CABINET

27 OCTOBER 2015

TRANSPORT (HIGHWAYS) ASSET MANAGEMENT POLICY AND PLAN

Portfolio Holder: Councillor Phil Filmer, Front Line Services

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Summary

The production and implementation of an asset management policy and plan for each local authority is a new requirement of the Department for Transport. The policy and plan should reflect the corporate vision for the authority and be signed off by the executive and published.

This is in accordance with recently issued guidelines by the DfT in their move to ensure local authorities are delivering value for money, given the Secretary of States announcement in December 2014 of the £6bn settlement for local authority highway maintenance over the next 6 years (2015-16 to 2020-21).

1. Budget and Policy Framework

1.1 The information and the decisions required within this report are within the Council's policy and budget framework. The Transport (Highways) Asset Management Plan (TAMP) underpins the transport and highway objectives contained in the Council's Local Transport Plan (2011-2026), which is seen by the highways and transportation areas as being the key policy document of the councils for these areas of work.

2. Background

2.1 Officers through their delegated authority produced Medway's first TAMP in 2010, to document the most effective and efficient way to manage the highway assets. Year on year improvements have been made since the introduction of the council's TAMP.

2.2 The TAMP underwent a review in 2013-14 to incorporate various new principles being implemented in Medway in their asset management approach. During this review the industry along with the government worked with the Chartered Institute of Public Finance and Accountancy (CIPFA) to produce the Highways asset valuation policy which itself was reviewed in 2013 which supported the Whole Government Accounts (WGA) process.

2.3 In 2014 the Government announced a long term financial plan for highway assets, acknowledging that annualised budgets were not sustainable in the context of good highway asset management. As part of this announcement of additional funding, £578m was set aside as part of the "Incentive Fund Scheme"

2.4 Each local highway authority in England (excluding London) will be invited to complete a self-assessment questionnaire, in order to establish the share of the incentive fund they will be eligible for in 2016/1. The self assessment questionnaire sets out a series of 22 questions that each authority will be required to complete. The Authority is required to self assess their eligibility for the scheme providing evidence where necessary and the responses will be signed off by the authorities Chief Finance/Section 151 officer

2.5 Upon completing the self-assessment questionnaire the council will score themselves within one of three bands. This score will then be verified by the DfT and future year's Highway Funding allocations will be based on the following table:

Year	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21
Band 1	100%	90%	60%	30%	10%	0%
Band 2	100%	100%	90%	70%	50%	30%
Band 3	100%	100%	100%	100%	100%	100%

2.6 Self-assessment Bands

The self-assessment Bands are based on the maturity of the authority in key areas, which are described in each question. The principle on which the levels of maturity for each question were determined is described below:

Band 1 – Has a basic understanding of key areas and is in the process of taking it forward.

Band 2 – Can demonstrate that outputs have been produced that support the implementation of key areas that will lead towards improvement.

Band 3 – Can demonstrate that outcomes have been achieved in key areas as part of a continuous improvement process.

Band determination are calculated as follows:
Band 1 – does NOT reach level 2 or 3 in at least 15 of the 22 questions
Band 2 – MUST reach level 2 or 3 in at least 15 of the 22 questions
Band 3 – MUST reach level 3 in at least 18 of the 22 questions.

2.7 There are three questions that are "corner stones of asset management". If a local authority scores a 1 in any of these three questions, their overall assessment will be Band 1

2.8 Question 1 in the questionnaire requires confirmation that the local Authorities' TAMP has been signed off and published by the executive and therefore a review and establishment of an up to date TAMP is the driver behind this report. Further detail pertaining to the Incentive Fund

questionnaire can be found in the background papers detailed at the end of this report.

2.9 This report demonstrates to Members how officers manage the highway assets and how they can demonstrate effective and efficient asset management, in what is the most expensive asset the council owns (gross replacement costs of some £1.5bn).

2.10 The TAMP contains the overarching policy on asset management and then develops into the operational service delivery plan, informing the reader on the specific details on how each individual set of assets are managed and the regime associated with its maintenance.

2.11 One of the Government's objectives is to move away from annualised budgets for such an important asset and that councils should have medium to long term financial commitment, which should be published.

2.12 The majority of funding for highway maintenance is from the LTP and as such the Government has published their 6 year spending plan so councils can start the medium/long term plan around asset management with a degree of confidence.

3. Options

3.1 Do nothing – Members could choose to take this route, but without clear evidence of adopting the TAMP, the funding from central Government would diminish in line with the table in 2.5 of this report as the authority would stabilise in Band 1, which would not reflect the robust efforts that the council have made in recent years.

3.2 Approve the report – Medway have demonstrated over recent years that good asset management delivers results whether that around carriageway resurfacing, street lighting or drainage. Technical assessment of condition is improving, customer satisfaction is increasing and emergency incidents such as localised flooding is decreasing, which all point to a robust asset management regime, which is documents in the TAMP.

4. Advice and analysis

4.1 Members and officers have shown over recent years a steady improvement in asset condition and customer satisfaction. Indeed last year saw Medway receive an award from the NHT customer satisfaction surveys as most improving authority – this substantiates the robustness of the TAMP

4.2 To ensure maximum funding being obtained from the DfT, members need to approve the TAMP and allow officers to publish the report for public information. This is in line with other operational documents such as the winter service policy and plan.

4.3 Given the DfT have moved away from annualised budgets for highway maintenance, members need to consider their approach when setting the MTFP where opportunities to prioritise highway asset management can be considered.

4.4 Within existing funding levels, officers have demonstrated over recent years that the network can be improved thus ensuring that our policy and operational plan is sustainable.

4.5 There are no changes to the service delivery associated with the report and therefore no diversity impact assessment is required. That said the individual schemes that are delivered on the ground that result from this document will be built with access in mind for all highway users.

4.6 Subject to Cabinet approval of the Policy and Plan, it will be published on the Council's website.

4.7 A Diversity Impact Assessment has been undertaken on the proposals, this has highlighted that there is likely to be no adverse impact on any of the protected characteristic groups (Appendix 3).

5. Risk management

5.1 Risk management is an integral part of good governance. The Council has a responsibility to identify and manage threats and risks to achieve its strategic objectives and enhance the value of services it provides to the community. Using the following table this section should therefore consider any significant risks arising from your report.

Risk	Description	Action to avoid or mitigate risk	Risk rating
Loss of income from DfT	The DfT have announced that highway maintenance allocation will be allocated to LA's based on their ability to deliver good effective asset management. Members have to agree the TAMP to enable officers to achieve the maximum level of funding available.	Approve and publish the TAMP	Low

6. Consultation

6.1 Formal and informal consultation of the TAMP is not required. However at an operational level all "new" schemes follow a consultation path that engages the public and approvals sought through the scheme of delegation shared between the Director and portfolio holder. Highway maintenance schemes are assessed on technical condition surveys and are again approved through delegated powers between the director and Portfolio Holder.

7. Financial implications

7.1 The TAMP has been written to allow officers to operate in the most effective and efficient manner. The adoption of the TAMP allows officers to achieve the most effective delivery of schemes and maintenance programmes within existing budgets.

7.2 Members need to be aware of the potential loss of funding from the DfT if the TAMP is not adopted and published.

7.3 Members need to consider the benefits of moving away from annualised budgets for highways maintenance, so that a medium to long term plan can be produced by officers working with their contractor to deliver a more sustained level of operation removing peak and through from work programmes.

8. Legal implications

8.1 Members are advised that the adoption of the TAMP is within the Council Policy and budget framework.

8.2 Although there is no statutory requirement to have a TAMP it is advisable to and very good practice to have one in place and published, especially given the improvements made by the service area in recent years.

9. Recommendations

9.1 Members are requested to approve the Transport Asset Management Plan and the Transport Asset Management Policy, as set out in Appendices 1 and 2 to the report.

10. Suggested reasons for decision(s)

10.1 To document the way Medway manages its Highway assets and to ensure where possible the maximum level of funding is achieved from the DfT over the next 5 years.

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Appendices

Appendix 1 - Transport Asset Management Plan 2015
Appendix 2 – Transport Asset Management Policy 2015
Appendix 3 – Diversity Impact Assessment

Background papers

Local highways maintenance capital funding Self-Assessment questionnaire for the Incentive fund published by the DfT

Transport Asset Management Plan

Third Edition – October 2015

Medway Council

Serving You

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Change Control

This is a controlled document. The table below lists dates and details of revision.

Revision No.	Date of Revision	Details of Revision
1	01/03/2010	Initial compilation and unofficial release
2	01/05/2014	Full review and unofficial release
3	01/10/2015	Full review and official release
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Glossary of Terms and Abbreviations

AFR	Accident Frequency Rate
BCI	Bridge Condition Index
BOAT	Byway Open to All Traffic
CATS	Control Active Terminal System
CCS	Considerate Constructors Scheme
CCTV	Closed Circuit Television
CIPFA	The Chartered Institute of Public Finance and Accounting
CoP	Code of Practice
CSS	County Surveyors Society
CVI	Coarse Visual Inspection
DBH	Diameter at Breast Height
DfT	Department for Transport
DNO	District Network Operation
DRC	Depreciated Replacement Cost
ECI	Early Contractor Involvement
FMS	Footway Maintenance Survey
FMS	Fault Management System
FPN	Fixed Penalty Notice
GIS	Geographic Information System
GRC	Gross Replacement Cost
HAMP	Highways Asset Management Planning
HGV	Heavy Goods Vehicle
HMEP	Highways Maintenance Efficiency Programme

IRF	Incident Report Form
ITS	Intelligent Traffic Systems
KCC	Kent County Council
KPI	Key Performance Indicators
LACHS	Local Authority Claims Handlers System
LED	Light Emitting Diode
LTP	Local Transport Plan
M+E	Mechanical & Electrical
MCADAMS	Medway Council's Asset Deterioration And Management System
MCAMS	Medway Council's Asset Management System
MCCC	Medway Council's Control Centre
MCSP	Multi Storey Car Park
MOTES	Pollution, Vibration & Noise Monitoring
NCR	Non Conformance Report
NHT	National Highways and Transport Public Satisfaction Survey
NI	National Indicators
NMP	Network Management Plan
NRSWA	New Roads Street Works Act
NSG	National Street Gazetteer
OS	Ordnance Survey
P&D	Pay and Display parking ticket machine
PGI	Parking Guidance Information
PMS	Pavement Management System
PRoW	Public Rights of Way

RAG	Red, Amber, Green status
RAM	Random Access Memory
RTR	Road Traffic Regulations
SCADA	Supervisory Control And Data Acquisition
SCANNER	Road Condition Measurement Survey
SCRIM	Skid Resistance Measurement Survey
TAMP	Transport Asset Management Plan
TERN	Trans European Road Network
TM	Traffic Management
TMA	Traffic Management Act
TMT	Traffic Management Technologies
TOR	Traffic Operations Room
UKPMS	United Kingdom Pavement Management System
UKRLG	United Kingdom Road Liaison Group
UPS	Uninterruptable Power Supplies
USRN	Unique Street Reference Number
UTC	Urban Traffic Control
VAS	Vehicle Activated Sign
VC1/VC2	Vehicle Crossover Applications
VIAD	Vehicle Accident Incident Detection
VMS	Variable Message Sign

Table of Contents

1.0 Executive Summary

This Transport Asset Management Plan (TAMP) has been created in an asset management context with a view to guide a full asset management regime for Medway's highway network. The TAMP has been formulated to work in line and to be supported by the first edition of the Transport Asset Management Policy (2015).

Medway is made up of five historic towns of Strood, Rochester, Chatham, Gillingham, and Rainham with the more rural parts inclusive of Medway Valley villages of Cuxton, Halling and the Hoo Peninsula. It is a modern place with green spaces, superb quality of life and breathtaking countryside. Medway has a highly skilled and growing workforce and a young, culturally diverse population.

The Medway region is part of the Thames Gateway which is one of four national areas identified for regeneration and growth. This is expressed by a predicted growth in population from 250,000 to 300,000 by 2020 which will require a highway network working at peak efficiency to support increased transportation demands. The location of Medway gives significance to the sustainability of the TAMP, as it is the largest urban conurbation in the south east 30 miles outside London and 40 miles away from Dover.

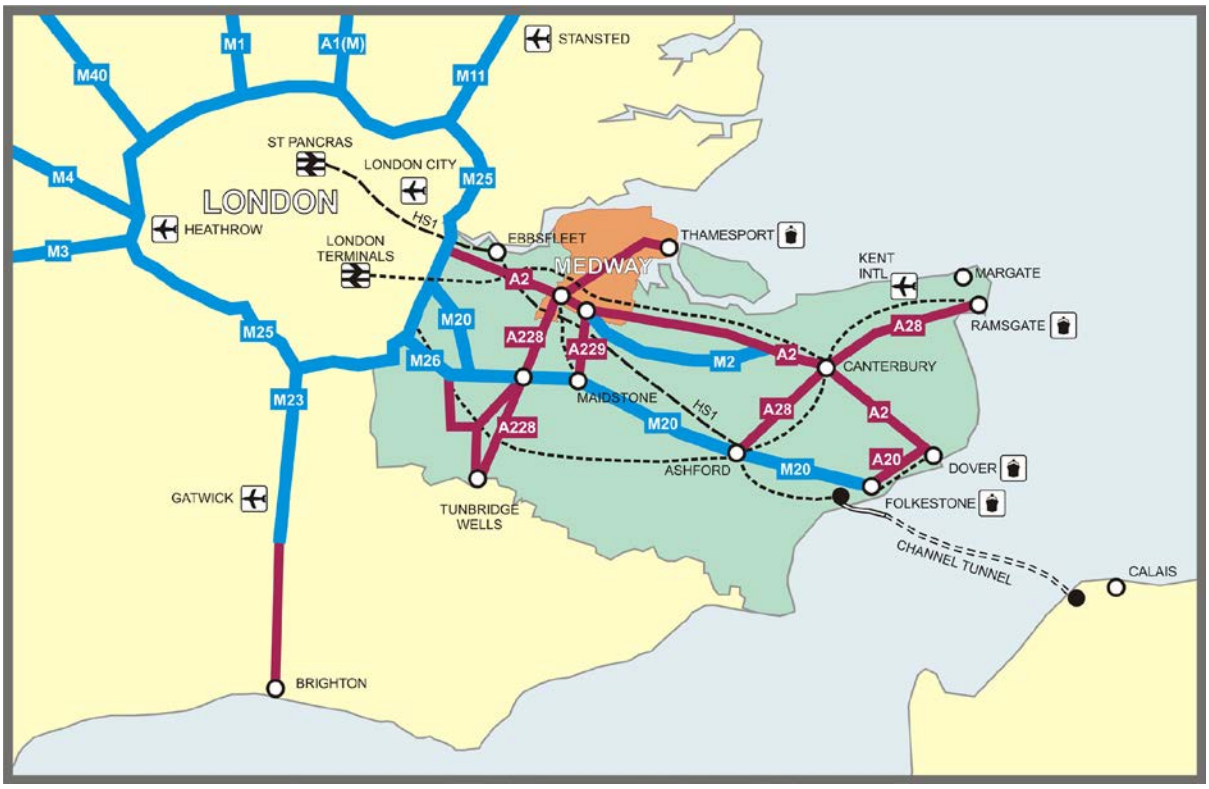

Figure 1: Medway Transport Links (LTP, 2011)

Medway Council has a statutory duty to manage and maintain its highway network to accommodate for this growth. Some of the priorities, objectives and targets set out in the Local Transport Plan (LTP) 3rd Edition enforce the aims of this TAMP and how the management of the network is implemented. In terms of highway maintenance, the over-arching aims are to systematically slowdown the decline in condition of the unclassified road network and restore it to a more acceptable standard. However, this should not allow for the principal roads and other highway assets to deteriorate through lack of attention. Such a balancing act calls for the implementation of good asset management principles.

The Medway Transport and Highway Network are inspected regularly to determine and appraise its safety and integrity to assure all works that are carried out are adhered to the standard required. The safety of the network is ensured through a team of highway inspectors. Inspection frequencies are governed by section hierarchy based on usage with defect repair responses determined from a risk associated matrix, assessing the probability and impact of an incident resulting from the defect not being repaired.

The Medway TAMP recognises that the maintenance and serviceability of the highway is not aloof from other related functions that could have an affect or indeed be affected by the maintenance of the highway. The items that make up the highway network are assigned to one of fourteen groups where they are described and quantified. Each group has an Asset Champion who is responsible for ensuring the assets are maintained according to the stated regime and meets stakeholders' expectations. The asset groups are:

- Carriageways
- Footways
- Drainage
- Street Lighting including illuminated road signs and bollards
- Cycle Routes both on and off carriageway
- Non Illuminated Furniture and Road Markings
- Intelligent Traffic Systems (ITS) including all traffic and pedestrian signals
- Barriers including pedestrian guardrails and fences
- Soft Landscaping including grass cutting and tree maintenance
- Structures including bridges, gantries and retaining walls
- Medway Tunnel and Mechanical & Electrical (M+E) requirements
- Public Rights of Way (PRoW)
- Public Transport Assets focusing on bus shelters
- Car Parks

The Medway TAMP or implementation plan has been formulated to incorporate asset management principles through a framework as shown in Figure 2. With an overarching asset management precept, Medway Council will ensure that priority is given to key areas; focussing on assets with the highest stakeholder usage and fiscal expenditure.

Where users consider Medway Council have been negligent in their duties to maintain the network to a safe standard, a procedure has been adopted to manage and resolve legal claims against the Council.

The maintenance regime for each asset group is detailed in text and tables within this document. It is a mixture depending on the asset, of reactive repairs in response to inspector or public service requests, routine maintenance often at manufacturer's recommendation, and programmed schemes such as carriageways and structures maintenance determined by condition reports.

Each asset group also has stated aspirations which are a future goal to which the condition or maintenance of an asset is being targeted. Each asset group has stated its aspirations which are either a future goal or a continued objective to which the condition or maintenance of an asset is being targeted.

The term maintenance contractor carries out most of the repairs with their performance being assessed and measured through the use of 19 Key Performance Indicators (KPI) which are grouped under six headings:

- Adherence to Programme of Works
- Health and Safety
- Complaints and Compliments
- Financial
- Recycling
- Quality

A separate Contractor is employed to carry out Street Lighting works and this is documented in section 7.4 of this plan. Medway Council are in the planning stage of amalgamating both term maintenance contracts into one by August 2017.

The TAMP has been produced as one of Medway's implementation plans in the view of strategically achieving its key objectives in line with the Council's delivery plans. This will ensure a logical and persistent method to aid with best practice and help improve the application of the TAMP on an annual basis. To further enhance the way in which this TAMP is used in conjunction with the organisation; it is linked with Medway's 'Golden Thread' (Performance Monitoring, 2014). The Golden Thread gives surety between the link of priorities and values, which are clearly set by Council members and senior managers and the work then undertaken by individual members of staff.

2.0 Introduction

This is Medway Council's third edition of the Transport Asset Management Plan (TAMP) which has been written within the context of promoting a holistic approach to the maintenance of all of Medway's Highway assets.

The maintenance regime laid out in this TAMP is designed to assist in meeting transport objectives set out in the Medway Local Transport Plan (LTP). It will facilitate and support the Council in fulfilling and exercising its statutory duties and powers including the general duty of care to all highway users and to maintain the highway in a condition fit for its purpose. It shall also be used in a way to extend the longevity of highway assets with the intention to minimise whole-life costs for our customers within the budget available.

Highway maintenance consists of a variety of functions which are grouped under the following headings and detailed further within this document:

- **Reactive Maintenance** – responding to safety inspections and information from the police and general public
- **Routine Maintenance** – regularly occurring work performed at set intervals
- **Programmed Maintenance** – works determined from condition data and integrated with other highway activities
- **Winter Service** – salting criteria and snow and ice clearing operations
- **Weather and other emergencies** – planned emergency responses for maintenance carried out as a result of extreme weather conditions or other emergency

This TAMP aims to assist in the application of asset management processes to deliver a more efficient and effective approach to management of the highway infrastructure assets. This approach is supported further from other sources, including our LTP as well as the Code of Practice for Well Maintained Highways (2005[updated 2013]), the CIPFA Code of Practice on Transport Infrastructure Assets (2013) all of which has been supported by the UK Roads Liaison Group (UKRLG).

There are also a number of toolkits available from the Highways Maintenance Efficient Programme (HMEP) along with supporting documentation. These toolkits are currently being used by Medway for asset valuation reporting within Bridges and Structures. The toolkits are also being trailed within non illuminated street furniture for lifecycle planning.

The main toolkit or software system used is Medway Council's Asset Management System (MCAMS) which is used to assist in the day to day workload, for example dealing with enquiries, raising works orders and inputting asset inventory data. Running alongside this is also Medway Council's Asset Deterioration and Management System (MCADAMS) used to assist with maintenance works prioritisation. Medway Currently completes a number of nationally accredited conditions surveys for assessment of the infrastructure network. These are SCANNER, CVI, FMS and SCRIM surveys which are incorporated with the use of MCADAMS to prepare current conditional reports which aid with financial reporting and produce an extensive programme of works (three to seven years).This will

ensure that the resources available are used in the most effective and efficient way possible; thus enabling Medway to best reach stakeholder expectations and implement a lifecycle plan.

The public are able to indicate to Medway Council their satisfaction levels through local surveys as well as the National Highways & Transport Public Satisfaction Survey (NHT). Medway has already imbedded some elements of asset management in the way it manages highway infrastructure and has made significant progress with implementing good practice and realising benefits. This is further enhanced by getting a firsthand view of what the public think through customer user groups and public workshops. These views help in regards to Medway Council's performance, the impact of service improvements, opportunity to learn from good practice and transparency of data for benchmarking.

Figure 2 shows Medway's Asset Management Framework which is described in detail in the Highway Infrastructure Asset Management Guidance Document (HMEP, 2013) –

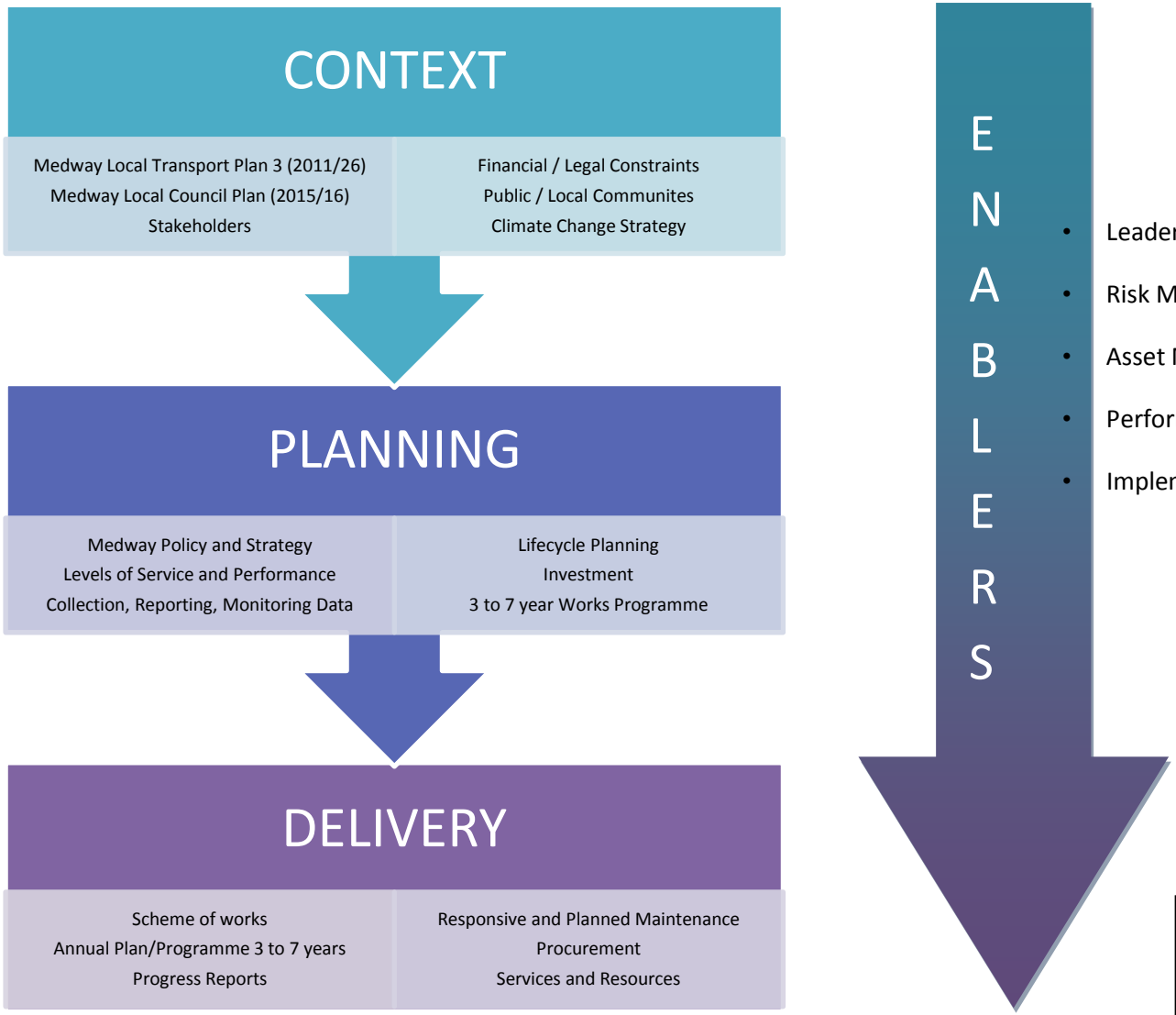

Figure 2: Medway Asset Management Framework – Highway Infrastructure Asset Management

2.1 The Objectives of Medway's TAMP

The TAMP builds on the framework to inform and guide Medway Council's decisions to produce the most efficient programme of works with the available budgets. With the aid of guidance documents, the asset management plan is used with the intention of:

- Documenting the activities and processes of Medway's Asset Management Framework (Figure 2)
- Providing detailed information to senior decision makers to support investment decisions and enable longer term planning
- Allocate resources for asset management
- Informing staff that are involved in asset management about how the highway infrastructure is to be managed and their specific responsibilities
- Providing information to support the procurement of maintenance activities
- Facilitate communication with stakeholders

Working alongside the development of the TAMP, other strategic goals of the Council are detailed in the following documentation. These all accumulate to the Council's complete objective that is set out in:

1. Sustainable Community Strategy (2010 – 2026)
2. Council Plan (2015 – 2016)
3. Regeneration, Community and Culture Plan (2015 – 2016)
4. Highways and Parking Service Plan (2015 – 2016)
5. Local Transport Plan 3 (2011 – 2026)
6. Procurement Strategy (2013 – 2016)
7. Medway Regeneration Framework (2006 – 2016)

2.2 Local Transport Plan Strategy

Medway's Local Transport Plan (LTP) sets out Medway's transport strategy, embracing the wider aspirations for Medway to be a City of rich heritage and a great future at the heart of the Thames Gateway. In addition, it is a mechanism to obtain significant funding to deliver transport projects. It forms part of Medway Council's policy framework documents and is a statutory function of Medway Council.

There is a major challenge for the Medway area associated with the increased demand for travel that will arise from being within the Thames Gateway, a nationally designated regeneration area with links to the United Kingdom mainland and Europe. Furthermore, there is now stronger recognition of how transport influences and adds value to many key priorities including economic growth, the natural environment, connectivity, equality of opportunity and health.

Following are the priorities and aspirations taken from the LTP (2011) to be in line with this TAMP.

2.3 Our Priorities

Medway's LTP seeks to address wider social, economic and environmental challenges for the area, based on an analysis from public consultation and work undertaken with our neighbours through a Multi Area Agreement. The transport strategy is closely aligned to Medway's Sustainable Communities Strategy, the emerging Local Development Framework and priorities in the Council Plan.

Whilst available budgets at the commencement of the strategy are constrained, the ambition of this strategy is to deliver transport interventions that contribute to the Council's Local aims and objectives which are:

- Children and young people have the best start in life in Medway
- Adults maintain their independence and live healthy lives
- Everyone benefitting from regeneration
- Safe, clean and green Medway
- Putting customers at the centre of everything we do
- Giving value for money

In conjunction to the Council's aims and objectives, the Transport Asset Management Plan contributes to five overarching priorities that focus on:

Supporting Medway's regeneration, economic competitiveness and growth by securing a reliable and efficient local transport network

Supporting a healthier natural environment by contributing to tackling climate change and improving air quality

Ensuring Medway has good quality transport connections to key markets and major conurbations in Kent and London

Supporting equality of opportunity to employment, education, goods and services for all residents in Medwav

Supporting a safer, healthier and more secure community in Medway by promoting active lifestyles and by reducing the risk of death, injury or ill health or being the victim of crime

2.4 What we want to achieve

The Transport Strategy will support Medway's ambitious plans by:

- Ensuring highway infrastructure is maintained to the highest possible standard within the available resources
- Efficiently managing and improving Medway's local highway network to ensure reliability of journey times, this works in conjunction with the Network Management Plan (NMP)
- Ensuring public transport becomes a realistic alternative choice to the private car
- Contributing to better health by encouraging walking and cycling and by improving accessibility to key services
- Ensuring that people can move around safely in Medway

2.5 What we will do

The strategy sets out a framework of actions delivered through a set of five Transport Objectives. These actions will significantly contribute to the plan priorities. Whilst the strategy includes a wide package of measures, key interventions will focus on:

1. More efficient management of the highway network and car parks, together with highway improvements that focus on congestion and air quality hotspots, thereby improving the reliability and environmental impact of the transport network with collaborative working alongside the NMP.
2. Working in partnership both locally and sub-regionally to deliver step change improvements to encourage more people to use public transport. Outputs will focus on delivering better service quality, punctuality, and information.
3. Effective highway maintenance, including the Medway Tunnel. This is a vital highway asset that supports the entire infrastructure in the area, including a diversion route for the M2 motorway, which is responsibility of Highways England. Upgrades have recently been completed and full surveys and safety audits are in place of the Medway Tunnel.
4. Encourage active travel by supporting students to access the learning quarter by sustainable travel modes, expanding the cycle network, improving accessibility to bus services for people with mobility difficulties, improving public rights of way and delivering the Green Grid and coastal Access projects.
5. Improve travel safety by road safety interventions, incorporating highway schemes, education, publicity, promotion and enforcement, safer routes to school projects and public safety initiatives.

3.0 Maintaining Network Assets

The highway assets are managed by associating all items to one of two networks, National Street Gazetteer (NSG) or Pavement Management System (PMS). The updating of the NSG network is well established and maintained following the procedure outlined in 3.1. The PMS network is held within Medway Council's Asset Management System (MCAMS). The PMS network is used in conjunction with a review of our annualised budgets to produce a three to seven year programme. Asset Valuation and the National Indicators (NI) are calculated in MCAMS.

3.1 National Street Gazetteer Updating Procedure

The updating of the NSG is well established and the procedure effective.

Maintenance of the Local Streets Gazetteer is conducted within Highways. The maintenance can include:

- Adding new streets
- Correction of errors
- Entry of associated street data

The Local Street Gazetteer is provided to the National Hub on a monthly basis. The Local Land and Property Gazetteer custodian within Medway Council also adds land and property details which are also updated and provided on a monthly basis to the National Hub. New Streets are digitised, checked and re-aligned in accordance with as-built drawing and Ordnance Survey (OS) Mastermaps.

Notifications of Section 38 adoptions and re-classifications are issued with the relevant data and maps, which are then used to make changes in Symphony iManage and all other GIS systems.

Section 38 adoptions are managed and contribute to the NSG updating.

All new streets created in Symphony are imported within MCAMS through the Gazetteer Import Agent.

3.2 Pavement Management System Network (UKPMS)

The PMS network is contained within the MCAMS. Associated with this network is a breakdown of footway and carriageway construction and quantified inventory information. This breakdown of inventory is described in more detail in sections 7.2 and 7.1 respectively.

The PMS network is maintained by Highway Management and provided to Consultants. The consultant will provide the spatial PMS network to the Contractor for completion of condition surveys (as described in section 7.1 and 7.2).

In 2013 the PMS network was realigned and corrected to mirror the NSG network and known adopted highway and footway sections.

Ongoing maintenance of the network will be completed by the Highway Management upon changes to the NSG network highlighted after its successful submission to the national hub.

Ongoing maintenance and control of amendments is essential for the successful completion of data processing from condition survey returns. The data will also be subject to audit due to requirements to use the network as a basis for gross replacement costs, depreciation and submission to Central Government and the Chartered Institute for Public Finance and Administration (CIPFA).

3.3 Inventory Updating Procedure

An inventory survey has been conducted and during this time samples of data were quality checked by Officers. This ensured that the collected data was robust and thorough. The survey was completed in September 2008. Asset data was and is still stored and managed in MCAMS. This was completed through the use of import routines which is also provides a health check as to the accuracy of the surveyed data. The spatial data associated with this can be viewed within the Mapping Module in MCAMS.

To ensure that each asset inventory group is updated accordingly, an Asset Champion has been appointed for each asset group they have responsibility over. Table 1 shows how each inventory group item is broken down to each Asset Champion. The inventory is kept up to date with ensuring that the Highways Management is notified of any changes or additions by the Asset Champions.

Inventory Item	Asset Champion
Bollards Non-Illuminated	Engineer, Highways Inspections
Bus Shelters	Engineer, Programmed Maintenance
Car Parks	Car Parks and Enforcement Manager
Carriageway	Engineer, Planned Maintenance
Crash Barriers	Engineer, Programmed Maintenance
Drainage	Engineer, Programmed Maintenance
Footway	Engineer, Planned Maintenance
Illuminated Assets	Street Lighting Engineer
Intelligent Traffic Systems	Traffic Manager
Non Illuminated Street Furniture including Signage	Engineer, Highways Inspections
Pedestrian Guard Railing	Engineer, Highways Inspections
Road Markings	Engineer, Programmed Maintenance
Soft Landscaping	Head of Greenspaces Services
Structures and Medway Tunnel	Engineer, Structures and Tunnel Manager
Trees	Head of Greenspaces Services

Table 1: Medway Asset Inventory Items and Asset Champions

All additions and removals to the street furniture and drainage network will be completed by the Highway Management Team as set out in the reporting structure in section 4. No other Officers will have the permission to do so apart from the Asset Champion who has responsibility of updating the location and attribute information for their respectable inventory item.

Any changes to the carriageway and footway network will be completed in the PMS network by Highway Management. Changes will be made to align with the NSG mapping and surfacing changes. Again, only the Highways Management Team will have permissions to update this information.

There are a number of stakeholders who promote or authorise changes to the highway infrastructure. These would include developers, Projects (New Build), Adoptions, Integrated Transport, Street Lighting, the Highway Maintenance and Highway Inspectors. In order to capture changes as they occur, each stakeholder will use the pro forma shown in Appendix A.

It is recognised that the procedure will not necessarily capture all changes; it is still heavily reliant on a proactive process for all Asset Champions. It is therefore proposed that update surveys will need to be undertaken to ensure asset data is up to date.

When the location of a new development is advised and the Highway Management Team have agreed a street name, a Unique Street Reference Number (USRN) is allocated and approximate co-ordinates are provided. The street is then entered in the Street Gazetteer and MCAMS as a potentially adopted highway under the NSG Additional Street Data Record or Type 61 detail.

At adoption the Type 61 detail is adjusted before finalising.

When Ordnance Survey provides digitised maps of the new development, the detail is loaded onto Cadcorp mapping system and co-ordinates are amended as necessary. The Highway Management Team adds Type 62 (reinstatement categories) and Type 63 (special designations) as advised by the Traffic Manager.

3.4 Reporting Structure for Asset Champions

The Asset Champion reporting structure for the highway assets is shown in figure 3, section 4.

3.5 Network Maintenance Aspirations

Maintain National Street Gazetteer award of gold standard.

Hold a complete fully audited database of highway assets including photographs and geographical locations.

Implement lifecycle planning toolkits to ensure that maintenance works are carried out economically and efficiently.

4.0 Reporting Structure

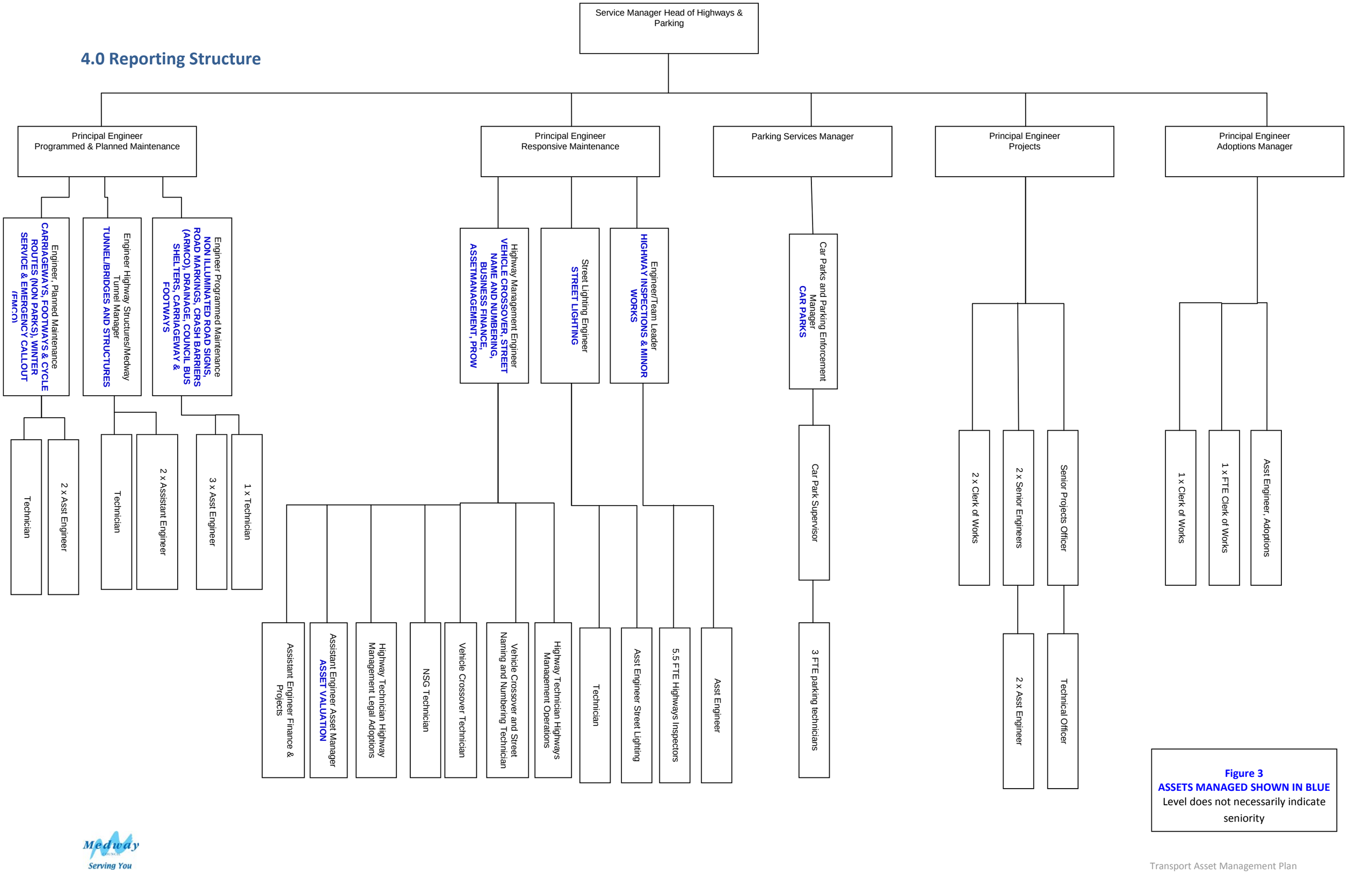

Figure 3
ASSETS MANAGED SHOWN IN BLUE
Level does not necessarily indicate seniority

5.0 Network Maintenance Hierarchy

'A network hierarchy is the foundation of a coherent, consistent and auditable maintenance strategy' and is 'crucial to good asset management in establishing levels of service' (Well-maintained Highways, 2005).

Table 2 shows the maintenance hierarchy categories for both carriageways and footways in Medway. Each section of carriageway and footway has been assigned a maintenance hierarchy and will affect the level of maintenance and frequency of inspection.

Hierarchy Category	Description	Code of Practice Equivalent	
		C/Way	F/Way
H1 High Use Areas	Main shopping areas, pedestrian dominated streets, and places where a number of people congregate	N/A	1(a)
H2 Main Routes	Medway's strategic "A" road network, routes used for abnormal loads and secondary shopping areas	2	1
H3 Secondary Routes	"B" class roads, roads forming part of major gyratory systems & emergency service corridors	3a	1
H4 Access Routes	Interconnecting roads not included in Groups H2 & H3 and routes between villages	3b	2
H5 Spine Roads	Spinal roads through residential and industrial areas & priority paths	4a	3
H6 Local Roads	Residential roads, service roads, cul-de-sacs and minor country lanes	4b	4

Table 2: Medway Maintenance Hierarchy for Carriageways and Footways

Where conflict of hierarchy between carriageway, footway and/or cycle route arises, the highest hierarchy of the present assets is applied to all in the considered section. For instance, if a high use footway is adjacent to a lower use carriageway, the carriageway is assigned to the same hierarchy as the footway.

Much of the cycle route network is on either carriageway or footway and is therefore maintained as part of that asset. As cycle route use is generally low in comparison to other asset users; the hierarchy is given by location in Table 3 as maintenance is most likely to be dictated by the adjacent carriageway or footway. Maintenance of off-carriageway/footway cycle routes is addressed in Section 7.5 Cycle Routes.

The maintenance hierarchy has been established through upholding the recommendations R8.5, R8.6 and R8.7 from the Code of Practice 'Well-maintained Highways' (2005). The hierarchy has taken into account current and expected traffic characteristics as well as the use, giving regard to the Local Transport Plan and Rights of Way Improvement Plans (2007). The maintenance hierarchy is also compatible with Network Management requirements. The hierarchy takes into consideration local circumstances not necessarily reflected in the road classification.

Category	Description
A	Cycle routes forming part of the Carriageway
B	Cycle routes forming part of the Footway
C	Off Highway cycle routes

Table 3: Medway Cycle Route Hierarchy

Initially, the aim of this hierarchy was created to include the winter service network but there were too many variations to accommodate. This was due to the fact of a high number of minor bus routes and hills which fall within H4 or H5 categories that are salted as main routes. Therefore, the winter service hierarchy is maintained as a separate network.

6.0 Safety Inspections

Inspectors carry out routine and responsive inspections of all publicly maintained highways in Medway. This is to ensure that defects are noted and that any appropriate emergency or urgent action is taken. Inspectors are also required to issue instructions for any minor work required.

Highway Inspectors are the "custodians" of the highways in that they will take the initial action against any person(s) or organisation, who misuse, damage, obstruct or carry out unauthorised or dangerous activity on the highway. These activities on the highway must be in contravention of the Highways Act (1980), Local by Laws and Chapter 8 of the Traffic Signs Manual (2009) and/or Council Policy.

Maintenance activity will be directed firstly toward safety then to prevention of damage to the highway; appearance is of secondary importance when prioritising work.

The Manual for Highway Inspection Activities (Appendix B) details the duties and responsibilities of the Highway Inspectors and should be read in conjunction with the "Well-Maintained Highways" Code of Practice (2005) for Highway Maintenance Management (7 Reference Documents).

6.1 Inspections

The Highways Inspectorate is part of the Highways Responsive Maintenance Team lead by the Engineer Team Leader who reports to the Principal Engineer Responsive Maintenance.

Inspections are walked unless the footway and carriageway can be clearly and safely assessed from a moving vehicle. Where the inspection is made from a vehicle it can be conducted by a team of two; one driving while the other recording the assessment.

The inspections are conducted in daylight.

The inspectors' attention is on all highway assets including carriageway, footway, verges, street furniture, markings, signs and street lights. Standards of acceptability are detailed to the inspectors in the Highway Inspectors Manual.

The Highway Inspectors check only the safety of the street column and day burning lamps which are reported to the Street Lighting Engineer. Medway's current street lighting contractor undertakes night-time checks for faults including outages, flashing, flickering and inspection doors.

6.1.1 Inspection Checklist

Regular safety inspections of the highway are undertaken in accordance with the inspection regime, detailed in the Highway Inspectors manual. With hazards, defects, damage, obstruction, misuse of all parts of the highway and street furniture are monitored and the necessary action taken. The inspection checklist is in the Inspectors' Manual.

These regular inspections will incorporate formal Safety Inspections at a minimum frequency set out in Table 4 for each class of highway.

Inspectors also have powers of enforcement with regard to:

- Obstructions – to ensure the highway is clear of obstruction in accordance with the Highway Act 1980
- Advertising – reporting of unauthorised advertising on the highway
- Vegetation – ensuring vegetation is not obstructing, or is likely to obstruct, free passage of the highway
- Vehicle Crossings – identifying apparent misuse of the footway or verge by vehicles regularly crossing to access property without the provision of properly constructed vehicle crossings
- Unsafe Practices – ensuring that works on the highway are conducted safely and in accordance with Chapter 8 of the Traffic Signals Manual (2009) and 'Safety at Street Works and Road Works' (2013)

Checks are required at specific locations in Medway where the highway is fully or partially closed to traffic and the areas kept secure by gates or barriers. Inspectors must monitor security barriers and locks, replace any that are missing or have broken and report damage or any interference. Highway Inspectors must monitor security barriers and locking mechanisms for any interference or damage.

6.1.2 Inspection Routes

The section routes are established and listed by ward in the Highway Inspectors Manual and Medway Council's Asset Management System (MCAMS). Each route has been listed with the required window/date for inspection required in Table 4. The routes are listed in Appendix B in the Highway Inspectors Manual.

Public Rights of Way (PRoW) are included as they constitute part of the highway and are therefore subject to the same legislation. This does not include Rights of Way created by excluded areas project, which are subject to response inspections, like for instance, alleyways.

6.1.2.1 Medway Tunnel

A daily driven visual inspection is carried out of the east and west bound bores of the Medway Tunnel. This includes the slip roads on and off at Chatham Maritime and the main A289 access roads on both sides of the Medway River. This is as far reaching as the Upnor Roundabout to the west and the Gillingham Gate Interchange in the east. A special report sheet is completed for this route and forwarded to the Medway Tunnel Manager.

6.1.3 Inspection Frequencies

The frequency of inspection is determined by the hierarchy assigned to road, with both carriageway and footway having the same frequency.

The highway inspection frequencies are shown in Table 4.

Where designated cycle routes are part of the public highway network, they will be included as part of the regular inspections; reporting the cycle route as part of their normal highway inspection, noting condition and ordering repairs to any defects observed.

The frequency of inspection will be the same as for the adjoining highway feature for off highway routes the inspection regime will be carried out annually.

Where cycle routes traverse parks of open spaces the Greenspaces Team are responsible for inspection and maintenance.

Category	Description	Inspection Frequency	
		Road	Path Cycle Route
H1 High Use Areas	Main shopping areas, pedestrian dominated streets, and places where a number of people congregate	Weekly	Weekly
H2 Main Routes	Medway's strategic "A" road network, routes used for abnormal loads and secondary shopping areas	Monthly	Monthly
H3 Secondary Routes	"B" class roads, roads forming part of major gyratory systems & emergency service corridors	Monthly	Monthly
H4 Access Routes	Interconnecting roads not included in Groups H2 & H3 and routes between villages	Quarterly	Quarterly
H5 Spine Roads	Spinal roads through residential and industrial areas & priority paths	Quarterly	Quarterly
H6 Local Roads	Residential roads, service roads, cul-de-sacs and minor country lanes	Annually	Annually
PRoW	Public Rights of Way		Annually
PRoW	PRoW's created by excluded areas project and alleys/footpaths		Response

Inspection Tolerances					
Weekly +/- 1 day	Monthly +/- 1 week	Quarterly +/- 2 weeks	6 Monthly +/- 1 month	Annually +/- 1 month	Response Reactive Action

Table 4: Medway Inspection Frequencies by Hierarchy

6.1.4 Public Defect Reports

In addition to route inspections, inspectors will receive service requests to attend sites in response to complaints and reports of damages. The action required from the inspectors is similar to that required for a routine inspection in that the defect needs to be assessed for the risk it poses to the general public and the appropriate action taken as described in 6.2.1.

Responsive inspections are swiftly undertaken in order to ensure that a full response can be provided to the customer in less than ten days as promised in the customer 'charter'.

Replying to complaints and enquiries following inspections are answered and shall always be recorded on MCAMS for future reference. Replies to complaints or enquiries can be held due to other team involvement within Medway Council who are needed to resolve an issue.

6.1.5 Condition Inspections

The Inspectors will complete a visual condition survey of the footway and carriageway sections for annually inspected roads. This will be an overview survey and summarised under the observations Red, Amber and Green (RAG). These inspections are completed at the same time as the safety inspections. This information is recorded in the inspection batch screen within MCAMS. The chosen observation is based upon structural condition of the section as a whole. Therefore, a Red would indicate the need for the footway or carriageway to be passed to planned maintenance to assist in future scheme generation. These RAG reports are extracted on a batch, officer or street by street basis as and when required.

These condition surveys carried out by the Highway Inspector are used in conjunction with the UKPMS data to provide a three to seven year works programme.

6.2 Defects

6.2.1 Defect Reporting

Inspections are recorded in the Inspectors individual log/diary but the main record is entered into MCAMS.

Once the defect has been assessed for level of risk in accordance with Table 5 and then categorised; repairs are arranged by the inspectors as shown in Table 6. Repairs outside of the remit of the Inspectorate will be referred to the appropriate team/officer for action. Inspectors will normally manage all minor work of a value up to £3000 to include repairs to surface materials, non-illuminated bollards, pedestrian guardrail, furniture etc. Emergency works are logged with the Term Contractor's Emergency Centre as soon as possible after identifying the potential hazard. Supporting any written instructions are submitted as soon as possible after the event but at the latest by the following working day.

6.2.2 Defect Repairs

The risk factor is determined from use of the risk matrix in Table 5 by rating the impact, which is the extent of damage likely to be caused if the risk became an incident, and the probability, which is the likelihood of highway users encountering the risk.

		Probability		
		Improbable (1)	Possible (2)	Likely (3)
Impact	Negligible (1)	1	2	3
	Low (2)	2	4	6
	Medium (3)	3	6	9
	Major (4)	4	8	12

Table 5: Medway Defect Risk Grading Matrix

The assessment of impact is gauged as follows:

- Major - a threat of loss to life or limb, or serious damage to a vehicle,
- Medium - actual bodily harm, e.g. broken bones or lacerations,
- Low - basic inconvenience only

The appropriate response to each level of risk is shown in Table 6.

Level of Risk	Defect Priority	Maximum Response Period
1 - 3	Priority 3	28 days
4 - 6	Priority 2	3 days
8 - 9	Priority 1	24 hours
12	Emergency	2 hours

Table 6: Medway Defect and Response Categories

There is also a Priority 4 which requires repairs to be carried out 'at an agreed specified date'. This is applied to non-urgent repairs which can be carried out with other programmed works to utilise booked road space and any necessary traffic management. The repairs may have been originally Priority 3 or permanent repairs replacing temporary Priority 1 or 2 repairs.

6.3 Claims Reporting

Claims made against Medway Council as the local Highway Authority are handled in accordance with Medway's Claims Investigation Procedure. This procedure is processed by the Risk Management and Insurance Department.

Claims for financial compensation against Medway Council Highways take two forms:

- Damage to property, which is usually vehicle damage
- Personal Injury

The claims are directly made by members of public and companies or indirectly by a solicitor on behalf of a member of the public or a company.

When a request to make a claim for compensation is received, it is logged via Medway's Customer Contact and passed to Risk and Insurance for recording on their Local Authority Claims Handlers System (LACHS). Risk and Insurance then forward an Incident Report Form (IRF) to the claimant and when the completed IRF is returned, the claim gets logged into Medway Council's Asset Management System (MCAMS) and assigned to an Insurance Officer to investigate the necessary Highway records.

The Insurance Officer within the Risk Management and Insurance department is responsible for compiling the Highways Report and for co-ordinating any required response to the claimant's solicitors. The Insurance Officer may require assistance and advice from engineers, their line managers and head of department. The report consists of a standard summary sheet detailing the claimant, the alleged defect, confirmation as to whether the defect was known to the Council prior to the incident, together with any action that has been taken as a result of the alleged defect. On the basis of the information collated, a decision on liability will be determined and the claimant notified.

To ensure that a fair and balanced judgement is made in assessing the validity of any potential claim, the principles laid out in the Woolf Report (1996) have been adopted by Medway Council. The objective of the report protocol is to, wherever possible; put both claimant and defendant in a position where they may be able to settle cases fairly and early without litigation. The protocol established a 45 day period for defendants to investigate and respond, with an initial acceptance or denial of liability, from receipt of a completed IRF or Solicitors Letter of Claim.

Part of the protocol identified the need for better pre-action investigation by both sides. Medway Council have adopted the standards of fast track disclosure set down in the Woolf Report (1996) as the basis of their claims investigation. The standard pre-disclosure list details the information that is provided as part of the investigation for a twelve-month period prior to the incident date.

The findings of the investigation are given in the Highways Report and are the result of the following searches:

- A search of MCAMS where reports of the alleged defect might be logged for a (minimum) twelve month period prior to the incident

- A search of all orders raised in the street relating to the incident location/defect for the twelve month period prior to the incident
- Highways Inspections should be searched for any references to the incident location. Hardcopies of the last four inspections must be included in the report
- The Street Works Register should be searched for any work that has taken place at the location that may have caused damage to the fabric of the Highway

Where the claimant's representatives wish to pursue the claim through the Courts, the case will be passed to the Council's Claim Handlers who liaise directly with the external Solicitors who represent the Council. Claims Handlers use data miner to check for fraudulent claims.

Highway Officers are required to make witness statements and attend court to give evidence where cases are progressed to a court hearing where they are supported by the Solicitors representing the Council.

6.4 Safety Inspections Aspirations

To maintain the network in terms of safety to the best possible standard for all users. This will include maintaining an up to date regime of safety inspections and an efficient and effective response to reports from members of the public.

To monitor the condition of the network, in terms of future maintenance and work closely with the Maintenance Team in providing information on asset condition, with respect to future schemes. This includes the use of the RAG condition survey and MCADAMS.

To minimise the risk to all network users of sustaining an injury or damage to a vehicle when using the network legally.

7.0 Asset Groups

The assets that make up the highway have been grouped under fourteen headings plus two sections (Adoptions & Projects) each with a designated manager responsible for their condition and maintenance. The Asset Champions and their teams have been identified together with a brief description of the assets they are responsible for. Also detailed are the maintenance operations carried out whether reactively, routinely or programmed.

7.1 Carriageway

7.1.1 Asset Champion

The Carriageway Asset Champion is the Engineer Planned Maintenance as shown in figure 3, section 4.

7.1.2 Asset Group Inventory

The carriageway network totals 835km of publicly maintainable roads which are categorised and shown in Table 7. These figures are based upon the National Street Gazetteer (NSG). Not included in these figures are 80km of private roads that are not maintained by Medway Council and 25km of prospectively maintainable roads.

Classification	Length
A	103km
B	32km
C	85km
U	615km

Table 7: National Street Gazetteer Carriageway Network

7.1.3 Routine Cleansing

There is no requirement to produce condition surveys for street cleansing. The following system is currently employed by the Waste Services department as a basis for internal cleansing routines.

The cleansing operation must be both frequency and responsive based. Therefore, any site which falls below the Code of Practice (CoP) on Litter and Refuse (Defra, 2006) standard has to be rectified on request. The rectification times are shown in Table 8. There are four grades of litter and refuse which are shown in Table 9 and detailed pictorially in the CoP on Litter and Refuse (Defra, 2006).

Type of Zone	High Intensity of use	Medium Intensity of use	Low Intensity of use	Special Circumstances
Nature of the Area	Areas which, through intense pedestrian and/or vehicular movements, are prone to fluctuations in litter and refuse and require both high levels of monitoring and frequent cleansing	Areas affected by moderate levels of pedestrian and vehicular activity and therefore less prone to fluctuations in litter and refuse, usually situated outside centres of retail or commercial activity, but used regularly by members of the public	Areas subject to low or infrequent levels of pedestrian and vehicular activity and therefore less prone to fluctuations in litter and refuse, often located in more rural areas	Types of land where issues of health and safety and reasonableness and practicability are dominant considerations when undertaking environmental maintenance work (includes legislative restrictions for all land types)
Road Type	Intense pedestrian or vehicular movements on main roads, publicly accessible transport interchanges and primary and secondary retail areas	Moderate pedestrian or vehicular movements on main roads, publicly accessible transport interchanges and primary and secondary retail areas	Low or infrequent pedestrian or vehicular movements on main roads, publicly accessible transport interchanges, primary and secondary retail areas, rural roads and other highways	Carriageways, verges and central reservations of motorways and trunk roads
Maximum response time to restore to a Grade A if it falls below a Grade B	Half a day - this means by 6pm if reported before 1pm or by 1pm the next duty day if reported between 1pm and 6pm on the previous day	One day - this means by 6pm the following evening	14 days	28 days or as soon as reasonably practicable

Table 8: Medway Carriageway Cleansing Regime

Grade	Grading Principle
A	No litter, refuse or detritus
B	Predominately free of litter, refuse and/or detritus apart from some small items/light scattering
C	Widespread distribution of litter, refuse and/or detritus with minor accumulations
D	Heavily affected by litter, refuse and/or detritus with significant accumulations

Table 9: Medway Cleansing Grading Principles

7.1.4 Winter Service

The Senior Engineer for Planned Maintenance is responsible for the provisions of Winter Maintenance across the Authority.

The Winter Service Policy and Plan for 2010/17 has been published. The Policy states the statutory duties of Medway Council and the standards it will maintain. Medway objectives are given under the headings of Salting and Snow Clearance.

The Policy and Plan also explains the monitoring of weather reports, how winter maintenance action is determined and the contractor is managed. It goes further to explain how Medway handles with severe weather conditions, the provision of salt bins, budget allocations and publicity of winter maintenance procedures.

7.1.5 Planned Maintenance

Planned Maintenance is based on condition survey data held within a module of Medway Council's Asset Management System (MCAMS) formally known as MCADAMS, or Medway Council's Asset Deterioration And Management System. Engineer assessments also go towards formulating the condition surveys which are commissioned and conducted as set out in Table 10 and are planned on MCADAMS.

Carriageway Classification	Survey Type	Coverage	Frequency
A Including H2 hierarchy	SCANNER	100% of network surveyed in opposite directions in alternate years[1]	Annual / 2 Year Cycle
B Including H3 hierarchy	SCANNER	100% of network surveyed in opposite directions in alternate years[2]	Annual / 2 Year Cycle
C Including H4 hierarchy	SCANNER	100% of network surveyed in one direction each year[2]	Annual / 1 Year Cycle
Unclassified Including H5 & H6	CVI	50% of network surveyed in opposite directions in alternate years[3]	Annual/2 Year Cycle
Unclassified Including H6	ANCILLARY ASSET SURVEY	100% of yearly safety inspections H6 (internal survey)[4]	Annual
A, B & C	SCRIM	100% of network in early or mid or late season[5]	Annual / 3 Year Cycle

NOTES:
[1] National Indicator 130-01 requirement
[2] National Indicator 130-02 requirement
[3] The requirement for 2015/16 is 50% of the unclassified network and this will be reduced to 25% from 2016/17 onwards. Full network coverage is required over a four year period
[4] Highway Inspector Condition Assessment is a bespoke Medway visual assessment tool for rating carriageway and footway
[5] The survey is conducted in a different SCRIM season on a three year revolving programme
[5] Others on defined network as agreed with the Asset Champion

Table 10: Medway Carriageway Condition Surveys

Each year Medway Council also receives numerous requests for the resurfacing of roads and pavements. These requests are considered by an experienced highways engineer who visits each site to carry out an assessment of the road or pavement condition. This site assessment takes into account all visual defects and those previously recorded by condition surveys. Medway Council also

consider any other locations, which had 'missed the cut' in previous years and those which are shown, by condition surveys, to be in urgent need of repair.

Sections requiring maintenance are selected and prioritised according to the condition index calculated by MCADAMS. Schemes are designed and priced then prioritised and ranked in order.

Defective roads that are flagged as being in need of repair are further prioritised for maintenance expenditure into routes prior to a programme being agreed by Senior Officers and Councillors. This will:

- Assist in the delivery of the objectives of the Local Transport Plan (LTP) and thereby help provide high quality pedestrian, cycle and bus routes. For bus routes this includes maintaining and upgrading bus stops along the route
- Support the road hierarchy. Those routes intended to carry the highest volumes of traffic, particularly Heavy Goods Vehicles (HGV)
- Target road safety problems, including considering Local Safety Scheme expenditure with maintenance expenditure to ensure the delivery of integrated schemes that offer best value, particularly with resurfacing works, to minimise risk and to protect the authority against public liability claims
- Maintain the integrity of the structure

Scheme listings are submitted on an annual basis to the New Roads and Street Works (NRSW) Co-ordination Meetings held quarterly and chaired by the Traffic Manager. These meetings enable the schemes to tie in with other potential works being carried out on the same sections of highway, programme of works to be updated and other Asset Champions who need to be informed.

7.1.6 Skid Policy

The Skidding Resistance Policy is being reviewed and will be published separately.

7.1.7 Carriageway Asset Aspirations

From 2014/2015 Medway have been producing a five year programme of planned road resurfacing schemes utlising MCADAMS, with an aim to extent to a seven year programme. From this a prioritised list of schemes is produced which allows timely uses of treatments.

To extend the life of the carriageway by utilising current methods and consider any new developments in resurfacing which will prelong the life further.

To maximise efficiency in resurfacing so that all stakeholders benefit, with less disruption due to roadworks, reducing the need to revisit and repair and an overarching aim in reducing costs.

7.2 Footway

7.2.1 Asset Champion

The Footways Asset Champion is the Engineer Planned Maintenance who is also the manager of the Carriageway Asset. Figure 3 shows the team structure in section 4.

7.2.2 Asset Group Inventory

Table 11 gives a breakdown of footway inventory within Medway Council's Asset Management System (MCAMS). This is used as the basis of condition surveys and asset valuation.

Pavement Type	Footway Hierarchy	Kilometres (Km)
Bituminous	1A	10.809
	1	120.386
	2	100.547
	3	2.322
	4	810.99
Concrete Modular	1A	8.23
	1	17.576
	2	2.108
	3	0.603
	4	26.897
Other	1A	2.075
	1	2.439
	2	2.744
	3	0.046
	4	9.945
Total		1117.72

Table 11: Medway Footway Inventory Breakdown

7.2.3 Routine Maintenance

All footways are inspected and defects reported and categorised according to the regime detailed in Section 6: Safety Inspections.

Cleansing is carried out as detailed in 7.1.3 similar to Carriageways.

7.2.4 Winter Service

Winter Service Policy and Plan has been published and is explained in 7.1.4.

In addition to the Winter Service Policy and Plan, subject to Council approval, a snow warden scheme will be implemented in Medway. The scheme will aim to involve residents of Medway to volunteer as snow wardens who shall play a vital role in clearing snow from paths and residential roads during the winter. During wintry conditions, the snow wardens will be asked to clear and treat footpaths in pavement sections that have been allocated to them.

7.2.5 Reactive and Planned Maintenance

Minor repairs are carried out in response to inspector reports and public requests for service through MCAMS which issues instructions to the term maintenance contractor for completion. As stated in Section 6.2.1, Inspectors will normally manage all minor works of a value up to £3000.

Where repair costs are higher than £3000, a maintenance scheme is developed and included in the scheme listings that are presented to the Stats Co-ordination Meeting, held quarterly together with carriageway schemes.

Planned maintenance is based on condition survey data held in Medway Council's Asset Deterioration And Management System (MCADAMS) and Engineer assessments. Condition surveys are commissioned and conducted as set out in Table 12 and are planned on the United Kingdom Pavement Management System (UKPMS) network using Footway Maintenance Survey (FMS).

Footway Hierarchy	Survey Type	Coverage	Frequency
All	FMS	25% of network surveyed[1]	Annual/4 Year Cycle
Unclassified Including H6	Inspector Assessment	100% of yearly safety inspections H6 (internal survey)[2]	Annual
NOTES: [1] Will be ongoing process from 2014 onwards [2] Highway Inspector Condition Assessment is a bespoke Medway visual assessment tool for rating carriageways and footways			

Table 12: Medway Footway Condition Surveys

7.2.6 Vehicle Crossing Procedure

The Highways Act 1980 (Section 184) allows for the highway authority to construct vehicle crossings on behalf of householders. An application form known as a VC1 is sent in response to enquiries for vehicle crossings by the customer contact administration hub. A VC1 application is passed to the Term Maintenance Contractor to carry out the works on behalf of Medway Council.

When a completed VC1 form is returned to the Highways Department, checks are arranged to determine the –

- Road Classification
- Conservation Status
- Whether the property is ex-council owned to establish whether covenants exists;
- As well as establishing whether any Housing or Greenspace land is to be crossed

The application is logged in Medway Council's Asset Management System (MCAMS) and all documentation scanned and linked to the enquiry. The site will then be attended, where upon an on-site assessment is conducted, ensuring the application meets the criteria.

If a tree exists, it is measured to determine the root protection area and if this falls within the construction area for the vehicle crossing, the application is refused and the customer is advised to seek advice from the Council's Tree Officer as to whether it can be removed. If the criterion is met, the measurements are entered into a pre-determined matrix to calculate the cost of construction and this will then be provided as a formal quotation to the applicant.

Applications for the works to be carried out from an approved Private Contractors listed by a Medway Council are known as a VC2 application. These are contractors where Highway Management hold copies of their Public Liability Insurance details, together with their New Roads &

Street Works Accreditation and of which are all part of the Medway Council Fair Trader Scheme, audited by Trading Standards in conjunction with Highways.

Stat maps are provided to contractors prior to commencement of works. Traffic Management Act (TMA) Noticing for VC1 applications is the responsibility of the Highways Term Maintenance Contractor, whereas Noticing for VC2 applications is a two-step process where the Contractor notifies the Highways Management Team of their intended commencement date and the Technician raises the TMA Opening Notice on their behalf in MCAMS, following by a Closing Notice when works are completed. All TMA Notices for VC2 applications are chargeable and an invoice is sent to the Contractors on a quarterly basis.

All preliminary inspections are carried out followed by a further inspection at excavation and a final one at reinstatement, ensuring that all Chapter 8 regulations of the New Road and Street Works Act (NRSWA)are being adhered to. The Traffic Management Department will advise of any failings emanating from their own inspections.

7.2.7 Footway Asset Aspirations

From 2014/2015 Medway have been producing a five year programme of planned pavement resurfacing schemes utlising MCADAMS, with an aim to extent to a seven year programme. From this a prioritised list of schemes is produced which allows timely uses of treatments.

To extend the life of the footway by utilising current methods and consider any new developments in resurfacing which will prelong the life further.

To maximise efficiency in resurfacing so that all stakeholders benefit, with less disruption due to roadworks, reducing the need to revisit and repair and an overarching aim in reducing costs.

7.3 Drainage

7.3.1 Asset Champion

Drainage is managed by the Senior Engineer, Programmed Maintenance as shown in figure 3 within section 4.

7.3.2 Asset Group Inventory

Highway drainage is designed to prevent accumulation of water on carriageways, footways and cycle routes.

7.3.3 Maintenance Regime

There are no statutory or local indicators for Highway drainage systems therefore the local standards of maintenance are given below. The consequences of failure must be managed according to the level of risk exposed. This will be dependent on network hierarchy and the susceptibility of the area to flooding.

Gullies - 33,867 are cleansed once on an annual basis between the months of April and March. However gullies on the A and B road network are cleaned on a six monthly rolling regime. This enables gullies to be in the best condition to handle the winter water levels.

Problematic gullies, e.g. on the tree lined routes will be recorded within Medway's Asset Management System (MCAMS) and given additional visits as required.

Flap valves – There are 161 known flap valves within the authority of which 83 are maintained by the local authority or private bodies. The Internal Drainage Board, Environment Agency and Southern Water maintain the remaining flap valves.

Flap valves maintained by the authority are inspected and maintained on an annual basis.

Roadside Ditches – 156 known ditches are cleaned and excavated on a reactive basis as many are still being discovered due to unknown locations.

Culverts under roads – Maintained as required in response to public service requests or inspector reports.

Soakaways – All 160 soakaways are cleaned every 24 months. Individual soakaways are cleaned on a reactive basis when required.

The Council has published a Local Flood Risk Management Strategy which and is a Lead Local Flood Authority and has produced this strategy in accordance with the Flood and Water Management Act 2010. This strategy is interlinked with the clearance of Highway Drainage systems with the use of intelligence gathering over the last four years. The strategy entails the use of high level pluvial modelling which is not just based on Seasonally Adjusted Annual Rates (SAAR) but also slope, aspect and other catchment characteristics to model surface water. Local risks such as surface water, groundwater, ditches and streams are highlighted by the model.

This information is gathered and used to give highlighted areas additional visits and determine the cause to try and prevent further flooding. The strategy is used to manage local flood risk but it cannot always be possible to prevent flooding.

7.3.4 Drainage Asset Aspirations

To continue intelligence gathering on local flood risks areas to aid engineers in investigation and prevention of drainage issues.

To continue gathering historic data on all of the local authorities gullies, soakaways and flap valves.

To continue making advancements in identifying and recording culverts and roadside ditches to be input into Medway Council's Asset Management System.

Continue towards improved working relationships with external bodies (Internal Drainage Board, Environment Agency and Southern Water) to assist with joint projects.

7.4 Street Lighting

7.4.1 Asset Champion

The Street Lighting Team is part of the Highway Responsive Maintenance managed by Principal Engineer, Responsive Maintenance as shown in the structures chart found in figure 3, section 4.

7.4.2 Asset Group Inventory

The assets managed by the Medway Street Lighting Team are given in Table 13. The predominant assets are street lights with over 26,000 items. They are mainly mounted on mild steel posts (55%) with the remainder either on concrete (23%) or aluminium (20%) or pole/wall mounted (2%). The Street Lighting Team is also responsible with maintaining the Medway Tunnel lighting which is explained in section 7.4.3.2.

Street Lighting Assets	Street Lights	Illuminated Signs	Illuminated Bollards	Refuge Island Indicator	Feeder Pillar
Quantity	26271	1846	1261	324	196
Street Lighting Assets	Subway Fitting	Belisha Beacon	School Wig-Wag	Cast Bollards	Non Lit Bollards
Quantity	168	93	36	1	804

Table 13: Medway Street Lighting Asset Inventory

Almost half the total sock is less than 20 years old at 46% with 22% over 20 years, 22% over 30 years old with 10% 40 years.

Street Lighting asset data and information is held in Medway Council's Asset Management System (MCAMS) but location can also be accessed through the CADCorp GIS which is a mapping software system. Lotus Approach is used to monitor District Network Operation (DNO) works including mains faults. Lighting data is continuously updated by the Street Lighting Team from a single lamp wattage change to a full lighting scheme. Some attribute data is automatically updated by MCAMS, e.g. when a lamp is changed, the system will update the attribute that records the date the lamp was replaced.

MCAMS is used to record asset information and monitor contractor performance together with site checks. These checks are carried out by the Street Lighting team at night with performance assessments on a monthly basis.

7.4.3 Routine Maintenance

The routine maintenance carried out by the Street Lighting Team is shown in Table 14. A Street Lighting term contractor is contracted to provide the service currently but will be part of the Highway Term Maintenance Contract from August 2017.

The challenges in maintaining the street lighting equipment are similar to other asset groups and infrastructure organisations, i.e. prioritising required maintenance within the financial and personnel resource restrictions.

Maintenance Type	Maintenance Interval	Frequency Determination	Maintenance Review
Painting	No fixed frequency as painting is dictated by available funding. Ideal frequency is between 6 to 8 years.	No fixed regime	As there is no fixed regime, maintenance can be reviewed at anytime.
Testing	Every 5 years	Requirement of BS7671 'Regulations for Electrical Inspections 2008'	Reviewed at time of tender
Bulk Lamp Changes and Cleaning Servicing (all equipment types)	Frequency ranges from 1 to 4 years dependent on lamp type. Replacing lamps on a fault resets the next change date.	Dependent on lamp type	Fixed at time of tender of maintenance contract
Additional cleaning of traffic bollards (illuminated and Hi-reflective)	As required dependent on condition	Dependent on weather conditions	Reviewed at anytime
Fault repair	1 or 5 days dependent on repeat fault as defined by the contract.	Stated in contract tender	Repair time reviewed at tender of maintenance contract
Structural Survey	Frequency ranges from cyclical if Red, or 3 to 6 years depending on previous defect category status.	Dependent on defect category	Reviewed at anytime

Table 14: Medway Street Lighting Routine Maintenance

7.4.3.1 Structural Surveys

A number of methods are used to survey the condition of street lighting columns to determine their integrity. The timing of the survey is dependent on the results from previous testing where recommendations are given by the Contractor carrying out the surveys.

Ultrasonic: This type of survey which is also known as 'dipstick' testing, takes measurements of the metal wall thickness within the underground section of the column. It also takes measurements of the column joint above the column door. Within this type of survey a visual check is also taken of the

column. The results of the Ultrasonic or dipstick tests are reported to the Street Lighting Team using defects reading from Red, Amber (H/L), Green as shown in Table 15. This information is prioritised and dealt with by the Street Lighting Team.

Defect	Description	Action	Retest Period
Red	Red defects are non-repairable indicating metal loss in vulnerable areas.	Red defect columns should be replaced as soon as possible. In severe cases columns should be removed immediately.	Not applicable
High Amber	High Amber defects are non-repairable and indicate that the general condition of the column is showing signs of high level corrosion and loss of metal fabric.	High Amber defect columns should be prioritised and programmed for replacement.	Three years. If not replaced as part of a structural replacement programme.
Low Ambers	Low Amber defects are repairable, the type of defects include: • Rusty internal condition • Rusty protective coating • Bracket condition • Leaning columns	Low Amber defects that are identified should be repaired	When the defects are repaired these columns change status to Green and require only routine testing every six years. If no action was initially taken, then they should be retested again in three years.
Green	These streetlights are considered to be of sound structural integrity	No further action is required	Six years

Table 15: Medway Tunnel Lighting Inventory

3D Measuring: This type of survey uses a test machine which applies a pre-calculated load slowly to the column and then releases it. Lasers on the column allows for a software system to analyse the response received from testing. Static (slow release) and Dynamic (immediate release) tests allow for analysis of the entire column structure. This survey also includes a visual check of the column. 3D measuring can only be used for steel columns where it is not possible to use the ultrasonic method; which may include columns with bolt on bases. The information is prioritised and dealt with by the Street Lighting Team.

Visual Inspection: A visual inspection is carried out by the Contractor during each visit to a street lighting column. This visit could be during reactive maintenance such as repairing a fault, or routine maintenance such as a bulk lamp change programme or an electrical test programme. Due to the random timing of these maintenance regimes, visual inspections should always be considered supplementary to a programmed structural survey. Concrete columns are not structurally tested by either method mentioned above; therefore its condition is based on a visual inspection. Any defects identified during a visual inspection are reported to and dealt with by the Street Lighting Team.

7.4.3.2 Medway Tunnel

Lighting units within the Medway Tunnel are maintained during the routine quarterly closures. The lighting units are shown in Table 16.

Medway Tunnel Lighting Units	Westbound Bore							
	2 x 400w SON XLT	2 x 250w SON XLT	2 x 100 SON XLT	1 x 250w, 1 x 400w SON XLT	1 x 150w, 1 x 250w SON XLT	2 x 58 MCF	**Sub Total**	
Quantity	125	66	182	18	42	534	**967**	**TOTAL**
Medway Tunnel Lighting Units	**Eastbound Bore**							
	2 x 400w SON XLT	2 x 250w SON XLT	2 x 100 SON XLT	1 x 250w, 1 x 400w SON XLT	1 x 150w, 1 x 250w SON XLT	2 x 58 MCF	**Sub Total**	
Quantity	128	66	130	0	0	615	**939**	**1906**

Table 16: Medway Tunnel Lighting Inventory

The routine maintenance of the Medway Tunnel during the night closures will include maintaining the street lighting in the immediate area. The maintenance regime includes:

- Fixing all MCF (High efficiency, fluorescent tube) faults
- Fixing all SON XLT (High output, tubular high pressure sodium lamp) faults
- Fixing lit signs above the emergency phones and doors
- Cleaning signs above the emergency phones and doors
- Replacing any damaged carcasses
- Repairing faulty street lighting and signs outside the Medway Tunnel

This work is carried out over one night of each of the quarterly closures. During one of the four closures in a year, cleaning regime is carried out of all the light fittings in addition to the above work. The number of light fittings replaced is monitored and where there is an increase in the amount of faults, then a bulk lamp change will be programmed.

7.4.4 Reactive Maintenance

Faults

Faults are reported by the general public, council staff and the term contractor. The contractor carries out night checks throughout the year. The frequency is at the discretion of the contractor; however every unit is checked every two weeks in the winter and every three weeks in the summer as a minimum. Winter is defined as 1st October to 31st March and summer as 1st April to 30th September.

The Contractor shall record all faults found irrespective of whether or not the fault was found on a previous patrol. A fault is defined as any unit not working as intended and includes the following:

1. Out of light
2. Dim
3. Flashing lamp
4. Any one lamp out in multiple units
5. Twisted or misaligned bracket
6. Missing bowl
7. Door off
8. Twisted or misaligned lantern
9. Twisted or misaligned lit sign
10. Obstruction by tree or other plant growth
11. Damage to installation
12. Any other fault that may in the opinion of the person patrolling shall need repair in accordance with the contract

Standard response time is five days however, if a unit is reported faulty (following repair) within 15 days, a one day repeat fault is issued to the term contractor.

There are on average seven calls a day from general public regarding streetlights which are mainly reporting units flashing, out of light or day burning. Non-working signs or bollard are rarely reported by the public. Medway Council as well as the Contractor proactively look to find and report faults on a set regime to ensure maximum efficiency from the streetlight assets. Faults reported by the public account for approximately 25% of the total whereas in most cases the fault has already been notified by the contractor or; are in the process of being repaired (column replacement or District Network Operator (DNO) supply fault).

Faults reported via 'Customer First' are recorded on Medway's Asset Management System (MCAMS) and passed via works orders to the contractor for repair. Customers that have reported faults are

given as much information as possible with regards to the fault they have informed Medway Council of. This is to ensure they are kept up to date with the progress of a fault if it is a new one, or if the column is due to be replaced or if it is in the process of been dealt by DNO.

7.4.5 Street Lighting Asset Aspirations

To continue keeping lighting stock in good working order and condition.

To continue replacing High Intensity Discharge (HID) lamp units with energy efficient replacements such as Light Emitting Diodes (LED).

To reduce lighting energy consumption with the use of a Central Management System which will help in improving control of light dimming regime for specified periods (i.e. midnight to early morning) and in turn lessen the impact of Medway's carbon footprint.

To harness the benefits offered by Street Lighting in an efficient, cost effective way, whilst minimising any adverse impact on the built and natural environment.

7.5 Cycle Routes

7.5.1 Asset Champion

There is currently no single Asset Champion for cycle routes as most are shared between carriageway and footway with the remainder off-road through parkland. Therefore, the manager responsible for maintenance shall be the manager who is responsible for the carriageway, footway or park. The cycle routes running through parks are administered by the Greenspaces department.

7.5.2 Asset Group Inventory

Medway has over 110km of cycle routes comprising a mixture of 'off' and 'on' road sections and 'green track' through country parks, including some parts of National Cycle Routes (The Heron Trail 179).

The cycle route network is published in a free, fold-out leaflet 'Cycle Routes in Medway' showing the entire network including the sections which are designated National Cycle Routes.

The leaflet shows four main category of cycleway:

- Sign-posted routes where cyclists will be on road. May include destination signs and cycle lanes painted on the road.
- Off-road cycling facilities implemented adjacent to the Highway. Usually a shared or segregated pedestrian/cyclist footpath.
- Traffic free routes that are a mixture of special tracks and official routes through parks. Also includes bridleways that have been considered as suitable for cycling.
- Quieter routes for getting around by bicycle. These do not include any cycling facilities and may include short stretches of busier roads where no alternatives exist.

The National Cycle Routes are marked in addition to any of the above categories.

7.5.3 Routine Maintenance

The Code of Practice 'Well-maintained Highways' (2005) recommends in R8.8 that there should be continuity in hierarchies between cycling and walking, and consistency of maintenance standards between segregated and shared sections.

Without a separate hierarchy for cycle routes this recommendation is difficult to fulfil. However much of the cycle network is either shared with carriageways or footways and will be assigned with

the same maintenance hierarchy as designated in Table 4. This method and approach will ensure that cycle routes are inspected and maintained accordingly.

The routes that go through pars are inspected by Park Rangers who instigate responsive repairs. Safety inspections in country parks occur on a quarterly basis and annually in urban parks.

7.5.4 Winter Service

Cycle routes forming part of the carriageway or footway receive winter service in accordance with Section 7.1.4 and 7.2.4.

7.5.5 Programmed Maintenance

Programmed maintenance for shared cycle routes will be based on whether they are shared carriageway or shared footway sections. In each case the Highway Inspector will record defects and organise temporary as well as permanent repairs when required. Any major defects found during the inspection will be made safe and reported to the Planned Maintenance Team.

Traffic free routes are inspected by the Greenspaces department but any repairs are organised by the relevant Highway Inspector for the area in concern.

7.5.6 Cycle Routes Asset Aspirations

To continue the consistency of maintenance standards for cycle routes associated to the carriageway and footway.

To continue the inspection of cycle routes on carriagway and footway as well as PRoW and parkland.

7.6 Non-Illuminated Furniture and Road Markings

7.6.1 Asset Champion

The Asset Champion for signs and markings is the Engineer Programmed Maintenance as shown in full in figure 3, section 4.

Street names plates, bollards and other street furniture are managed directly by the Highway Inspectorate lead by the Engineer/Team Leader.

7.6.2 Asset Group Inventory

Non illuminated furniture consists of assets such as non lit signs, road markings, street furniture and non lit bollards.

A major inventory survey was commissioned and conducted during 2007/08 to update inventory information and to record locations in a Geographic Information System (GIS) format. The asset inventory data is interrogated through Medway Council's Asset Management System (MCAMS).

The inventory amounts are given in Table 17 with a further breakdown of bollards in Table 18. All items are non-illuminated as all illuminated items come under Section 7.4 Street Lighting.

Non Illuminated Assets	Benches	Bollards	Highway Signs	Planters Freestanding	Planters Built-in	Sculptures	Street Name Plates
Quantity	347	8170	5145	86	81	26	6719

Table 17: Medway Street Furniture Inventory Totals

Type	Cast Iron	Concrete	Plastic	Steel	Timber	Hooped Barrier	Other	Hazard Marker
Quantity	1487	1172	1653	1874	1561	97	37	289

Table 18: Medway Non-Illuminated Bollard Inventory Totals

The Highway signs have been categorised as one of four main types:

- Mandatory signs – give instructions
- Warning signs – give notice of hazards
- Directional signs – provide directions of routes to destinations
- Information signs – provide information useful for highway users

In good condition, Highway Signs have the ability to significantly improve the efficiency of the network and convenience of its users. In poor conditions however they can be confusing and distracting to the users.

Street Name Plates are sited at the mouth of all roads, whether publicly maintainable or private. If no owner or developer can be identified or held accountable for a Private road, Medway Council will take the responsibility to renew or install Street Name Plates.

Road markings have not been specifically quantified but nevertheless make an important contribution to the operation and safety of the Highway Network. Each category of road marking has a distinct purpose, which are:

- Regulatory indicates requirements, restrictions or prohibitions, e.g. STOP signs, GIVE WAY signs, KEEP LEFT signs
- Warning signs are used to alert drivers to potential danger ahead, e.g. T-Junction ahead, Reduce Speed, maximum available headroom
- Directional or road markings serve an important function in conveying to road users information and requirements which might not be possible using upright signs, e.g. Junction STOP line, Give way line, road studs

7.6.3 Routine & Reactive Maintenance

There are no statutory or local indicators to identify the condition of road signs or markings, although the 'Well-maintained Highways' Code of Practice (2005) does encourage local standards to be established. Medway Council are in the process of producing a Road Markings and Road Signs Policy and Plan to identify the maintenance requirements and have adopted the following maintenance standards:

- **White Lines:** The Highway Inspectorate should note and report white road markings that appear to have lost 30% or more of their functionality to the Highway Maintenance Team for inclusion in the next lining programme. However judgement needs to be exercised and at critical junctions wear and the replacement of lines may be considered as urgent. Highway Inspectors should advise accordingly.
- **Yellow Lines:** Highway Inspectors should report any instance of missing lines they observe to the Maintenance Team for inclusion in the maintenance programme.

- **Road Studs & Cats-Eyes:** Highway Inspectors should report missing cats-eyes and road studs to the Maintenance Team who will assess the site priority and safety implications in ordering replacements.
- **Street Name Plates & Cast Iron Bollards:** The maintenance response where street name plates are missing or damaged is to replace with plates manufactured from recycled materials. Cast iron bollards in the 'Rochester' style are also replaced, when damaged or missing, with replicas, manufactured from recycled materials.

The reactive maintenance requirement of other street furniture is dependent on Highway Inspectors' reports as part of their highway inspections which are detailed in Section 6.1. These will include any police reports received or general public service requests received through MCAMS.

In the financial year 2014, Medway Council were responsible for refreshing the road markings for all A, B classified roads and have a proposed rolling programme with 3 of 22 wards being completed in 2015/2016.

7.6.4 Non-Illuminated Furniture and Road Markings Asset Aspirations

As part of Medway's commitment of good asset management practice, it is essential to complete condition surveys of all non-illuminated street furniture. This will be implemented through a 100% asset condition survey of the Council's network assets.

To implement a de-cluttering excercise across the whole Medway Highway Network.

Inspectors to continue working in conjunction with the Maintenance Team to assist and guide with formulating a maintenance regime for all white and yellow road markings.

7.7 Barriers

7.7.1 Asset Champion

The Asset Champion for crash barriers is the Engineer Programmed Maintenance; team is shown in full in figure 3, section 4.

7.7.2 Asset Group Inventory

Medway has 30km of crash barriers as part of its highway network.

There are also 32km of pedestrian guardrail.

The integrity and location of crash barriers and pedestrian guardrails contributes to the safety of all highway users in vehicles or as pedestrians.

7.7.3 Responsive & Routine Maintenance

Pedestrian Guardrails: Damaged pedestrian guardrails will normally be reported via Customer First as a result of a road traffic collision. In Medway, every effort will be made to establish the responsible party so that repairs can be recharged. Response and make safe repairs will be treated as an emergency, out of hours the duty officer will order and make safe, in normal working hours response will be organised by the relevant Highway Inspector as will all permanent repairs. Before ordering renewal the Inspector should assess whether the asset needs to be replaced in accordance with Medway's de-cluttering programme.

Crash Barriers: These are treated very similarly to pedestrian guardrails with repairs made on a reactive basis. Instructions for permanent repair will be issued by the Programmed Maintenance Team.

Highway Boundary Fences: There are very few fences for which the Highway England is responsible. While fences indicating the extent of the highway may have been erected by the highway authority there is no compulsion to maintain them other than for safety reasons. Landowners have a duty to secure their own property so boundary fences are their responsibility. In each case an assessment is made to determine if a fence serves a "highway" purpose, site specific advice will be sought before committing expenditure to fence repairs.

7.7.4 Barriers Asset Aspirations

A review is currently underway to consider implementing a two year inspection regime for Crash Barriers which shall involve checking torque of the tensioning bolts, the mounting height and construction integrity.

To have a programme of works implemented to carry out repairs on inspected Crash Barriers.

To consider the need for replacing a Pedestrian Guardrail when damaged, in regards to the decluttering excercise.

7.8 Intelligent Traffic Systems

7.8.1 Asset Champion

The Traffic Manager is the Asset Champion for Intelligent Traffic Systems (ITS) operated with an Urban Traffic Control (UTC) system. Maintenance for the majority of the system is carried out through a Term Contractor who specialises in ITS equipment.

7.8.2 Asset Group Inventory

Medway plays a key role in ensuring the safety of all road users concerned. It is therefore key to the Council's strategy that by providing a fully working ITS and optimised network; Medway is kept on the move and fully compliant with its Network Management duty in the Network Management Plan (NMP).

ITS comprises signal installations, variable message signs, parking guidance signs, bus journey time monitoring capability and CCTV for highway network monitoring processes. The required databases for ITS and UTC systems are within the Medway Traffic Operations Room (TOR) and is detailed in section 7.8.2.1. Medway Traffic System has 752 installations comprising of the following items:

TRAFFIC SIGNALS				
Signal Type	**Quantity**		**Signal Type**	**Quantity**
Junction	87		Puffin	5
Pelican	106		Toucan	34
Wig Wag	2			
OTHER UTC ASSETS				
Signal Type	**Quantity**		**Signal Type**	**Quantity**
VAS (Vehicle Activated Sign)	84		Cyclist Counters	18
VMS/PGI	38		Air Quality Sites (MOTES)	124
CCTV	40		Car Park Counter Sites	22
Automatic Traffic Counters	19		Over Height Vehicle Detector & Sign	1
Communications Switches/Air Bridges	172			

Table 19: Medway Signal Installations Inventory Total

The components of the system are itemised in the maintenance contract including the elements of the Urban Traffic Control (UTC) system as shown in Table 20.

Element Description	Quantity		Element Description	Quantity
Controller	173		Detector Channels	1694
Tungsten Halogen Lamp	86		LED Lamps	6168
Box Sign	157		Gantry or Over Height Signal	16
Over Height Vehicle Detector	1		Remote Request Panel	2
UTC In-Station Data Transmission Unit	1		UTC Outstation Data Transmission Unit	84
UTC Count Site	31		UTC Queue Site	5
UTC SCOOT Detector Channel	209			

Table 20: Medway Traffic System Elements

The signal installations are maintained with two types of maintenance; responsive and routine.

Reactive Maintenance is in response to faults being reported or detected and are repaired according to the level of risk represented by the fault.

Routine Maintenance is that which is carried out at a set frequency in line with the Management of Electronic Traffic Equipment Code of Practice (2011).

7.8.2.1 Traffic Operations Room

The purpose of the Traffic Operations Room (TOR) is to function as a tool for Network management:

- Provide effective coordination and incident management of the Medway Road Network and adjacent roads for stakeholder partners involved and ensuring Medway's roads run incident free and safely from all forms of transport using the road network including the travelling public
- Provide a central point for monitoring and coordinating all transport operations affecting Medway
- Connect with other functional area control, command and communication and information bodies (via extended links or stakeholder relationships);
- Report on transport issues and exchange information;
- Respond to requirements from stakeholders with rapidly developed plans that are in turn executed swiftly;
- Provide coordination with other transport organisations' in particular Kent County Council (KCC) and Highways England control rooms through appropriate line of communication;
- Provide transport agencies with information on real time events and information;

- Provide and co-ordinate contingency plans for incidents and the subsequent coordination of these (Traffic Strategy Plans);
- The TOR is also the designated incident room for major incidents in Medway
- Maintain an audit trail of what actions were taken, why and when.
- To keep Medway Unitary Authority moving by actively managing traffic conditions, reducing congestion and providing effective travel information to stakeholders, road users and the general public.

The TOR is the central hub where information about the road network is collected and processed, and data produced. This data is then used to monitor how the networks are running and where necessary to initiate control strategies to effect changes in operations to improve traffic flows on the road network and to produce long term strategies.

The TOR is also the designated incident room for major incidents on and off the highway network. It provides the focal point for communicating and receiving transportation related information to the media and the motoring public giving information of incidents on the network affecting traffic flows so that drivers can make informed choices regarding their journey.

The operational and strategic intent of the TOR is to, first and foremost be a tool for Network Management to deliver Medway Council's Network Management Plan (NMP) obligations. Additionally, to ensure there is a co-ordinated and where required rapid response to incidents, events and accidents affecting Medway's Road Network or adjacent network. It also provides information for assessing transport levels and trends to support other key stakeholders in ensuring Medway's Road safety team and others can display safety messages to drivers to keep the road network moving safely.

7.8.3 Reactive Maintenance

The term contractor is notified by Medway of any faults or defects that occur with a priority category as detailed in Table 21.

The contract defines how response periods are calculated.

Priority Category	Fault / Defect	Response Period
No. 1 Urgent	Priority One Faults include, but are not limited to incidents as follows: • Traffic Signals all out • Traffic Signals fail to change • Traffic Signals causing serious delays • Where Traffic Management & Technology (TMT) equipment is damaged and/or unsafe • Communications fault that affects three sites or more • All other failures of TMT equipment that affect the correct and safe operation of the site, i.e. multiple lamp failure of the same colour on an individual approach	For all Priority One faults, the supplier will attend the site within two hours and fully repair within four hours of the original fault being reported via the Fault Management System (FMS) or alternative system if the FMS is inoperable. If a full repair is not possible, the supplier must report that fault status and relevant information to the Traffic Operations Room (TOR) so that the customer may decide to demote to a Priority Two. Demotion will not be applied if the supplier's failure to affect full repair within specified timescales is through non-compliance with the requirements laid out within this Contract. The customer may therefore decide to uphold the original fault status.

No. 2 Non Urgent	Examples of a Priority 2 fault are: • Any single lamp failure on a single approach • Individual alterations to timings or operational data • Detector faults not causing delays • Communication faults related to traffic signals • Minor re-alignment or re-securing of traffic signal street furniture • Traffic signals permanently on dim during daylight hours Pedestrian facilities failing to operate correctly Any other fault deemed by the customer to be categorised as a Priority Two fault	For all Priority Two faults the supplier will attend within 24 hours (using all hours) of the fault being reported via the FMS (or an alternative system if the FMS is inoperable). Make a full repair within 24 hours (using all hours) of the fault being reported (via the FMS or alternative system if the FMS is inoperable). If a full repair is not possible the supplier must report that Fault Status and relevant information to the TOR so that the customer may decide whether or not to demote the Fault to a Priority level three or four. Demotion will not be applied if the supplier's failure to affect full repair within specified timescales is through non-compliance with the requirements laid out within this Contract. The customer may therefore decide to uphold the original Fault.
No. 3 Weekly	Examples of a Priority 3 fault are: • Bulk alterations to timing or data • Detector and cable investigation • General bagging of traffic signals • Minor adjustments to TMT street furniture • Site meetings as required by customer • Any other fault deemed by the customer to be a Priority 3 fault	For all Priority Three faults the supplier will attend the site and make a full and permanent repair within 5 working days (50 hours measured only within working hours) of the original fault being reported (via the FMS or alternative system if the FMS is inoperable).
No. 4 Outstanding	Priority Four faults are used to hold faults which the supplier is unable to complete due to external factors beyond their reasonable control or as otherwise defined by the customer.	Priority Four faults will be regularly reviewed by the customer. The supplier will give formal updates to the customer at the monthly meetings and periodically as requested by the customer.

Table 21: Medway Traffic Systems Reactive Maintenance

The contractor notifies in writing of all faults attended and repaired, with records of performance maintained by Medway Council.

A full site check is carried out during every visit to check whether faults exist. If faults are found they are repaired, even if they have not been previously reported. The check includes:

- Check all functions, facilities and timings and adjust/correct as necessary;
- Check all detection equipment and correct any appropriate defects;
- Check all lamps and correct any appropriate defects;
- Check and correct the alignment and security of all lanterns, box signs and pedestrian push button units, including tactile indicators where appropriate.
- Report to the TOR any site defects that may degrade further without intervention
- Medway Council supplied Transmit file shall be sent to the Controller and the sites declared checksum compared with that displayed by the Control Active Terminal System (CATS). Any anomaly in the Controller's data shall be investigated and reported.
- Re-enter any lost data held in RAM (according to the latest on-site documentation)
- Check for vegetation that may obscure or impede operation of traffic management and remove where reasonably practical. This must be in line with clause 7.9 of this document relating to Trees. The supplier will correctly dispose of any trimmings or waste.
- The results of the above checks must be recorded in the fault record book and included in the fault clearance details of the Fault Management System (FMS).
- The fault record book in the Controller must be used to record –
    - The person handling the fault
    - The purpose of the visit
    - The remedial action taken
    - Any outstanding action required
    - The serial number of any assemblies replaced
    - And off-sites times and dates of all visits
- For all controllers the Checksum obtained from the Echoes software should also be recorded in the logbook and the FMS
- Failure to carry out the above checks, and/or failure to enter the visit in the Fault Record book will attract a service credit deduction as detailed in "Deduction of Service Credits."

It is a requirement that when a "fully operational" is given for an installation, it is left in a fully functional state. Where this is not possible, the Traffic Operations Room (TOR) must be notified, and reasons given.

Failure to notify the TOR of any outstanding defect (including previously reported damaged detector loops) will attract a service credit deduction as detailed in "Deduction of Service Credits."

Control Active Terminal System (CATS) is a software package for interrogating Microprocessor based controllers.

The results of the above checks are recorded in a fault record book and included in the fault clearance details.

7.8.4 Routine Maintenance

All installations are inspected on an annual basis, which is considered a good opportunity to overhaul the equipment. The inspection tasks are detailed in the term contract; Document 4 Technical Specifications V2. The installations include controllers, detection systems, street furniture, concentrator/outstation transmission units, UTC count sites, UTC queue sites, scoot detector sites and tunnel UTC equipment.

In addition the contractor is also responsible for ensuring that the routine maintenance specified in Table 22 is carried out in accordance with the contract requirements.

Maintenance	Frequency
Adjustment: On every attendance on site for optical maintenance the supplier shall ensure that: • Any additional failed lamps are restored to Lighting • All aspects and lanterns are correctly adjusted, aligned and secure • All backing boards, white strips and visors are correctly fitted • Any evident signal faults are reported to the TOR Reports: The supplier shall within 21 days of a visit for bulk lamp changes/cleaning submit a report using the FMS to the TOR itemising the date, location, lamp changes, the batch number and work completed.	As required or upon yearly maintenance
Cleaning exterior of all lenses, wait panels, box signs and variable message signs. Lamp changes where required at selected Halogen sites.	Every six months
Cleaning interior of wait panels, box signs and fibre optics	Annually
Sentinel Over height Warning Signs	Every six months

Table 22: Medway Traffic Systems Routine Maintenance

The term contract makes provision for the Council to monitor the performance of the contractor by inspecting sites and checking compliance with the contract. This is achieved through the use of a fault management system and a visual display showing the current fault status. The contractor is also to prepare programme of works for routine maintenance as detailed in Table 22, and other planned chargeable works.

All fault repair are reported in writing to the Council by the contractor to which the Council's authorised office must respond in writing within two weeks to confirm, or otherwise, that the work is completed to the required standard.

Non-performance rebates apply where it is agreed that the contractor has failed to comply within the terms of the contract.

7.8.5 Intelligent Traffic Systems Asset Aspirations

To upgrade Management System that is compatible with existing signal systems to improve fault handling storage.

To ensure any upgrades will be considered for puffin improvements to be made as per Road Safety and Traffic Management policy changes.

To work closely with the maintenance contractor to ensure Medway asset is kept up to date with advent of newer technologies and solutions.

To improve CCTV coverage of the road network and increase number of vehilce messaging signs (VMS) on the network and to obtain a number of mobile VMS for emergencies and events.

7.9 Soft Landscaping

7.9.1 Asset Champion

All soft landscaping within the highway boundary will be managed and maintained by the Greenspaces department through the Greenspaces team headed by the Operations Manager.

7.9.2 Asset Group Inventory

Highway associated soft landscaping areas amount to 1,743,333m². All sites are uniquely referenced with a 'Feature ID' comprising a site code and plot number listed in the Council's GIS system. A summary of Highway Grass and Horticultural areas detailing number of plots, total landscaping area and specification reference is given in Table 23.

Soft Landscaping Area	Number of Plots	Total Area (m²)	Maintenance Requirements
Amenity Grass	8564	1458146	3.A.4
Ornamental Grass	4	801	3.A.5
Meadow Grass	7	60969	3.A.6
Rough Grass	289	119034	3.A.7
Rose Bed	34	1456	3.B.2
Shrub Bed	1397	95980	3.B.3
Herbaceous Bed	0	0	3.B.4
Annual Bedding	43	343	3.B.5
Hedges	138	6604	3.B.8
NOTES: Maintenance requirement codes relate to contract specifications as outlined in Table 24 and Table 25.			

Table 23: Medway Soft Landscaping Assets and Maintenance

Medway have approximately 9000 Highway trees that are maintained by Greenspaces. Details of the trees are held on the Council's GIS system, recording their location by street name and grid reference. Other information held includes maintenance contract number, diameter at breast height (DBH), whether it is supported/staked, its height and spread, identification number and the Unique Street Reference Number (USRN).

7.9.3 Safety Inspections

Currently safety inspections of highway trees and other vegetation are carried out by the appointed Contractor in the course of their maintenance duties as described in 7.9.5.

The Council has an agreed program of tree inspections carried out annually in accordance with good arboriculture practice.

7.9.4 Grass and Horticultural Maintenance

All contractual Grounds Maintenance works including horticultural operations are subjected to performance-related targets assessed through the Greenspaces Service Authorised Officer inspections. Sites can be recorded as satisfactory or as requiring a rectification or default notice. The Authorised Officer shall issue a rectification to the Contractor when a resolvable issue is detected and formally recorded. The Authorised Officer shall issue a default notice to the Contractor when an issue is cause for significant or urgent concern due to the negligence of the Contractor or where a previously issued rectification notice has not been completed within an agreed timescale.

The specifications for Grounds Maintenance works outline the minimum maintenance targets and recommended minimum frequencies for the Contractor to adhere to. The aim of these specifications is to identify best working practices to achieve the desired outcomes for the contract.

Grass types are categorised by their cutting tolerances and maintenance frequencies. As shown in Table 24, Amenity, Ornamental and Rough Grass is maintained to designated length tolerances; Medway Grass and Countryside Rough Grassland is maintained according to number of cuts recommended per annum and Countryside Paths and Bridleways are maintained to specified tolerances as and when required.

Grass Type	Ref.	Season	Cutting Tolerance (mm. Min/Max)	Edging Yes/No
Amenity	3.A.4	April - October	25 - 65	Yes
		November - March	35 - 75	
Ornamental (Box mown)	3.A.5	April - October	15 - 25	Yes
		November - March	20 - 30	
Bulb Plated Areas	3.A.11	No less than 6 weeks after flowering	Cut to same standard as surrounding grassland	Yes
		No longer than 10 weeks after flowering		
Rough	3.A.7	March - May	50 - 150	No
		July - September		
Meadow	3.A.6	Cut once during July to September, after flowering	50 - 150	No
Countryside - Rough Grassland	2.A.8	March - May	50 - 150	No
		July - September		
Countryside - Surfaced Paths	2.A.9	As required	1m in from path edge, 3m height - front face only	No
Countryside - Mown Paths	2.A.10	As required	50 - 100 on paths, 1m in from path edge, 3m height - front face only	No
Bridleways	2.A.11	As required	50 - 100 on paths, 4m height - front face only	No

Table 24: Medway Grass Cutting Tolerances

Table 25 summarises the key points regarding the Horticultural Maintenance of:

- Rose Beds
- Shrub Beds
- Herbaceous Beds
- Annual Bedding
- Tubs & Troughs
- Hanging Baskets
- Hedges

The Authorised Officer shall carry out regular sample monitoring inspections. The aim of these inspections is to ensure Contractor compliance and to identify any issues that require attention or further investigation. It is the responsibility of the Contractor to respond to any concerns raised or rectifications issues within the given timescale.

The Authorised Officer shall also indicate sites where Health & Safety is compromised or sites where potential dangers could arise, e.g. sight lines. All Health & Safety issues must be raised to the Greenspaces Operation Manager or Partnership Contract Officer within 24 hours of detection for appropriate actions or works streams to be agreed upon.

The main difficulties facing the Contractor which may affect operations are site access issues, sites requiring Traffic Management, inclement weather, road closures and unforeseen obstacles such as parked cars. The Contractor must record all incidents where operations are impeded or where works could not be completed and relate these issue in writing to the Authorised Officer within 24 hours of occurrence.

Horticultural Operations Specification Reference 3.B		
General	3.B.1	• Only suitably trained and qualified staff shall be acceptable • All machinery shall be approved for suitability and shall be maintained in good working order • All litter and detritus to be removed before grass cutting • All incidents of fly tipping must be reported • Horticultural works are completed site-to-site by route and round • Any arising will be left on sward and swept from paths and hard surfaces within 2 hours of cut • Damage may be subject to the Rectification and Default process • Damage caused by third party will be subject to Variation Order • Pruning shall occur regularly to remove disease, weeds and pests according to species • Pesticide applications shall be scheduled • Legal requirements of RTR's must be adhered to and relevant staff must be trained and equipped to work on TM sites

Rose Beds	3.B.2	• Maintain weed free. Weeds to not exceed 15 % per sqm or 50mm • Approved fertiliser to be applied once per annum • All deadheads and suckers to be removed • Pruning to be carried out February to April • Gapping up works subject to Variation Order
Shrub Beds	3.B.3	• Maintain weed free. Weeds to not exceed 15 % per sqm or 50mm • Grounds shall be forked and hoed in late autumn/early winter • Pruning shall be regular and in accordance with species • Gapping up works subject to Variation Order
Herbaceous Beds	3.B.4	• Maintain weed free. Weeds to not exceed 15 % per sqm or 50mm • Grounds shall be forked and hoed in late autumn/early winter • Pruning shall be regular and in accordance with species • Gapping up works subject to Variation Order
Annual Bedding	3.B.5	• Supply of bedding to be engaged in good time • The 2 bedding cycles are May – June & October • Beds shall be cleared and prepared twice per annum in Spring and Autumn • Plants shall be securely anchored, evenly spaced and irrigated • Maintain weed free at all times • Irrigation shall continue throughout the year • All incidents of vandalism must be reported
Tubs & Troughs	3.B.6	• Maintenance same as annual bedding • Once per annum 33% of existing compost to be replaced
Hanging Baskets	3.B.7	• Must remain clean and tidy • Continuous irrigation should be provided throughout year
Hedges	3.B.8	• Only approved tools to be used • Hedges to be pruned back to previous years' growth 3 times a year • Additional sight line cuts subject to Variation Order • Hedge bases shall remain litter free and once per year have a residual herbicide applied • Suitable hedges to be cut with tractor mounted flail
Rural Hedges	3.B.9	• Hedges to be pruned back to previous years' growth • Hedge bases shall remain litter free

Table 25: Medway Horticultural Operations

7.9.5 Tree Maintenance

Tree maintenance is covered by a separate contract that covers four areas of tree maintenance:

Reporting significant tree defects and pests: The Contractor is obliged to report any defect or damage that renders the tree in a dangerous state to the Council's authorised officer together with any presence of significant pests while in the course of their duties.

Planned work: The specification and frequency of this work is detailed in the contract and consists of crown lifting and removal of basal suckers and epicormic shoots.

Responsive work: This is all work that is not classified as planned work. This is ordered by the Council's Authorised Officer having been identified from inspections or requests for service from the general public.

Emergency work: The Contractor is expected to provide an emergency response service with climbing arborists, ground staff and all necessary equipment to be capable of undertaking all tree related emergency works.

The contract covers the following detailed operations involved with tree maintenance:

- Climbing Inspections
- Formative Pruning
- Crown Lifting
- Crown Thinning
- Cutting Back From Property, Boundaries Or Objects
- Crown Reduction and Reshaping
- Pollarding
- Re-Pollarding
- Cleaning Out
- Removal of Climbing Plants
- Removal of Dead, Dying, Diseased and Broken Branches
- Specific Branch/Limb Removal or Reduction
- Removal of Suckers and Epicormic shoots
- Full Prune
- Bi-annual Crown Lifting and Removal of Suckers and Epicormic shoots
- Bi-annual Crown Lifting, Removal of Suckers and Epicormic shoots and Removal of Dead, Dying, Diseased and Broken Branches
- Tree Felling
- Removal Of Hedges
- Removal of Saplings
- Coppicing
- Tree Stump and Root Removal or Treatment
- Tree Planting
- 24 Month Post Planting Maintenance
- Installation, Adjustment and Removal of Trees Stakes and Ties
- Root Pruning
- Bark Wound Repair
- Bracing and Propping
- Control of Brown Tail Moth

7.9.6 Soft Landscaping Asset Aspirations

To complete survey and map all Soft Landscaping assets.

To continue carrying out tree inspections annually in accordance with good arboriculture practice .

To maintain Soft Landscaping in a condition that aids the safety of all road users by keeping signs and visability splays clear of vegetation.

7.10 Structures

7.10.1 Asset Champion

The Structures Asset Champion is the Engineer, Tunnel and Structures Manager as shown in figure 3, section 4.

The team inspect and maintain all highway structures in Medway, which include bridges, subways, culverts, retaining walls, sign gantries and the Medway Tunnel. They are responsible for keeping the structures records accurate and for other miscellaneous duties. These duties can consist of such things as managing the routing of abnormal loads, advising on private development schemes and representing Medway at regional and national meetings of technical bodies (UK Road Tunnel Forum).

7.10.2 Asset Group Inventory

Bridges and other Highway Structures are fundamental to the transport infrastructure because they form essential links in the highway network. They are relied upon to remain in service year after year and carry increasing traffic flows.

Information regarding the Highway Structures Stock is held on Medway Council's Asset Management System (MCAMS) with the next step in enhancing the environment with mobile working. A summary is shown in Table 26.

Category	Medway owned and maintained	Owned and maintained by others	Total in Medway
Bridges and Structures	104	115[1]	209
Retaining Structures	106	70	176
Medway Tunnel	1	-	1
[1]Includes 57 bridges owned by Network Rail			

Table 26: Medway Structures Database Summary

The structures database within MCAMS is routinely updated to take account of new structures becoming part of the public highway. Private structures may also be added to the database where it is felt that they have a significant effect on the highway (Streets with Special Engineering difficulty) and are for record purposes only. It is preferable to account for private structures on our database so that future customer enquiries can be given the fullest information. Inspections on private structures may also be carried out in the form of a Special Inspection or by the Routine Inspection

regime. Although General Inspections of private structures may be generated in the wider interests of public safety by Medway Council, this does not negate the primary responsibility of the actual owner towards public safety and the structural integrity of their asset in accordance to The Management of Highway Structures Code of Practice (2005).

The amount of maintenance that is required on many of the structures present problems with gaining safe and legal access, i.e. working at height and Rail track possessions, add to the pressure on the maintenance budget.

The age profile of the structures is shown in Figure 4 indicating that over half have been erected since 1970, although nearly 30% of the structures were constructed in the early 1900's. This dictates that much of the maintenance has to be carried out with conservation in mind requiring detailed liaison with local conservation groups.

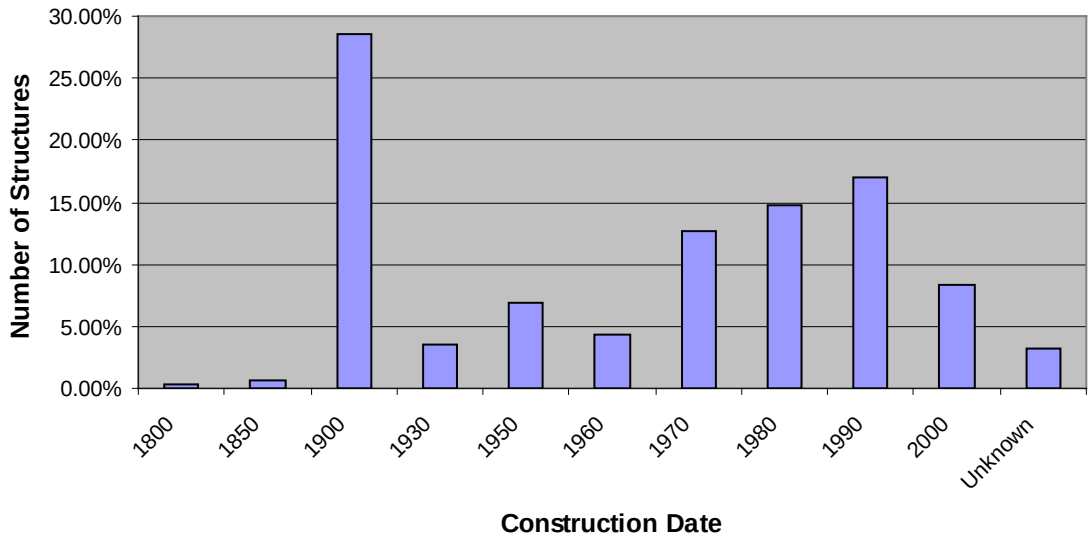

Figure 4: Medway Structures Age Profile

The structures assets are managed in general accordance with the Codes of Practice 'The Management of Highway Structures' (2005) and 'The Inspection Manual for Highway Structures' (2007). The standards applied are detailed in 'The Design Manual for Roads and Bridges' (DMRB).

7.10.3 Inspection Regime

Assets are inspected and condition data collected in accordance with CSS Bridge Condition Indicators Volume Two from the Management of Highway Structures (2005) CoP. Condition scores are calculated for the structure as a whole and on critical elements. The inspection regime is shown in Table 27.

Currently, all cyclic inspection work is resourced externally to our consultants. Special Inspections are carried out by Medway Council Structures Section. Condition data and condition scores are supplied in report format. The Highway Structures team is working towards recording the significant findings using MCAMS and mobile environment.

Works carried out by Statutory Undertakers and others that are over or adjacent to highway structures is monitored by the Highway Structures Team in accordance with Section 88 of the New Road and Street Works Act (1991) and the 'Management of Highway Structures' CoP (2005).

Inspection Category	Frequency	Feature
General Inspection	Every two years	All Highway Structures
Principal Inspection	Every six years	Bridges, Culverts and Subways
Special Inspection	In-depth structural investigation required	All Highway Structures
General & Principal Mechanical/Structural Inspection	Every five to ten years	Medway Tunnel

Table 27: Medway Structures Inspection Types and Frequency

7.10.4 Reactive Maintenance

Reactive Maintenance is carried out on response to dangerous occurrences raised to the Structures and Tunnel team, which include but not limited to:

- Bridge Strikes
- Defective Surfacing
- Trip hazards
- Road Traffic Collision
- Failing retaining walls, which includes over rotating, loose masonry, significant cracking

7.10.5 Programmed Maintenance

Data collected from General Inspections and Principal Inspections is used to generate Bridge Condition Indices. These figures demonstrate the overall condition of individual structures and the

asset stock as a whole. The use of MCAMS is to monitor overall performance as part of the teams developing strategy with previous inspection data loaded into the software system.

Currently, Medway is in the process of uploading Bridge Condition Index (BCI) data into MCAMS. This data will be used to generate a list of prioritised maintenance works in a form of a programme.

A proportion of the works generated from routine inspections will take the form of a refurbishment or strengthening project. These schemes are designed, managed, supervised and budget managed within Medway Council.

7.10.6 Structures Asset Aspirations

To establish a more accurate funding demand by monitoring and using the Bridge Condition Index (BCI) of bridge stock.

To work towards raising and maintaining the condition of the bridge stock to provide a BCI of 90 or above.

To continue negotiating with Central Government to provide Medway with Revenue and Capital funding for maintaining Medway's Road Tunnel.

7.11 Medway Tunnel

7.11.1 Asset Champion

The Engineer Tunnel and Structures Manager is the Asset Champion for Medway Tunnel and the team structure is shown in full in figure 3, section 4.

7.11.2 Asset Group Inventory

The twin bore Medway tunnel was officially opened in June 1996 and is only one of two immersed tube tunnels in the UK. It is 725m in length from portal to portal and was originally managed by Kent County Council before Medway Council came into being in April 1998. It handles 46,000 vehicles per day.

The tunnel is in three sections; the centre sections being the immersed tube of 370m connected by cut and cover sections to the east and west banks of the River Medway.

The Medway Tunnel asset comprises more than just the immediate structure and carriageway. The Tunnel and the two service buildings are equipped with safety equipment and information technology which includes:

- Closed Circuit Television (CCTV) system enabling monitoring of traffic flow
- Variable Message Signs (VMS) to direct traffic flow
- Nitrogen Foam Extinguishing Systems as part of the fire monitoring control systems for each sump
- Uninterruptable Power Supplies (UPS) comprising back-up batteries together with a standby generator
- Supervisory Control and Data Acquisition (SCADA) system to monitor and control all aspects of the tunnel environment which include-
    - Lighting Levels
    - Air Handling
    - Power Supply
    - Pump Controls
    - Alarms
- Vehicle Accident Incident Detection (VIAD) Technology monitors traffic flow and automatically identifies-
    - Stopped vehicles
    - Smoke
    - Pedestrians
    - Stationary vehicle(s)
    - Fallen objects or obstructions in the carriageway and reverse traffic direction

SCADA will alarm on activation of VAID to allow the operator to action a manual intervention to deal with incident(s).

All CCTV recordings are digital and operate on a 28 day over-write procedure.

7.11.3 Routine Maintenance

The operation and maintenance of the tunnel aims to be compliant with Chapter 14 of BD 78/99 Design of Road Tunnels (DMRB 2.2.9). This document is complemented by BA 72/03 Maintenance of Road Tunnels (DMRB 3.2.3) and supersedes the advice given in Figure 14.1 of BD 78/99. The Road Tunnel Safety Regulations 2007 and the EC Directive 2004/54/EC are two pieces of legislation that are important to road tunnels. These documents impact on all Trans European Road Network (TERN) tunnels, however Medway Tunnel is not on the TERN but the spirit of the documents are adopted.

A comprehensive set of maintenance schedules is described in the Tunnel Maintenance and Management Manual, which covers all aspects of tunnel maintenance. Each item is covered by a schedule of duties and the frequency at which they should be carried out, which is shown below in Table 28.

Schedule No.	Schedule Title	Frequency
1	M+E Equipment – Lv Switch Boards	Daily
2	M+E Equipment – Lv Switch Boards	Weekly
3	M+E Equipment – Lv Switch Boards	Monthly
4	M+E Equipment – Lv Switch Boards	3 Monthly
5	M+E Equipment – Lv Switch Boards	Yearly
6	M+E Equipment – Service Building Systems	Weekly
7	M+E Equipment – Service Building Systems	6 Monthly
8	M+E Equipment – Service Building Systems	3 Yearly
9	M+E Equipment – Ec/Pm/Tcs	3 Monthly
10	M+E Equipment – Ec/Pm/Tcs	Yearly
11	M+E Equipment – Ec/Pm/Tcs	5 Yearly
12	M+E Equipment – Ups Systems	Daily
13	M+E Equipment – Ups Systems	Monthly
14	M+E Equipment – Ups Systems	3 Monthly
15	M+E Equipment – Ups Systems	6 Monthly
16	M+E Equipment – Tunnel Ventilation Fans	Monthly

17	M+E Equipment – Tunnel Ventilation Fans	3 Monthly
18	M+E Equipment – Tunnel Ventilation Fans	6 Monthly
19	M+E Equipment – Tunnel Ventilation Fans	Yearly
20	M+E Equipment – Tunnel Ventilation Fans	10 Yearly
21	M+E Equipment – Diesel Generator Plant	Weekly
22	M+E Equipment – Diesel Generator Plant	Monthly/100 Hrs
23	M+E Equipment – Diesel Generator Plant	6 Monthly/1000 Hrs
24	M+E Equipment – Diesel Generator Plant	Yearly/200 Hrs
25	M+E Equipment – Tunnel Lighting	3 Monthly
26	M+E Equipment – Tunnel Drainage	3 Monthly
27	M+E Equipment – Tunnel Drainage	Yearly/2000 Hrs
28	M+E Equipment – Tunnel Fire Protection	Monthly
29	M+E Equipment – Tunnel Fire Protection	3 Monthly
30	M+E Equipment – Tunnel Fire Protection	6 Monthly
31	M+E Equipment – Tunnel Fire Protection	5 Yearly
32	M+E Equipment – Portable Appliance Tests	Monthly
33	M+E Equipment – Portable Appliance Tests	6 Monthly
34	Structures	Monthly
35	Structures	3 Monthly
36	Structures	6 Monthly
37	Structures	Yearly
38	Cleaning	Weekly
39	Cleaning	Monthly
40	Cleaning	3 Monthly

Table 28: Medway Tunnel Routine Maintenance Schedule

This is the result of work recently completed to correct discrepancies in maintenance schedules with those recommended by the installation contractor, equipment manufacturers and suppliers.

Quarterly night closures, from 20.00hrs to 05.45hrs, allow routine maintenance and repairs to take place where this requires carriageway closure for safe working. Generally the closures are mid-week on Tuesday, Wednesday and Thursday nights. Closures are in accordance with Chapter 8 of the Traffic Signs Manual (2009).

Tunnel Lighting routine maintenance is explained in Section 7.4.3.2.

Currently the maintenance of all mechanical and electrical equipment in the Medway Tunnel is procured through various maintenance contracts. However, Medway is in the process of having a principle contractor to carry out all works, which the Council will introduce as the Term Maintenance Contract in 2017.

7.11.4 Programmed Maintenance

The long term condition of the tunnel is assessed and recorded in accordance with BD 53/95 Inspection and Records for Road Tunnels (DMRB 3.1.6) which lays out the requirements for inspection and recording of the reported condition of road tunnels. It also covers the recording of traffic incidents and information concerning tunnel maintenance and operational feedback.

The maintenance log is maintained by the Tunnel Operations Officer. It is a live document with outstanding work grouped under such headings as –

- Legal: staffing issues
- Procedures / Operations: covering Health & Safety issues and procedures, operating manuals, etc.
- Faults: log of items and systems requiring replacement and/or upgrades
- Maintenance and Repair: items for inclusion in next maintenance closure and minor house-keeping reminders
- Inspections: a list of all recorded maintenance checks planned and completed
- Training: record of training due planned and completed

7.11.5 Winter Service & Emergency Planning

No winter precautions are made in the tunnel. Carriageway salting should stop 50m outside either portal to prevent excessive salt contaminating surface water and aggravating pump corrosion and other tunnel equipment.

The tunnel operation is manned during normal office hours with the ‘out-of-hours’ team covering emergency issues outside of these hours, as is the case for the remainder of the network. The CCTV cameras and SCADA system are monitored 24 hours a day seven days a week by the Medway council control centre. If the team cannot resolve any issue the Duty Engineer is contacted

A tunnel emergency plan is in place, "A289 Medway Tunnel Emergency Plan Issue 3.0" October 2014. Table top exercise was carried out in April 2015 to validate the Emergency plan and actions following the exercise are being implemented to the management of the Medway Tunnel.

7.11.6 Medway Tunnel Asset Aspirations

To have an electronic, spatial and detailed inventory of all Medway Tunnel assets maintained by the Tunnel Operations officer.

To upgrade Meday Tunnel lighting systems and convert fittings to LED.

To install new Cross Passage Doors and upgrade Fire Detection/Extinguishing systems.

To continue negotiating with Central Government to provide Medway with Revenue and Capital funding for maintaining Medway's Road Tunnel.

7.12 Public Rights of Way (PRoW)

7.12.1 Asset Champion

The Public Rights of Way (PRoW) Asset Champion is Highway Management Engineer, Responsive Maintenance as shown in figure 3, section 4.

7.12.2 Asset Group Inventory

The PRoW Network is 313km long and is broken down as follows:

Footpath: Usually a cross-country path (not a footway) over which there are rights for people to pass and repass on foot only – total length 272.96km

Bridleway: A right of way over which there are rights to walk, pedal cycle, ride or lead horses. Cyclists must give way to walkers and equestrians – total length 18.91km

Restricted Byway: Carriageways over which the right of way is for all types of traffic except mechanically propelled vehicles – total length 9.74km

Byway Open to All Traffic (B.O.A.T): A carriageway that is to all intents and purposes open to all traffic including mechanically propelled vehicles, although in reality is used essentially as a footpath with very little vehicular traffic – total length 12.02km

Public Rights of Way are legal highways, therefore people have the right to pass and repass at will. This means that if a path/route is not of sufficient width and height it must be considered as obstructed. The minimum width for PROWs is 2.0m except for Bridle Ways where the minimum is 3.0m. The correct defined widths are as follows:

Footpaths: should be at least 1m wide or 1.5m if a field edge, normal max is 1.8m.

Bridleways: should be at least 2m wide or 3m if a field edge, normal max is 5m.

Byways: are of variable width but normally a minimum width of 3m is expected with a max of 5m.

It is the Highway Authority's responsibility to ensure that Public Rights of Way (PRoW) must not be closed; stopped-up or diverted even on a temporary basis, without a legal order.

Orders are also required if Medway Council wish to add paths to the definitive map or change the status, from say footpath to bridleway.

Good reason is required to make any of these changes. For new paths evidence is required to substantiate that the route has been used regularly for 20 years or more and has not been blocked. Other tests may also need to be satisfied to make any of these changes.

Routes can only be stopped-up if it can be proved that they are not used and can be diverted to a more “commodious route” but they must be open and walkable before they can be diverted.

7.12.3 Safety Inspections

All PRoW are inspected as specified in Table 4 and defects reported and categorised according to the regime detailed in 6.2.1 and 6.2.2.

7.12.4 Maintenance

Condition Survey sheets are completed on an annual basis for each Public Right of Way (PRoW) inspected. Details of obstructions, damage and poor surface and signage are noted on the Survey sheet, with specific location details of the problem. Where possible, photographs are taken as this is very helpful in assessing what materials are needed to remedy the problem without the need for a second visit to clarify the situation.

Within Medway Council’s Asset Management System (MCAMS) every PRoW has been allocated a Site Reference and Unique Street Reference Number (USRN). Condition Survey Results and Safety Inspections are scanned and linked to the site reference to ensure an audit trail for all inspections. Several contractors and volunteer groups undertake maintenance work and records of such activity are logged against the site reference wherever possible.

All work identified during routine inspections is to be referred to the Highway Management Engineer who will select larger jobs for consideration for capital funding.

7.12.5 PRoW Asset Aspirations

To commence the production of new Definitive Maps from January 2016.

To carry out a survey of the entire netowork, commencing from May 2015, with expected completion by August 2016.

To plot and map every stile and gate on the network and produce this information on an interactice map.

To capture photographs and video footage of the network and utilise this information on an interactive map.

7.13 Public Transport Assets

7.13.1 Asset Champion

The Senior Engineer, Programmed Maintenance is the Asset Champion for public transport assets. This is shown in full in figure 3, section 4.The Asset Champion's main duties mainly concentrate on the cleaning and maintenance of bus shelters.

7.13.2 Asset Group Inventory

There are 322 bus shelters recorded in Medway Council's Asset Management System (MCAMS). The breakdown of structure type is shown in Table 29.

Type	Cantilever	Enclosed	Semi Enclosed
Quantity	135	17	170

Table 29: Bus Shelter Structure

195 of these bus shelters are maintained by a Contractor who specialises in this type of work for Medway Council, the rest are privately owned and owners are notified of any defects found.

7.13.3 Routine Maintenance

All bus shelters are regularly cleaned at the frequency shown in the bus shelter register. The frequency ranges from 10 working days to 28 days dependent on the location and usage.

7.13.4 Responsive Maintenance

Bus shelter defects are reported by the highway inspector in the course of their normal inspections and repaired according to category of defect. Defect reports may also be received from members of the public and bus operators.

7.13.5 Public Transport Asset Aspirations

To ensure where reasonbly practical that all authority owned bus shelters are cleaned and maintained with no damage.

To maintain an up to date asset inventory of bus shelters and there identification numbers in the field and within Medway Council's Asset Management System.

7.14 Car Parks

7.14.1 Asset Champion

The maintenance of the Car Park assets is the responsibility of the Parking Enforcement and Car Park Manager. The structures themselves are monitored by the Medway Council Structures Team. This team takes responsibility for ensuring that regular inspections are carried out to record the degeneration of its condition.

The structure and reporting lines are shown in figure 3, section 4.

7.14.2 Asset Group Inventory

There are 57 car parking sites, including three multi-storeys, offering over 5,910 parking spaces. Only one of the multi-storeys is open 24 hours. The other sites are a mixture of short and long stay parking, open 24 hours with charges applicable between 7.00am and 10.00pm, with 647 spaces offering free parking.

Medway Council also offer three flat surface disabled badge holder car parks providing 43 allocated parking spaces. Blue badge holders may also park for free in any other bay within the flat surface car parks, however, car park maximum stay must be adhered to.

The surface car parks are operated on a 'Pay and Display' (P&D) basis using approximately 80 off street machines. The Brook multi-storey car park (MSCP) is operated with Four 'Pay on Foot' machines. The Market Hall MSCP is now fitted with four P&D machines and the pay on foot system has been removed. This will be used as a business case as to whether P&D can be rolled out to the last remaining pay on foot car park. This is due to the fact that the pay on foot equipment is becoming obsolete and beginning to fail.

The Market Hall MSCP now only utilises two of its five floors; the other areas are securely gated off.

As of February 2015, Park Mark awards have been given to 42 Medway Council Car Parks after their inspections. The Park Mark scheme is designed to give increased confidence to users of the car parks that the sites have been risk assessed by local police for providing a safer place to leave vehicles. Attributes taken into account include management of vegetation, surveillance facilities, cleanliness and general maintenance standards.

Most sites are monitored by Closed Circuit Television (CCTV) which is managed and monitored centrally by Medway Council's Control Centre (MCCC).

A Free Shop Mobility service is also provided offering wheelchairs, power chairs and scooters for disabled shoppers. This operates from the Brook MSCP.

7.14.3 Routine Maintenance

The assets on surface car park sites, i.e. not multi-storey, are visually inspected for safety by the highway inspectors, under the direction of the Engineer/Team Leader Safety Inspections, according to hierarchy. Inspection frequencies will range from once a month to once a year as detailed in the Inspector's Manual (Appendix B). Defects are categorised and reported as described in Section 6.2, similar to other highway assets.

Pay and display machines are maintained by the Car Park supervisor on a daily basis, utilising an annual maintenance contract when necessary.

An overall condition assessment will be made of the surfacing and reported to the carriageway Asset Champion, through Medway Council's Asset Management System (MCAMS). Long-term maintenance will be scheduled as part of carriageway maintenance programme.

Lighting maintenance is included under the street lighting contract managed by the Street Lighting Asset Champion. The Street Lighting term contractor carries out routine inspections on a monthly basis for Multi Storey Car Parks; any faults are reported to the Street Lighting Asset Champion. Additional information is also given by the contractor on any damage to light fittings that can be a danger to public safety through visual inspections. External car parks are inspected as part of the fault reporting section in 7.4.4.

Cleansing of all car parks is carried out under the Highway Cleansing contract.

7.14.4 Responsive Maintenance

Responsive repairs are generated from the Car Park Supervisor and Highway Inspectors.

Typical repairs required of a responsive nature include worn road markings, potholes, damage to barriers and other fabric. A variety of contractors are used including the main term contractor to carry out responsive maintenance of all Medway Council Car Parks.

7.14.5 Car Park Assets Aspiration

To increase the number of Park Mark awarded sites in Medway.

To map all Car Park data including Pay & Display machines in Medway Council's Asset Management System.

Following a successful trial, Medway aims to implement pay by phone facilities for all of its Car Parks.

7.15 Adoptions

7.15.1 Asset Champion

The Principal Engineer for Adoptions is the Asset Champion as shown in figure 3, section 4.

7.15.2 Asset Group Inventory

The Highway Adoptions team are responsible for working with developers to ensure any potential adoptable asset is built to Medway standard and that any future maintenance liability is kept to a minimum.

Inventory updating is completed by the provision of completed Section 38 agreements. As stated in the Highways Act (1980), a Section 38 Agreement is an agreement concerning the adoption of new estate roads which developers may enter into as an alternative to the deposit of “Advance Payments with the Highway Authority prior to the beginning of construction work, to cover the cost of bringing the estate up to adoption standards.

7.15.3 Procedure

Upon completion of a Section 38, the Principal Engineer for Adoptions will provide stakeholders a copy of Certificate of Completion with the appropriate ‘As-built’ drawing by internal memorandum to complete the legal process. Inventory data from ‘As-built’ drawings and site visits are used to update the National Street Gazetteer (NSG) and any appropriate site information on Medway Council Asset Management System (MCAMS). For audit purposes all changes are trailed and logged in MCAMS for future reference.

The Pavement Management System (PMS) network is updated to mirror the changes made to the NSG. This PMS shape file is provided to a Contractor who includes it in the ongoing process of structural condition surveys.

The adopted road sections are added to the condition survey batches within MCAMS for Highway Inspectors to carry out routine inspections. All this information is used as the basis for condition surveys, defect reporting and asset valuation.

7.15.4 Adoptions Aspirations

To develop and produce Medway's own official highway design guide.

To review and produce Medway's Adoption Policy on Section 38 and Section 278.

To ensure that new adoptable Highway is built to a high standard with minimum clutter, easy and affordable maintenance.

7.16 Projects (New Build)

7.16.1 Asset Champion

Principal Engineer for Projects is the asset champion for this team as shown in a structures chart available for viewing in figure 3, section 4.

7.16.2 Asset Group Inventory

The projects team will complete schemes for a number of Clients. The team is responsible for creating designs and associated specifications as well as providing project management for all stages of the project including construction. Care and attention to detail is given while designs are created to minimise clutter on the highway and remove unnecessary assets that are no longer needed.

Inventory updates are completed through the provision of 'As-built' drawings and specifications to be updated on Medway Council's Asset Management System (MCAMS).

7.16.3 Procedure

'As-built' documentation and any other associated information are provided electronically; this is to be added to MCAMS. For audit purposes all changes are trailed and logged in MCAMS for future reference.

The Pavement Management System (PMS) network is updated to mirror the changes made to the National Street Gazetteer (NSG). This PMS shape file is provided to a Contractor who includes it in the ongoing process of structural condition surveys.

The adopted road sections are added to the condition survey batches within MCAMS for Highway Inspectors to carry out routine inspections. All this information is used as the basis for condition surveys, defect reporting and asset valuation.

7.16.4 Projects Aspirations

To develop and produce Medway's own official highway design guide.

All projects are designed to a high and consistent standard.

To ensure that any projects involved on the Highway is built with minimum clutter, easy and affordable maintenance for the future.

8.0 Medway Contract Performance

8.1 The Contract

All Highway repairs and maintenance are carried out by a Term Contractor. Works are managed through Medway Council's Asset Management System (MCAMS) ordering facility, to which the contractor has direct remote access.

8.2 Performance Monitoring

When the ordered work is physically complete, the Term Contractor will submit a statement which is passed to the originating person who raised that order. This is for approving the payment that the work has been completed and to a satisfactory standard as agreed by the person who raised the order.

Contractor performance is monitored with 19 Key Performance Indicators (KPI) which are grouped under six headings, Table 30, which influences any contract extension, offered to the contractor.

There are also an additional eight non-contractual KPI used to gauge the Contractor's performance. Table 31 displays the headings.

Indicator Description			Performance Indicators
Adherence to Programme	A1	Predictability	% planned maintenance /schemes started on time
	A2	Predictability	% live orders not overdue
	A3	Traffic Management Act	Value of shadow FPN
	A4	Daily Whereabouts	Delivery on before 9:30am
Health & Safety	B1	Accident Frequency	A.F.R. Indicator
	B2	Injuries/Damage	Number of third party injuries / damage
	B4	Site Health and Safety Inspections	Number of NCR reported at weekly progress meeting
Complaints / Compliments	C1	Complaints	Number of complaints received that require corrective action by Volker Highways
	C2	Response to Complaints	% of C1 responded to substantively within 10 working days
	C4	Information Boards	Number of sites inspected not displaying information boards
Financial	D1	Timely Submission of Applications	% payment applications issued to the Service Manager within 28 days of completion
	D2	Accuracy	% payment applications agreed by the Service Manager
Recycling	E1	Construction Waste to Transfer Station or Landfill	% waste produced in delivering the service that is disposed of as waste or landfill
	E2	Recycling	% materials used to deliver the service from recycled or secondary sources
Quality	F1	Right First Time	Number of task orders requiring corrective action at weekly meeting
	F2	Emergency Response	% call-outs attended within response times
	F3	Winter Service	% gritting routes treated within response time
	F4	Quality Management System	Number of non-conformances from audits
	F5	Considerate Constructors Scheme (CCS)	Average score received from CCS audits (over a 12 month period)

Table 30: Medway Contractor Key Performance Indicators

Indicator Description			Performance Indicators
Non-Contractual Key Performance Indicators	X1	Client Satisfaction	Level of Service Manager's satisfaction with the service
	X2	Accuracy of Orders	% variation between original order value and agreed final payment
	X3	Level of Member / Lead Member Satisfaction	Level of Member satisfaction with the service
	X4	Payment	% payments made by Medway within 28 days
	X5	Staff Development	Number of formal training days of Volker Highways workforce
	X6	Compliments	Number of complimentary letters or emails received
	X7	Local Sourcing	% value of all materials and services provided within Medway and 20 mile radius
	X8	Early Contractor Involvement	Number of ECI recorded at weekly meeting

Table 31: Medway Non-Contractual Key Performance Indicators

8.3 Contract Aspirations

To continue to build on current performance in new contract due in 2017.

To ensure that the new contract delivers and attains further improvments in its service to Medway.

To build upon the new contract and develop suggestions for Highways Maintenance Efficiency Programme and other National acredited sources.

9.0 Asset Management

Since 2010 Medway has been at the forefront of implementing asset management principles into its working environment and methods. Much of this Transport Asset Management Plan (TAMP) is based largely on the guidance provided by the Highways Maintenance Efficiency Programme (HMEP) along with local and national best practice.

9.1 Asset Management Principles

9.1.1 Framework

As a basis for providing a consistent approach to implementing the Guidance Document 'Highway Infrastructure Asset Management' (HMEP UKLRG, 2013) and its recommendations, a Framework (Figure 2) has been designed and inducted within Medway Council's activities in supporting asset management. These activities highlighted within the Medway Asset Management Framework sets out the processes needed to record, develop, apply and continually advance in asset management, insuring that senior officers and elected members are engaged in the process.

9.1.2 Leadership Commitment & Communications

It is fundamental to the implementation process to have commitment from Medway Council's senior decision makers and leadership once asset management has been successfully adopted. The support given is paramount in ensuring the future of asset management is sustainable to Medway Council and be beneficial to all stakeholders. Pertaining to asset management, regular information is actively communicated to relevant stakeholders through the use of Citizens Panel, Tracker Survey, National Highway and Transport survey and focus groups.

9.1.3 Benchmarking

Public opinions and National accredited surveys are used to allow the review and set benchmarks for Medway Council in aspects related to travel, transport and highway assets. Performance is monitored to ensure that both the Highway team and Term Contractor are achieving their maximum potential on a day to day basis. Regular meetings are held between Highways and the Term Contractor to flag up any issues and resolve them as efficiently as possible.

9.1.4 Performance & Monitoring

It is now generally acknowledged that the performance of the local highway network plays an important role in the local and national development, whether it is economic or in the interest of the local community. Medway's Highway Authority has taken action and implements a thorough reactive and routine maintenance programme to ensure the impact of severe winters and flooding has less of an impact on the network and local businesses. Performance reviews are considered as a way of monitoring service and operational levels to ensure improvements are being made especially where the performance is below that of what is expected. Dashboards on Medway Council's Asset Management System (MCAMS) are used to monitor the performance from a day to day basis. Reviews of this can be taken at anytime during the year by senior decision makers should they need assurance that the asset management approach is methodical and effective.

9.1.5 Risk Management

Risks associated with Medway's assets are managed for current and future events through the approach of asset management. MCAMS is used to identify, store and warn Asset Champions and the Contractor of impending risks associated with their assets. This will help in mitigating measures appropriately when carrying out operational works on the Highway tactically and strategically to reduce risk to public safety foremost and other factors associated.

9.1.6 Asset Data Management & Systems

Data on each asset inventory is stored within MCAMS with full location details. Any works orders are associated with each asset to help with performance reporting to senior decision makers and stakeholders, which are then used to benchmark. MCAMS also contains within it a mapping function with each individual asset plotted. Medway Council's Asset Deterioration And Management System (MCADAMS) contains within it the results of nationally accredited condition surveys, which have assessed the network infrastructure and are used to assist with maintenance work prioritisation. Additional survey data is contained within bespoke Medway Council software systems and then imported into the MCAMS.

Medway also actively involves itself in BETA testing of toolkits that can aid further in applying lifecycle scenarios for ancillary assets, carriageways and footways. Further detail is given on how this involvement in testing has offered itself to help local authorities in financial information on its assets in Section 9.2.

9.1.7 Works Programming & Lifecycle Planning

Medway has implemented a five year rolling programme for carriageway and footway; aiming to do the same with its structures once bridge condition data has been fully incorporated into MCAMS. With the use of MCADAMS, a prioritised list of schemes is developed for carriageway and footway that allows timely use of different suitable treatments in aid of lifecycle planning.

9.1.8 Competencies & Training

To ensure that Medway remains competent and well informed in the asset management field, regular attendance at the Chartered Institute of Public Finance and Accounts (CIPFA) Highways Asset Management Planning (HAMP) network means that the Council are planning ahead for highways and transportation. Through the CIPFA HAMP series which is supported by the Department for Transport (DfT), Medway looks to engage actively in developing asset management planning and use training facilitations and workshops provided by CIPFA. Further to this, every officer's personnel development review reflects the requirement of asset management.

9.2 Gross Replacement Cost & Depreciated Replacement Cost

In 2013 CIPFA released a Code of Practice for Transport Infrastructure Assets. The code provides guidance on the development and use of financial information to support asset management, financial management and reporting of local transport assets.

The development of this financial information can have a number of benefits including its use in support for better decision making and delivery of efficiency savings. Some benefits include:

- Whole lift costs-based modelling, to understand and minimise costs and maximise value over the long term
- Scenario planning and option appraisal to model and understand the cost and consequences of different maintenance strategies

Medway Council is required to produce asset valuation information to Central Government based upon this code of practice for Transport Infrastructure Assets. The information takes the form of the Gross Replacement Cost (GRC) and Depreciated Replacement Cost (DRC) of the highway network within Medway. These calculations are based upon the UKPMS network. Please see Table 32 for information gathered through analytical methods as advised by CIPFA for 2014.

	Medway Transport Infrastructure Assets						
	Carriageway £'000	Footways & Cycleway £'000	Structures £'000	Street Lighting £'000	Traffic Management £'000	Non Illuminated Furniture £'000	Land £'000
Gross Replacement Cost	£1,107,518	£192,221	£102,963	£32,017	£25,410	£39,408	£1,124,462
Depreciation	£42,866	£60,415	Not available (Sep 2015)	£17,007	£12,815	£14,925	Not available (Sep 2015)
Net Value	**£1,064,652**	**£131,806**	-	**£15,010**	**£12,595**	**£24,483**	-

Table 32: Medway's GRC vs. Depreciation Results for 2014/2015

Medway is now fully prepared to provide GRC and DRC financial information for the Highways Infrastructure Network. As described in this document Medway has a robust and accurate inventory system and set of procedures. Since 2011 Medway has provided ancillary assets to the CIPFA supporting materials website for use in sampling by similar sized Authorities who do not have robust inventory.

9.3 Asset Management Aspirations

To continue the implementation and advancement of asset management principles from Codes of Practices, local and National best practices, utlising local values where possible.

To further communications to relevant stakeholders regarding asset management through the current use of online media such as Facebook, Flickr, Youtube and in the near future Twitter.

To continue benchmarking locally and nationally by comparing performances using Medway's Asset Management Framework (Figure 3); by sharing information to aid with continous improvement.

To ensure that Medway Council's Asset Management Systems continues to be sustainable, able to support with relevant information and is accessible to all relevant staff.

For Medway to go on involving itself in BETA testing toolkits, improving and developing asset management through workshops and steering groups.

To apply a three to seven year works programme to all major asset groups and to sustain long term investment through lifecycle planning.

To supply CIPFA with a fully auditable GRC/DRC figures by end of 2015/2016.

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Appendices

Appendix A

Job Number	Asset Type	Brief Description	Road Name
999999	Bollard (Steel)	Installation of 6 x steel bollards at side of number 5	Grove Road (USRN: 99999999)

Appendix B

Medway Highway Services

MANUAL VIII FOR HIGHWAY INSPECTION ACTIVITIES

May 2013

CONTENTS.

6) Insurance Claims

7) Security

8) Appendices

1 INTRODUCTION

The council has a duty to maintain all highways in the Medway area in accordance with the Highways Act 1980. Most of the duties and responsibilities are delegated to the Head of Highways & Parking Services who carries out the functions through 2 teams each headed by a Principal Engineer.

"The establishment of an effective regime of inspection, assessment and recording is the most crucial component of highway maintenance" (Well Maintained Highways Code of Practice 9.1.1). The Highways Inspectorate within the Highways Responsive Maintenance Team undertakes highway safety inspections, minor repairs, and responses to complaints and emergencies during operational hours.

Each Highway Inspector will be allocated responsibilities where they are to be regarded as the "custodian" of the public highway in that they will take the initial action, as defined by the remit of their post, in respect of any incident or defect on the highway.

Highway Inspectors carry out routine and response inspections of all publicly maintained highways in Medway to ensure that defects are identified and action taken in respect of these. This can include issuing instructions for any minor work required or referring the issue to another team for action (whilst ensuring the area or asset is safe). They are also required to exercise judgement and organise emergency or urgent action to hazardous defects in accordance with Section 3 of this manual.

To complement the in-house operational training, provided to each Highway Inspector when new, each Highway Inspector will undertake formal nationally recognised training. *"The holding of City and Guilds Scheme 6033 Unit 311 (Highway Safety Inspection Award) can contribute positively to risk management and the exercise of the special defence in compensation or liability cases"* (Well Maintained Highways Code of Practice 9.28.8) and to this end all Highway Inspectors will undertake to qualify in Unit 311, as well as Unit 301 (general health and safety principles).

The integrity of each road is continually under threat by storm, water, frost, snow, ice, heavy vehicles, service companies, root damage by trees as well as wear and tear and degradation of the materials used in its construction. Maintenance activity will be directed firstly toward safety then to prevention of damage to the highway, appearance is of secondary importance under current budget levels.

This document details the duties and responsibilities of the Highway Inspector. It should be read in conjunction with the Councils Highways Asset Maintenance Plan (HAMP),and the "Well Maintained Highways" code of practice. In addition, it should

be seen in the context of the inspection regime that is contained within the Medway Council's Asset Management System (MCAMS) and the route planner held on the W drive and issued to all Highway Inspectors (see appendix 1)

2 HIGHWAY INSPECTIONS.

2.1 Routine Inspections

Regular safety inspections of the highway will be undertaken in accordance with the inspection regime contained within MCAMS and the route planner, relating to that regime, as contained on the W drive and issued to each Highway Inspector. Hazards, defects, damage, obstruction, misuse of all parts of the highway and street furniture will be monitored and the necessary action taken. Inspections will be recorded in the Inspectors individual log/diary but the main record will be entered into the Highways Group within MCAMS. Diary records may be required as evidence in third party claims and prosecutions.

These regular inspections will include a safety assessment, at the frequency set in table 2.4. During each site inspection, footways, carriageways and all highway assets will be inspected. Highway Inspectors will also note the general condition of the carriageway and footway and refer areas, where maintenance would be of benefit, to the Highways Planned Maintenance Team for them to assess and possibly include in future maintenance programmes.

The inspection regime is contained within MCAMS and each Highway Inspector is provided with a yearly planner, showing all routes within their responsibility and the target date range when each route should be inspected (appendix 1). Details of the individual streets contained within each route are contained within MCAMS. The inspection regime will be updated on a regular basis to include newly adopted streets and paths. Inspection record sheets will be entered into MCAMS as soon as possible after the inspection but ideally no longer than three days after the event.

As part of the inspection regime, a red/amber/green grade will be given to each annually inspected street for carriageway and footway overall condition (not safety related). The grading has no numerical degradation value. It is simply a guide, which could be used by the Planned Maintenance Team, to identify footways and carriageways they may wish to inspect with a view to including in future resurfacing schemes.

2.2 Public Rights of Way

Public Rights of Way are highways in their own right and are therefore subject to largely the same legislation as for other highways including the Highways Act 1980, Section 59 & 60 of the Wildlife & Countryside Act 1981, Section 27 & 30 of the Countryside Act 1968 and the Public Rights of Way Act 1990. *According to the Well Maintained Highways (Code of Practise) 2005, "authorities have not generally*

established specific systems for safety inspections for Public Rights of Way based on hierarchy. Respective liabilities for safety are complex and providing planned safety inspections similar to those for highway maintenance would exceed resources currently available" (9.4.11). Medway Council separates its Public Right of Way network into 2 categories for inspection, as detailed in the table contained within 2.4. For annual inspections, Highway Inspectors will complete the PROW inspection form (appendix 2), following their inspection and pass it to the Team Leader for Highway Management, as well as entering the inspection into MCAMS. Those inspected on response, will have the necessary information and outcome updated on the original service request that prompted the inspection.

2.3 Car Parks

Car parks, for which the Head of Highways and Parking Services is responsible, are regularly inspected at the frequency laid down in the inspection regime (and shown in 2.4), varied with adjoining roads (appendix 3). A car parks checklist is included in 2.8.

2.4 Inspection Frequency

A hierarchy, based on appendix 4 and detailed below, determines the frequency of inspection.

Highway Type	Inspection Frequency (carriageway and footway)
H1) Highway Use Areas	Weekly
H2) Main Roads	Monthly
H3) Secondary Routes	Monthly
H4) Access Routes	Quarterly
H5) Spine Roads	Quarterly
H6) Local Roads	Annually
PRoW's	Annually
Excluded area ProW's and Alleyways/Footpaths	Response

Tolerances:

Inspection	Tolerance
Weekly	Plus or minus 1 day

Monthly	Plus or minus 1 week
Quarterly	Plus or minus 2 weeks
Annual	Plus or minus 1 month

N.B. Tolerances may be altered, by the Principal Engineer, at times when inclement weather or bank holidays dictate but every effort will be made to return to the regime as soon as is possible thereafter and catch up with those inspections affected.

2.5 The Inspection Process

Inspections are to be conducted in a diligent and professional manner in daylight in accordance with the prescribed inspection regime.

Inspections are to be walked except where the footway can be clearly and safely assessed from a moving vehicle i.e. on streets with little or no on-street parking or where it is unsafe to do so, e.g. where there are no footways, rural or high-speed roads (appendix 5). If the Highway Inspector deems it necessary, the assistance of a colleague can be sought to assist in these inspections. Inspectors must wear the correct high visibility clothing and other PPE provided.

Highway Inspectors will direct their attention to the condition of all highway assets including carriageway, footway, verges, features, furniture, markings and signs, (see 2.7 below). Standards of acceptability will be provided for reference. Where it is apparent that an item does not comply with the acceptable standard the Inspector will take the appropriate action.

2.6 Response Inspections

Highway Inspectors may need to visit individual sites to respond to enquiries and reports of damage to highway assets. The Highway Inspectors first duty is to ensure that the subject of the complaint, if required, is made safe. Care should be taken to ensure that details of defects are properly collected and recorded and any necessary minor works ordered. If the damage or asset is outside the remit of the Highway Inspectors role, then it should be referred to the relevant Officer/Team for action.

If it is relevant, details of the person/company, responsible for the damage, should be gathered and passed to the Highways Management Team to investigate recharging any costs involved.

Response inspections, following receipt of an enquiry, must be undertaken within the corporate timescale of 10 days, but most will be undertaken in a substantially less period.

2.7 Medway Tunnel

Highway Inspectors will carry out daily driven visual inspection of both east and west bound bores of Medway Tunnel to include the on and off slips at Chatham Maritime and the main A289 access roads on both sides of the river as far as Upnor roundabout in the west and Gillingham Gate interchange in the east, seven days per week. A report sheet is appended to this document (appendix 6), which is to be completed and handed in to the Team Leader, who will pass it onto the Tunnel Manager.

2.7 Inspection Check List

The Highway and Car Park Inspection Check Lists are intended as guidance to Highway Inspectors in order to indicate what they should be looking for during their routine highway inspections. There will be items that impinge on the highway that do not appear on the list and these issues should be reported and actioned, at the Highway Inspectors discretion.

Highway Inspection Check List

Asset	Feature	Condition	Action
Carriageway	Surface Skid resistance Potholes Covers & Frames Trenches Edges Kerbs	Condition, cracking, rutting, ride quality Anti skid, polished, loose material See Intervention levels, (position, depth) Low, high, broken, loose, polished Crowned, dipped, temporary, poor Cracking, potholes Broken, loose	Report to Maintenance & Design Report to Maintenance & Design Order repair Order repair Report to Traffic Management or order repair Order repair Order repair
Footway	Surface Trips Covers & Frames Trenches Vehicle crossings	Cracks, evenness, texture, consistency See Intervention levels, (position, depth) Low, high, broken, loose Crowned, dipped, temporary, poor Condition, legal, illegal.	Report to Maintenance & Design Order repair Order repair Report to Traffic Management or order repair Report illegal crossings, repair damaged ones
Cycle track	Surface Trips Trenches Covers & Frames	Cracks, evenness, texture, consistency See Intervention levels, (position, depth) Crowned, dipped, temporary, poor Low, high, broken, loose	Report to Maintenance & Design Order repair Report to Traffic Management or order repair Order repair
Gullies	Full Damaged Flooding	Blocked Broken Repeat blockage	Order clean Order repair Report to Maintenance & Design
Ditches (where known)	Full Overgrown	Blocked Flooding	Report to Maintenance & Design Report to Maintenance & Design
Verges	Maintained Maintained	Ruts/Holes Sight lines	Order repair Report to Grounds Maintenance

Asset	Feature	Condition	Action
Signs/Posts	Purpose Condition Fixings Alignment	Redundant posts Struck, worn-out, dirty Secure, broken, missing Facing correct direction, minimum height Graffiti	Order removal Small signs order repair/renew, Large signs report to Maintenance & Design Order repair Order realignment Order cleaning
Street Name Plates	Condition	Damaged/missing	Order replacement
Obstructions	Hedges/Bushes Builders Material Caravans/Boats	Obstructing free passage Being stored on the highway	Request landowner to cut back/serve notice/do work in default and Refer to Community Safety
Bollards & Pedestrian Guard Rails	Condition Damage Secure	Dirty/chipped/rusty Accident, vandalism. Properly fixed.	Order clean or paint Order repair/renewal Order repair
Marker Posts		Dirty Broken	Order cleaning Order replacement
Lighting	Lighting columns Sign lights & KLBs	Day-burning Doors off Damage	Report to Street Lighting
Markings		Missing Worn out Incorrect	Report to Maintenance & Design
Trees		Roots/Overhanging/Damaged/Dead	Make Safe then Report to Tree Team or deal with by Section 154 Notice
Crash Barriers		Damage	Report to Maintenance & Design

Car Park Inspection Checklist

Asset	Feature	Condition	Action
Surface	Surface Potholes Covers & Frames Trenches Edges Kerbs	Condition, cracking, rutting, ride quality See Intervention levels, (position, depth) Low, high, broken, loose, polished Crowned, dipped, temporary, poor Cracking, potholes Broken, loose	Report to Parking Services Order repair Order repair Order repair Order repair Order repair
Roads/Footpaths	Surface Potholes/Trips Covers & Frames Trenches	Cracks, evenness, texture, consistency See Intervention levels, (position, depth) Low, high, broken, loose Crowned, dipped, temporary, poor	Report to Parking Services Order repair Order repair Order repair/Report to Parking Services
Greenspaces Trees	Maintained Maintained	Condition (overgrown etc) Condition (overgrown etc)	Refer to Greenspaces Refer to Parking Services
Gullies	Full Damaged Flooding	Blocked Broken Repeat blockage	Order clean Order repair Report to Maintenance & Design
Furniture P&D Machines	Condition Condition	Missing/Damaged Missing/Damaged	Order repair or refer to Parking Services Report to Parking Services
Markings	Condition	Missing/Worn	Report to Maintenance & Design

2.8 Defect Types

During inspections defects will be categorised :-

Cat 1) Defects that require prompt attention because they represent an immediate or potential hazard.

Cat 2) Defects that do not represent an immediate hazard and can be repaired later.

Category 1 defects will need to be dealt with expeditiously, guidance is provided below in 3.2 in selection of response:-

- Emergency (2 hour) or
- A less immediate priority (in 24 hours or more)

2.9 Thresholds

The accepted threshold for defects requiring intervention (assessed per the risk matrix) is 20mm or more in the footway and 50mm or more in a carriageway. At points in the carriageway, where pedestrians are invited to cross, the threshold should be the same as for footway. These are general guidelines and only relate to defects that have near vertical sides, a 20mm depression in a footway is **not** considered dangerous. Alternatively a trip of 10mm to 20mm in a footway or paved area where many people congregate or outside an old person's home or school may be considered hazardous and a decision will need to be made based on the individual circumstances presented at the time and assessed in accordance with the risk matrix.

The above criterion has been set following a number of legal cases which have established some precedents by which cases with similar circumstances will be judged. These guidelines have provided authorities with some indication as to what may constitute a defect (a breach of statutory duty to maintain the highway).

2.10 Intervention levels (The point at which action to repair should be taken)

Inspectors will need to make a judgement about the degradation of individual defects.
Defects that do not reach the intervention level may be repaired (based on the individual circumstances and location) or left to be re-assessed during the next planned inspection.

Footways - defects of 20mm (or more) depth/trip will be regarded as the intervention level in footways. In pedestrianised shopping areas, the intervention level could be below this, depending on the individual circumstances and location, which should be assessed against the risk matrix.
Carriageways - defects of 50mm (or more) depth/trip will be regarded as the intervention level in carriageways. However where people normally cross the road or where they are invited to cross, i.e. at a pedestrian crossing or by a pram ramp, for intervention purposes the carriageway should be treated as footway,.

Surface cracks in bitumen, slabs, blocks or concrete are not considered hazardous unless they create a trip as defined above. If cracks are more than 20mm wide and 20mm deep in a footway and more than 50mm wide and 50mm deep in a carriageway they should be considered as requiring action.
Missing Items - setts, sections of kerbs, blocks and covers should always be renewed or repaired and the priority given should be decided by the individual circumstances and be assessed using the risk matrix.

3. ACTION FOLLOWING INSPECTION

3.1 Items Needing Attention.

Highway Inspectors will record items that need attention. Most defects can be rectified directly by the Council's Term Maintenance Contractor by direct action or by the Highway Inspector raising an order in MCAMS. All task orders will carry a priority rating which will define the urgency of the contractor's action (see 3.2 below).

3.2 Risk Assessment

To aid inspector's judgement in selecting a priority for each order from the available range:

Emergency - Within 2 hours
Priority 1 - Within 24 hours
Priority 2 - Within 3 Days (+ allowance for TMA Notices)
Priority 3 - Within 28 days
Priority 4 - at an agreed specified date

Each order should be "risk assessed" broadly in line with the guidance provided below in the matrix provided for local use.

The probability of an incident or injury occurring is factored with points representing the possible result of an incident arising out of an observed condition or the injury or damage resulting, the impact. In assessing "**probability"**, Highway Inspectors will have to consider traffic both vehicular and/or pedestrian. E.g. i*t is* **Improbable** *that an incident would result from a large boulder being placed on a rural verge whereas the probability of an incident occurring if the same boulder was placed on carriageway is* **Likely.** Hence the range improbable, possible and likely in the matrix.

For assessing **"impact"** the range is described as:-

- **Major -** a threat to life or limb or serious damage to a vehicle.
- **Medium** is actual bodily harm (broken bones, lacerations) tyre/wheel damage.
- **Low** is basic inconvenience only.

Risk Matrix:-

Impact	Improbable	Probability Possible	Likely
Nil (1)	**1**	**2**	**3**
Low (2)	**2**	**4**	**6**
Medium (3)	**3**	**6**	**9**
Major (4)	**4**	**8**	**12**

Risk points 3 or below would result in a 28 day order, 4 to 6 points would normally require a 3 day order or a an agreed completion date where 8/9 points would generate a 24 hr order and 12 points = a 2hr emergency response.

3.3 Records.

Highway Inspectors will record the results of their safety inspections against each site/street in MCAMS. Where items are in poor condition but remedial action is outside the remit of the Inspector he/she will report the item on to the relevant Officer in the Maintenance & Design Team for further evaluation and/or repair. Any paper records/diary entries should be retained for insurance purposes.

3.4 Replies to Complaints/Enquiries.

Replies to complaints & enquiries following inspections must be answered either by letter, personal visit or telephone and will always be recorded on MCAMS for future reference.

Because of the need to refer some complaints/enquiries to other teams and the time scales involved it may be necessary to give holding replies. Many of the responses and holding replies can be dealt with a personal visit or phone call by the Highway Inspector, however letters are acceptable and the details recorded on the relevant MCAMS enquiry.

3.5 Cost Codes

The Head of Highways & Parking Services will issue a list of cost codes with descriptions of types of work that can be charged to the highways budgets, these cost codes will be entered in MCAMS. Under no circumstances are these codes to be used for other than highways work. Updates, regarding the use of cost codes, will be provided, when relevant, by the Principal Engineer or Team Leader.

4 HIGHWAY REPAIRS.

4.1 Issue of Instructions.

4.1.1 Emergency and Urgent Work.

The Contractors emergency team can be called at any time through Volker's Emergency Centre, it will be necessary to issue individual written instructions for emergency (2hr response) work after the event. The contractor will issue an "Emergency Call Our Report Sheet" for each response and the person who issued the instruction is responsible for providing a MCAMS order by the next working day.

In the event of Highway Emergencies over and above the capabilities of the Emergency Team in terms of the type of response, number of people, equipment or plant required, the Team Leader should be consulted before detailed instructions are given.

Highway Inspectors can issue works orders for urgent (safety) repairs, to defects on the carriageway, footway or any asset contained on the Highway, the priority selected will be at the Inspectors discretion by reference to Section 3.2.

4.1.2 Minor Permanent Repairs.

Inspectors are also required to issue prioritised orders for minor non-urgent repairs, which may include the following:-

Carriageway repairs (up to 50 square metres, at any one location)
Footway repairs (up to 50 sq m, at any location)
Application of crushed stone or similar to muddy public paths

Minor repairs to non-structural walls (i.e. planters)
Footway clearance (obstructing vegetation).
Renewal of pedestrian guard rails
Repairs to Street Furniture
Replacement of non-illuminated bollards
Repairs and renewals of small signs
Renewal of regulatory signs
Fill ruts in verges
Street Nameplates

Any other class of work approved by the Team Leader

4.2 Aids to Movement & Safety

Highway Inspectors should note, on inspection, worn out or missing lines, missing or misaligned directional signs. These should be referred to the Maintenance & Design Team through MCAMS for further action

4.3 General Guidance

Under normal circumstances individual orders issued by Highway Inspectors must be in line with that detailed above and any orders, in excess of these parameters, should be referred to the Maintenance & Design Team. If in doubt, guidance should be sought from the Team Leader or Principal Engineer.

4.4 The Price List

The vast majority of works requiring attention will be covered by rates published in the Term Maintenance Contract Price List. The rates are contained in and accessed through the order generation process within MCAMS. An abridged version of the price list is also available for reference purposes. Where work is not covered by the Price List, Highway Inspectors should invite a quote from the Term Contractor, or may issue instructions on a day work basis at the discretion of the Team Leader.

4.5 Completion

On physical completion of the ordered work the contractor will submit an automated request for payment. Highway Inspectors will be tasked with checking a percentage of the work for quality assurance and should, in the normal course of their duties, be aware of the orders they have raised and take time to ensure the quality and quantity of the work, being undertaken, is to the expected standard. Where standards are not met, these should be reported for remedial action, to the Term Contractor. KPI's can be used, when remedial action is not forthcoming and this should be discussed with the Team Leader, who will provide guidance on how to proceed.

4.6 Budgets.

Expenditure against budget headings will be monitored by the Highway Finance and Asset Team and information will be provided monthly to the Principal Engineer, to allow for accurate forecasting. Details will include actual expenditure, as well as commitments. The Highway Inspector has the ability to issue instructions to the term contractor for minor works (within the limits defined previously and by their role) and although they have no ability to commit financial expenditure or manage the budgets directly, they must be aware of the implications of the works orders they raise.

4.7 Work to be referred to the Maintenance & Design Team

Work will only be passed on after first ensuring that the need for repair poses no immediate danger to users of the highway. Immediate safety repairs and/or protection can be organised by the Highway Inspector. The following categories of work will be referred to the Maintenance & Design Team.

- Larger Jobs – This includes areas where large-scale maintenance is required and will be from 50m in one site upwards to full scale resurfacing.
- Drainage works outside of one off cleans and gully cover replacement.
- Works appearing on the current year maintenance program – repairs should be discussed with the relevant Assistant Engineer to determine when the

maintenance scheme is actually programmed to take place and whether patching is required prior to this.
- Signs and Lines outside the remit of the post.
- Crash barrier repairs
- Voids and collapses for investigation
- Requests for road closures
- Anti-skid treatments
- Request for minor pieces of new street furniture not requiring a design. Those requiring design or associated with safety for network users must be referred to Traffic Management.

5) ENFORCEMENT

5.1 Obstructions.

Inspectors will make themselves familiar with the Highway Act 1980, but particularly Part IX “Lawful And Unlawful Interference with Highways & Streets” together with Medway Councils Policy on the display of goods. During programmed inspections, Highway Inspectors may ask offenders to remove or make safe such obstructions, whichever, if any, they deem necessary. The obstruction will then be reported, via MCAMS, to the Community Team for action.

5.2 Advertising.

Highway Inspectors will report unauthorised advertising on the highway to the Community Team for action.

5.3 Vegetation.

Where vegetation is clearly overhanging the highway to the extent that it obstructs the free passage of highway users, the Highway Inspector will make an informal request to the landowner to remove the obstruction. Subsequently they may issue a notice under Section 154 of the Highways Act (1980) to the owner/occupier of the land, requiring that the obstruction be removed. Where vegetation is causing a severe obstruction and is deemed a dangerous hazard, immediate action should be taken. Where an owner/occupier fails to comply with the notice, the Highway Inspector can arrange for the obstruction to be removed and the owner/occupier recharged the cost of the work. The Highway Inspector should discuss all works, done in default of notice, with the Team Leader before committing to spending money.

5.4 Trees

Highway Inspectors will take a visible note of any tree on the highway or private land (that could affect the highway), which shows obvious defects. Defects or concerns noted on highway trees should be passed to Medway Council’s dedicated tree team and issues with private trees, affecting the highway, should be referred to the owner for appropriate action, which may include serving notice under Section 154 of the Highways Act (1980). Highway Inspectors are not arboriculturally trained and

therefore, per the Well Maintained Highways Code of Practice (2005) "*A separate programme of tree inspections should be undertaken by arboriculture advisors" (9.6.2).* To this end, Medway Council's tree team are responsible for inspecting and maintaining trees on the highway and the budget to maintain highway trees is passed to them for this purpose.

5.5 Vehicle Crossings

Section 184 of the Highways Act allows for property owners to make application for vehicle crossings outside of their property, the application process is conducted and managed by the Highway Management Team.

The householder may elect for the Term Contractor or a contractor of their choice (from the approved list) to construct the crossing once approved.

Where Highway Inspectors observe the apparent misuse of the footway or verge by vehicles regularly crossing over it to access their property, where there is no vehicle crossing, they should refer this to the Highways Management Team, via MCAMS, who will check for outstanding applications and take the appropriate action.

5.6 Unsafe Practices (Chapter 8 Signage)

Inspectors will make themselves familiar with Chapter 8 of the Traffic Signs Manual and the contents of the booklet entitled "Safety at Street Works and Road Works". They will effectively be the front line in the Highway Authorities role to ensure that works on the highway are carried out in a safe manner and in accordance with the Codes of Practice. Their prime function here will be to either stop works proceeding in an unsafe manner or to make sure, as far as is practicable, that the work continues in a safe manner after signage has been corrected. Where there is blatant disregard for the regulations and or where the offenders will not take advice Inspectors should notify the Engineer responsible for the work, the Traffic Manager or in particularly hazardous incidents the Police. Inspectors should keep a diary of all dangerous incidents observed and any action taken.

6 INSURANCE CLAIMS

6.1 Processing

All insurance claims will be processed by the Corporate Risk and Insurance Team.

6.2 Statements.

Highway Inspectors may be required to produce written statements in respect of third party claims in a form acceptable to the Council's Risk Manager. In addition, they may be required to attend Court to give evidence.

7 SECURITY

7.1 Outline

There are a number of locations within the Borough where highway land is closed to some types of traffic or all traffic, these areas are usually secured by gates or barriers and for various purposes need to be kept secure.

7.2 Locations

A list will be provided of all Highway security barriers, security bollards, gates and locks on a Ward basis (appendix 7).

7.3 Monitoring

Highway Inspectors are required to monitor security barriers and locks in their area and replace missing or broken locks and report other damage or interference. Each Inspector will be provided with keys and replacement locks and will also be required to allow authorised persons access.

At times when the movement of traveller groups are expected Inspectors will check barriers/ bollards/ gates and locks protecting vulnerable areas.

8 Appendices

Appendix 1

	Week 1	Week 2	Week 3	Week 4
January	PEMO	SRMO/SRA2	SNMO/SRA3	SRA4
February	PEMO/SRA5	SRMO/SRA6	SNMO/SRA7	PER2/PER3
March	PEMO/PEQU	SRMO/SRQU	SNMO/SNQU	PER4/PER5
April	PEMO/PER6	SRMO/PER8	SNMO/PER9	PR10
May	PEMO/PR11	SRMO/PR12	SNMO/PEA1	PEA2
June	PEMO/PEQU	SRMO/SRQU	SNMO/SNQU	PEA3
July	PEMO/PEA4	SRMO/PEA5	SNMO/PEA6	PEA7/SNR1
August	PEMO/SNR2	SRMO/SRR1	SNMO/SRR2	SRR3/SSR4
September	PEMO/PEQU	SRMO/SRQU/SRR5	SNMO/SNQU/SRR6	SRR7/SRR8
October	PEMO/PER1	SRMO/PER7	SNMO/SNA1	SNA2
November	PEMO/SNA3	SRMO/SNA4	SNMO/SNA5	SNA6
December	PEMO/PEQU	SRMO/SRQU	SNMO/SNQU	SRA1

Wards Covered:-

Peninsula Strood Rural Strood North

Appendix 1a

Rainham (RNWE)	**Strood Weekly (SSWE)**	**Chatham (RIWK)**	**Gillingham (GNWE)**	**Rochester (RWWE)**
High Street (Moor Street to Maidstone Road both sides)	High Street (Gun Lane to Rochester Bridge)	Batchelor Street	Green Street (High Street to Theodore Place)	Almon Place
Rainham Shopping Precinct	Commercial Road	Church Street	High Street (Mill Road to Victoria Street)	Blue Boar Lane (High Street to Corporation Road)
Station Road (High Street to Railway Line)		Clover Street	James Street (High Street to Jeffery Street)	Boley Hill
		Globe Lane Alley	King Street (High Street to Jeffery Street)	Castle Hill
		Globe Lane	Sappers Walk	Crow Lane
		High Street Chatham (Luton Arches to Gundulph Road)	Skinner Street (High Street to Jeffery Street)	Epaul Lane
		High Street Rochester (Gundulph Road to Star Hill)	Victoria Street (High Street to Balmoral Road to include the bridge)	High Street (Star Hill to Esplanade)
		Meeting House Lane		Northgate
		Military Road		
		Railway Street (High Street to Best Street)		
		Rhode Street		
		Solomons Road		
		St Margarets Bank		

Appendix 2

Highway Inspector (Print Name)…… Date……

Public Rights Of Way Condition Survey

PROW No. _____ PROW Location_____

	Yes	No
Does path start from metalled road?	☐	☐
Finger post?	☐	☐
Is the start way marked?	☐	☐
Is there parking?	☐	☐
Does the path need way marking? (mainly rural paths)	☐	☐

Surface: Earth/Mud ☐ Type 1 to dust ☐ Gravel ☐ Tarmac ☐

	Yes	No
Mobility friendly?	☐	☐
Does it need vegetation clearance?	☐	☐
Does path follow the definitive map?	☐	☐

Does the path have the following and how many:

Stiles ☐ Gates/Kissing gates ☐ Steps ☐ Bridges ☐

	Yes	No
Does path end at a metalled road?	☐	☐
Finger post at path end?	☐	☐
Is the end way marked?	☐	☐

Other (please state)……

Hazards? (Broken furniture, slippery slope, barbwire, rabbit holes, broken surface, flooded)

……

Highway Inspector Comments

……

……

PROW Officer comments

……

……

Appendix 3

MONTHLY

ROUTE - CPM1

C/P Name	Road Name
Balmoral Gardens	Randolph Road Gillingham
Cricketers	High St/Orchard St Rainham
Jeffery Street	Jeffery St/James St Gillingham
Littlewoods	Jeffery St/James St Gillingham
Longley Road	Longley Road Rainham
Station Road	Station Road Rainham
Black Lion	Mill Road Gillingham

ROUTE - CPM2

C/P Name	Road Name
Almon Place	Almon Place Rochester
Blue Boar Lane	Blue Boar Lane Rochester
Boley Hill	High St/Castle Hill Rochester
Cathedral Garage	High St Rochester
Civic Centre	Esplanade Strood
Commercial Road	Commercial Road Strood
Eason's Yard	High St Rochester
Kings Head	High St/Castle Hill Rochester

ROUTE - CPM3

C/P Name	Road Name
Globe Lane	Globe Lane Chatham
Gun Wharf	Dock Road Chatham
High Street 1	High St Rochester opp Furrells Road
High Street 2	High St Rochester opp train station
Riverside	Dock Road near library
Slicketts Hill	Cross St/Slicketts Hill Chatham
Union Place	Top Union Place turn left through Bingo carpark
Water Front Way	Water Front Way (old Sir John Hawkins)

ROUTE - CPM4

C/P Name	Road Name
Fullagers Yard	Rome Terrace (Disabled Carpark)
James Street	Richard St/James St Chatham
Queen Street	Queen St/The Brook Chatham
Rhode Street	Richard St/James St Chatham
Solomons Road	Solomons Road Chatham (Disabled Carpark)
The Paddock	Rome Terrace
Town Hall	Whiffens Ave/Whiffens Ave West Chatham
Whiffens Avenue	Top of Whiffens Avenue Chatham

QUARTERLY

ROUTE - CPQ1

C/P Name	Road Name
Henry Street	Magpie Hall Road
Kestrel Road	Kestrel Road
Nelson Terrace	Nelson Terrace off Luton High Street
Silverweed Road	Lower Robin Hood Lane
Sultan Road	Silverweed Road
	Newton Close

ROUTE - CPQ2

C/P Name	Road Name
Birling Avenue	Birling Avenue
Croneens	Railway Street
High Street R'Ham	High St opp Mierscourt Road
M2 Commuters Car Park	Maidstone Road Hempstead
Hoo St Werburgh	Stoke Road/Church Street
Lower Upnor	Upnor Road

ROUTE - CPQ3

C/P Name	Road Name
Church Street	Church St Chatham off New Road
Old Road	Old Road Chatham
Uppermount	Old Road Chatham
Grove Road	Station Road/Grove Road Strood
Temple Street	Commercial Road Strood

ROUTE - CPQ4

C/P Name	Road Name
Berkeley House	The Terrace Rochester
Rochester Market	Corporation Street Rochester
King Street	King Street Rochester
The Common	The Common Rochester
Union Street	Union Street Rochester
Coach Park	The Common

ANNUAL

ROUTE - CPA1

C/P Name	Road Name
Upper Upnor	Upnor Road
Reed Street	Reed Street

Appendix 3a

Car Park Inspection Schedule

	WEEK 1	WEEK 2	WEEK 3	WEEK 4
JANUARY	CPM1/CPQ1	CPM2/CPQ2	CPM3/CPQ3	CPM4/CPQ4
FEBRUARY	CPM1	CPM2	CPM3	CPM4
MARCH	CPM1	CPM2	CPM3	CPM4
APRIL	CPM1/CPQ1	CPM2/CPQ2	CPM3/CPQ3	CPM4/CPQ4
MAY	CPM1/CPA1	CPM2	CPM3	CPM4
JUNE	CPM1	CPM2	CPM3	CPM4
JULY	CPM1/CPQ1	CPM2/CPQ2	CPM3/CPQ3	CPM4/CPQ4
AUGUST	CPM1	CPM2	CPM3	CPM4
SEPTEMBER	CPM1	CPM2	CPM3	CPM4
OCTOBER	CPM1/CPQ1	CPM2/CPQ2	CPM3/CPQ3	CPM4/CPQ4
NOVEMBER	CPM1	CPM2	CPM3	CPM4
DECEMBER	CPM1	CPM2	CPM3	CPM4

Appendix 4

Medway's Highway Maintenance Hierarchy

Group	Description	COP	Equiv
		Carriageway	Footway
H1 High Use Areas	Main shopping areas, pedestrian dominated streets, and places where a number of people congregate.		1a
H2 Main Routes	Medway's strategic "A" road network, routes used for abnormal loads, and secondary shopping areas.	2	1
H3 Secondary Routes	"B" class roads, roads forming part of major gyratory systems, and emergency service corridors.	3a	1
H4 Access Routes	Interconnecting roads not included in Groups H2 & H3, and routes between villages.	3b	2
H5 Spine Roads	Spinal roads through residential and industrial areas, and priority paths.	4a	3
H6 Local Roads	Residential roads, service roads, cul-de-sacs, and minor country lanes.	4b	4

Appendix 5

High Speed Main Roads				
USRN	**Name**	**Class**	**Location**	
32100074	Ash Tree Lane	C379	Chatham	
32100054	Berwick Way	A289	Wainscott	
32100162	Best Street	A231	Chatham	
32100309	Capstone Road	C97	Chatham	Ash Tree Ln to Lidsing Rd
32100490	Corporation Street	A2	Rochester	
32100535	Cuxton Road	A228	Strood	M2 to Roman Way
32102941	Fenn St	A228	High Halstow	Britanna Road to Fenn Corner
32100702	Formby Road	A228	Halling	
32100708	Four Elms Hill	A228	Chattenden	
32100732	Gads Hill	A289	Gillingham	Ito Way to Strand R/about
32100789	Grain Road	A228	Stoke	
32100788	Grain Road	B2001	Isle Of Grain	
32100800	Gravesend Road	A226	Strood	
32100837	Halling By-Pass	A228	Halling	
32102585	Hasted Road	A289	Wainscott	
32100946	Hoath Way	A278	Rainham	
32100948	Holborough Road	A228	Halling	
32102902	Ito Way	A289	Gillingham	
32101164	London Road	A2	Rainham	
32101165	London Road	A2	Strood	
32101181	Lower Rainham Road	B2004	Rainham	
32101224	Maidstone Road	A229	Chatham	Bridgewood to Horsted R/about
32101226	Maidstone Road	B2097	Rochester	The Tideway to Laker Road
32101230	Malmaynes Hall Road	A228	St Mary Hoo	
32101230	Malmaynes Hall Road	A228	Stoke	
32102600	Medway Tunnel	A289	Chatham Maritime	
32101397	North Dane Way	B2156	Chatham	
32101462	Pear Tree Lane		Gillingham	
32103074	Peninsular Way	A228	Hoo St Werburgh	
32102901	Pier Road	A289	Gillingham	Strand to Tunnel entrance

32101566	**Ratcliffe Highway**	**A228**	**Hoo St Werburgh**	**Main Road to Ropers Lane**
32101567	**Ratcliffe Highway**	**C1**	**St Mary Hoo**	**Fenn Corner to Allhallows**
32101605	**Rochester Bridge**	**A2**	**Rochester**	
32101608	**Rochester Road**	**A228**	**Cuxton**	**Bush Rd to Formby Rd**
32101626	**Ropers Lane**		**Hoo St Werburgh**	
32102436	**Sharnal Street**	**A228**	**High Halstow**	**Christmas Ln to Britannia Rd**
32102437	**Sharnal Street By-Pass**	**A228**	**High Halstow**	
32101847	**Sundridge Hill**	**A228**	**Cuxton**	**M2 to Bush Rd**
32101949	**Town Road**	**B2000**	**Cliffe**	
32101949	**Town Road**	**B2000**	**Wainscott**	
32101972	**Union Street**	**A231**	**Chatham**	
32102822	**Vanguard Way**	**A289**	**Wainscott**	**Strood side Approach to Tunnel**
32102584	**Wulfere Way**	**A228**	**Wainscott**	
32102903	**Yokosuka Way**	**A289**	**Gillingham**	

Appendix 6

Medway Council		
Inspection Schedule – Medway Tunnel		
Equipment/System	**Task Frequency**	**Site**
Safety Inspection	Daily	East & West Tunnel and roads leading to and from
Additional Information Regular visual inspection to identify defects likely to create a danger to the public/vehicles using the Medway Tunnel		

Number	**Task**
1	Check tunnel is free from build up of debris or litter and that no flytipping is present
2	Check carriageway is clear of water and oil seepage and any ice formation
3	Check for collision damage to barriers and walls of tunnel
4	Check that tunnel lights are working to provide adequate illumination (bulk lamp changes will take place on closure) and the signs above emergency doors and phones are illuminated
5	Check signage on entry and exit is present and undamaged
6	Check carriageway for safety defects i.e. trips and hazards
7	Check lamp columns on entrance/exit to tunnel are undamaged
8	Visually check overhead fans
9	Note any other issues likely to create a danger to the public or employees:-

Comments

Name……

Signature……

Date……..

Appendix 7

Security Measures in need of Monitoring

Location	Site	Desc	Type
Borstal	Shorts Way	Bund	
Cuxton	Sundridge Hill	Blocks & Posts	Fork Lift Reqd
Frindsbury Extra	Vanguard Way	Blocks & Posts	Fork Lift Reqd
Frindsbury Extra	Upnor r/about	Railings	
Gillingham	Hotel Rd/Woodlands Rd	First Gate	
Gillingham	Hotel Rd/Woodlands Rd	Block	Fork Lift Reqd
Gillingham	Lower Featherby Road	Gate across Rd	Fire Lock
Gillingham	Featherby Rd/Bredgar Rd	Gate across Rd	Private
Gillingham	Cornwallis Avenue	Bund	
Gillingham	Pier approach Road	Posts	
Gillingham	Black Lion		
Grain	Grain Road B2001	Gate across 1/2 Rd	Fire Lock
Hempstead	Chapel Lane	Opp Saver Ctr Posts	
High Halstow	Christmas Lane	Gate by Vets	Fire Lock
High Halstow	Christmas Lane	Gate by pump stn	Fire Lock
Lordswood	South end of North Dane Way	Side Gate	Private
Lordswood	South end of North Dane Way	Main Gate	Special Lock
Lordswood	South end of North Dane Way	Posts behind gates	
Lordswood	Albemarle Road	Bund	
Lower Rainham	Bloors Wharf Road	Height barrier & posts	Chubb Lock
Lower Stoke	Grain Road A228	Gate across 1/2 Rd	Fire Lock
Luton	Albany Road	Gate across Rd	Fire Lock
Sharnal Street	Old Sharnal Street	Gate end of Rd	Fire Lock
Sharnal Street	Old Sharnal Street	Field Gate 1	Fire Lock
Sharnal Street	Old Sharnal Street	Field Gate 2	Fire Lock
Strood	Stonehorse Lane	Gate across track	Fire Lock
Strood	Civic Centre	Height barriers	
Walderslade	Silverweed Road	Gate across Rd	Fire Lock
Walderslade	Speedwell Avenue	Gate to rear access	Private
Walderslade	Larkspur Road	Gate across Rd	Fire Lock

Appendix C

Medway Council		
Inspection Schedule – Medway Tunnel		
Equipment/System	**Task Frequency**	**Site**
Safety Inspection	Daily	East & West Tunnel and roads leading to and from
Additional Information Regular visual inspection to identify defects likely to create a danger to the public/vehicles using the Medway Tunnel		

Number	**Task**
1	Check tunnel is free from build up of debris or litter and that no flytipping is present
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7	Check lamp columns on entrance/exit to tunnel are undamaged
8	Visually check overhead fans
9	Note any other issues likely to create a danger to the public or employees:-

Comments

Name……

Signature……

Date……..

Transport Asset Management Policy

First Edition – October 2015

Medway Council

Serving You

CONTENTS

1. INTRODUCTION

1.1 Background

1.1.1 During the Labour administration of 2005 to 2010, the Department of Communities and Local Government (DCLG) was asked to produce an asset management strategy for local government. The Government recognised that local authorities face different challenges and that there cannot be a 'one size fits all' asset management strategy for local government departments.

1.1.2 The DCLG produced a Local Authority Asset Management Framework ("The Framework") to bring together key policies and influences that shape local authority asset management.

1.1.3 There are numerous definitions of asset and property management. This Framework focuses on the following definition as set out in Royal Institute of Chartered Surveyor's 2008 Public Sector Asset Management Guidelines:

"Strategic asset management is the activity that seeks to align the asset base with the organisations corporate goals and objectives. It ensures that the land and buildings asset base of an organisation is optimally structured in the best corporate interest of the organisation concerned".

1.1.4 More recently (2013) the Highways Maintenance Efficiency Programme (HMEP) has built upon this with the realisation that the highway infrastructure is the most valuable asset, in the UK, owned by the public sector.

1.1.5 The HMEP principles mirror those of the DCLG and are directly aimed at local government Highway departments. They have produced a number of guidance documents to assist local authorities in their asset management journey, including a suite of minimum recommendations for the continuous development and improvement of asset management.

1.1.6 Medway Council Highway and Parking Services team has based the management of its assets, on these principles, which are imbedded in our Transport Asset Management Plan (TAMP).

1.2 Medway Council Maintained Highways

1.2.1 Medway Council's Asset Management Policy relates to assets within the remit of the Highways and Parking Services department:-

- Highway maintained at public expense;
- Assets sitting on that land;
- Council maintained car parks for which the service is responsible.

1.2.2 The Asset Management policy will be reviewed annually, by officers, to ensure that the Policy continues to be fit for purpose.

2. ASSET MANAGEMENT

2.1 Objectives

2.1.1 The aim of the DCLG strategy was to encourage Local Authorities to look at the performance of their assets and how they can be used to deliver value for money in local government, help drive improved service delivery and achieve efficiency gains.

2.1.2 The HMEP guidance document on Highway Infrastructure Asset Management made 14 recommendations for local authorities, as a minimum baseline, to help achieve the greatest value from highway assets. Medway Council has reviewed its position, in light of these recommendations, to assist in its future asset management development.

2.1.3 Medway Council's "Transport Asset Management Plan" embodies the objectives of both the DCLG and HMEP, in its core and details how the Highway and Parking Services team deliver those aims and objectives, in line with corporate goals and other strategic policies.

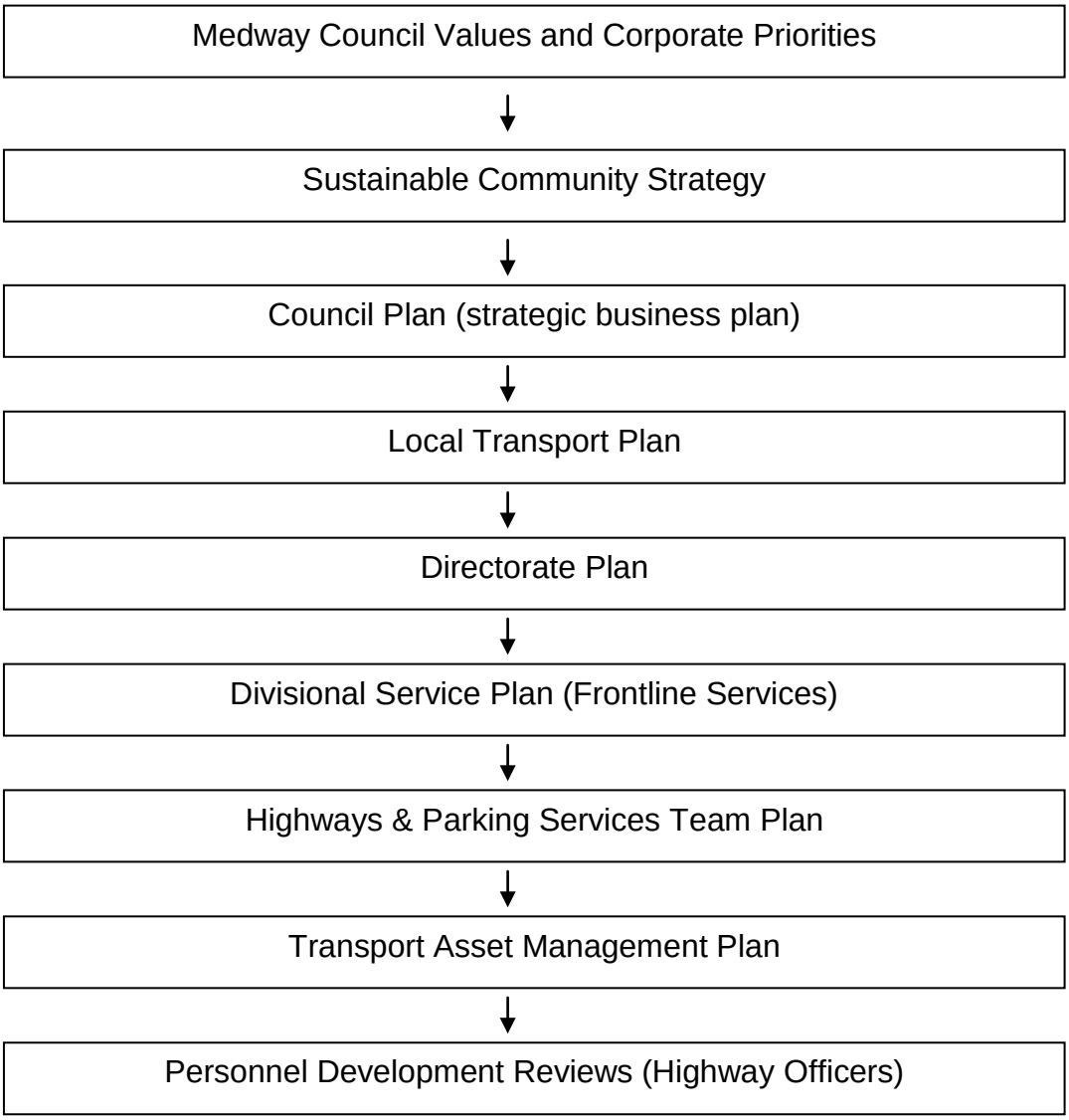
2.2 Transport Asset Management Plan (TAMP)

2.2.1 In 2007, the Chartered Institute of Public Finance and Accountancy reviewed the accounting, management and finance mechanisms for local authority transport infrastructure. The final report indicated that comprehensive transport asset management had the potential to deliver significant efficiency gains and improvements in the services delivered to users.

2.2.2 The Medway Council Transport Asset Management Plan (version 3) sets strategic objectives for all highway maintenance activities and should be used in conjunction with this policy.

2.2.3 The TAMP feeds both backwards and forwards, to individual and corporate priorities, creating the "golden thread", linking strategic priorities all the way through the organisation, as detailed in the diagram overleaf:-

2.3 Strategic Golden Thread of Asset Management



2.4 Operational Asset Management

2.4.1 At operational level, the “golden thread” links the objectives and targets of team service plans to the corporate priorities.

2.4.2 Medway Council has 4 priorities, which are imbedded in the 2015/16 Council Plan. These relate to all aspects of the unitary authorities responsibilities.

2.4.3 One of these priorities is “everyone benefiting from regeneration” and this directly links to the priority of “we will secure a reliable and efficient local transport network to support regeneration, economic competitiveness and growth” in the Regeneration, Community & Culture Directorate Plan.

2.4.4 Supporting this priority are National Indicators (for example NI 130-01 and 130-02 roads where maintenance should be considered).

2.4.5 These subsequently link into the Highway Service Plan objective, “to increase satisfaction with road maintenance” and then into team and individual goals for example “undertaking the planned highway inspections”, “ensuring 99% of lights are in illumination at any one time” and “delivering the road maintenance schedule”.

3. ASSET DATA

3.1 Asset Collection

3.1.1 It is a statutory requirement, for each local authority, to maintain a National Street Gazetteer (NSG), which is a national register that contains a comprehensive list of all streets, within an authority and other specific information including length, any classification and special engineering factors.

3.1.2 Beyond this, “it is a matter for each authority to determine their data requirements to support asset management but asset data should at least provide information on the extent of the asset, its potential maintenance liabilities and be able to support critical decisions relating to its management” (HMEP 2013).

3.2 Asset Management Systems

3.2.1 Medway Highways & Parking Services have used a computerised, Asset Management System, since 2004. The system contains a full inventory of all highway assets and any maintenance, relating to a highway asset is managed through the system.

3.2.2 The system also contains a mapping function, with individual assets plotted within it.

3.2.3 Both Term Maintenance Contractors and the “in-house” Sign Shop receive works orders and manage the lifecycle of those orders through the Asset Management System.

3.2.4 Additional survey data is contained within bespoke council software and imported into the Asset Management System. The Medway Council Asset Deterioration and Management System (MCADAM) contains the results of nationally accredited condition surveys, which have assessed the network infrastructure and are used to assist with maintenance work prioritisation.

3.2.5 The system is continuously being developed, to assist in the management of highway assets, for both now and in the future. The validity of the data will be quality assured over time to ensure it continues to be fit for purpose and delivers the asset management principles required.

4. FINANCIAL PLANNING

4.1 Highways and Parking Services Budgets

4.1.1 The priorities that are set out in Medway Council's strategic plans influence the annual allocation of resources and consequently there is a close relationship between the service and financial planning processes. This transparency provides accountability for the organisation and enables us to respond, should we be challenged, on performance or resource allocation.

4.1.2 The Highways and Parking Services budget and the decision making process is delegated in line with the Council's scheme of delegation.

4.1.3 This policy is aligned with the current tranche of Department for Transport funding which runs from 2015/16 to 2020/21.

4.1.4 Medway Council uses the Chartered Institute of Public Finance Code of Practice for Transport Infrastructure Assets as an asset management tool and provides returns to central government in respect of this.

5 ENGAGEMENT

5.1 Elected Members

5.1.1 The Highway Maintenance Efficiency Programme recommends, "that strong leadership and commitment from Leaders, Councillors and Senior Officers is required in order to implement and imbed the principles of asset management".

5.1.2 This Asset Management Policy and our Transport Asset Management Plan have been approved by Directorate Management Team and at Cabinet level.

5.2 Members of the Public/Stakeholders

5.2.1 The 2006 Local Government White Paper noted that "should consult and involve local people in their functions and activities and when developing plans for asset management".

5.2.2 The Highways Department is involved in public consultation at both a local and national level, with an ongoing 18-month publicity and engagement plan regarding asset management of its highway services.

5.2.3 The use of social media is being developed and expanded as part of this process.

For further information, see our Transport Asset Management Plan at www.medway.gov.uk

Diversity impact assessment

TITLE *Name/description of the issue being assessed*	Transport Asset Management Plan & Policy (TAMP)
DATE *Date the DIA is completed*	5th October 2015
LEAD OFFICER *Name and title of person responsible for carrying out the DIA.*	Louise Browne Principal Engineer – Highways Responsive Maintenance

1 Summary description of the proposed change

- *What is the change to policy/service/new project that is being proposed?*
- *How does it compare with the current situation?*

The TAMP was first produced in 2010. It describes Medway's Highways and Parking Services, its highway assets and how these are managed and maintained.

It was reviewed in 2013/14 to reflect changes in Medway Council's approach to asset management, ensuring it continued to be relevant.

In 2014 the Government announced its long-term plan for highway assets, acknowledging that annualised budgets were not sustainable for good asset management. Included in this announcement, was the "incentive fund scheme", whereby £578m was set aside for the Department of Transport (DfT) to distribute, over 6 years, based on an individual council's approach to asset management.

Each Council is required to carry out a self-assessment, against 22 criteria, set by the DfT and the total score will determine the level of funding, from the £578m additional "incentive fund scheme". In addition, Highway authorities will be expected to improve, year on year, in their self-assessment scores in order to maintain or increase levels of funding, otherwise a sliding scale of funding levels will be applied, which could reduce to nil.

The effect of this will be less funding available to invest in improving the network and its assets, the impact of which would affect all users of the highway network, but not adversely any of the protected characteristics.

Of the criteria, 3 have been identified as the "cornerstones of asset management".

Of these 3, one criteria requires confirmation "that the TAMP has been signed off and published by the executive". The purpose of this report is to seek Cabinet approval of the refreshed TAMP, following the 2013/14 review.

The other 2 “cornerstone” questions are with regard to communicating the TAMP, which will be published, on the Medway Council website, if Cabinet sign off on the policy and in relation to lifecycle planning, when maintaining highway assets (especially carriageway) and Medway Council uses various systems to measure the condition and calculate the replacement cost of its assets and reports to the Chartered Institute of Public Finance and Accountancy on whole government accounts for those assets.

The policy and plan have not changed remit nor their purpose altered, following the review. This review confirms that the TAMP supports the authorities corporate vision and key priorities, as set out in the Council Plan 2015/16.

The key aim of the TAMP, has remained consistent since it was first produced in 2010 in that it is there to inform and guide Medway Council’s decisions to produce the most efficient programme of works with the available budgets.

As such it benefits all sectors of the community, who use the network and there is likely to be no adverse impact on any of the protected characteristics.

2 Summary of evidence used to support this assessment

- *Eg: Feedback from consultation, performance information, service user records etc.*
- *Eg: Comparison of service user profile with Medway Community Profile*

We obtain customer feedback on our services from:-

- Nationally via National Highways and Transport public satisfaction surveys and National Indicators (NI 130-01 and 130-02).
- Local use of citizens panel and focus groups (all via RCC Performance and Improvement Hub). Which have shown an increase in satisfaction with the network.
- Highway customer satisfaction surveys are undertaken for schemes and the outcomes analysed.
- Our Public Right Facebook page is a forum for people to leave feedback on that we can use and we are imminently introducing a Twitter page for Highways, which may be an alternative source that we can utilise.
- Our Assistant Director's office and Customer Relations measure our performance on responses to corporate complaints, with response times being consistently met.

- We measure the quality of our service using Covalent for corporate targets on streetlights, Highway Inspections and Planned Schemes and how these link into the service plan, plus other projects like finance and LED lighting. Our performance indicator targets have and continue to be met, across all levels of the service.

- We also measure the performance of our contractor's output, including customer satisfaction and complaints, which links back to our performance, as they are our partners. They have consistently exceeded the target performance, on the first 5 years of the contract and thus have been awarded all 5 one year extensions based on this.

- Our Confirm system holds a wealth of information that can be utilised to measure performance from enquiries being dealt with on time, to recording feedback from customers, identifying numbers of complaints and types, geographical areas of issues reported etc.

There is likely to be no adverse impact on any of the protected characteristic groups.

3 What is the likely impact of the proposed change?

Is it likely to :

- *Adversely impact on one or more of the protected characteristic groups?*
- *Advance equality of opportunity for one or more of the protected characteristic groups?*
- *Foster good relations between people who share a protected characteristic and those who don't?*

(insert ✓ in one or more boxes)

Protected characteristic groups	Adverse impact	Advance equality	Foster good relations
Age			
Disabilty			
Gender reassignment			
Marriage/civil partnership			
Pregnancy/maternity			
Race			

Religion/belief			
Sex			
Sexual orientation			
Other (eg low income groups)			

4 Summary of the likely impacts

- *Who will be affected?*
- *How will they be affected?*

There is likely to be no adverse impact on any of the protected characteristic groups because:-

- The TAMP relates to the repair and maintenance of existing highway and parking infrastructure. Major improvements and new schemes, fall within the remit of the Integrated Transport team. They will undertake DIA's for their schemes, as part of their project plans.
- The maintenance work undertaken by Highways and Parking Services affects all users of the network and therefore, we consider all network users needs, which includes anyone who has a protected characteristic. For example, when undertaking resurfacing schemes, health and safety requirements are governed by statutory legislation, taking into account all network users.

Increased funding will lead to greater improvements to the network and this will positively impact on all users, including those with protected characteristics.

5 What actions can be taken to mitigate likely adverse impacts, improve equality of opportunity or foster good relations?

- *Are there alternative providers?*
- *What alternative ways can the Council provide the service?*
- *Can demand for services be managed differently?*

Not applicable

6 Action plan

- *Actions to mitigate adverse impact, improve equality of opportunity or foster good relations and/or obtain new evidence*

Action	Lead	Deadline or review date
Not applicable		

7 Recommendation

The recommendation by the lead officer should be stated below. This may be:

- *to proceed with the change, implementing action plan if appropriate*
- *consider alternatives*
- *gather further evidence*

If the recommendation is to proceed with the change and there are no actions that can be taken to mitigate likely adverse impact, it is important to state why.

To proceed with the TAMP being signed off and published by Cabinet as there is likely to be no adverse impact on any of the protected characteristic groups.

8 Authorisation

The authorising officer is consenting that:

- *the recommendation can be implemented*
- *sufficient evidence has been obtained and appropriate mitigation is planned*
- *the Action Plan will be incorporated into service plan and monitored*

Assistant Director	
Date	

Contact your Performance and Intelligence hub for advice on completing this assessment

RCC:	**phone 2443**	**email: annamarie.lawrence@medway.gov.uk**
C&A: (Children's Social Care)	**contact your normal P&I contact**	
C&A (all other areas):	**phone 1481**	**email: TBC**
BSD:	**phone 2472/1490**	**email: corppi@medway.gov.uk**
PH:	**phone 2636**	**email: david.whiting@medway.gov.uk**

Send completed assessment to the Corporate Performance & Intelligence Hub (CPI) for web publication (corppi@medway.gov.uk)