TRANSPORT AND NEIGHBOURHOODS PORTFOLIO

DECISION SCHEDULE

HARTLEPOOL
BOROUGH COUNCIL

Tuesday 18th August 2009

at 9.00 am

in Committee Room C,
Civic Centre, Hartlepool

Councillor P Jackson, Cabinet Member responsible for Transport and Neighbourhoods will consider the following items.

1. **KEY DECISIONS**
   No items

2. **OTHER ITEMS REQUIRING DECISION**
   - 2.1 Pride in Hartlepool Proposals – *Head of Procurement, Property and Public Protection*
   - 2.2 Resident's Only Parking Controls – Clifton Avenue – *Head of Technical Services*
   - 2.3 Highway Services Strategy for Hartlepool – *Head of Neighbourhood Management*
   - 2.4 Neighbourhood Services Departmental Plan 2009/10 – Quarter 1 Monitoring Report – *Director of Neighbourhood Services*
   - 2.5 Public Lighting Strategy for Hartlepool – *Head of Neighbourhood Management*

3. **ITEMS FOR INFORMATION**
   No items

TRANSPORT & NEIGHBOURHOODS PORTFOLIO

Report to Portfolio Holder
Tuesday 18 August 2009

HARTLEPOOL
BOROUGH COUNCIL

Report of: Head of Procurement, Property and Public Protection

Subject: PRIDE IN HARTLEPOOL PROPOSALS

SUMMARY

1. PURPOSE OF REPORT

To consider the recommendations of the Pride in Hartlepool Steering Group in respect of proposals for community projects and proposed changes to the grant award scheme.

2. SUMMARY OF CONTENTS

List of Pride in Hartlepool proposals and recommendations for funding of those proposals.

List of proposed changes to the Pride in Hartlepool grant award scheme.

3. RELEVANCE TO PORTFOLIO MEMBER

Portfolio Holder has responsibility for environmental initiatives.

4. TYPE OF DECISION

Non key.

5. DECISION MAKING ROUTE

Recommendation of the Pride in Hartlepool Steering Group to Transport and Neighbourhoods Portfolio Holder.

6. DECISION(S) REQUIRED

To agree the recommendations of the Pride in Hartlepool Steering Group in respect of community environmental projects.

Report of: Head of Procurement, Property and Public Protection

Subject: PRIDE IN HARTLEPOOL PROPOSALS

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1. PURPOSE OF REPORT

1.1 To consider the recommendations of the Pride in Hartlepool Steering Group in respect of proposals for community projects and proposed changes to the grant award scheme.

2. BACKGROUND

2.1 The Pride in Hartlepool Steering Group met on 3 of July 2009 and recommended the following for approval:

3. NEW PROJECT PROPOSALS

3.1 **Burbank Back Alley**
Burbank Back Alley have received funding from Pride in Hartlepool in the past to improve the back alley behind Burbank Street and turn it into a community garden and the group are requesting further funding to continue this work. The back alley is well used by local residents but the group would like to install screening along the fence where it overlooks an unsightly light-industrial area, and which would be decorated by students from the Art College. They would also like to build 2 barbecues for communal events and to improve the existing planting. The total requested is £2,529.67.

3.2 Members recommended that £2,500 be approved towards the cost of the project.

3.3 **Brougham Primary School**
Brougham School received £813.55 funding from Pride in Hartlepool last year to clear the site for their school garden project and were advised to reapply for funding for the next stage of the project once that had been completed. The site has now been cleared and the school are requesting funding to install a multi sensory garden. The garden will include edible and scented plants as well as those beneficial to wildlife so it can be used as a teaching resource for many different subjects. Chatham House children's centre will be contributing 10% of the costs therefore the funding requested is £3,977.15.

3.4 Members recommended that £2,500 be approved towards the cost of the project.

3.5 **Eldon Grove Primary School**
Eldon Grove School have already been awarded £3,371 towards their school allotment garden project. The project involves pupils from the school working with parents, carers, nearby residents and the local PCSO to develop an allotment

garden on part of their school field. The school are requesting funding towards the cost of making the site accessible to wheelchair users and installing a poly tunnel. The amount requested is £1,700.

3.6 Members recommended that £1,000 be approved towards the cost of the project.

3.7 **Friends of Seaton Station/Hartlepool Voluntary Development Agency (HVDA)**
The Friends of Seaton Station is a new group set up by HVDA. The group are requesting funding for an art project to enhance Seaton Station ready for Tall Ships next year. The project will involve an artist working with pupils of Holy Trinity and Golden Flatts primary schools to produce artworks for the two shelters at the station. The project also includes costs for paint to paint the station fence and for a website for the Friends of Seaton Station and the Friends of Hartlepool Station. The total requested is £4,900.

3.8 Members recommended that £2,500 be approved towards the cost of the project.

3.9 **Central Estate Management Organisation**
Central Estate Management Organisation are requesting funding for the replanting of 62 hanging baskets on the sheltered bungalows. The project has received funding from Pride in Hartlepool in previous years which has encouraged more residents to get involved. Housing Hartlepool are providing some lamp post baskets to complement the residents' baskets. The total requested is £961.

3.10 Members recommended that the £961 be approved in full.

3.11 **Heugh Gun Battery Trust**
The Heugh Gun Battery Trust are requesting funding for equipment and resources for their "Dig For Victory" project. The project aims to work with local schools and other groups to recreate a number of home-front style vegetable plots on the Battery site. The plots would be used as a teaching aid by the museum outreach officer, as well as adding extra interest and interpretation to the site for general visitors. The plots would be maintained by the Trust's volunteers. The group are funding £600 of the costs themselves and have received donations of sleepers to make the plots; therefore they are requesting £1,000 towards the cost of installing an access ramp to the site and initial resources.

3.12 Members recommended that the £1,000 be approved in full.

3.13 **Friends of North Cemetery**
The Friends of North Cemetery won last years Best New Environmental Project Award at the Pride in Hartlepool Awards and they are seeking funding to continue the improvements to the cemetery. The group are requesting funding to work with an artist and a group of local young people to design and construct a number of carved wooden benches and sculptures for the cemetery. The aim of the project is to tackle anti social behaviour by giving the local young people an input into the cemetery Improvements. The Friends have contributed £1,000 towards the cost of the project and are requesting a further £4,900 for design and workshop costs.

3.14 Members recommended that £2,500 be approved towards the cost of the project.

4. PROPOSED CHANGES TO GRANT SCHEME

4.1 As requested by the Steering Group the Pride in Hartlepool Officer carried out a review of the grant scheme. The following are the proposed changes to the scheme recommended by members of the Pride in Hartlepool Steering Group.

4.2 **Grant Allocation Decision Making**
At present grants are reviewed on approximately a monthly basis, this frequency is very high and requires a very high ongoing commitment of time from members of the steering group. A negative consequence of this high frequency is that meetings are quite regularly rescheduled. This has the knock on effect of changing the deadlines and schedules of the grant applications. Feedback from groups applying for funding has shown that they find this situation frustrating and it impacts on the progress of the project.

4.3 Members recommended that decisions on new project proposals be made three times a year.

4.4 **Grant Size**
With a current maximum grant of £5000 there is a tendency for many groups to apply for close to this maximum, as a consequence this limits the overall number of groups which can be allocated funding in a set year. In order to use the budget more effectively and to allow a larger number of groups to benefit, it would be fairer to introduce 'bands' of grants of different sizes and to allow projects of similar size to compete against each other, rather than having just one 'big pot'.

4.5 Members recommended that the maximum grant be reduced to £1,000 and that the following "bands system" be implemented at each funding round:

- 5 x large grants of £1,000
- 10 x medium grants of £500
- 16 x small grants of £250
- Over one year this makes a total of 93 grants and a pot of £14,000

4.6 This means that for each of the three rounds of funding there are a total of 31 grants available totalling £14,000. Therefore over each year there will be a grand total of 93 grants totalling £42,000.

4.7 **Contributions**
At present any group or individual that meets the funding criteria can apply for a grant, but only schools are requested to make a contribution towards the total cost of the project (currently 10%). The past year has seen a number of grants awarded to private organisations such as private nurseries and care homes. The funding criteria states that only the project must be non profit making rather than the organisation but each application is judged on its own merits.

4.8 Members recommended that the contribution made by schools be raised to 25% and that private companies must now make a contribution of at least 50% of the total costs of the project.

4.9 **Repeat Applications**
Currently groups that receive a grant award can apply again the following year, but as the number of new groups seeking funding continues to rise members recommended that groups who receive a grant should now wait two years before being eligible to reapply for further funding for the same project.

4.10 Individual groups will not receive more than one grant within one year; however groups who receive a grant for one project are welcome to submit an application for funding for a *different* project the following year.

4.11 It is proposed that these changes take effect from the next Steering Group meeting in August.

5. FINANCIAL CONSIDERATIONS

5.1 The funding for the above projects is available within the Pride in Hartlepool budget.

6. RECOMMENDATIONS

6.1 That the recommendation of the Pride in Hartlepool Steering Group be approved.

7. CONTACT OFFICER

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TRANSPORT AND NEIGHBOURHOODS PORTFOLIO

Report to Portfolio Holder

18 August 2009

HARTLEPOOL BOROUGH COUNCIL

Report of: Head of Technical Services

Subject: RESIDENT'S ONLY PARKING CONTROLS – CLIFTON AVENUE

SUMMARY

1. PURPOSE OF REPORT

To consider requests from residents of Clifton Avenue to be reinstated into the residents only permit parking restrictions and to consider the results of a subsequent consultation carried out with residents.

2. SUMMARY OF CONTENTS

The report outlines the background and considers the implications of the consultation response.

3. RELEVANCE TO PORTFOLIO MEMBER

The Portfolio Holder has responsibility for Traffic and Transportation issues.

4. TYPE OF DECISION

Non Key.

5. DECISION MAKING ROUTE

This is an executive decision by the Portfolio Holder.

6. DECISION(S) REQUIRED

That resident's only permit restrictions at those properties on Clifton Avenue, located between St Paul's Road and Eltringham Road be reinstated into the controlled parking zone.

Report of: Head of Technical Services

Subject: RESIDENT'S ONLY PARKING CONTROLS – CLIFTON AVENUE

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1. PURPOSE OF REPORT

1.1 To consider requests from residents of Clifton Avenue to be reinstated into the residents only permit parking restrictions and to consider the results of a subsequent consultation carried out with residents.

2. BACKGROUND

2.1 Clifton Avenue had previously been included within zone A of the Hartlepool resident controlled parking zone. However when Cabinet approved a decision to progressively increase the cost of a resident permit over a three year period to £5, £10 and £20, several established zones expressed a desire to be removed from the restricted parking controls. A consultation was carried out with all residents affected by the higher charge band, including those residents of Clifton Avenue who overwhelmingly voted for the controls to be removed. As a result, since September 2008, there have been no controlled resident parking restrictions on Clifton Avenue.

2.2 A number of residents (living close to St. Paul's Road) have reported that since the restrictions were removed, parking has become increasing difficult and this ultimately led to a petition, signed by 34 residents, being submitted to the Head of Technical Services which requested the reinstatement of permit parking controls in the area. As a consequence a full consultation was carried out with all residents of Clifton Avenue to gauge the level of residential support.

2.3 A copy of the petition will be available at this meeting.

2.4 **Appendix A** shows the results of the consultation carried out with residents. There was a clear split of residents in favour and against the reintroduction of the permit controls with the majority of Clifton Avenue (east) residents favouring the reintroduction whilst those living in Clifton Avenue (west) being far less supportive. For this reason the results as indicated in **Appendix A** have been broken down into two sections.

3. PROPOSALS

3.1 The resident's consultation included detailed information in relation to how the permit controlled scheme would work, the cost per permit, hours of enforcement etc.

3.2 The permits for residents of Zone A are due to be renewed 1 October 2009. Should Clifton Avenue be reinstated into the controlled zone, permits would be introduced at an annual cost of £10. The subsequent annual permit renewal (October 2010) would be at a cost of £20 which would coincide with the renewal date and applicable charge for the rest of the zone.

3.3 The consultation results indicate a majority of support for resident permit controls to be re-introduced between St Paul's Road and Eltringham Road. Residents of the remaining area of Clifton Avenue (Eltringham Road to Linden Grove), were less supportive, and indicated by clear majority that they would oppose the reintroduction of residents parking controls.

4. FINANCIAL CONSIDERATIONS

4.1 The cost of advertising the amendments to the legal orders would be minimal and would be met from the parking services operational budget**.**

4.2 The permit charges would be as per those approved by Cabinet

5. LEGAL CONSIDERATIONS

5.1 The reintroduction of resident permit parking restrictions in Clifton Avenue would require the creation of a new Legal Order and would be enforced under the jurisdiction of the Traffic Management Act 2004. The Order would be required to be advertised as part of the formal legal process.

6. CONSULTATION

6.1 Residents of Clifton Avenue were consulted by letter (19 June 2009). A copy of the consultation letter was also sent to the Grange Ward Council members.

7. RECOMMENDATIONS

7.1 That those properties on Clifton Avenue between St Paul's Road and Eltringham Road (1- 31 odd and 2- 40 even) be reinstated into the

resident permit controlled parking zone whilst those properties between Eltringham Road and Linden Grove remain unrestricted.

8. REASONS FOR RECOMMENDATIONS

8.1 To reflect the majority of views expressed by residents who completed and returned consultation responses.

9. CONTACT OFFICER

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APPENDIX A

Clifton Avenue consultation responses to reinstate into permit controlled zone

Clifton Avenue - entire length		% of returned forms
Total properties consulted	88	
Number of forms returned	51	58%
Residents in favour	23	45%
Residents opposed	28	55%

Clifton Avenue - (St Pauls Road - Eltringham Road)

Total properties consulted	35	
Number of forms returned	25	71%
Residents in favour	19	76%
Residents opposed	6	24%

Clifton Avenue - (Eltringham - Linden Grove)

Total properties consulted	53	
Number of forms returned	28	53%
Residents in favour	4	14%
Residents opposed	28	86%

TRANSPORT AND NEIGHBOURHOODS PORTFOLIO

Report to Portfolio Holder

18 August 2009

HARTLEPOOL BOROUGH COUNCIL

Report of: Head of Neighbourhood Management

Subject: HIGHWAY SERVICES STRATEGY FOR HARTLEPOOL

SUMMARY

1. PURPOSE OF REPORT

To seek approval to the proposed Highway Services Strategy for Hartlepool.

2. SUMMARY OF CONTENTS

This report sets out a Highway Services Strategy to develop and maintain highways in Hartlepool. It is based on current local working practices, which have been developed to satisfy national guidelines.

3. RELEVANCE TO PORTFOLIO MEMBER

The Portfolio Holder has responsibility for Highway related issues.

4. TYPE OF DECISION

Non Key.

5. DECISION MAKING ROUTE

Transport and Neighbourhoods Portfolio on 18 August 2009.

6. DECISION(S) REQUIRED

That the Portfolio Holder approves the adoption of the Highway Services Strategy.

Report of: Head of Neighbourhood Management

Subject: HIGHWAY SERVICES STRATEGY FOR HARTLEPOOL

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1. PURPOSE OF REPORT

To seek approval to the proposed Highway Services Strategy for Hartlepool.

2. BACKGROUND

2.1 This Strategy has been produced to set a clear pathway for the provision of highway maintenance services within Hartlepool, and to demonstrate how this links with National and Local agendas. It is based upon the key principles of Best Value, particularly emphasising that the services should be based on the needs of the users and the community, rather than for the convenience of service providers.

2.2 It incorporates the guidance contained within 'Well-maintained Highways - Code of Practice for Highway Maintenance Management' produced by the Roads Liaison Group in July 2005. This Code of Practice has been adopted by many local authorities as the principal guide to developing a customer focused, high performing highway service, with consistent aims and processes in place to achieve these outcomes.

2.3 The Strategy recognises that improved highway maintenance is one of the highest priorities for residents in Hartlepool. The importance of highway maintenance and its relevance to the integrated transport agenda has never been more widely recognised. The inevitable consequences of significant under–investment over many years are increasingly visible and the subject of considerable public concern. Acceptable standards of safety and serviceability have been difficult to maintain and perhaps more importantly the ability of the network to effectively fulfil its wider community function has been compromised.

2.4 The response of most authorities to funding constraints has been to focus on limited short-term repairs to the surface of carriageways and footways in order to address their legal responsibilities for safety and mitigate the financial consequences of claims. Necessary works of resurfacing and reconstruction have been deferred as long as possible, well beyond the optimum point for treatment, with the result that progressive deterioration has continued and eventual costs of repairs

increased. Hartlepool has not escaped this trend.

2.5 The need for more effective funding and management of highway maintenance work was first addressed on the national strategic highway network, where heavy traffic flows and the need for more consistent serviceability levels was apparent. In England, the Highways Agency secured higher, long-term funding and applied this to a new and innovative regime of management and procurement that is still developing. The outcome of these initiatives has been to initially stabilise and then to reverse the decline in network condition for strategic highways. Unfortunately, the appropriate level of funding for a similar improvement of the local road network has not been forthcoming.

2.6 In Hartlepool, highway maintenance expenditure and road surface condition have broadly followed the national trends of deteriorating highway condition compounded by reducing expenditure.

2.7 The management of a highway network demands a considerable degree of flexibility occasioned by the constantly changing policies, changes in legislation and regulation, changes in corporate policy, changes in materials and maintenance specifications. All of these issues rely on a strategy that must be flexible and evolving to ensure that these frequent changes can be satisfactorily incorporated. More often than not, these changes result in increasing rather than decreasing budgetary pressures.

2.8 This strategy sets out how the management of highway maintenance services relates to the Council's vision and contributes to corporate objectives. It is currently in an interim form, whilst development is in progress to deliver a long term strategy, due to be complete by June 2010.

2.9 The strategy is attached as **Appendix 1**.

3. RECOMMENDATIONS

3.1 That the portfolio holder approves the adoption of this interim Highway Services Strategy.

3.2 That the portfolio holder approves the development of a long term Highway Services Strategy based upon whole life costings as detailed in this report for June 2010.

4. CONTACT OFFICER

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Appendix 1

HIGHWAY SERVICES STRATEGY

1.1 Objectives

The UK Roads Board's "Well-Maintained Highways – Code of Practice for Highway Maintenance Management", guides this Highway Maintenance Strategy, which is based on a logical and systematic approach to highway maintenance. The Code sets out quality and inspection criteria and details performance indicators and strategic priorities together with financial management and procurement strategies. Adoption of this Code ensures that network quality standards and maintenance policies are clearly defined and consistently applied.

The code will also be used as one of the primary sources of reference in the defence of court actions for damages and close adherence to its structure and requirements benefits the Authority when such matters arise.

The objectives for highway maintenance embodied in this strategy are:-

- To comply with and enforce statutory obligations.
- To improve safety.
- To improve the strength (and hence longevity) of the carriageway.
- To promote accessibility.
- To contribute to an efficient local economy.
- To promote integration.
- To protect the environment.
- To ensure environmental sustainability, waste management and recycling.
- To develop a long-term Highway Maintenance Plan.
- To address the needs of Stakeholders.

1.2 Highway Authority Obligations

1.2.1 Legislation

The core functions of highway maintenance are based on statutory powers and duties contained within the relevant legislation. Local authorities also have a general duty of care to maintain the highway in a condition that is 'fit for purpose'.

The Highways Act 1980 sets out the main duties of highway authorities in England and Wales. This Act is fundamental to highway maintenance as it imposes a duty to keep highways in repair at the public expense. Almost all claims against local authorities relating to

highway functions arise from an alleged breach of Section 41 of the Act. However, there is provision for a defence against such actions - 'that the authority has taken such care as in all the circumstances was reasonably required to secure that the part of the highway to which an action relates was not dangerous for traffic'.

The Highways Act sits within a much broader legislative framework specifying powers, duties and standards for highway maintenance and management including:-

- Traffic Management Act 2004, requiring the appointment of a designated person (Traffic Manager) to be responsible for all traffic management undertakings.
- The New Roads and Street Works Act 1991, setting out the duties of Street Authorities to co–ordinate and regulate works carried out in the highway by any organisation under a series of Regulations and Codes of Practice.
- Road Traffic Regulation Act 1984, and the Traffic Signs and General Directions 1994.
- Road Traffic Act 1988 which provides a duty for highway authorities to promote road safety.
- Road Traffic Reduction Act 1997.
- The Local Authorities (Transport Charges) Regulations 1998, as applicable to RTRA 1984 and other legislation, provide a power for the traffic authority to impose a charge for a number of its functions.
- Disability Discrimination Act 1995.
- Local Government Act 1999 provides for the general duty of Best Value.
- Health and Safety at Work Act 1974.
- 'Woolf Report' on Access to Justice.

There is an increasing range of legislation regulating the environmental effects of highway maintenance operations, including:-

- Wildlife and Countryside Act 1981
- The Environmental Protection Act 1990
- The Noxious Weeds Act 1959
- Rights of Way Act 1990
- Countryside and Rights of Way Act 2000

There is also a fairly recent framework of legislation not specifically related to highway maintenance but affecting wider community issues including:-

- Criminal Justice and Public Order Act 1994
- Human Rights Act 1998
- Freedom of Information Act 2000
- Local Government Act 2000

Legislation is also in place requiring works to be carried out in a safe manner including:-

- The Health and Safety at Work Act 1974
- The Management of Health and Safety at Work Regulations 1992
- Construction (Design and Management) Regulations 1994

There are also a wide range of regulations and Codes of Practice relating to the assessment, prevention and management of health and safety risks on site and the reporting of injuries and other incidents.

This is not an exhaustive list but serves to demonstrate that highway maintenance activities are constrained by a considerable body of legislation, which must be fully complied with in the effective delivery of this service.

1.3 Outline of Strategy

The strategy to achieve each of our objectives is:-

1.3.1 Improving safety

- Implementing proactive policies to determine defects and carry out identified safety and routine maintenance repairs.
- Implementing responsive policies to repair roads and pavements when stakeholders raise concerns, including repairing pavement trip hazards and filling potholes within 24 hours/twenty eight days as appropriate.
- Reducing the percentage of the principal road network failing SCRIM (skid resistance) investigatory levels over a period of five years at a target rate of 10% per annum for principal roads and 15% for non-principal roads.
- Collecting UKPMS condition data and carrying out maintenance on all carriageway surfaces with a skid resistance at or above investigatory level, a level at which insufficient resistance is available to slow progress of vehicles under braking.
- The creation of a safer and more inviting environment for pedestrians and pedal and motor cyclists (and the incorporation of appropriate facilities and features into schemes) by promoting the maintenance of pavements, footways, and cycleways.

1.3.2 Improving the strength of the carriageway by:

- monitoring the structural condition of the network and carrying out maintenance to arrest deterioration and to ensure, where applicable, that the network will continue to be able to carry increasingly heavy traffic flows
- formulate a policy to manage the network asset to ensure that strengthening work is carried out at the right time to minimise the whole life cost of maintaining the infrastructure

1.3.3 Improving accessibility by:

- continuing to improve access for disabled people, for example by the inclusion of dropped kerbs at main crossing points and raised kerbs at bus stops whenever maintenance work is carried out or in conjunction with new corporate development programmes.

1.3.4 Contributing to an efficient economy by:

- creating an attractive, well maintained highway environment through the promotion of good maintenance practice, to contribute to urban renewal and to help attract new businesses to industrial and commercial areas
- implementing maintenance designs which are appropriate to the style of the area and which will help to promote tourism by the enhancement of the street scene
- arranging co-ordination with road safety schemes, bridge and wall maintenance and public transport initiatives
- integrating, wherever possible, maintenance schemes with schemes for the provision of bus lanes and other designs developing the optimal usage of the carriageway.

1.3.5 Promoting Integration by:

- facilitating the safe and convenient integration of communities by allowing free and efficient movement between areas of the town with varying transport requirement and differing characters
- ensuring that the goals of local communities are met and positive links are established to a developing and vibrant town centre

1.3.6 Protecting the environment by:

- using appropriate materials to complement the appearance of Conservation Areas when works are carried out
- using maintenance treatments which reduce the long term reliance on quarrying new materials and disposing of existing materials to landfill sites thereby minimising the use of the road transport of construction materials
- utilising materials which can dramatically reduce traffic noise levels.

1.3.7 Ensuring environmental sustainability by:

- adopting policies on materials procurement which favour products made from recycled materials
- utilising local materials to minimise transport costs, support the local economy, and to maintain local character
- retaining and re-using materials on site in order to avoid the environmental implications of transport and disposal
- maximising the value of the re-used materials rather than utilising them for low grade fill
- making use of in-situ and ex-situ recycling processes in

appropriate circumstances
- ensuring that any materials that cannot be re-used or recycled are disposed of to licensed sites in accordance with statutory requirements. (This will include silt and other solids arising from gully emptying and the cleansing of oil interceptors)

1.3.8 Developing a long-term Highway Maintenance Plan by
- Taking a longer-term view to planning and programming.
- Introducing life cycle modelling to identify the best whole life option for an asset.
- The greater use of asset performance information to inform decision-making.
- The allocation of resources based on assessed needs.
- Explicit consideration of customer expectations and documentation of levels of service.

1.3.9 Addressing the Needs of Stakeholders by
- developing a customer focused highway maintenance service
- consulting widely on maintenance policies and programmes
- reporting progress of both implementation and performance indicators.

To ensure the effectiveness of all aspects of this strategy, the objectives set out apply to the whole of the Highway network irrespective of the funding sources, specifications and designs.

The delivery of an effective Highway Maintenance Programme has to balance the need to keep the network safe and respond to the public's reasonable expectation that minor defects will quickly be made safe, against the need to preserve and improve the long term strength of the network by carrying out reconstruction schemes.

1.4 Network Definition

The Highway network consists of the following:-

Asset	Quantity	Estimated Value
Carriageways	384km	£148m
Footways	629km	£26m
Cycleways	27.2km	£1.3m
Structures	95	£48m
Gullies	20,400	Unavailable
Street Lighting	13,700	£10m
Traffic Signals and Telematics	Unavailable	Unavailable
Public Rights of Way	95km	£350,000
Trees, Hedges, Verges & Planted Areas	11,000	£1.1m
Unlit Signs and Street Furniture	15,968	£3m

Barriers and Safety Fences	1,470	£400,000
Road Markings & Studs	Unavailable	Unavailable
Total		**£238M**

There are indications from recent GIS data capture that the above figures, which are used for LTP and other similar settlements, are understated. An accurate assessment of all highway assets will be carried out as part of the development and implementation of a Highway Maintenance Plan.

Through various regeneration initiatives the town's highways infrastructure is expanding, requiring the adoption of additional carriageways, footways, street lights, bollards and directional signs without any corresponding increase in maintenance budget provision. The development and implementation of a Highway Maintenance Plan will enable the growth in highway infrastructure to be accurately quantified.

Both capital and revenue funds are provided for all categories of highway and careful apportionment is needed to ensure an equitable distribution. Though the demands of the principal roads are obvious, those of the non-principal road can be greater. Because they were constructed to lower standards they are now more susceptible to damage by heavy vehicles such as large goods vehicles.

1.5 Highway Infrastructure Condition Assessment

Consistent, reliable, comparable condition data is an essential foundation for this strategy.

1.5.1 Network Condition

Currently we undertake visual condition assessments to confirm that maintenance is required on a significant proportion of the network. This is based on analysis against the Highway Maintenance Code of Good Practice intervention levels built into the UKPMS system.

Network condition is an ever-varying situation. As certain roads are brought up to standard, others are deteriorating below an acceptable level and it is recognised that there will never be a zero maintenance requirement.

In setting objectives to improve the network condition the following condition surveys and investigations are used:-

- Coarse Visual Inspection.
- Detailed Visual Inspection.
- Skid Resistance (SCRIM) Surveys.
- SCANNER surveys
- Coring (cutting cores from the highway structure).

Systems are being developed to improve on the reporting of existing information utilising the Confirm database for asset management and the Geographic Information System (GIS) for visual display. These systems enable highway information to be stored, accessed, analysed and displayed using digital mapping.

A full and accurate inventory of highway assets is not available at the present time. However, this will be actively addressed through the development and implementation of a Highway Maintenance Plan. Integrating these systems will assist with the development of future highway maintenance strategies and policies and the setting of budgets for all aspects of Highway Maintenance linked to asset management. This will also enable predictions to be made on how various treatments and levels of expenditure will affect the condition of the highway network in the short, medium and long term.

The network is in such a condition that making sure that we achieve best value from the limited funding available is a major challenge. Short-term solutions may have to be adopted where funding is not available for long term resolution of problems.

We need to achieve better coordination of maintenance activities within the wider development of the highway network including safety schemes, sustainable transport schemes as well as major new development works.

Bus and HGV traffic flow on the network continues to increase, albeit slowly, causing increasing damage. In addition, the increase in HGV axle weights to 44 tonnes over five axles with a maximum axle load of 11.5 tonnes produces a major increase in the stress on the road structure and is contributing to the deterioration of the highway network.

Utility Company street works openings and reinstatements continue to be a major cause of structural damage to the highway network. There are still high rates of reinstatement failures of utility trenches. The effect of so many damaging openings (and failures) is to create the appearance of a poorly maintained network, to dramatically increase the rate of deterioration and reduce the life of the highway. The RASWA regulations and Traffic Management Act demand robust control and inspection of utility works.

Potholes in the road and trips in the footway can cause damage, injury, pain and suffering. They can also be costly both in terms of the handling and settlement of claims and the cost to the community of medical care and lost time to employers. The record of these claims gives rise to concern because of the increase in the numbers and the cost of settlement. Adoption of this strategy will assist the corporate Risk Management Strategy to minimise the degree of risk and consequent exposure of the authority.

Increasingly the highway environment is being developed with high specification materials and casualty/speed reduction features. Some of these features are vulnerable to impact and have a relatively short life. A high standard of maintenance is required to ensure that special features continue to perform their intended purpose. Channelling heavy wheel loads for example, increases and concentrates the damage. The annual maintenance budget does not have an index-linking factor that allows for the continuing increases in costs of these expensive materials or systems when they are used in new schemes. This results in increased pressure on an already overstretched budget.

1.5.2 Inspection Regime

The Borough Council as a highway authority has a duty under the Highways Act 1980 to maintain the public highways to an adequate level of repair. In Hartlepool, the current inspection and assessment regimes do not reflect the recommended levels and frequencies of inspections set out in the 'Well-maintained Highways - Code of Practice for Highway Maintenance Management'. Adoption of this Strategy (including the Code of Practice) will ensure the recommended inspections regimes are implemented and closely aligned to the authority's risk management policies thereby strengthening the authority's position in the repudiation of claims.

The Authority needs to regularly review its approach and management of risk in this area to ensure adequate defence against the rising number of public liability claims and to focus remedial work on those areas that give rise to legitimate claims. A key strand to the successful reduction in claims is to ensure that detailed inspections are undertaken across the highway network and closely aligned to a repair mechanism that completes repair work within published timescales. 'Well-maintained Highways - Code of Practice for Highway Maintenance Management', promotes the need for a systematic approach to highway maintenance. This requires that the network quality standards and maintenance policies are clearly defined and consistently applied. Adoption of this code of practice will ensure Hartlepool's compliance with this requirement.

Until the new code is adopted, the 1989 code will continue to be used to meet the Authority's obligations and to mitigate associated claims.

Routine inspections are carried out to identify highway defects, particularly trips in the footways, in accordance with the requirements of the 1989 code.

Additional inspections (ad-hoc inspections) are carried out in response to enquiries from Elected Members and the public.

The 1989 Code of Practice sets out the following frequencies for an inspection regime:

Feature	Category	Frequency
Roads	Category S	1 month
	Category I	1 month
	Category II	3 month
	Category III	3 months
	Category IV	1 year
Footways	Prestige Area	1 month
	Primary Walking Route	1 month
	Secondary Walking Route	3 months
	Link Footway	6 months
	Local Access Footway	1 year
Cycleways	Not considered in 1989 Code of Practice	

1.5.3 UK Pavement Management System (UKPMS)

Hartlepool are UKPMS users and are committed to adopting the policies and standards of UKPMS, and sharing expertise and knowledge with other Authorities (UKPMS is the highway industry standard management process for recording and managing the delivery of repair and maintenance priorities on highway running surfaces).

Each Authority has, historically, collected condition data and all are now collecting visual condition data from Coarse Visual Inspections (CVI) and Detailed Visual Inspections (DVI) in accordance with the UKPMS national rules and parameters.
In addition, the entire Principal Road network is subject to regular safety inspections to identify defects that may lead to trips or to vehicle damage and which could result in third party claims.

1.6 Asset Management

It is the intention of Government from April 2011 to implement Resource Accounting and Budgeting that will require all highway authorities to identify, quantify and value their highway assets in the whole of government accounting (WGA) format. Robust asset information will be required in order to discharge this responsibility. In addition, the recent introduction of the Prudential Code requires local authorities to have specific regard to option appraisal, asset management planning and strategic planning when making capital investment decisions.

Asset management in this context is a strategic approach that identifies the optimal allocation of resources for the management,

operation, preservation and enhancement of the highways infrastructure to meet the needs of current and future customers. Changes required to current practice include:-

- Taking a longer-term view to planning and programming.
- Introducing life cycle modelling to identify the best whole life option for an asset.
- The greater use of asset performance information to inform decision-making.
- The allocation of resources based on assessed needs.
- Explicit consideration of customer expectations and documentation of levels of service.

The service wide application of asset management in highways is a new concept. Officers have held discussions with the leading consultants in this field, visited other authorities to discuss their approach and experience, met with DfT representatives, conducted data collection timings for asset inventory collection, investigated alternatives and timescales for the necessary data collection and identified an outline programme for the development of a Highway Maintenance Plan.

It is anticipated that the introduction of a Highway Maintenance Plan will take in the order of twelve months to complete. The work will be undertaken in four phases:

Phase	Activity	Complete by
1	Gap analysis of existing highway asset inventory	October 2009
2	Missing Data collection process	Oct – Dec 2009
3	Construction of a Highway Maintenance Plan including necessary software integration, training and management processes	May 2010
4	Outline business case for significant investment in the highway infrastructure	June 2010

1.7 Measurement of Performance

1.7.1 National Performance Indicators

Central Government sets the national performance indicators (NI's). Authorities have to measure all the indicators relevant to the services they provide, although the authorities set most of the targets themselves locally after taking account of Government guidance.

The NI's are designed to enable comparisons to be made between the performances of different authorities, including different types of authorities, and improvements or reductions in performance by authorities over time.

The current NI's are as follows:-

- NI 168 - Principal roads where maintenance should be considered.
- NI 169 - Non-principal classified roads where maintenance should be considered.

1.7.2 Local Performance Indicators

This strategy also proposes the adoption of the following local indicators:-

- NSD P022 - Condition of Footways. Percentage of the footway network where structural maintenance should be considered
- NSD P173 - Percentage of gullies cleansed against target
- NSD P178 - Percentage of reactive highway jobs completed within response times
- NSD P260 - Condition of unclassified roads. Percentage of the unclassified road network where structural maintenance should be considered.

Relevant targets and base line data will be incorporated within the Covalent system and reported through the performance management framework.

1.7.3 Benchmarking

Hartlepool actively participates in and supports the District Maintenance Engineering Group, which encompasses all the authorities from the former Cleveland County, plus Darlington.

Hartlepool also makes a contribution to the APSE Performance Networks
Benchmarking group.

Through these bodies, comparisons of Hartlepool's performance against similar urban authorities can be made.

1.8 Procedures And Practices

1.8.1 Day to Day Maintenance Procedures

Outlined below are the current and proposed levels of service response to potholes, trips and routine non-safety items.

Activity	*Current Practice*	*Proposal*	*Comments*
Repair Potholes	Two tier priority system - hazardous potholes to be inspected and rectified within one day of notification. If the defect is large and it is	As an interim proposal – as current practice but with non-hazardous potholes rectified within 14 days.	Response in accordance with the Code of Practice 2005.

	not possible to repair in one day, the defect must be barriered off overnight. All other potholes rectified within 28 days of notification.	The permanent proposal will be developed as part of the proposed Highway Maintenance Plan.	Performance of new technology eg. 'Rhinopatch', currently undergoing trials, will be monitored closely.
Repairs to Trips	Two tier priority system - hazardous trips to be inspected and rectified within one working day of notification. If the defect is large and it is not possible to repair in one day, the defect must be barriered off overnight. All other trips rectified within 28 days of notification.	As an interim proposal – as current practice but with non-hazardous potholes rectified within 14 days. The permanent proposal will be developed as part of the proposed Highway Maintenance Plan.	Response in accordance with the Code of Practice 2005
Requests for attention to routine non-safety items	Inspected within 1 working day of being notified. Repairs, where required, will be carried out within 28 days of initial notification.	As an interim proposal – as current practice but the customer will be contacted and advised of response within 10 days. The permanent proposal will be developed as part of the proposed Highway Maintenance Plan.	Response in accordance with the Code of Practice 2005

Highway Inspectors will continue to identify defects and commission repair work, which will then be carried out to agreed performance standards, without the need to carry out further inspections or measurement of the works upon completion.

1.8.2 Maintenance Priorities and Scheme Selection

Experience gained in the maintenance of the Principal Road Network, together with a study of the impact of previous years expenditure, has demonstrated that future works need to balance expenditure between surface treatment, resurfacing and reconstruction to produce a long term improvement in the strength of the network while still addressing preventative maintenance and routine safety work.

When UKPMS prioritisation systems become fully functional, future programmes will be developed on a 'whole life' costing basis rather

than the current 'worst first' approach.

The annual programmes of highway works have been prioritised based on a judgemental condition assessment which seek to maximise co-ordination with other works identified in the same location thereby meeting the objectives of this strategy. This will include link schemes to other programmes (e.g. structures, transport initiatives, safety schemes, developments) by making due allowances in the design.

Traditionally, programmes for highway maintenance have focused on a year-by-year approach to service provision. In accordance with this tradition, the Highway Maintenance Programme presented to the Portfolio Holder in March 2009 contained only the programme for 2009/10 with an indication of likely priorities for years 2 – 5 of a five year plan. A longer-term approach to the analysis of condition will facilitate improved planning, better coordination of schemes and opportunities for strategic partnering.

1.8.3 Scheme Design

Effective planning and design is essential to execute the construction of maintenance schemes with the least inconvenience to all road users and will ensure that the network remains accessible to all. It is vital to take into consideration the apparatus of the Utility Companies at a very early stage. If possible, advanced notification of important schemes should be used to influence the utility companies capital programmes such that any known underground work can be programmed and completed before the final surfacing. It is also important to co-ordinate schemes with the utilities to reduce the disruption to both pedestrians and other highway users during the works.

1.9 Service Developments And Improvements

The delivery of highway maintenance services has changed over recent years to reflect a variety of internal and external drivers affecting service delivery. The increasing pressure on resources, the need to demonstrate improved levels of performance and the move towards a more customer-focused service have all impacted on how repair and maintenance is programmed and undertaken. The following processes practices and technologies have been adopted over recent years.

- The implementation of a policy for the replacement of flagged footways with flexible surfacing helping to reduce risks from trip hazards and to reduce long term maintenance costs.
- The development and implementation of a computer based highway maintenance management system called “Confirm”.
- The development of robust service standards for emergency repairs to the carriageway and to footway trip hazards as part of

a risk management strategy.

- The adoption of a UK Pavement Management System (UKPMS) – a sophisticated assessment system for recording highway condition using data based on mechanical and visual inspection procedures. The system used is Confirm UKPMS which will become an increasingly important tool as records build year on year.
- Area Forum based reporting and consultation.
- The adoption of new materials, for example, Stone Mastic Asphalt (SMA) forms of thin surfacing which has the benefit of significant noise reduction, economy and resistance to deformation.
- The investigation, trial and adoption of new techniques such as Rhinopatch. Many others have been investigated and rejected as unsuitable for use in Hartlepool.
- Partnership work – the Hartlepool framework partnership with White Young Green and proposed regional surfacing service partnership.
- Use of recycled road materials in lieu of traditional mined aggregates, particularly for use in the various base courses that have produced environmental advantages.

These processes and practices have all contributed to the provision of a more efficient and cost effective service.

1.10 Communication And Consultation

A range of National and Local Surveys carried out by MORI and others have ranked road and footpath maintenance as a high priority for local communities. Rapid response to emergency repairs, monitoring and maintenance of highways and the safeguarding of the quality of workmanship were seen as key issues.

Effective channels of communication are necessary in order that stakeholders are kept fully informed about planned highway maintenance activities. This strategy will ensure effective communication and consultation is achieved by:

- Presentation to and consultations with stakeholders via local consultation forums in respect planned maintenance schemes
- Officers attending and contributing to Local Area Forums, Ward meetings and resident group meetings on day-today highway related issues.
- Publishing information on highway maintenance matters in the local press, through local radio and through AA Road Watch information.
- Publishing information on highway maintenance programmes on the Council's Web site.
- Pre-notification of residents and local businesses in respect of impending maintenance schemes including information on road closures, diversions, estimated scheme time disruption, officer

contact details for advice and assistance and road signage

The following consultation process will be adopted in respect of the selection of schemes for inclusion in the programme of planned maintenance works:-

- Technical condition criteria, highway inspectors reports and accident data from the insurance section will be used to produce an initial programme.
- Customer Services information will facilitate further input into the process through service requests and complaints records that which will be analysed to help inform maintenance programmes.
- Briefing and consulting local stakeholders via residents groups, local area forums and Ward clinics, etc. will make a further contribution to the selection process.
- Views of elected members in each of the wards where planned maintenance works are proposed will be considered before the final programme is presented for approval.
- The outcome of work undertaken will be communicated to local communities and stakeholders via existing consultation forums and will assist in the formulation of subsequent programmes.

Information access points such as Hartlepool Connect, e-mail and internet access have and are being further developed to enable stakeholders to report problems or seek advice or information on highway and other street related matters.

1.11 Highway Network Investment

1.11.1 Funding

Highway maintenance is generally funded by a combination of Capital and Revenue budgets. Capital allocations are made by Central Government through the Local Transport Plan (LTP) process taking into account factors such as road length, classification, traffic figures and road condition data. Revenue allocations are generally funded from a combination of local council tax, business rate and other Government revenue support grants. This is provided for all local services for use largely at the discretion of authorities. However, there are a number of other potential sources of funding:-

- Capital or revenue funding from Private Developers, secured as a condition of planning approval (Section 106 agreements).
- Dedicated capital funding provided either directly or indirectly by Government and delivered by means of Grants and either Basic or Special Credit Approvals.
- Challenge capital funding, targeted at specified transport themes or objectives, which may have direct or indirect relevance to highway maintenance.
- Challenge capital funding for wider strategic themes or objectives, which may have direct or indirect relevance to highway maintenance.

- Capital or revenue local commercial sponsorship. The most common example of this is maintenance of landscaped areas, in particular on roundabouts.

Although the sums involved in some cases, for example in local sponsorship, may not be significant, they can help build local pride and support for the service.

It will be particularly important to ensure that maximum benefit is obtained for highway maintenance from contributions in respect of new developments. Although such contributions will be primarily to provide new or improved integrated transport infrastructure to mitigate the effects of the development, there may be a need to modify or bring forward maintenance works, which could be incorporated into the agreement. Unusual maintenance requirements, following adoption, may also be reflected in commuted sums.

The Local Transport Plan settlement is apportioned to both principal and non-principal roads. The non-principal road funds are granted as a block settlement to reduce the maintenance budget under the DfT 10-year plan. This non-principal funding is augmented by revenue funds. Recent experience demonstrates that the sums involved are inadequate and that the demands of the carriageway repairs have increased the pressure on funding of other maintenance on non-principal roads.

Highway maintenance activities contribute towards other strategically important initiatives and also support other strategies e.g. Cycling, Walking, Safer Routes to Schools etc. The cost of maintaining these additions to the existing network is funded from revenue. Examples of the increasing demand on budgets include:-

- The additional maintenance of pavements and road edges as an essential element of the strategy to encourage more walking and cycling.
- The increasing pressure to include high specification materials and casualty /speed reduction features.
- Regular and expensive renewal of carriageway markings, coloured and anti skid surfacing – some now costing five times the cost of previously specified surfacing.
- The regular replacement and repair of features such as refuges, kerb build outs and bollards which are, of necessity, located in particularly vulnerable locations.
- Repairs on streets with road humps and cushions – features which increase the requirement for carriageway resurfacing by concentrating damage in very localised narrow wheel tracks. This then requires more expensive repairs due to the labour intensive work form needed around the features, often with extensive traffic control arrangements or even road closures.

These features make an important contribution to casualty reduction,

the encouragement of the use of other modes of transport and in improving the environment. However, the resulting pressure on revenue-funded maintenance does need to be recognised in the budget setting process.

The funding currently available for maintaining the highway network falls short of that required to meet community aspirations, or that required to deliver appropriate levels of improvement in the network, as evidenced and supported by technical condition assessments.

The introduction of a Highway Maintenance Plan in 2010 will provide options advice that will assist with the prioritisation of budgets. It will enable community aspirations to be balanced against technical requirements by giving consideration to whole life costing for each operational solution.

This will enable better long term planning and advice to be published on programmes of work on the highway network, and will advise about the levels of investment necessary to promote highway improvements and identify shortfalls, based upon the level of service that is selected.

1.12 Resource Development

The development of this strategy and the positioning of the Council's Highway Services section affords the opportunity to:-

- Initiate programmes to develop the skills base of our employees.
- Identify the demands of specific features introduced as part of improvement schemes.
- Give consideration during the design of maintenance schemes to making the route more attractive to public transport, cyclists and pedestrians (this includes measures such as bus and cycle lanes, specific crossing points, advanced stop lines at traffic signals and cycle friendly gully grids) by co-operation with scheme sponsors.

1.13 Sustainable Development

An important consideration within highway maintenance operations is the need to meet the challenge of environmental sustainability.

Appropriate materials need to be considered to complement the appearance of areas of special amenity value including conservation areas, the town centre and public squares. Maintenance treatments should be chosen which reduce long-term reliance on the quarrying of new materials or the disposing of excavated materials to landfill sites, thereby minimising transport costs associated with construction materials.

All local Highway Authorities are required to submit a Local Transport

Plan (LTP). The LTP is a substantial document, which contains transport policies, a strategy, a programme of capital funding, and targets and indicators against which progress is measured. The LTP focuses on four shared priorities these are:

- Accessibility
- Congestion
- Air Quality
- Road Safety

These priorities all contribute to sustainable development of the transport infrastructure.

The Highway Maintenance Strategy can make a contribution to the Council's sustainable development commitments as set out in the Sustainability Strategy.

Working within this framework will ensure that the Authority's long-term decision-making and everyday activities on highway maintenance make a contribution to sustainable development.

1.14 Risk Management

Claims are processed and investigated in accordance with the timescales set out in the protocols of the 'Woolf' report on Access to Justice. These are to:

- Acknowledge receipt of personal injury claims within 21 days
- Investigate the claim and decide on liability within 90 days from the date of acknowledgement

If these timescales are not met, the Council can incur financial penalties in the form of court fines and have default judgments imposed with no option to appeal, which would dramatically increase the claims costs.

The number claims for compensation as a result of accidents on the highway increased significantly following the introduction of the 'Woolf' report. The "No Win No Fee" arrangements led to the development of a claims culture encouraged by aggressive advertising campaigns.

Furthermore the value of settlements associated with each claim also increased significantly.

As a consequence, the Council developed a risk management strategy for claims on the highway and currently makes every attempt to contest claims in the Courts when necessary. Nevertheless the number and value of claims drove up the level of the annual contribution to the insurance fund. The increase in insurance costs places further strain on budgets and further increases in contribution continue to be a threat.

Significant resource is applied to analyse claims data to clearly identify areas of greatest risk. The analysis identifies what factors affect the number of claims in each location – for example, type of accident, highway construction, material type etc.

It can take up to 10 years for any one full year's claims to be finalised, therefore "real time" information on the payments made is difficult to determine. A number of accident claims are contested delaying final settlement.

Nevertheless it is clear that the majority of highway related claims relate to trips in flagged footways and these continue to be the greatest risk to the Authority. By the nature of their construction, any differential settlement between adjacent or broken flags can create a trip and a potential hazard. Bituminous footways are of a continuous construction and, although still susceptible to differential settlement, the nature of these defects are generally less hazardous than those presented by a flagged footway. It is not possible to put a cost on the additional risk posed by flagged footways, however it is possible to state that the largest volume of claims relating to footway trips is in flagged surfaces.

1.15 Conclusions

The development of this interim highway maintenance strategy for Hartlepool has been based on a thorough review of the aims and objectives of highway maintenance management and the way in which the Authority provides services to the customer.

The strategy demonstrates how Hartlepool understands the expectations that legislation places on a highway authority and how Hartlepool will embrace new legislation whilst recognising that flexibility in service delivery is needed as new legislation impacts on the delivery of highway services.

The strategy demonstrates how we will achieve our vision for Hartlepool's highway infrastructure by improving our management, operational and planning processes to include:

- The adoption of a Highway Maintenance Plan to be implemented by May 2010.
- The adoption from May 2010 of the practices and procedures contained in 'Well-maintained Highways - Code of Practice for Highway Maintenance Management'.
- The development of a long term strategy by June 2010.
- Ensuring that there is an appropriate contribution to the maintenance aspects of all developments as part of the Council's wider Local Transport Plan.
- Investigating options for procurement of highway maintenance services with a strong emphasis on partnering arrangements.

This long term strategy will need to be constantly reviewed to ensure that it remains closely aligned to the vision to 'improve the riding quality and safety of the highway network and increase its structural strength to a level which compares with the top 25% of highway authorities'.

Technological advances in materials, processes and their applications, together with amendments to existing highway legislation and further anticipated revisions to 'Well-maintained Highways - Code of Practice for Highway Maintenance Management' will also require this strategy to be updated periodically.

TRANSPORT & NEIGHBOURHOODS PORTFOLIO

Report to Portfolio Holder

18 August 2009

HARTLEPOOL BOROUGH COUNCIL

Report of: Director of Neighbourhood Services

Subject: NEIGHBOURHOOD SERVICES DEPARTMENTAL PLAN 2009/10 – QUARTER 1 MONITORING REPORT

SUMMARY

1. PURPOSE OF REPORT

To inform the Portfolio Holder of the progress made against the Neighbourhood Services Departmental Plan 2009/10 to the end of the first quarter of the year.

2. SUMMARY OF CONTENTS

The progress against the actions and key performance indicators contained in the Neighbourhood Services Departmental Plan 2009/10.

3. RELEVANCE TO PORTFOLIO MEMBER

The Portfolio Member has responsibility for Transport and Neighbourhoods issues.

4. TYPE OF DECISION

Non-key.

5. DECISION MAKING ROUTE

Portfolio Holder meeting 18 August 2009.

6. DECISION REQUIRED

The Portfolio Holder is requested to:

- Note the progress and achievements of key actions and indicators.
- Approve the change to the due date of one action.

Report of: Director of Neighbourhood Services

Subject: NEIGHBOURHOOD SERVICES DEPARTMENTAL PLAN 2009/10 – 1ST QUARTER MONITORING REPORT

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1. PURPOSE OF REPORT

1.1 To inform the Portfolio Holder of the progress made against the Neighbourhood Services Departmental Plan 2009/10 to the end of the first quarter of the year.

2. BACKGROUND

2.1 The Transport & Neighbourhoods Portfolio Holder agreed the Neighbourhood Services Departmental Plan in June 2009.

2.2 The Portfolio Holder for Transport & Neighbourhoods has responsibility for the Neighbourhood Services Departmental Plan.

2.3 The Neighbourhood Services Departmental Plan 2009/10 sets out the Department's priorities along with an action plan to show how the Department will achieve these over the coming year.

2.4 A number of performance indicators are also included within this plan showing how the Department is performing in relation to both national and local performance indicators.

2.5 Each section within the Department produces a Service Plan, detailing the key tasks and issues facing them in the coming year. Each plan contains actions, detailing how each individual section contributes to the key tasks and priorities contained within the Neighbourhood Services Departmental plan and ultimately those of the Corporate plan.

3. FIRST QUARTER PERFORMANCE

3.1 This section looks in detail at how the Neighbourhood Services Department has performed in relation to the key actions that were included in the Neighbourhood Services Departmental Plan 2009/10.

3.2 On a quarterly basis officers from across the department are requested, to provide an update on progress against every action contained in the performance plans.

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3.4 Officers are asked to provide a short commentary explaining progress made to date, and asked to traffic light each action based on whether or not the action will be, or has been, completed by the target date set out in the plans. The traffic light system is: -

Red
Amber
Green

- Action/PI not expected to meet target / target not achieved
- Action/PI progressing with acceptable limits
- Action/PI on target / target achieved

3.5 Within the Neighbourhood Services Departmental Plan there are a total of 66 Actions for which the Transport & Neighbourhoods Portfolio Holder has responsibility. Table 1, below, summarises the progress made, to the 30th June 2009, towards achieving these actions.

Table1 – Neighbourhood Services Departmental Plan progress summary

	Departmental Plan	
	Actions	**PIs**
Green	61	10
Amber	4	2
Red	1	0
Annual	-	29
Total	66	44

3.6 It can be seen from the above table, that 61 (92%) of the actions for with the Portfolio Holder has responsibility are progressing as planned, with a further 4 actions progressing within acceptable limits.

3.7 The remaining action identified within the plan has been highlighted as 'Not expected to achieve target'. Work will continue on the completion of this action and the Portfolio Holder is requested to approve, a revision to the Due Date, as detailed in the table below:

Ref	Action	Due Date	Comment	Proposed new Date
CORP SC01.2	Implement the NCF Review Action plan	30 June 2009	Implementation has been delayed due to Mayoral Elections and timescales relating to scrutiny and full council where the ratification of NCF review will need to take place. Implementation of Action Plan will therefore commence in September 09.	31 October 2009

3.8 It can also be seen that 10 of the Performance Indicators have been highlighted as being 'on target' with 2 indicators highlighted as being within acceptable limits.

3.9 The remaining 32 performance indicators are reported on an annual basis and at this time it is not yet possible to give an indication of the expected performance

3.10 Key areas of progress made in to date against the action identified within Neighbourhood Services Departmental Plan 2009/10, include:

- The provision of new containers for recycling of materials at the Household Waste Recycling Centre has assisted in increasing the amount of waste recycled.
- Hartlepool has recently been accepted onto the Local Authority Carbon Management Programme, assisting us in increasing community and corporate knowledge on environmental sustainability

4. RECOMMENDATIONS

4.1 The Portfolio Holder is requested to:

- Note the progress and achievements of key actions and indicators.
- Approve the change to the due date of one action

5. CONTACT OFFICER

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TRANSPORT AND NEIGHBOURHOODS PORTFOLIO

Report to Portfolio Holder

18 August 2009

HARTLEPOOL BOROUGH COUNCIL

Report of: Head of Neighbourhood Management

Subject: PUBLIC LIGHTING STRATEGY FOR HARTLEPOOL

SUMMARY

1. PURPOSE OF REPORT

To seek approval to the proposed Public Lighting Strategy for Hartlepool.

2. SUMMARY OF CONTENTS

This report sets out a Public Lighting Strategy to develop and maintain lighting provision in Hartlepool. It is based upon current local working practices, which have been developed to satisfy national guidelines.

3. RELEVANCE TO PORTFOLIO MEMBER

The Portfolio Holder has responsibility for Highway related issues.

4. TYPE OF DECISION

Non Key.

5. DECISION MAKING ROUTE

Transport and Neighbourhoods Portfolio on 18 August 2009.

6. DECISION(S) REQUIRED

That the Portfolio Holder approves the adoption of the Public Lighting Strategy.

Report of: Head of Neighbourhood Management

Subject: PUBLIC LIGHTING STRATEGY FOR HARTLEPOOL

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1. PURPOSE OF REPORT

1.1 To seek approval to the proposed Public Lighting Strategy for Hartlepool.

2. BACKGROUND

2.1 The main purpose of this strategy is to enable the safe use of roads and footpaths during the hours of darkness by providing, maintaining and improving effective and efficient public lighting that provides the appropriate standard of highway safety.

2.2 In addition to the main purpose, this strategy also takes into account the requirement of public lighting for community safety purposes. It is not the principal purpose, but is very important to residents and businesses.

2.3 The strategy stipulates the requirements for the provision, installation and maintenance of all types of external public lighting that is or will be the responsibility of the Highway Authority. The strategy covers:

- The maintenance of good quality lighting
- The optimisation of maintenance frequencies
- The attainment of minimum outages
- The use of energy efficient technology

2.4 The strategy is set out as follows:

1. Introduction
2. Overview
3. Main Objectives
4. Lighting standards
5. Column standards
6. Energy Requirements
7. Design Requirements
8. Maintenance Requirements
9. Seasonal Decorations on or above the Highway
10. Miscellaneous Public Lighting Issues
11. Performance Management

2.5 The strategy is attached as **Appendix 1**.

3. RECOMMENDATIONS

3.1 That the portfolio holder approves the adoption of the Public Lighting Strategy.

4. CONTACT OFFICER

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Appendix 1

PUBLIC LIGHTING STRATEGY

1.1 Introduction

Public lighting provision is a vitally important highway service which helps to increase the use of highways after dark. The provision and maintenance of public lighting gives highway users more confidence and improves the sense of personal safety and security.

The reduction of night-time accidents and the subsequent increase in the night-time safety of road users is a major benefit to be gained by the provision of public lighting. Lighting can reduce night-time road accidents by 30%. The potential reduction in night-time accidents can be used as a means of assessing the value of public lighting as a road safety action as contained in the Department of Environment, Transport and the Regions Advice Note TA/49/86 'Approval of New and Replacement lighting on Trunk Roads and Trunk Road Motorways'.

Road safety is not the only benefit from the provision of public lighting. Studies on crime levels show that the provision of good public lighting can reduce levels and the fear of crime.

The Crime and Disorder Act 1998 places an obligation on Local Authorities to develop and implement safer community strategies. The provision of good public lighting can form part of such a strategy, alongside other physical and social improvements.

Road types and usage vary in nature and consequently the level, type, design and maintenance of lighting systems also vary.

On principal and distributor roads, where traffic speed and flows are important, vehicles dominate and public lighting systems are designed according to the motorist's needs.

On residential roads, where traffic speeds and flows are much lower, the lighting system is designed according to the needs of pedestrians and cyclists as well as addressing the need for community safety of the residents.

1.2 Overview

In determining whether or not lighting should be provided at a particular location or length of highway, unless consultation and demand determine otherwise, then the following categories should apply.

Roads in Urban Areas:	Generally lit
Roads in Urban Conservation Areas:	Generally lit
Roads in Rural Conservation Areas:	Assessment required
Roads in Rural Countryside:	Generally not lit, except residential and Industrial Estates

Section 97 of the Highways Act 1980 states that "….every local highway authority may provide lighting for the purposes of any highway or proposed highway for which they are or will be the highway authority, and may for that purpose -

(a) contract with any person for the supply of gas, electricity or other means of lighting; and

(b) construct and maintain such lamps, posts and other works as they consider necessary".

The legislation, therefore, allows the Council as Highway Authority to provide lighting on any highway. All such lighting can be adopted by the Council for energy and maintenance.

To ensure that the Council meets its requirements under the terms of the Highways Act and its obligations resulting from the Crime and Disorder Act the following policy is adopted.

1.2.1 Policy Statement

Where the Council is acting in its capacity as Highway Authority, the adoption of public lighting requires the Council to take responsibility for all of the lighting assets, as well as the maintenance costs and energy charges. Consequently each request for the provision of lighting and the adoption of potential lighting, including those to be funded by others, is to be considered on its merits based upon the following general policy guidelines.

1. Public lighting installations provided on highways which are to be maintained at public expense, including those covered by Section 38 and 278 Agreements under the Highways Act 1980 must be built to adoptable standards.

2. The installation and adoption of new public lighting on both adopted and un-adopted highways will be funded from the

Highway Maintenance Public Lighting Budget where one or more of the following criteria apply:-

- There is a high night-time accident record;
- There is significant night-time use by the travelling public, pedestrian or vehicular, and there is no reasonable alternative lit route;
- There are recorded incidents of crime and disorder supported by the Police;
- The provision of the lighting is identified in an Action Plan formulated under the Crime and Disorder Act.

1.2.2 Legislation and Regulations

All public lighting provided on the highway shall be designed and installed in compliance with:-

- BS5489-1:2003 Code of Practice for the Design of Road Lighting, and
- BSEN13201-2:2003 Road lighting performance requirements

All public lighting systems installed and maintained should fully comply with the following Legislation and Regulations.

- Highways Act 1980
- Goods and Services Act
- The Local Government Contract Act
- The Management of Health and Safety at Work Regs 1982
- Electricity at Work Regulations 1989
- Traffic Signs Regulations and General Directions 1991
- Disabled Persons Act 1981
- Road Humps Regulations 1990
- New Roads and Street Works Act 1991
- BS 7671: Regulations for Electrical Installations 1992
- BS 5489: Parts 1 – 10 'Code of Practice for Road Lighting'
- BS EN 60529: ' Specification for Clarification of Degrees of Protection provided by Enclosures'
- BS EN 60598: 1994 Luminaires for Road and Street Lighting
- BS 5649: 'Lighting columns'
- BS EN4: 'Lighting Columns 1992
- Department of Environment, Transport and the Regions Departmental Standard BS 26/99 – 'Design of Lighting Columns'
- Department of Environment, Transport and the Regions Advice Note TA 49/86 – 'Appraisal of New and Replacement Lighting on Trunk Roads and Trunk Road Motorways.

1.3 Main Objectives

The Corporate Plan acts as a means of informing the public by stating the purpose of the Council, highlighting key issues to be addressed and defining the corporate aims to improve the quality of life for local communities. The corporate aims are outlined below.

- Jobs & The Economy
- Lifelong Learning & Skills
- Health & Wellbeing
- Community Safety
- Environment
- Housing
- Culture & Leisure
- Strengthening Communities
- Organisational Development

The Council's Mission, values and aims are driven by Councillors, implemented by the Chief Executive, Chief Officers and employees and financed by revenue and capital budgets.

The aims within the Corporate Plan include 'Community Safety' and the Council makes a major contribution to ensuring a safe Borough through its public lighting service. The aims also include 'Environment' where public lighting plays a part in the regeneration of areas that have suffered economic, social and environmental decline and contributes to making the Borough an even more attractive place to live, work and visit. Further environmental contributions are made by minimising light pollution and using energy efficient equipment.

The lighting service is instrumental in responding to the challenge posed by the Crime and Disorder Act 1998. Section 17 of the Act states 'without prejudice to any other obligation imposed on it, it shall be the duty of each Authority to which this section applies to exercise its various functions, and the need to do all that it reasonably can to prevent crime and disorder in its area'. Public lighting is provided under the Highways Act to prevent danger to road users and not directly for other reasons, although the demand on the service is increasing to aid crime prevention.

The objectives of this strategy can be achieved by:

- Providing a safe road network for all road users;
- Minimising the environmental impact of public lighting
- Ensuring that public lighting is in keeping with and integrated into the infrastructure.
- Helping to reduce crime and the fear of crime;
- Providing a cost effective public lighting service;
- Energy conservation and sustainability

1.4 Lighting Standards

1.4.1 Types of street lighting lamp

The type of light source, its colour and colour appearance can have a significant effect on the night scene. The ability of a lamp to reproduce "daylight" is called the colour rendering index ("Ra" index). The "Ra" index is a scale from 0 – 100 with daylight rated as 100.

The first mass produced lamp used in lighting schemes was the Mercury Discharge (MBF) lamp. This type of lamp is inefficient in terms of energy efficiency, although it does provide good colour rendering properties in the range of "Ra" 40 – 50. It produces a blue/white colour output and is regarded as a cold colour when compared to the warmer (orange/yellow) of sodium lamps.

Mercury lamps are the traditional lighting source for residential areas. They have however, been old technology for some time. For a number of years it has been Council policy to replace this type of illumination with either SON or CDM-T types of light source. There are approximately only three hundred left in Hartlepool.

MBF - Mercury

- Blue/white light
- Good colour rendering
- Poor energy efficiency

For many years the favoured type of public lighting source was the low-pressure sodium (SOX) lamp. This type of unit is very efficient at converting electrical energy into visible light. However the light output from these units is virtually monochromatic as it is concentrated in a very narrow band (yellow/orange) of the visible spectrum. This produces orange coloured lighting. The output therefore delivers an unnatural appearance to the human eye and is very poor for colour recognition (a particular problem with CCTV systems and other crime related issues). A low pressure sodium lamp has a "Ra" index of 0.

SOX - low pressure sodium

- Monochrome yellow orange colour
- Poor colour rendering
- Excellent energy efficiency

In more recent times high pressure sodium (SON) lamps were developed. These sodium lamps provide much improved colour rendering performance compared to SOX, in the range of "Ra" 25 – 55. These units still exhibit some of the yellow sodium appearance but do provide a broader spectrum and are a marked improvement on SOX lamps and markedly more efficient than Mercury Discharge Lamps.

SON - high pressure sodium

- Golden yellow colour
- Average colour rendering
- Average/good energy efficiency

Further recent developments in the production of metal halide lamps, particularly ceramic arc tubes (CDM), have provided lamps that have significant improvements in delivering "white" light over SON lamps. CDM lamps can now provide colour rendering in the range of Ra 80 – 90.

Although the actual efficacy (lumens per watt) of these lamps is less than the SOX and SON units there is an argument that the improved colour performance across the full spectrum allows designers to utilise lower wattage lamps to deliver the same "perceived" level of illumination.

CDM-T – Ceramic Discharge Metal Halide

- Warm white colour
- Excellent colour rendering
- Average energy efficiency

Development is continuing with LED's (Light-Emitting Diodes) as a potential replacement for the conventional lamps currently available. LED's have been available for some time and are in general use, but essentially as small, relatively low power units. The aim is to produce ever-larger units capable of delivering sufficient output to be viable as public lighting units. LED's operate "cold" and hence provide high efficiency with most of the energy radiating in the visible spectrum. With the pressures of increasing energy costs it is hoped that LED development could provide good quality lighting at a viable cost.

LED – Light Emitting Diodes

- White Light
- Good Colour Rendering
- Excellent energy efficiency

In summary, low pressure SOX lamps produce the most lumens of light per watt of energy consumed. However, SON and CDM-T lamps offer superior optical light control and longer life, which makes them more cost effective. Consequently, new SOX lighting is to be restricted to replacing lamps in existing SOX lit areas. The installation of new lighting should generally use high pressure sodium lamps such as the SON-T plus, and where good colour rendering is desirable CDM-T should be used.

LED lighting is relatively new technology. They are highly efficient in terms of energy usage, but currently have some reliability issues to resolve. They are to be used on a pilot basis only at the present time.

1.4.2 Power Consumption

Public lighting lamps are designed to deliver illumination to meet the requirements of a range of situations. Examination of our inventory reveals we are currently utilising 10 different types of lamp with power ratings ranging between 55 watts and 250 watts. Lamps of different types (SOX, SON, MBF,CDM etc) produce illumination in generally the same way, via the release of photons when an electric current is passed through a metallic vapour. The process is very efficient in terms of light output versus energy consumed.

Typically, in domestic accommodation, lighting is provided by incandescent lamps (GLS). With incandescent lamps the majority of the power consumed, (some 90%), is converted to heat, leaving only 10% converting to light, so they are rather inefficient in terms of energy usage. The lighting industry has therefore been driven to produce lamps that deliver improved energy efficiencies.

Lamps are designed to convert electrical power (watts) into light (lumens) and the table below gives typical figures for different types of lamp.

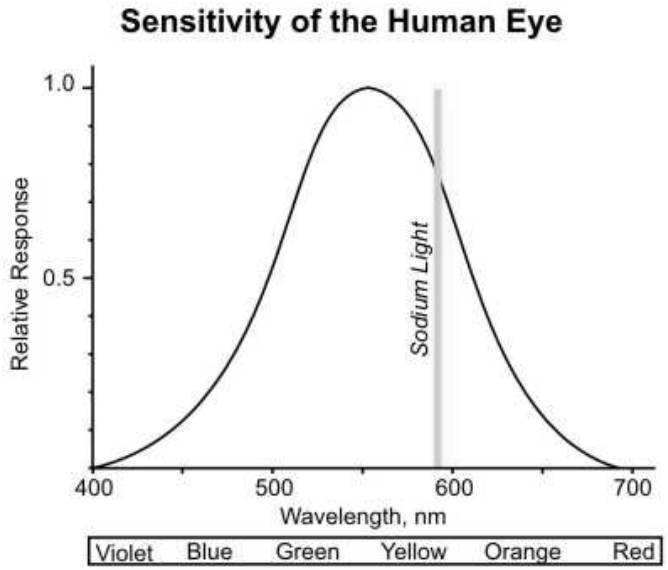
	Lumens per Watt
Incandescent (GLS)	10
Mercury Vapour (MBF)	40 to 60
Fluorescent	64 to 90
Metal Halide (CDM)	70 to 100
High Pressure Sodium (SON)	90 to 125
Low Pressure Sodium (SOX)	120 to 200

Taken in isolation, the table above would clearly lead us into choosing SOX lamps for all our applications if we were solely concerned with saving power. Why then do SOX lamps only comprise about one quarter of our stock (about 3,500) lamps?

As described above, the choice is not as simple as the lamps ability to covert watts to lumens. Low pressure sodium lamps produce light of a very limited part of the visible spectrum giving rise to a poor colour rendering ability. Also the physical construction of the lamps (relatively large tubular shape) makes the light distribution difficult to control, which also limits their application.

Recent studies have also revealed that the human eye behaves differently in high and low light conditions. In bright conditions the eye operates in its normal photoptic region and at this level, the frequency

of light generated by the SOX lamp is almost at the peak sensitivity of the human eye (see graph below). However in very low lighting conditions often encountered in street lighting situations, the sensitivity of the eye shifts towards the blue end of the spectrum and sodium lighting performs poorly, making detail difficult to see. This explains why lower levels of "white" light (containing a mix of frequencies) can be more acceptable to residents even though in reality, the measured lighting levels are less. Lighting designers can therefore utilise smaller wattage "white" light lamps and regain energy efficiencies.



Low pressure sodium (SOX) lighting is still extensively utilised on long lengths of motorways as the requirement here is to provide very energy efficient, low contrast lighting where colour rendering is not a priority.

Examination of our inventory reveals that approx 75% of our lighting stock is comprised of high pressure sodium (SON) lamps. The SON lamp provides improved colour rendering performance over the SOX lamp and maintains relatively high levels of energy efficiency. Although less efficient in converting watts to lumens the SON lamp provides improved lamp life (28,000 hours) over the SOX (20,000 hours) and hence benefits from lower maintenance costs. Colour rendering of SON lamps can be further improved but this is at the cost of reducing energy efficiency so specialist lamps are usually restricted to areas with specific requirements. The SON lamp is therefore seen as a good compromise between energy usage, lamp life and colour rendering so it not surprising to find that it our most popular source of illumination on our highways.

We have in the region of 300, 80 Watt Mercury Discharge (MBF) lamps on our current inventory. These units are relatively inefficient in terms of energy conversion (see table above) but do give acceptable lamp life

(22,000 hours). Due to the escalating cost of energy we have therefore targeted these lamps to be replaced as funds are available.

In terms of overall power consumption street lamps do not only consume the rated lamp wattage. In addition to say a lamp rated at 150 Watts the control gear losses could add another 25 Watts making the total loading nearer 175 Watts. Further, when lamps are initially switched on, and are in their start up mode, they can demand in the region of 50% more energy than their normal running load. This start up period varies between lamps but can be typically 5 mins.

In addition to the losses above, electricity supply companies are concerned that equipment connected to their network operates efficiently in the way it converts their supply of voltage and current into Watts of usable energy. In an ideal world Watts would be the simple product of voltage and current. However since all the distribution networks are transmitted as alternating current, losses occur which reduce this conversion. This conversion loss is known as the equipment's Power Factor. Items of equipment aim to operate at a power factor as close as possible to unity i.e. no loss. In reality different items of lighting equipment actually operate between power factors of 0.9 and 0.98. Power supply companies can impose additional tariffs on large consumers of energy that operate at low power factors. Power supply companies are becoming more sensitive to power factor issues and this could also have a bearing upon the types of street lighting units we utilise in the future.

1.4.3 Public Lighting Luminaires

The type of lamp utilised has a bearing upon the nature of the light produced. However this light source must be controlled to deliver the light accurately to the target surface. For instance on the A689 or A179 the lighting must be evenly distributed avoiding high intensity areas followed by dark spots. It would also be unacceptable to provide principal road lighting that produced excessive glare for drivers of vehicles. The direction of the light being emitted by the luminaire is therefore controlled via the shape, the material, and the construction of the luminaire. Lighting designers are now charged with cutting down light pollution e.g. light directed upwards into the night sky, which in addition to being wasteful, also hinders the viewing of stars.

Luminaires are constructed from a range of materials and are purpose designed for a variety of installation and operational requirements. The size, shape, and weight of the luminaire is dependent upon the lamp, the lamp control gear, the lighting distribution required and of course the desired aesthetic appearance.

In addition to housing the lamp and distributing the emission of light correctly the luminaire also contains the control gear required to operate the lamp. Discharge lamps require a high voltage pulse of

energy to ignite the lamp and this is delivered via the control gear. Traditionally this control gear comprises an electromagnetic ballast and capacitor unit. Manufacturers are moving towards electronic control systems, which are lighter, and more energy efficient.

Luminaires used for public lighting in Hartlepool must be manufactured to BS EN 60598-2-3 1994 (BS4533) and incorporate an efficient optical system to direct the light onto the highway. To ensure minimum environmental pollution of the night sky the upward light from the luminaire shall be kept to a minimum. The luminaries shall have the lamp control gear mounted within.

All luminaries shall be manufactured from vandal resistant materials and to prevent the ingress of dust and moisture new luminaries shall have an internal protection rating of not less than IP65.

1.4.4 Lighting of Pedestrian Crossings

Pedestrian crossing equipment employed should include internally illuminated black/white section poles supporting the yellow globe with a 50 watt tungsten halogen lamp or LED array and flasher unit.

The crossing should ideally be located centrally between the lighting columns adjacent to the crossing. Where night time use is high then supplementary direct illumination using white light should be considered over the full carpet of the crossing.

1.4.5 Lighting of Traffic Calming Features

Traffic calming is designed to reduce the speed and type of traffic using a highway. Physical barriers are placed in the highway reducing carriageway width or adding speed humps or cushions.

Section 5 of the Highway (Road Hump) Regulations 1996 states that; 'Subject to Regulation 7 (which precludes roads with a speed limit of 20 mph or less) no road hump shall be constructed in any highway unless in that highway there is lighting for that road hump which is:

1. a system of public lighting furnished by at least three lamps lit by electricity and placed so that not more than 38 metres separate any of the lamps from the next one to it, or

2. a system of public lighting complying with BS5489, published by the British Standards Institution or with a standard or Code of Practice of a national standards body or equivalent body of any member stated of the European Community; or

3. lighting specially provided for the road hump.

The Regulations do not specify the level or standard of lighting required but a system of lighting designed to BS5489 for the classification of the road is required to cover approaches to and the position of all traffic calming features.

Lighting of Pedestrian Subways

Subways are provided as a safe route for pedestrians and cyclists to cross traffic routes. This provision should be maintained in a safe and usable condition at all times.

Lighting should be designed and installed in accordance with BS5489 part 9, Section 10, Code of Practice for Lighting for Urban Centres and Public Amenity Areas and in addition, the lighting of the exits and entrance approaches should be adequately lit to reduce transitions in lighting levels.

Highly vandal resistant fittings should be used in such subways.

Obtrusive Lighting

Obtrusive light is light which falls outside the area to be illuminated which can cause discomfort, annoyance, distraction or reduces the ability to see. Obtrusive light is referred to as light pollution which can be divided into three main categories:

- Sky glow
- Glare
- Light trespass

The obtrusive light should be restricted by:

- The control of the type of light source
- Restricting the level of light emitted at high angles between 70 and 90 degrees
- The use of full horizontal cut off (flat glass) luminaries where appropriate.

Attention is drawn to the ILE Guidance Notes for the Reduction of Light Pollution which includes the recommendation that for road lighting installations, light near to and above the horizontal should be minimised. The use of full horizontal cut off luminaries installed at 0^{o} uplift will minimise visual intrusion within the landscape as well as upward light. In urban situations luminaries fitted with shallow bowls provide good control of light near to and above the horizontal.

1.4.8 Selection of Lighting Levels

1. The following details provide an aid to the selection of the desired level of lighting in the provision of new or the refurbishment/replacement of existing lighting installations on an adopted highway. However, the actual level of lighting shall be determined by the methods shown in the European Standard prEN 13201:1998, Part 1, Selection of Lighting Classes.

2. The Institution of Lighting Engineers Guidance Notes for the Reduction of Light Pollution provides a recognised means of zoning areas for environmental purposes when assessing lighting requirements.

Zone E1 – National Parks, Areas of Outstanding Natural Beauty, Sites of Special Scientific Importance and other Dark Area.

3. Villages and settlements within a Zone E1 area should only be provided with lighting when requested by the Parish Council and then limited to strategic locations such as telephone boxes, bus stops, etc. Lighting should be restricted to CEN Luminous Intensity Class G4/5 if possible otherwise Class G2/3, as specified in Table A1 of luminous intensity classes in EN 13201-2:2003 Annex A.

4. Outside villages and settlements in Zone E1 areas lighting should only be provided where there is a known night time safety problem, which cannot be controlled by other methods. New lighting installations should be provided to the minimum level proposed by the Standard and be full cut off, CEN Luminous Intensity Class G6.

Zone E2 – Areas of Low District Brightness (Rural Location outside Zone E1)

5. Villages and settlements within a Zone E2 area would generally be provided with lighting in accordance with the relevant standard applicable to the type and use of the highway. Consideration should also be given to the lighting of footpaths and cycle tracks with high night time use. Further details on the lighting of cycle tracks are available in the Institution of Lighting Engineers Technical Report No 23, Lighting of Cycle Tracks, 1998. However, where a cycle track or footpath is remote from a highway or properties and an existing alternative lit route exists, regard should be given to whether it is safe to attract people on to isolated areas by the provision of light. Lighting should be CEN Luminous Intensity Class G4/5 if possible otherwise Class G2/3.

6. On roads between villages and settlements in Zone E2 areas lighting should only be provided where there is a known night time safety problem which cannot be controlled by other methods. New lighting installations should be provided to the minimum level recommended by the Standard and be CEN Luminous Intensity Class G6.

7. Roundabouts are areas of high traffic conflict and are therefore generally provided with a system of lighting. Rural roundabouts in Zone E2 areas should be provided with a system of lighting to the minimum level recommended by the Standard and be CEN Luminous Intensity Class G6.

8. It may be possible to provide adequate lighting for the safety of the motorist in such locations by means of a single centrally mounted lighting column instead of a proliferation of lighting columns around the perimeter of the roundabout. The height of the column should be kept to the minimum but adequate to ensure that the whole of the carriageway around the island is correctly illuminated.

9. Complex junctions in Zone E2 areas should only be lit when it can be shown that there is a significant night time traffic flow and no alternative remedial safety actions are effective. New lighting should be provided to the minimum level recommended by the Standard and should be limited to the minimum area necessary for road safety. Careful consideration should be given to the height and number of columns and to the wattage of the lamp used. New lighting should be CEN Luminous Intensity Class G6.

10. Care should be taken were there is a cycle track or footpath adjacent to a lit roundabout, lit complex junction or lit rural road to ensure that any conflict points were cyclists, pedestrians and motorists meet or cross are adequately illuminated.

11. Areas of special environmental interest in Zone E2 areas should have an individual assessment carried out to determine the benefits or otherwise of providing a system of public lighting.

Zone E3 – Areas of Medium District Brightness (Urban Location)

12. Within an urban location all highways would be lit in accordance with the relevant standard applicable to the type and category of the highway.

    (a) Primary routes
    (b) District Distributors

(c) Local Distributors
(d) Access Roads
(e) Shared Access Roads
(f) Secondary Access Roads

Category (a), (b), and (c), roads will mainly be classified as traffic routes and should be lit accordingly. Glare should be restricted to CEN Luminous Intensity Class G2/3 but Class G4 used if possible.

13. Category (d), (e) and (f) roads will generally be considered as residential and lit accordingly. Glare should be restricted to CEN Luminous Intensity Class G2/3

14. Consideration should also be given to the lighting of footpaths and cycle tracks with high night time use. However, where a cycle track or footpath is remote from an adjacent highway or properties and an existing alternative lit route exists, regard should be given to whether it is safe to attract people on to isolated areas by the provision of lighting. Glare should be restricted to CEN Luminous Intensity Class G2/3

15. Areas of special environmental interest in an urban area would normally be lit. However, an individual assessment should be carried out to determine the benefits or otherwise of providing a system of public lighting at such locations and to assess any environmental restrictions on the type and level of lighting to be provided.

Zone E4 – Areas of High District Brightness (Urban Centres with high night time usage)

16. Within urban centres the type and level of lighting provided will need to be designed to suit a number of conflicting needs and use. Many roads in such areas carry high volumes of traffic, particularly at peak hours, indicating a need for them to be treated as traffic routes and lit accordingly. However, after the rush hour period many revert to pedestrian routes carrying high volumes of people enjoying the facilities of the town/city centre. Care should be given to providing a flexible lighting scheme, which provides adequate illumination for the motorist but also provides an interesting and attractive ambience for people to enjoy themselves. Consideration should be given to dimming or switching to reduce or vary lighting levels, or to the use of different height lighting columns to suite the alternative uses.

17. Zone E4 areas are generally bright and lively, however, care should still be given to controlling glare which should be restricted to CEN Luminous Intensity Class G2/3

Consideration is also to be given to the effect of lighting on adjacent areas used by other means of transport such as:

- Airports
- Railways
- Harbours
- Adjacent unlit traffic routes

1.4.9 Switching

Electronic photo electric cells should be used to switch public lighting with an on/off level set to 70 lux on and 35 lux off. To minimise theft and vandalism, group B units shall use a miniature cell only, a NEMA socket shall not be used.

1.5 Column Standards

1.5.1 Physical requirements of Columns

The choice of column size, shape, and material is dependent upon a number of factors. The height of the column is determined by the required light distribution. The higher the column and heavier the luminaire, the stronger it needs to be at the base. The column must be capable of taking a significant and variable load. The loading is affected by the weight of the luminaires, the wind area of the luminaires and the wind speed at the location. Columns in exposed locations and columns in excess of 8m are given an “exposure class” rating of 1, columns in excess of 8m but not in exposed locations are class 2 and columns of 8m and below not in exposed locations are class 3. Columns can be manufactured from a range of materials such as mild steel, stainless steel, cast iron, aluminium, and concrete.

Lighting columns are relatively low cost and low technology. They should provide approximately 30 years service if correctly manufactured and maintained. The choice of base material, the type of protection applied and the local environment all impact on the lifespan of columns. The most common material (mild steel) can be affected by a range of environmental conditions. Corrosion can be accelerated by a column’s exposure to environmental pollution (e.g. acid rain), salt deposits from winter service operations, dog urine, local ground conditions (e.g. clay soils retaining moisture, or soils with a high content of aggressive agents) and exposure to other chemicals (e.g. weed killers).

Corrosion can therefore be a very localised activity and may go undetected for long periods of time. It cannot be assumed therefore that because a particular column is a certain age it is still fit for purpose.

Due to financial pressures the public lighting service has been under funded over the years. This has led to a general reduction in planned maintenance (e.g. column replacement schemes, painting, inspections) as the need to spend more has increased. Inevitably this has led to a progressive decay in the street lighting stock.

1.5.2 Aesthetic features of Columns

Provided the physical requirements can be met the designer has a wide choice of materials, finishes, and styles available. Columns can be coated with a range of products providing an extensive choice of colours and finishes. The styling of the column can also be varied from the typical tubular type through to period style units used in "heritage" areas.

1.5.3 Steel Lighting Columns and Brackets

1. Columns shall be manufactured from tubular or sheet steel, as specified on the Scheme/Works Order, and shall conform to the following:

   The column and bracket manufacturer shall be registered with and accredited under the Quality Assurance scheme ISO9002 for the manufacture, supply and verification of lighting columns. A copy of the accreditation document shall be supplied to the Engineer on request.

   All columns and brackets shall be manufactured, supplied and installed in accordance with the requirements of BS5649 or revision of such. Columns shall be manufactured in accordance with the requirements of BD 26/99 and the design of all columns shall include for the mounting of a sign plate 5 kg x 0.3m^2 x 1.8 shape coefficient mounted 2.5 metres above ground and 300 mm eccentrically.

   Unless otherwise detailed on the Scheme/Works Order, columns and brackets shall be designed to be capable of accepting lanterns with the following weights and windage of lanterns:

Mounting Height metres	**Lantern Weight kg**	**Windage Area Sq mtr**
5 Post top	5	0.15
6 post top	5	0.15
8 post top	10	.019
10 post top	15	0.19
12 post top	20	0.27

5m with 0.5 m projection bracket	5	0.10
6m with 0.75 m projection bracket	5	0.10
8m with 1.0 m projection bracket	10	0.16
10m with 1.5 m projection bracket	15	0.22
12m with 2.0 m projection bracket	20	0.27

2. All columns shall have a root for planting to a depth shown by the middle range listed in Clause 5 of Part 2 of BS5649 as follows:

   - 5 Metre columns 800 mm planting depth
   - 6 Metre columns 1000 mm planting depth
   - 8 Metre columns 1200 mm planting depth
   - 10 Metre columns 1500 mm planting depth
   - 12 Metre columns 1700 mm planting depth

3. All columns shall have a cable entry slot 75 mm x 150 mm with the top of the slot 350 mm below ground level.

   Columns manufactured in tubular steel shall have shaft and base sections manufactured from continuous lengths of new steel tube and shall not contain any welded or stepped sections.

   The base section of columns shall have a minimum wall thickness of 5 mm and have base compartment openings of a minimum of:-

   500 x 100 mm for 5 and 6 metre columns or
   600 x 115 mm for 8, 10 and 12 metre columns.

   The height above ground of the base sections shall be 1250 mm.

4. Unless specified otherwise on the Scheme/Works Order all columns shall be designed for the following conditions:-

   - Mean hourly wind speed Vref of 25m/s
   - Site altitude of 250 metres.
   - Terrain category III for 5 and 6 metre columns
   - Terrain category III for 8, 10 and 12 metre columns
   - Topography factor f, shall be 1.0
   - The Partial Safety Factor on loads shall be Class B, wind load 1.2 and dead load 1.2
   - The maximum horizontal deflection of the lantern connection shall be Class 3, 0.1 (h+w)

5. Tubular steel columns shall, where specified, be provided with detachable web type steel brackets and shall have a welded web gusset between the spigot and pipe arm and shall have a welded steel spigot cap. For 8 metre columns, and above, the fixing of the bracket to the column shall be over a reduced diameter spigot to

maintain the smooth parallel line between the column and bracket arm. The bracket arm shall be held in position by stainless steel screws allowing fixing in any one of four 90^{o} positions relative to the door opening.

A means of preventing undesired rotational movement of the bracket, once fixed in position, to the column shaft shall be incorporated in the column design.

6. Bracket arms shall, unless specified otherwise, provide an incline of lantern of 5^{o} when fitted to spigots of:

   - 42 mm OD x 110 mm long for 5 and 6 metre columns
   - 24 mm OD x 127 mm long for 8, 10 and 12 metre columns

7. The method of joining the base section and the shaft shall be by a swage joint with an internal centralising washer. All welding procedures shall be in accordance with the requirements of BS EN288 and all welders approved to the requirements of BS EN287 with welding carried out in accordance with BS 5135.

8. The same pattern of door lock shall be used throughout all columns. Keys shall be supplied for 10% of all columns supplied. The door fixing bolt shall have a tapered end to facilitate self centering when closing.

   An internal full length, equivalent to the door size, base board, substantially non-hygroscopic, shall be fitted in each compartment for mounting control gear. Base board fixing studs or bolts shall not protrude beyond the front fact of the base board. The base board shall be firmly bolted in position. On delivery, the column door shall come assembled on the column.

9. All columns shall be fitted with M8 x 30 mm brass earth studs, threaded the whole length, with two plain washers and two nuts within the base compartment and that are easily accessible. Column doors shall be provided with an internal lug to enable earthing of the column door with an M8 brass earth stud.

10. There shall be no sharp edges within columns or bracket arms to damage electrical cables during installation or service. An anti-chafe ring shall be fitted where cable routes change direction from horizontal to vertical within the bracket.

1.5.4 Corrosion Protection for Steel Columns and Brackets

Street lighting columns shall be hot dipped galvanised to BS 729.

Following erection columns shall be T washed, and have one coat of Mebopro 80, or similar approved product, and one coat of Ameron Steelbond 2134 applied before handover. The colour to be grey to RAL 18B25.

A 2 pack epoxy resin protective coating, to the approval of the Engineer, shall be painted over the base section of the column for a distance equal to the planting depth plus 150mm.

Colour contrast bands on poles and columns to help partially sighted people will be required. This will be a single white or yellow band 150 mm deep with its lower edge between 1.5 m and 1.7 m from the ground.

On completion of painting the column shall be provided with an individual Identification number as follows:-

(a) Columns are to have numbers painted on one side of the column facing the general direction of oncoming traffic or as otherwise directed by the Engineer.

(b) The numbers shall be black and painted on a yellow background using appropriate stencils and located at 1.8m above ground level. The height of the numbers shall be 40mm. The size of yellow background shall be adequate to accommodate the numbers.

(c) The type of paint used shall be submitted to the Engineer for approval.

(d) The column identification will comprise of up to 8 digits and the actual numbers will be provided by the Engineer.

1.5.5 Raise and Lower Columns

Where specified on the Scheme/works Order, Raise and Lower columns shall be installed at such locations where vehicular access is severely limited, for example, remote footpaths or where the presence of a maintenance vehicle may impede the free flow of traffic. Refuge Island beacon posts may fall within this latter category.

1.6 Energy Requirements

At the 1992 Earth Summit in Rio, the developed Counties agreed to voluntarily reduce emissions of greenhouse gases to 1990 levels by the year 2000.

At the Climate Change Convention in Kyoto in 1997, the developed Countries were legally committed to reduce greenhouse gases affecting the environment.

The UK Government set a target of reducing carbon dioxide emissions by 12.5% on 1990 levels by the year 2010.

Energy efficient equipment should be used at every opportunity and investigations and monitoring of technological developments undertaken.

The advent of electronic ballasts with reduced energy consumption, near unity power factor, and ability to be used in a lamp dimming mode should be specified when appropriate.

The use of lower wattage white light sources such as CDM-T should be considered as research is being conducted to show that lower levels of lighting can be provided using white light to achieve the same visual appearance.

1.6.1 Energy Purchase

Electrical energy for public lighting, which is generally unmetered, is currently purchased from N-Power as a result of competitive tendering. The price per unit (KWhr) is negotiated by the North East Purchasing Organisation (NEPO) of which Hartlepool Borough Council is a member. NEPO consists of Local Authorities within the North East comprising the Tyne and Wear conurbation, Cleveland area, Northumberland, Durham and Hambleton in Yorkshire.

1.7. Design Requirements

All proposed developments within Section 38 and 106 of the Highways Act should be provided with a public lighting system, including illuminated signs, as part of the Agreement.

The requirements for each development shall be agreed with the Highway Authority and conform to the Design Guide and Specification for Residential and Industrial Estates Development which may be accessed on the Council's web site.

Design and Installation

Public lighting for residential areas shall be, unless otherwise agreed, designed in accordance with British Standard Code of Practice for Road Lighting BS 5489 – 2003 to meet the requirements for the appropriate S lighting class with 6 metre mounting height columns.

Public lighting for Industrial Estate shall be, unless otherwise agreed, designed in accordance with British Standard Code of Practice for Road Lighting BS 5489:1:2003 to meet the requirements for the appropriate public lighting class generally on 8/10 metre mounting height columns.

The installation shall comply with BS 7671, Regulations for Electrical Installations (IEE Wiring Regulations).

Every lighting unit and underground cable on completion and before being energised shall be inspected and tested to verify that the requirements of the IEE Wiring Regulations have been met. The inspection and test results shall be submitted to the Director of Environment at the time of requesting an adoption inspection of the lighting system.

Adoption

On satisfactory completion of the agreed scheme, the Council will accept responsibility for the energy charges and will carry out cyclic maintenance on those units serving the roads and footpaths included in the Section 38 Agreement. All repairs shall remain the Developer's responsibility until the roads are adopted.

As built drawings of column and cable positions are to be provided, together with Test Certificates.

1.8 Maintenance Requirements

1.8.1 Code of Practice Recommendations

Maintenance strategies must provide cost effective solutions in keeping the network in safe working order. The guidance given in the Code of Practice for Highway Lighting Management 'Well Lit Highways' produced by the UK Lighting Board November 2004 must be adhered to, a summary of the recommendations contained within are:

1. The authority's strategy in relation to the provision of its public lighting service should be clearly stated and should cover all the organisation and service involved in delivering the service.

2. All personnel engaged in public lighting operations should be trained in accordance with national guidelines such as those produced by the Institution of Lighting Engineers and issued with the appropriate certification.

3. No operatives should be placed at risk due to lack of skills on the part of themselves or others dealing with electrical equipment.

4. Each authority should establish and maintain up to date and accurate inventory of all highway electrical equipment (including authority cable networks) as part of its asset management system.

5. Authority cable networks should be recorded on Ordnance Survey based plans or alternatively on a Geographic Information System.

6. An asset management system should be used to control and record all cyclical and reactive maintenance activities.

7. Cyclical maintenance intervals for lighting installations should be determined to ensure the installations correct operation and light output, minimise failures and maximise life.

8. Lamp replacement strategies should be carefully evaluated taking account of local technical and geographic considerations, to maintain light output whilst limiting the number of lamp failures to an acceptable level.

9. Each authority should establish and operate a system for monitoring the operational status of its equipment.

10. Each authority should establish and operate a system for the reporting of faults by the public. The system should allow for the reporting of emergencies 24 hours per day each day.

11. The Authority should establish and enforce specific response times for each maintenance task.

12. Each authority should determine the frequency of electrical inspection and testing and carry out such works at a frequency of not less than once every 6 years.

13. The condition of all enclosures, including the general structural condition of lighting columns, illuminated traffic sign posts, feeder pillars, etc should be recorded on the operative report at each maintenance visit.

14. New steel lighting columns should, as a minimum, be hot dipped galvanised and consideration should be given to the application of further protective coating by the lighting column manufacturer at the time of manufacture.

15. A programme for the maintenance and reapplication of protective coatings for in situ lighting column or illuminated traffic sign post should be determined and implemented taking account of the location, existing protective system and any other environmental factors including atmospheric conditions.

16. A risk assessment strategy for the management of the structural safety of lighting columns and illuminated traffic sign posts should be developed and implemented and where necessary structural testing of lighting columns and illuminated traffic sign posts should be carried out.

17. Each authority should negotiate a formal service level agreement with the Distribution Network Operator (DNO).

18. Each authority should ensure that their procedures, and those of any contractor, do not prevent the DNO from meeting agreed performance standards.

19. Each authority should consider the use of competitive tendering for highway electrical maintenance as part of its Best Value strategy.

20. Each authority should seek competitively tendered supplies of electricity for its highway electrical equipment.

1.8.2. Levels of Maintenance

1. Fault Detection

   All lighting is required to be inspected at the frequency listed under the section dealing with Performance Indicators. This inspection is to detect and record lighting faults which are visually obvious.

   The preparation of the work instruction for fault rectification is the responsibility of the maintenance contractor who also executes the inspections. This method minimises the outage times of failed lighting. Priority of repairs is firstly those faults which present the most danger to the public, such as sections of lights being inoperative.

2. Cyclical Maintenance

   Cyclic or routine maintenance operations are to be carried out as a preventative maintenance operation which is also to identify any work necessary to keep the installation safe, both structurally and electrically. This maintenance consists of the following:

   - Lantern cleaning
   - Photo-cell cleaning
   - Visual inspection and minor repairs to electrical equipment
   - Full electrical inspection and test when specified
   - Mechanical maintenance
   - Structural inspection
   - Inventory data verification.

3. Inventory

An inventory of all highway electrical equipment is maintained on the "Confirm" asset management system. The details of the location, condition, wattage, lamp type, burning hours, lanterns, supply, column type, height and year of installation, together with service arrangements are to be recorded.

The "Confirm" asset management system is used to produce cyclic maintenance schedules, electrical testing schedules, structural inspection and testing information and returns to the Regional Electricity Company for energy charging. Data relating to column risk management is also held on the asset management system which is used to produce column condition indicators.

4. Lamp replacement

   In the more rural locations and where traffic management measures need to be kept to a minimum group lamp replacement is in operation where lamps are changed during a cyclic maintenance visit every three years or 12000 hours of lamp operation. Other areas are not group changed, but are replaced only on failure. The evaluation of this strategy is ongoing wherein fault levels are recorded and compared.

5. Column Testing and Column Replacement

   A risk assessment strategy for the management of the structural safety of lighting columns has been developed and is being implemented. The data collected on the column attributes and the environment in which it operates is used in a statistical calculation to allocate an action age to each column and also to allocate a priority for the consequences of a column failure. The action age is the recommended age of the column when some action should be taken to establish the structural integrity of the column and on columns of 8m in height and above they shall be subject to a structural test where a load is applied to the column and resultant deflection measured and analysed. Column replacement programmes shall be compiled using the difference between the actual column age and its action age and taking into consideration the consequences of failure to prioritise selection of columns for replacement.

6. Testing – electrical

   The Electricity at Work Regulations state that 'as may be necessary to prevent danger, all systems shall be maintained so as to prevent, so far as is reasonably practical, such danger'. To provide the basis for determining installations meet the safety standards, testing and inspection should be carried out in accordance with Chapter 73 of BS 7671: Requirements for Electrical Installations. The frequency

of the testing should be once every six years and coincide with a cyclic maintenance visit, which is every two years.

7. Competency

   Regulation 16 of The Electricity at Work Regulations 1989 requires that no person shall be engage in any work activity where technical knowledge or experience is necessary to prevent danger or, where appropriate, injury, unless he possesses such knowledge or experience or is under such degree of supervision as may be appropriate having regard to the nature of the work.

   All operatives should be appropriately trained and instructed to ensure they understand the safety procedures, which are relevant to their work.

8. Cable Records

   The location of underground cable networks should be recorded to facilitate repairs, testing, extensions and for providing information to any organisation excavating in the highway in compliance with the New Roads and Street Works Act.

   The lighting and signs inventory on the "Confirm" asset management system is linked to an Arc Info Geographical Information System (GIS) which has the location of illuminated signs and public lights plotted. The database ad GIS system should be kept up to day by actioning all additions and alterations to the network.

1.9 Seasonal Decorations on or above the Highway

1.9.1 General

The erection of seasonal decorations on or above the highway shall only be carried out with the prior written approval of the Highway Authority

All works associated with the provision of seasonal decorations shall be carried out in accordance with the requirements of the County Surveyors' Society, (CSS) Code of Practice for the Installation and Operation and Removal of Seasonal Decorations, second edition, 2005 (CP10TRSD).

Seasonal decorations may be attached to existing Lighting Equipment but it is preferred that such decoration be attached to or supported from buildings adjacent to the highway.

Seasonal decorations shall be deemed to include decorations erected for:

- Christmas and other religious celebrations
- Festivals and other celebrations
- Flower Decoration including attached and hanging baskets
- Flags and banners
- Advertisements

Generally no decoration or its support shall project over the road or within 0.5 m of the kerb face at a height less than 5.8 m above the road surface. At least 2.5 m headroom must be provided over any area for pedestrians.

1.9.2 Seasonal Decorations Supported from Adjacent buildings or free standing in the Highway

All seasonal decorations mounted above, or free standing in the highway shall:

- Be approved in writing by the Highway Authority prior to the erection of the fixtures for a period not exceeding 35 days unless planning permission has been granted for a longer period.
- Be the sole responsibility of the body installing the decorations and shall be insured with the Highways Authority being indemnified for a minimum of £3.0 million for any one incident.
- Be removed immediately upon request of the Highway Authority or be removed by the Highway Authority at the owner's expense if there is concern about the safety of the public or the system.

- Be manufactured with supports and mounting points capable of supporting the decorative fixtures, in accordance with CP10RSD.

The electrical requirements for protection against electric shock of CP10RSD shall be adhered to wherein ground mounted installations must be supplied as a maximum by a SELV 25 volt AC power supply protected by a Residual Current Circuit Device, RCD, situated at the source of supply. Equipment mounted above ground to 2.5 metres in height can be supplied at a maximum of 110 volts via a centre tapped transformer (55-0-55) incorporating a suitably rated RCD. Equipment mounted above 2.5 metres can be supplied at 230 volts again incorporating a 30maRCD.

All Seasonal Decorations shall be erected in compliance with the following statutes and regulations.

- Health and Safety at Work Act, 1974
- Electricity at Work Regulations, 1989

- BS 7671: 1992 Requirements for Electrical installation, IEE Wiring Regulations, Sixteenth Edition.

No Seasonal Decorations shall conflict with any adjacent traffic signal systems.

1.9.3 Seasons Decorations attached to Lighting Equipment

In general, public lighting columns are not designed for the significant additional loads imposed by the attachment of seasonal decoration. Therefore the size and number of seasonal decorations that can be attached to a lighting column is limited. However, the erection of such decorations and fittings will be permitted provided the following additional conditions are met:

New or replacement lighting systems

- In locations where it is expected that seasonal decorations will be required, the lighting columns shall be manufactured and installed to support the additional loads imposed by weight and wind and a certificate of compliance lodged with the Highway Authority. The additional cost of such columns will be rechargeable to the organisation wishing to install the seasonal decorations.

Existing lighting systems

- The system of public lighting to be used to support the Seasonal Decorations shall be inspected annually. A competent Structural Engineer shall be commissioned to provide a report to the Highway Authority prior to the erection of the decorative lighting confirming that the columns are structurally safe and can support the proposed seasonal decorations.

- Seasonal decorations must not hinder the normal operation or maintenance of the highway or the Lighting Equipment.

- No banners, flags or catenary wire(s) shall be erected between two or more items of Lighting Equipment unless the Lighting Equipment has been designed and manufactured specifically for that purpose or a Structural Engineers report has been submitted as above.

- Power supplied to such decorative fittings shall not be obtained from an adjacent building.

- Where remote power supplies are used to provide energy for the Seasonal Decorations, the decorations and any supply wiring shall be labelled with the location of the isolation point at regular and appropriate positions along the length of the wire.

1.9.4 Other Fixtures and Attachments to Public Lighting Columns (Permanent or Temporary)

Existing Lighting Equipment due to its design, construction or structural condition may not be structurally adequate to support the additional weight and wind loads imposed by the erection of a sign or other attachment such as hanging baskets and banners. A Structural Engineer may be engaged to establish the structural integrity of the columns and the cost of such investigation and testing will be recharged to those installing the attachments.

Lighting columns should not be used as an additional support of a sign requiring a second or additional post unless the lighting column has been specifically designed for this purpose. Experience has shown that the use of lighting columns in this manner can cause premature failure.

Public lighting columns shall not be used as supports for advertising signs of any kind, except where recognised organisations (i.e. Automobile Association or Royal Automobile Club) have been granted permission by the Highway Authority. When fixed, such signs should not obscure the unit's maintenance number, hinder maintenance or affect the light output of the equipment.

No person shall remove or cause obstruction to a lighting access door or column identification number.

Only personnel authorised by the Lighting Engineer shall enter the base compartment and access equipment housed therein.

1.10 Miscellaneous Public Lighting Issues

1.10.1 Supply of Electricity from Public Lighting Equipment

The provision of temporary supplies from public lighting equipment presents problems for the safety and security of both the public lighting equipment and the temporary installation and such connections will only be permitted where no satisfactory alternative, including portable generators, can be found.

The Body seeking supplies of this nature must obtain the consent of the Highway Authority and make appropriate arrangements with the Regional Electricity Company for the payment of the energy used.

The installation must be installed in accordance with the requirements of the Electricity at Work Regulations and BS 7671: Requirements for Electrical Installations and final connections into the public lighting equipment must be executed by the Highway Authority. Under no

circumstances are unauthorised persons allowed to access public lighting equipment.

1.10.2 Private Off-Highway Lighting

Private exterior lighting situated off the highway can be a source of danger due to glare to users of the highway when not optically controlled or when wrongly aimed.

Light pollution of the night sky should be minimised and lighting of buildings should preferably be with down lighters. Where floodlighting must be used they should be optically controlled and aimed such that there is no spillage of light from the building being lit.

Security lighting and sports stadia lighting, should be to the illumination levels recommended in the appropriate Design Guides. Light spillage should be restricted to prevent discomfort and annoyance to occupiers of adjacent buildings and dwellings.

Car park areas should be lit to the appropriate standards set out in BS 5489: Part 9 and the luminaries incorporate such light control to produce downward light within the confines of the car park.

Advertising signs should be lit using the guidelines published in the second edition of the Institution of Lighting Engineers (IL) Technical Report No TR5 'Brightness of Illuminated Advertisements".

1.11 Performance Management

All lighting units are subject to a night inspection every two weeks during winter or every four weeks during summer, when the lights are expected to be fully operational to identify faults. The faults are to be investigated by the Contractor within three working days of being notified at which time minor faults should be rectified. The units are also tested every six years in accordance with the Electricity at Work Regulations to ensure the integrity of the electrical installations.

In addition to this, the public and other interested parties are asked to contact a dedicated telephone number to report any concerns regarding public lighting. This number is operational during normal working hours and an out of hours call centre system operates at other times. Callers are asked to assist by reporting the identification number, providing a location address and describing the nature of the concern.

The maintenance contractor operates communication facilities and organisational arrangements to enable the Engineer or Police to report emergencies at any time.

Examples of emergencies warranting attendance include:

- Accident damage to public lighting equipment
- Failure of a large section of lighting
- Failure of lighting at a critical location
- Doors off
- Incidences presenting an immediate danger
- Underground cable damage

Faults received are input into a fault database and the order to repair sent electronically at the end of each working day to the repair team for attention within three days.

All external correspondence should be answered, or where not possible, acknowledged within ten working days of receipt.

Faults which cannot be rectified at the first visit are classed as major faults and are then the subject of individual orders and instructions prepared and passed to the repair team for attention.

1.11.1 Performance Indicators

The average time taken to repair public light faults

1. which are in the total control of the authority and
2. in the control of the regional electricity company.

1.11.2 Public Lighting Maintenance and Installation Targets

Activity	**Frequency**	**Time for Completion**
Cyclic Maintenance All Roads	2 years	As agreed programme
Night Inspection	14 days during winter 28 days during summer	Within 3 working days
Fault Repairs Minor faults (faults which can be repaired at the First visit)	As they occur and are ordered by Engineer	Within 3 working days
Painting	7 years	Within agreed programme
Cable faults	As ordered by Engineer	Within 5 working days
Accident damage, knock-downs	As ordered by Engineer	Within 5 working days

1.11.3 Electricity Company Service Levels

The service depends on an electricity supply provided by the Regional Electrical Company, NPower and the agreed Code of Practice regarding the connection and repair of public lighting and includes for the following timescales.

	Response time
Emergency work, to remove immediate danger to public or property.	100% in 2 hours
High Priority Fault Repair, urgent work not requiring attendance out of normal hours.	100% in 1 day
Fault Repair – Single Unit, repair to a single lamp service fault where attendance is not required under emergency circumstances or out of hours or within 1 day.	70% in 10 days, 100% in 30 days
Fault Repair – Multiple Units, repair to a fault affecting supply to more than one lamp (section faults) where attendance is not required under emergency circumstances or out of hours or within 1 day	70% in 5 days, 100% in 30 days

	Response time
New or transferred connections in a batch not exceeding 20 units.	80% in 20 days, 100% in 35 days.
New or transferred connections in a batch not exceeding 20 units.	80% in 20 days, 100% in 35 days
New or transferred connections in a batch of more than 50 units.	80% in 20 days, 100% in 35 days