



IPAG

Irish Pavement Asset Group

Pavement Asset Management
Guidance
Section 1:
Road Asset Register

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1 Road Asset Register

This section provides guidance on how to structure an asset register for road infrastructure.

1.1 Introduction

Asset Register

An asset register is a record of the physical infrastructure assets that are in the charge of the road authority, i.e. the roadways, footways, public lighting, signs and other elements that make up the road infrastructure.

Purpose

An asset register arranges information about the asset into a hierarchy of levels. This enables various degrees of detail to be used for different reporting purposes locally, regionally and nationally. A nationally-prescribed asset register structure will ensure consistency in reporting.

Contents

The asset register will be used to record and report on the assets in the charge of the road authority. There may be roads that a road authority maintains, which may not be in the ownership of the road authority.

Asset Management System

The asset register is a key component of an asset management system. The asset register does not, in itself, dictate the precise data that the organisation may wish to hold to a detailed level. This is driven by the organisation's management needs and will reflect the level of sophistication it wishes to apply in its asset management practices.

Financial Reporting

The asset register will be used for financial reporting purposes as the basis for providing a valuation of the organisation's assets, in order to represent this appropriately in the annual statement of accounts. Infrastructure assets are recorded as fixed assets and are included in the balance sheet.

This document provides a recommended structure for an asset register and recommends the items to be included in each level of the register, for the major asset groups that make up a road.

1.2 Asset Register Structure

Table 1.1 illustrates a framework of levels. Following this framework an asset can be grouped at up to four levels of detail, from asset group to individual component. The more complex assets will have five levels of detail, including roadway and structures. Smaller assets like verges may only require one or two levels.

Table 1.1: Asset Register Levels

Level No.	Level Name	Description
1	Asset Group	Group of assets with similar purposes.
2	Asset Type	Types of asset within a group that warrant recording separately due to their nature, use or level of importance. ¹
3	Asset	Individual specified assets which consist of more than one component or asset type.
4	Component	Individual parts of the asset. Component details should reflect those components that are typically replaced discretely from one another (and thereby justify recording separately).

1.3 Asset Register

Table 1.2 below presents the proposed asset register structure for the most common road asset groups. *Section 3: Inventory and Data Management* provides guidance on the collection of the inventory data that road authorities should hold. This guidance allows road authorities to structure their databases in the manner that suits them best. Where footway (or other asset type) databases are developed separately from the roadway database, the data included in the other / non-roadway database should include the road segment as the common link between the databases.

¹ It should be noted that whilst an asset register may only need to differentiate between road types based on road classification, there will be a need for any asset management systems to be able to deal with multiple different road hierarchies. These can be recorded in the asset management systems and may include traffic category, winter maintenance routes, bus routes, etc.

Table 1.2: Asset Register (this list is not exhaustive)

Asset Group	Asset Type	Asset	Component
Roadway	National Primary Roads	Road Name / Number (e.g. N11)	Road Segment & XSP ²
	National Secondary Roads	Road Name / Number	Road Segment & XSP
	Regional Roads	Road Name / Number	Road Segment & XSP
	Local Primary Roads	Road Name / Number	Road Segment & XSP
	Local Secondary Roads	Road Name / Number	Road Segment & XSP
	Local Tertiary Roads	Road Name / Number	Road Segment & XSP
Footway	Category 1 (Primary Walking)	Footway Length	Road Segment & XSP
	Category 2 (Secondary Walking)	Footway Length	Road Segment & XSP
	Category 3 (Link Footways)	Footway Length	Road Segment & XSP
	Category 4 (Local Access)	Footway Length	Road Segment & XSP
Footpath ³	Footpath	Footpath Length	Road Segment
Cycle Track	Cycle Track	Cycle Track Length	Road Segment & XSP
Cycleway	Cycleway	Cycleway Length	Road Segment
Road Structures	Road Bridge	Individual Bridge	Deck
			Piers
			Abutments
			Railings / Parapets
	Foot Bridge	Individual Foot Bridge	Deck
			Piers
			Abutments
			Railings / Parapets
Major Culvert	Individual Culvert	Base Slab	
Retaining Walls	Individual Wall	Not Applicable	
Quay Walls	Individual Wall	Not Applicable	
Noise Barriers	Individual Barrier	Not Applicable	
Lighting	Public Lighting	Not Applicable	Column
			Bracket
			Luminaires
			Control Equipment
			Cables
	Illuminated Signs	Not Applicable	Not Applicable
	Illuminated Bollards	Not Applicable	Not Applicable
Drainage	Footway Gullies		Gully
			Pot
	Road Gullies		Gully
			Pot
	Kerb Drains		
	Piped Systems		Material
			Dimensions
	Ditches		
Inspection Chambers			
Linear Footway Drainage			
Catchpits / Interceptors			

² XSP = cross-sectional position

³ The titles used to describe footway asset types are indicative only. Guidance on the establishment of an appropriate functional hierarchy for footways is included in Section 3: Inventory and Data Management.

Asset Group	Asset Type	Asset	Component
Road Markings	Traffic		
	Parking		
Static Signs	Statutory		Sign
			Post
	Directional		Sign
			Post
	Informational		Sign
			Post
	Parking		Sign
			Post
Safety Barriers	Safety Fence (Open Box Beam)	Length of Fence	Fencing
			Terminal Ends
	Safety Fence (Corrugated Beam)	Length of Fence	Fencing
			Terminal Ends
Safety Fence (Wire Rope)	Length of Fence	Fencing	
		Terminal Ends	
Pedestrian Guardrail	Length of Fence		
Verges	Verges	Area of Verge	
	Soft Landscaped Areas	Area of Landscaping	
Street Furniture	Seats		Not Applicable
	Bollards		
	Cycle Racks		
	Road Safety Features, Road Studs and Delineators		
	Name Plates		
Parking	On-street Parking	Pay & Display Machines	
Traffic Management Systems	Traffic Control System	Urban Traffic Control (UTC) – Dynamic, Vehicle Activated, etc.	
	Traffic Signals	Junctions	
		Pedestrian Crossings	
		Zebra Crossings	
		School Crossings	
	Illuminated Signs / Variable Message Signs	Motorway Signs, Parking Signs, Real Time Passenger Information Signs	
CCTV			
External Communications	Ducting		
	Fibre-optic Cable		
	Traffic Chambers		
Traffic-calming Infrastructure	Speed Ramps	5-metre Ramps	Surface Material
		10-metre Ramps	
	Junction Tables		Surface Material
	Mini Roundabouts		Surface Material
	Chicanes		Surface Material
Speed Cushions	No. of Speed Cushions	Surface Material	