



Stirling Council

ASSET MANAGEMENT PLANNING

Roads Data Management Plan

Document Information

Title	Data Management Plan
Author	Kenny Donaldson
Description	This document provides information relating to the Management of data and forms part of Stirling Councils SCOTS RAMP.

Document History

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Document Control

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1 Introduction

Asset Data

This plan records the data held about each of the asset groups that make up the road asset, it details where the data is stored and the systems used for data storage, it also identifies how and when this data is updated, verified and validated. Where data or system deficiencies exist these are acknowledged and a plan is included for how and when improvements will be made to the data or systems.

Types of Data

Stirling Council uses the WDM system to manage its roads assets. The main asset groups relate to Roads, Structures, Lighting, Traffic Management and Street Furniture.

Having a detailed inventory allows for planning of maintenance by identifying defects through regular inspections. Realistic budgets can be allocated knowing the extents and value of the asset.

Safety Surveys are carried out on approximately 66% of roads annually with the frequency of surveys being dependant on road hierarchy. All strategic and main distributor routes are surveyed monthly. All secondary distributors are surveyed quarterly. Link roads and Local access roads are surveyed over a 4 year period.

Each year a road condition survey is carried out. The data collected from that survey is then used to plan a works programme for the following season. Details of this can be found in the main Ramp Document.

Night scouting surveys of every street light takes place fortnightly in the winter and monthly in the summer. The data collected is then used to repair faults within 12 hours for emergencies and 20 working days for non emergencies.

There is a rolling programme of electrical and structural testing of street lights. The data collected is used to asses the need to replace lighting stock based on condition. There is also a lamp replacement programme going on from 2014 to 2020 replacing old inefficient lamps with modern LED. As part of this programme all installations are electrically tested.

All bridges and culverts larger than 1.5 metres have a general inspection every 2 years and a principal inspection every 6 years. Data collected from these inspections is used to repair minor defects and where more serious defects are found they will be put in to a planned works programme

Asset Management Data Uses

Having robust detailed inventory of Roads Assets allows Stirling Council to:

- Monitor and report on, the condition of the road network
- Predict and report on funding needs
- Identify and prioritise sites and assets for maintenance works
- Monitor and report on performance using bench marked performance indicators
- Assess the expected lives of individual assets and groups of assets
- Value the asset and calculate its depreciation
- Provide public information allowing greater transparency

The following sections describe how we plan to manage our road asset data.

2 Asset Groupings

For the purpose of this plan and for all road asset management reporting, the council has adopted the groupings used in the CIPFA Transport Asset Code as shown below.

Level 1 Asset type	Level 2 Asset group	Level 3 Components that level 2 implicitly covers
Carriageway	Area (square metre) based elements <ul style="list-style-type: none"> • Flexible pavements • Flexible composite pavements • Rigid concrete pavements • Rigid composite pavements 	<ul style="list-style-type: none"> • Pavement layers • Other surface types, e.g. paved • Central reservation, roundabout, lay-by, traffic island, etc • Earthworks (embankments and cuttings, retaining walls height <1.35m) • Traffic calming • Fords and causeways
	Linear elements	<ul style="list-style-type: none"> • Kerbs • Road drainage elements (gullies, drains, etc, but not large structures) • Boundary fences and hedges • Hard strip/shoulder verges/vegetation
Footways and cycletracks (attached to the road or segregated)	<ul style="list-style-type: none"> • Footways • Pedestrian areas • Footpaths 	<ul style="list-style-type: none"> • Pavement layers • Other surface types, eg block paving, • unbound materials

Level 1 Asset type	Level 2 Asset group	Level 3 Components that level 2 implicitly covers
Structures	<ul style="list-style-type: none"> Bridges (span >1.5m) Culverts (span >0.9m) Retaining walls (height >1.35m) Tunnel (enclosed length of 150m or more) Underpass/subway: pedestrian (span of 1.5m or more) Underpass: vehicular Special structure 	<p>All elements identified on the County Surveyors Society (CSS) inspection pro forma</p> <p>Smaller water-carrying structures are considered as road drainage</p>
Carriageway lighting	<ul style="list-style-type: none"> Lighting columns Lighting unit attached to wall/ wooden pole Heritage columns Illuminated bollards Illuminated traffic signs 	<ul style="list-style-type: none"> Column and foundations Bracket Luminaires Control equipment, cables Control gear, switching, internal wiring cabling (within ownership)
Street furniture	<ul style="list-style-type: none"> Transport Carriageway Streetscene/ amenity 	<ul style="list-style-type: none"> Traffic signs (non-illuminated) Safety fences Pedestrian barriers Street name plates Bins Bollards Bus shelters Grit bins Cattle grids Gates Trees/tree protection, etc Seating Verge marker posts Weather stations
Traffic management systems	<ul style="list-style-type: none"> Traffic signals Pedestrian signals Zebra crossings 	Different types
	<ul style="list-style-type: none"> Information systems 	<ul style="list-style-type: none"> Variable message signs Vehicle activated signs Real time passenger information
Land	<ul style="list-style-type: none"> Freehold land Rights land 	Features on the land are not taken into account in the valuation

3 Data Storage

Data for each asset is held electronically on the systems shown in the table below:

Software Systems Used

Information System Capability & Use								
SOFTWARE SYSTEMS USED	Carriageways	Footways	Structures	Street Lighting	Drainage	Street Furniture*	Traffic Management Systems*	
What software systems are used for:								
1 Asset register	Roadnet/WDM	Roadnet/WDM	WDM	WDM	WDM	WDM	WDM	
2 Safety Inspections	WDM	WDM	WDM	NA	NA	NA	NA	
3 Condition survey	WDM	WDM	WDM	WDM	NA	NA	Excel	
4 Routine Reactive Maintenance	WDM	WDM	WDM	WDM	Word Excel	NA	Excel	
5 Cyclic Maintenance	WDM	WDM	WDM	NA	Word Excel	Word Excel	NA	
6 Planned Maintenance	Word/Excel/QGIS Location Centre	Word/Excel/QGIS Location Centre	Word Excel WDM	WDM	Word Excel			
7 Streetworks	Symology	Symology	Symology	Symology	Symology		Symology	
8 Street Gazetteer	Roadnet / WDM	Roadnet / WDM	Roadnet / WDM	Roadnet / WDM	Roadnet / WDM			
9 Accident Analysis	Word Excel WDM	Word Excel WDM	Word Excel WDM	Word Excel WDM				
10 Traffic Data (Counts)	Excel	Excel	Excel	Excel				
11 Customer Contacts	Lagan	Lagan	Lagan	Lagan	Lagan	Lagan	Lagan	
12 3rd Party Claims	Lagan/WDM	Lagan/WDM	Lagan/WDM	Lagan/WDM	Lagan	Lagan	Lagan	
13 Departmental Finance	Excel	Excel	Excel	Excel	Excel	Excel	Excel	

4 Data Management

It is essential that we know the quality of the asset data we hold and that appropriate measures are taken to maintain the data and to collect any important data that is not currently held.

Roles and Responsibilities

The responsibility for the management of the data relating to each asset group has been allocated as follows:

Asset Group	Person Responsible for Adding new Asset Data	Person Responsible for Maintaining Asset Data
Carriageways	Caroline Stewart	Caroline Stewart
Footways, Footpaths & Cycleways	Caroline Stewart	Caroline Stewart
Drainage	Mark Winter	Mark Winter
Condition Data for Carriageways & Footways	Mark Winter	Mark Winter
Street Lighting	Stuart McNiven / Gordon Crosbie	Stuart McNiven / Gordon Crosbie
Non-illuminated signs	Mark Winter	Mark Winter
Structures	Aaron Moison	Aaron Moison
Traffic Signals	Jim McGregor	Jim McGregor
Street Furniture	Various	Various
Verges & Planted Areas	Caroline Stewart	Caroline Stewart

It is the responsibility of the person in the role shown above to ensure that data relating to the asset group for which they are responsible is updated, verified, validated and reviewed as shown in the following sections and that any actions required to improve data are reported to Jamie Wright.

Overall responsibility for road asset data quality lies with Jamie Wright with delegation to Kenny Donaldson and Mark Winter

The core data requirements for each of the asset groups have been identified by the SCOTS/RAMP project and can be found in the SCOTS RAMP Task 2 data assessment sheet.

Updating

Asset data should be updated following changes to the asset as shown below:

Inventory Updating Timing	
Type	Timing
New Assets – Council Built	Within 3 months of completion
New Assets - Taking in Charge	Within 3 months of taking in charge/adoption
Major maintenance e.g. resurfacing	Annually updated in January/February
Removals	Within 3 months of confirmation of order

Data Verification

Any new or updated asset data that has been captured is verified at the point of entering it into the appropriate software/database (WDM, Roadnet, Location Centre). It is assumed to be accurate from designs where the data is taken from AutoCAD drawings.

The QS team in conjunction with the asset officer verify carriageway schemes when they confirm the final measurements.

Data Validation

There is no formalised asset validation process in place however asset validation is done on an ad hoc basis by the Asset Team.

As surveys and inspections take place, officers will compare the data held within the relevant software/database with the survey or inspection and report to the relevant data custodian, any changes that are identified.

5 Data Assessment & Improvement

Annual Data Review

A review of data is undertaken annually in March. The review is informed by the results of surveys and uses the spreadsheets produced under the SCOTS RAMP project to enable an evaluation of the data held. This method uses a core data set recommended by SCOTS as the minimum that authorities should hold for each asset group and a method of assessing the quantity and reliability of the data held. This results in a confidence rating for each item of data.

The review is used to identify data deficiencies and to enable improvement actions to be planned to improve the quality of the data held.

The results of the latest data review are reported below, by asset group, detailing any data deficiencies and the actions proposed for their improvement. All improvement actions undertaken are reported annually within the Annual Status and Options Report (ASOR).

Asset Data Improvement Register		
Data Deficiency	Data Improvement Action	Date
Carriageway Data		
Surface Treatments	Capture Treatments as they are carried out	2015 onwards
Road Materials	Capture Material Type of All Roads	2015 onwards
Capture Visual Condition Data	Inspection to be carried out to capture general condition of all Roads	2016
Safety Survey	Carry out full Safety Survey of the Road network	2016
Safety Barrier Composition and Condition	Consultant has carried out full safety inspection of all Safety Barriers on A Roads	2015
Footway Data		
Capture Visual Condition Data	Inspections ongoing to capture general condition of all Footway and Footpaths	2016
Street Lighting Data		

Asset Data Improvement Register		
Data Deficiency	Data Improvement Action	Date
Visual Condition Inspection	Carry out Visual Inspection of Columns to assess whether full structural inspection is required	2015 onwards
Electrical Inspection	Establish ongoing programme of electrical inspection for existing installations	2015 onwards
Structural Testing of Columns	Appoint Consultant to carry out Column Inspections targeting Columns over 20 years of age	2015 onwards
Structures Data		
Retaining Wall Capture	Carry out full Inspection of all retaining walls in house	2015 onwards
Traffic Management Systems Data		
Improve attributes of all traffic signals	Carry out a full inspection of traffic signals to identify all the components making up each junction	2016
Drainage		
GIS data on Piped watercourse, ditches and other drainage is poor	Carry out data capture exercise over a period of time using as built drawings for new schemes and piggy back on to other surveys for existing schemes	6 year programme form 2015
Street Furniture		
No records of pedestrian barrier data held	Carry out survey	2016
Information regarding other street furniture assets is not seen as a priority at this time.		