

Newcastle City Council Data Management Plan

Document Information

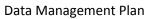
Title	Data Management Plan
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Description	This document details how we manage the highway assets data

Document History

Version	Status	Date	Author	Changes from Previous Version
1.0	Draft	TBC	P Holmes Principal Engineer	Not applicable

Document Control

Version	Status	Date	Authorised for Issue by: TBA
1.0	Final	TBC	Peter Gray, Head of Highways and Local Services





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1. Introduction

This plan records the data held about each of the asset groups that make up the highway 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.

2. Types of Data

The types of data required in order to manage the highway asset are:

- Inventory: the number, location, size, type, age and component make up of each asset.
- Condition: measurement and rating of the condition of the asset from testing or visual inspection.
- Inspection: details of the inspection regime, inspection results and actions initiated
- Use: details of the use of assets in the form of data such as traffic counts, heavy vehicle routes, etc.
- Safety; details of accidents and incidents that occur on the asset
- Cost; details of the unit cost of common activities and the overall cost to enable cost benchmarking

3. Asset Management Data Uses

The uses that the asset data enables are:

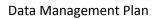
- Monitoring of, and reporting on, the condition of the road network
- Prediction and reporting of funding needs
- Identification and prioritisation of sites and assets for maintenance works
- Monitoring and reporting of performance (performance indicators
- Assessment of the expected lives of individual assets or asset components
- Valuation of the asset and calculation of depreciation
- Public information to provide greater transparency



4. Asset Groupings

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

Level 1	Level 2	Level 3
Asset type	Asset group	Components that level 2 implicitly covers
Carriageway	Area (square metre) based elements	Pavement layers
	Flexible pavements	Other surface types, e.g. paved
	Flexible composite pavements Rigid concrete pavements	 Central reservation, roundabout, lay-by, traffic island, etc
	Rigid concrete pavementsRigid composite pavements	 Earthworks (embankments and cuttings, retaining walls height <1.35m)
		Traffic calming
		Fords and causeways
	Linear elements	Kerbs
		Line markings
		Road studs
		 Road drainage elements (gullies, drains, etc, but not large structures)
		Boundary fences and hedges
		Hard strip/shoulder verges/vegetation
Footways and	• Footways	Pavement layers
cycletracks	Pedestrian areas	Other surface types, eg block paving,
(attached to the	• Footpaths	unbound materials
road or segregated)	Cycletracks	
Structures	Bridges (span >1.5m)	All elements identified on the CSS inspection
	Cantilever road sign	pro forma
	Chamber/cellar/vault	Smaller water-carrying structures are
	Culverts (span >0.9m)	considered as road drainage
	High mast lighting columns (height >20m)	
	Retaining walls (height >1.35m)	
	Sign/signal gantries and cantilever road signs	
	Structural earthworks, e.g. strengthened/reinforced soils (all structures with an effective retained height of 1.5m or more)	
	Subway: pipe	
	Tunnel (enclosed length of 150m or more)	
	Underpass/subway: pedestrian (span of 1.5m or more)	





Level 1	Level 2	Level 3
Asset type	Asset group	Components that level 2 implicitly covers
	Underpass: vehicular	
	Special structure	
Highway lighting	Lighting columns	Column and foundations
	Lighting unit attached to wall/ wooden pole	Bracket
	Heritage columns	• Luminaires
	Illuminated bollards	Control equipment, cables
	Illuminated traffic signs	Control gear, switching, internal wiring cabling (within ownership)
Street furniture	Transport	Traffic signs (non-illuminated)
	Highway	Safety fences
	Streetscene/ amenity	Pedestrian barriers
		Street name plates
		• Bins
		Bollards
		Bus shelters
		Cattle grids
		• Gates
		Seating
		Verge marker posts
		Weather stations
Traffic	Traffic signals	Different types
management	Pedestrian signals	
systems	Zebra crossings	
	In-station	Complete installation
	Information systems	Variable message signs
	Safety cameras	Vehicle activated signs
		Real time passenger information



Additionally NCC has included the assets below within their Highway Asset Management Plan.

Level 1	Level 2	Level 3		
Asset type	Asset group	Components that level 2 implicitly covers		
Highway Green Spaces	Grass Verges	Topsoil, Subsoil, land drainage, Vegetation, Street Furniture, Fencing, signage, Lighting		
	• Trees	 Roots, Trunk, Limbs, Branches, foliage ,seeds and fruits, Tree supports, stakes, guards, grilles, irrigation and drainage systems, root barriers / pits 		
	 Hedges Flower beds, Shrub Beds and Rockeries Planters 	 Trees/ Shrubs, Topsoil, Subsoil Flowers, Shrubs, Topssoil, Subsoil, Rocks, membranes, gravel, signs (sponsorship and directional) 		
Winter Maintenance	Salt Storage Areas Gritters			
	Salt Bins			



5. Data Storage

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

Software Systems Used

	Information System Capability & Use							
		Carriageways	Footways	Structures	Street Lighting	Green Spaces	Street Furniture*	Traffic Management Systems***
		Symology	Symology	Bridgeman	access database / arcview		Symology	Total Mobile Works Management
1	Asset register	Database	Database	database	GIS	Arcview GIS	Database	System
2	Safety Inspections	Symology Database	Symology Database	Bridgeman database / Atkins spreadsheets	access database / arcview GIS	Site Specific RAs not systematically recorded	Symology Database	Total Mobile WMS
3	Condition survey	Symology Database	Symology Database	Bridgeman database / Atkins spreadsheets	access database / arcview GIS	Ltd updates to Tree Condition since 2014 No recognised System for Grounds	Symology Database	Not currently gathered
4	Routine Reactive Maintenance	GIS, Symology	GIS, Symology	Structure File located on NCC server	access database	Envirocall Works Management System	Symology Database	Total Mobile WMS
5	Cyclic Maintenance	Hard copy drawings GIS, Symology	Hard copy drawings GIS, Symology	Structure File located on NCC server	access database	Arcview GIS Excel	Symology Database	Total Mobile WMS
6	Planned Maintenance	Hard copy drawings PHM files located on NCC server GIS, Symology	Hard copy drawings PHM files located on NCC server GIS,	Structure File located on NCC server	access database	Access Database (Arbor) Manual records Grounds	Symology Database	TS files located on NCC server Symology Database



Data Management Plan

			Symology					
7	Streetworks	Symology Database	Symology Database	Symology Database	Symology Database	Symology Database	Symology Database	Symology Database
8	Street Gazeteer	Symology Database	Symology Database	Symology Database	Symology Database	Symology Database	Symology Database	Symology Database
9	Accident Analysis***	TADU-cirtas NCCTARDIS	N/A	N/A	N/A	N/A	N/A	TADU-cirtas NCCTARDIS
10	Traffic Data (Counts)***	TADU-Trads TCP	N/A	N/A	N/A	N/A	N/A	TADU-cirtas NCCTARDIS
11	Customer Contacts	Envirocall	Envirocall	Envirocall	Envirocall	Envirocall	Envirocall	Envirocall
12	3rd Party Claims	LACS*	LACS	LACS	LACS	LACS	LACS	LACS
13	Departmental Finance	FAMIS**	FAMIS	FAMIS	FAMIS	FAMIS	FAMIS	FAMIS
14	Winter Maintenance	Hard Copy Records / GIS	Hard Copy Records / GIS	Hard Copy Records / GIS	N/A	N/A	N/A	N/A

Comment on systems used.

^{*}LACS - Local Authority Claims handling System.

^{**}FAMIS – Financial And Management Information System (NCC internal database)

^{***} Transport Data used within Highway assessment management Plan is a subset of the data stored and maintained within Newcastle and the LA7 transport data system which also includes data such as Public transport supply and demand and transport planning data and analytical tools



6. 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.

6.1 Roles and Responsibilities

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

Person Responsible for Asset Data
Principal Engineer (Highway Maintenance)
Principal Engineer (Highway Maintenance)
Principal Engineer (Flood Management)
Operations Manager (Localised Services)
Tay Valley Lighting / SSE (PFI Contract)
Contract Monitoring Officer (NCC)
Principal Engineer (Highway Maintenance)
Principal Engineer (Highway Structures)
Traffic Signal Manager
Transport Analysis (Transport Development)
Transport Analysis (Transport Development)
Principal Engineer (Highway Maintenance)
Operations Manager (Localised Services)
Operations Manager (Localised Services)

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 Principal Engineer (Highway Asset Management).



Overall responsibility for highway asset data quality lies with Principal Engineer (Highway Maintenance) or someone appointed specifically to undertake the role.

6.2 Updating

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

Inventory Updating Timing	
Туре	Timing
New Assets – Council Built	Within 6 months of completion
New Assets - Adoption	Within 6 months of adoption
Maintenance Works e.g. resurfacing, replacement etc.	Annually
Removals / Disposals / Stopping Up	Within 6 months of confirmation of completion

6.3 Data Verification

Any new or updated asset data that has been captured shall be verified prior to entering it into the appropriate software/database.

7. Data Assessment & Improvement

7.1 Annual Data Review

A review of data is undertaken annually and asset information is updated as required with all improvements will be identified in the Improvement Action Plan in the Annual Status and Options Report (ASOR).

Details of amounts of works undertaken and their associated costs will be reported annually in the ASOR.

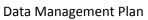
All street lighting data held by the PFI contractor will be reviewed to ensure that it is up to date annually.



Asset Data Improvement Register					
Data Requirement	Data Improvement Action	Date			
Carriageway Data	,				
Date of Last Surface Treatment - 80% held	Record details of all works undertaken within the Symology system annually	Ongoing			
Type of Surface Treatment - 80% held	Record details of all works undertaken within the Symology system annually Differentiate between different bituminous surface types	Ongoing			
Date of last resurfacing - 90% held	Record details of all works undertaken within the Symology system annually	Ongoing			
Footway Data					
Footway drainage information	Review and update footway drainage information within the Symology system annually.	Annually			
Structures Data		,			
Dimensions / specifications of structures and components are only 80% complete	Record from now within Bridgeman database	Ongoing			
Expected Service Life of components is not recorded	Record from now on structure file	Ongoing			
Date of Construction / Installation of structures and components is not recorded	Record from now within structure file and Bridgeman database	Ongoing			
Manufacturer of components is not recorded	Record from now within structure file	Ongoing			
Traffic Signals	1				



Asset Data Improvement Register			
Data Requirement	Data Improvement Action	Date	
Update asset register	Determine condition data and transfer to appropriate system.	January 2017	
Street Furniture			
Update asset register	Record from now on within the Symology system	Ongoing	
Green Spaces			
Green Space Asset register	Update survey of land maintained - ownership status, size, condition, gradients and content (street furniture	ТВС	
	etc) Frequency and method of recording	ТВС	
Condition of Trees with influence on the Highway	TBC	ТВС	
Single point of capture for routine and responsive works completed	Recording System required – hard copy or WMS encompassing risk assessments	ТВС	
Traffic Counts - Accidents			
External data	External Data Managed and Maintained by TADU- Gateshead new systems being Procured for Manual Counts – Web Access Available direct or via the NCC TARDIS/TCP	Ongoing	
Winter Maintenance			
Data in relation to the gritting routes undertaken, apparatus and materials	Undertake an exercise to gather together the hard copy data and input it into the Symology system.	April 2016	
used are recorded only in Hard Copy Records.	Investigate information held and determine any additional improvements required	June 2016	





Asset Data Improvement Register			
Data Requirement	Data Improvement Action	Date	
Bus Shelters			
Full asset information not established	Undertake an exercise to establish full asset information with the view to developing a policy	April 2016	