport

Identification and Numbering of SAPTA Technical Documents, Records and Drawings

Framework

SAPTA

FR-AM-GE-806

DOCUMENT AMENDMENT RECORD

REV	CHANGE DESCRIPTION	DATE	COMMENTS
0	Initial Issue	April 2012	
1	New category AM (Asset Management) and section for numbering register have been added	March 2013	
2	New category CE (Communications Engineering) added with other minor changes. Records added as document identifier	April 2018	
3	Document now changed to reflect public transport and change from DPTI to DIT, and other minor changes	October 2022	
Document Review Schedule:		3 yearly	

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1. Introduction

The South Australian Public Transport Authority (SAPTA) is a Directorate within the Department for Infrastructure and Transport (DIT) responsible for the delivery of public transport services. Within the public transport system there are approximately 89 train stations, 33 tram stops, 8000 bus stops and 7 bus depots across the system.

This document provides the department engineering teams and contractors with direction for the identification and numbering of technical documents, records and drawings.

2. Purpose

The purpose of this document provides the department engineering teams and external contractors with direction for the identification and numbering of technical documents, records and drawings.

3. Scope

This document applies to the following operational areas within SAPTA:

- Train System
- Tram System
- Bus System.

This document is applicable to all technical documents, records and drawings developed on or on behalf of SAPTA.

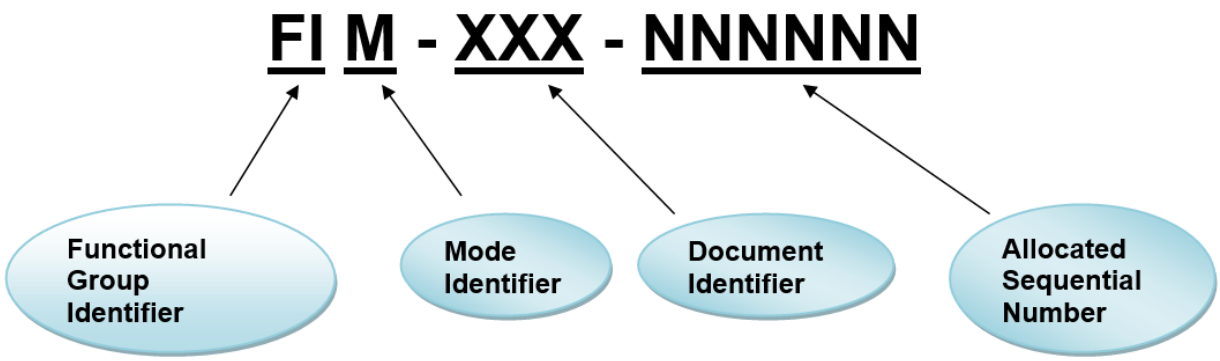
There are two types of technical documents, records and drawings used by the department:

(i) Standard technical documents, records, and drawings - applicable to more than one asset or location;
(ii) Asset technical documents, records, and drawings - applicable to a particular asset or location.

4. Related Documents

DOCUMENT NAME	DOCUMENT NUMBER
Drafting Requirements for Drawings	AM5-DOC-003408
SAPTA Drawings Acceptance Procedure	PR-AM-GE-1013
Road Design CAD Manual	RD1
Lifecycle Management of Technical Documents and Drawings	FR-AM-GE-803

5. Numbering Format



The following numbering format shall be used for technical documents, records and drawings. The number shall contain a functional group identifier (FI) and a mode identifier (M) followed by a document identifier (XXX), then a sequential number (NNNNNN) separated by a dash as shown below. The uniqueness of the number is provided by the combination of the document identifier and sequential number.

5.1. Functional Group Identifier – FI

The functional group identifier is based on current Rail and Bus Infrastructure Management engineering and maintenance groups. This identifier also provides a basis for accountability and authorisation of technical documents, records and drawings.

FUNCTIONAL GROUP IDENTIFIER	DESCRIPTION
AM	Asset Management
CE	Communications & Electronic Systems (incl. security CCTV)
CS	Civil & Structures incl. station electrical
DY	Depots and Yards
PI	Passenger Interface
RS	Rolling Stock
SG	Signalling
TC	Track
TP	Traction Power and Overhead Wire

5.2. Mode Identifier – M

The Mode identifier is based on the current modes of public transport within the department.

MODE IDENTIFIER	DESCRIPTION
1	Train
2	Tram
3	Bus
4	Train & Tram (This identifier is used for technical documents, records and drawings that belong to both categories)
5	Common to train, tram and bus

5.3. Document Identifier – XXX

The document identifier describes the type of document i.e. either technical document, record or drawing.

DOCUMENT IDENTIFIER	DESCRIPTION
DRG	Drawings
DOC	Technical Documents
REC	Records

5.4. Allocated Sequential SIX (6) Digit Number – NNNNNN

The allocated sequential number shall be a consecutive, unique number.

5.5. Numbering Register

Technical documents, records and drawings numbering registers are maintained by the Asset Management division.

We will issue technical document, record or drawing numbers upon request. Each functional group has been allocated a block of numbers as shown in following table (only for drawings). Technical documents and records shall use consecutive numbers regardless of functional group identifier.

FUNCTIONAL GROUP IDENTIFIER	BLOCK OF NUMBERS
TP	000001 - 099999
SG	100000 - 199999
TC	200000 - 299999
RS	300000 - 349999
CS	350000 - 449999
DY	450000 - 499999
PI	500000 - 524999
AM	525000 - 549999
CE	550000 - 649999
SPARE NUMBERS	650000 - 999999

6. Description of Functional Group Identifier

The following section describes the scope of each functional group identifier and applicable asset type. The exclusion section provides guidance where the scope between functional group identifiers and asset types requires clarification.

6.1. Asset Management - AM

This identifier includes but is not limited to the following:

- Asset management documents related to the development and control of technical documents, records & drawings and the management of the Technical Library
- Asset Management system engineering documents and management plans.
- Asset Management project documentation

Refer to Appendix 1 for full Asset Type listing.

6.1.1. Exclusions

The Asset Management functional group identifier is not applicable to work instructions, departmental policies & procedures, and operational procedures.

6.2. Communications - CE

This identifier includes but is not limited to the following:

- Communications engineering assets and systems.
- Operational Control Centre assets and systems related to communications.
- Communication cabling, pits & conduits.

Refer to Appendix 1 for full Asset Type listing.

6.3. Civil & Structures – CS

This identifier includes but is not limited to the following:

- Structures; including bridges, culverts, viaducts, tunnels, overpasses, underpasses, subways and footbridges.
- Pedestrian crossing maze ways
- Embankments and cuttings
- Corridor infrastructure; including landscaping, fencing and vegetation
- Trackside civil infrastructure; including signal cabins, relay rooms, transformer rooms, substations, and convertor stations
- Car Parks including Park and Rides and Multi Storey Car Parks
- Railway stations, tram stops, Bus Stops and Interchanges maintenance buildings and civil infrastructure
- Plant and equipment – fixed plant and equipment including overhead cranes, jib cranes, train lifting systems, fluid reticulation systems, vehicle washing plants etc. This type of plant and equipment is normally fitted to depot buildings or yards.
- Railway and tram station/stop electrical

Refer to Appendix 1 for full Asset Type listing.

6.3.1. Exclusions

The exclusions for the civil and structures functional group identifier and asset types for technical documents, records and drawings are:

- Signalling equipment within signal cabins, relay rooms, location boxes - See signalling (SG) functional group identifier
- Signalling assets within depots and yards - See signalling SG functional group identifier
- Passenger Interface - See track (TC) functional group identifier

6.4. Depots and Yards - DY

This identifier includes but is not limited to the following;

- Bus Train and Tram depots
- Bus Layover Areas
- Other storage locations for Bus Train and Tram Rollingstock

Refer to Appendix 1 for fuller Asset Type listing

6.4.1. Exclusions

The exclusions for the track functional group identifier and asset types for technical documents, records and drawings are:

- None identified

6.5. Passenger Interface – PI

This identifier includes but is not limited to the following:

- Revenue system including booking office machines, automatic recharge machines, ticket vending machines, high-capacity card printers and bus validators
- Security equipment that is not asset specific including CCTV cameras, CCTV circuits.
- Passenger Information.

Refer to Appendix 1 for full Asset Type listing.

6.5.1. Exclusions

The exclusions for the passenger interface functional group identifier and asset types for technical documents, records and drawings are security equipment that is asset specific - See appropriate functional group identifier.

6.6. Rolling Stock – RS

This identifier includes but is not limited to:

- Rail Rolling Stock.
- Tram Rolling Stock.
- Bus Rolling Stock.
- Infrastructure Maintenance Vehicles
- Plant & equipment including air compressor units, fuel pumps, hydraulic and pneumatic tools, lubrication system; mobile plant & equipment used for maintenance of rolling stock.

Refer to Appendix 1 for full Asset Type listing.

6.6.1. Exclusions

The exclusions for the rolling stock functional group identifier and asset types for technical documents, records and drawings are:

- Fixed plant and equipment - See civil & structures (CS) functional group identifier
- Track maintenance equipment - See track (TC) functional group identifier

6.7. Signalling – SG

This identifier includes but is not limited to the following:

- Interlocking systems; including location boxes/cases, relays, receivers, signal posts, signal detectors, boom-gate assemblies, track circuits, pits and conduits, underground routes, controls, indicators, and monitoring systems.
- Point machines; including drive mechanisms, locking mechanisms, detection mechanisms, signalling interfaces and assemblies.
- Automatic train warning system.
- Automatic train protection system.
- Axle Counters.
- Plant and equipment required to maintain the signaling system.
- Tram Control Systems.

Refer to Appendix 1 for full Asset Type listing and appendix 3.

6.7.1. Exclusions

The exclusions for the signalling functional group identifier and asset types for technical documents, records and drawings are:

- Building structure of relay rooms, signal cabins, location boxes - See civil & structure (CS) functional group identifier
- Overhead wiring pits & conduits - See overhead wiring & traction power (TP) functional group identifier
- Rail and road interface i.e., track, maze ways or level crossings - See track (TC) functional group identifier and civil & structures (CS) functional group identifier

6.8. Track – TC

This identifier includes but is not limited to the following:

- Railway Track; including rail, sleepers, ballast, and fastenings

- Tram Track; including rail, sleepers, ballast, and fastenings
- O-Bahn Busway Track.
- Railway Points and crossings; including turnouts, catch points, single / double compounds, crossovers, expansion joints and diamonds.
- Track drainage, formation, and earthworks.
- Rail and road interfaces; including level crossings, pedestrian crossings, pathways, walkways, ramps etc.
- Plant and equipment; including track maintenance equipment i.e., spike pullers, rail tensors etc.

Refer to Appendix 1 for full Asset Type listing.

6.8.1. Exclusions

The exclusions for the track functional group identifier and asset types for technical documents, records and drawings are:

- Signalling at level crossings and pedestrian crossings – see signalling (SG) functional group identifier
- Point machines at points & crossings – see signalling (SG) functional group identifier

6.9. Traction Power and Overhead Wire – TP

This identifier includes but is not limited to:

- Transformers, substations, feeders including pits & conduits as a part of the underground feeder system, convertor stations.
- Overhead power cables, insulators, fittings, catenary wire surfaces, contact wire surfaces, pantograph-overhead cables interface, earthling & bonding.
- Masts and footings including base structures, beam structures, top of pole structures and structure labels.
- Plant and equipment required to maintain the overhead traction power system.

Refer to Appendix 1 for full Asset Type listing.

6.9.1. Exclusions

The exclusions for the overhead wiring and traction power functional group identifier and asset types for technical documents, records and drawings are:

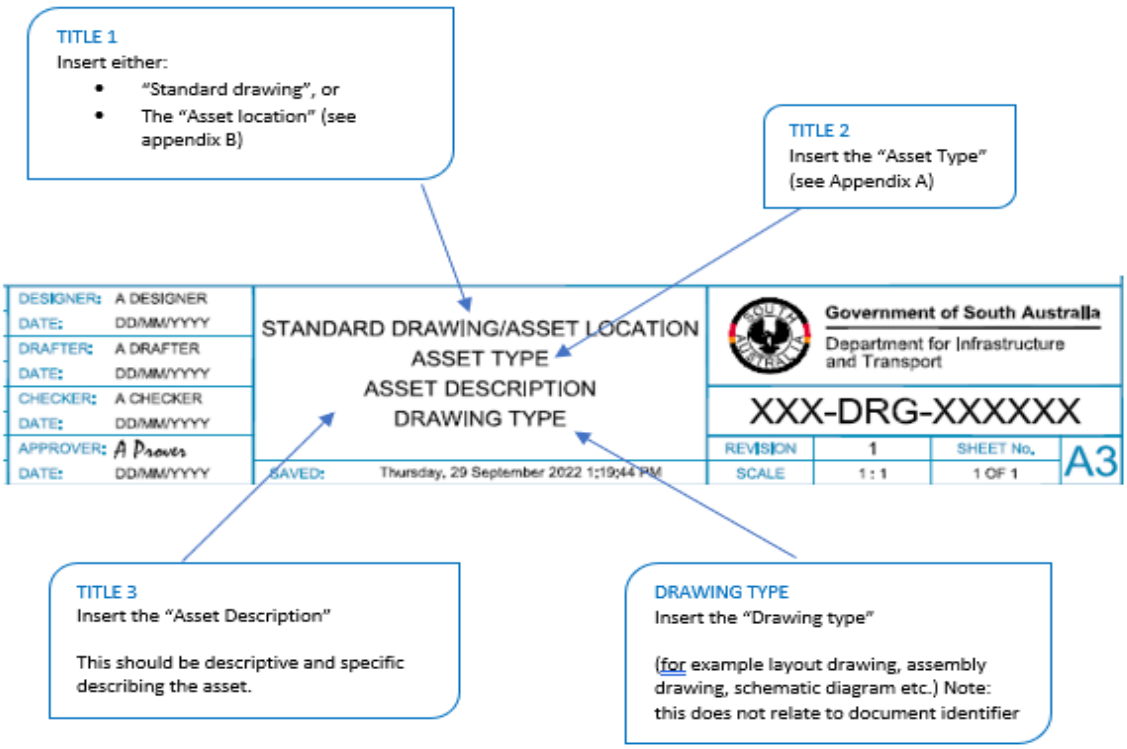
- Building structure of transformer rooms, substations, converter stations - See civil & structure (CS) functional group identifier
- Signalling pits & conduits - See signalling (SG) functional group identifier

7. Drawing Title

The AutoCAD drawing presentation, including the title block, for all SAPTA drawings shall comply with *AM5-DOC-003408 Drafting Requirements for SAPTA AutoCAD Drawings.*
This section provides guidance for titling within the title block of the drawing. It is imperative that as much descriptive information is captured during the numbering and registration process to facilitate future document retrieval.

Each drawing title should accurately describe the asset type, asset location if applicable, description of the asset, content and the type of drawing within the drawing sheet.

Drawing titling should be as follows:



For all drawing title block examples please refer to Appendix E and F in *AM5-DOC-003408 Drafting Requirements for Drawings.*

8. Revision Control

Draft development and revisions shall comply with *AM5-DOC-003408 Drafting Requirements for SAPTA AutoCAD drawings.*

9. Technical Document Information

When all correct documentation is received, we will issue a document number.

METADATA	DESCRIPTION
Technical Document, record or drawing Title	The title as written on the document without any additional abbreviations except if used in the title.
Asset Geographic Location	Refer to Appendix 2
Functional Group	Refer to Section 5.1
Author	Developer of technical document
Mode Identifier	Refer to Section 5.2
Asset Type	Refer to Appendix 1
MOC	Management of Change number
Date	Date the document number assigned.
Requested By	Name of requester of document number
Comments/additional information (optional)	Any Additional Information

APPENDIX A Asset Type

Functional Group Identifier	Asset Type
Asset Management	Maximo AMS System
Communications and Electronic Systems	Communications Fixed Services – Optic Fibre, Copper, coax
	Radio / Wireless network – 3rd party, 4G/LTE, GRN
	Communication SCADA System
	Operational Control Centre
	CCTV System
	Communication cabling transmission, pits & conduits
	Park and Ride
	Station Communications and services including DALI
Civil & Structures	Track drainage, formation and earthworks
	Level Crossing
	Pedestrian crossing pathways over tracks
	Bridge
	Culvert
	Pedestrian crossing infrastructure excluding track pathway and autogate mechanism
	Viaduct
	Tunnel
	Multi Storey Car Parks
	Structural embankment or cutting
	Corridor
	Building
	Train Station
	Tram Stop
	Bus Stop
	Car Park
	Bus Interchange
	Park and Ride
	Lift
Depots and Yards	Bus Train and Tram Yards, staff amenity and office accommodation - including bus layovers and parking areas
Passenger Interface	Revenue and ticketing equipment
	Security equipment
	Passenger Information
Rolling Stock	3000 / 3100 class rail car
	4000 class rail car
	Flexity type tram
	Citadis type tram
	Buses
	Road-Rail Vehicles
	Tampers & Ballast Regulators
	Track Recording Vehicles
	Trolleys & Trailers
Signalling	Interlocking
	Signal and signal gantry
	AC track circuit
	DC track circuit
	Track circuit
	Location box
	Level crossing
	Active pedestrian crossing
	Point machine
	Automatic Warning System (AWS)

Functional Group Identifier	Asset Type
	Automatic Train Protection System (ATP) (including onboard equipment)
	Axle Counters
Track	Track – O-Bahn
	Track – Train
	Track - Tram
	Turnout
	Crossover
	Diamond
	Compound
	Junction
	Catch point
	Derailer
	Rerailer
	Buffer stop
Traction Power and Overhead Wiring	Masts & Footings
	Earthing and bonding
	Overhead cables
	Overhead poles and gantries
	Converter station
	Sub station
	Feeder station
	Booster transformer
	Isolation Transformer
	Distribution panel
	Switchgear
	Power Conditioner
	Marshalling panel
	Metering panel
	Control & Protection Panels
	Batteries Charger
	Traction power cabling, pits and conduits
	Traction Power SCADA System
All (Except Passenger Interface)	Plant and equipment

Note: The asset type must be selected from the functional group identifier to which they belong.

APPENDIX B Asset Geographical Location

Adelaide Metro Bus Service
Adelaide Railway Station
Adelaide Yard
Aldgate Bus Depot
Belair Line
Belair Stabling Yard
Camden Park Bus Depot (Private)
Clarendon St. Bus Terminus
Dry Creek Depot
East Link Tram line (ARS to Botanic Gardens)
Elizabeth Bus Depot
Festival Plaza Tram line (ARS to Festival Plaza)
Flinders Line (Old Tonsley Corridor)
Gawler Line
Gawler Stabling Yard
Glenelg Tram line (ARS to Jetty Road, Glenelg)
Glengowrie Tram Depot
Grange Line
Hindmarsh Tram line (ARS to Hindmarsh/Entertainment Ctr)
Lonsdale Bus Depot
Lonsdale Substation
O-Bahn Bus Corridor
Mile End Depot
Mile End Bus Depot
Mount Baker Bus Depot (Private)
Morphettville Bus Depot
Newton Bus Depot (Private)
North Car Yard
Operational Control Centre (OCC Building)
Outer Harbor Line
Pooraka Bus Depot (Private)
Port Adelaide Bus Depot
Port Dock Line
Port Stanvac Yard
Seaford Bus Depot (Private)
Seaford Line
Seaford Railcar Depot and Stabling Yard
St. Agnes Bus Depot