To:	Ashford Joint Transportation Board
By:	Behdad Haratbar – Head of Programmed Work
Date:	12 March 2013
Subject:	A Common Sense Plan for Safe and Sensible Street Lighting
Classification:	For Decision

Summary: This provides details of the County Council's plan for safe and sensible street lighting and requests Members' views on the proposals.

Introduction

1. There are around 120,000 street lights and 30,000 lit signs/bollards in Kent. The annual energy cost for these is around £5.8m, a cost which is expected to rise in line with the rise in fossil fuel prices.

2. There isn't a legal requirement for the County Council to provide street lighting except when linked to road safety. However it has become established practice over time and almost all street lights in Kent are continually lit during the hours of darkness. There is a fitted light sensor in each column which automatically turns the lights on at dusk and turns them off at first light.

3. The Government's Carbon Reduction Commitment requires councils to publish their greenhouse gas emissions, including CO2. To generate the energy to illuminate the street lights in Kent produces 29,000 tonnes of CO2. Although it has not been a requirement to pay for carbon credits, this is likely to change and some form of levy linked to carbon emission is likely to be introduced thus increasing the cost of energy even further.

4. The aim is to target wasted energy whilst ensuring that we maintain community and road safety. We have been working with Kent Police to make sure that these issues are considered very carefully and that vulnerable sites are excluded from the proposals.

5. The challenge of rising energy costs, carbon emissions and light pollution were among the key factors in developing a new approach. This led to the approval of the policy of reducing energy consumption.

What we have done so far

6. A number of initiatives have been completed that reduced energy consumption delivering an annual saving of £130k. These are;

- Upgrades – 6,500 inefficient mercury lamps as well as 3,441 failing lamps have been replaced with energy efficient units.

- Trimming – The photocell in 13,000 lamps has been reset to reduce burning time (lights come on later at dusk and going off earlier at dawn). All new columns have these photocells as standard.

- Dimming – New lanterns have been fitted to 500 columns to dim the wattage at pre-determined times to reduce energy consumption.

What we plan to do

7. It was always acknowledged that significant work would need to be done to meet the challenge of escalating cost of energy, carbon emissions and intense light pollution.

8. Further work on this front led to the identification of measures to significantly reduce energy consumption. These are proposed to be delivered in two phases; Trial Switch Off of Surplus Lights (Phase 1) and conversion of a significant number of lights to Part Night Lighting (Phase 2). These measures, when fully implemented, will reduce the annual energy bill and carbon emission significantly, by around £900,000 and 5,000 tonnes respectively.

Phase 1 -Trial Switch off of Surplus Lights

9. In the past, the extent of street lighting went far beyond the required needs; around 3,100 street lights have been identified where lighting is considered not necessary. If these schemes were being designed today these lights would not be installed. These are far in excess of the normal lighting standards and have a disproportionate maintenance cost due to their locations. These are generally located on roads leading to or out of local settlements.

10. We propose to switch these lights off for a trial period of 12 months. Site specific risk assessments and a safety audit for each road has been carried out to make sure that we only switch off lights that are not needed. Crime levels and road safety will be monitored at each site throughout the trial period and lighting columns on sites being adversely affected will be switched back on. Lighting columns on unaffected sites will be reviewed at the end of the trial period to determine whether action needs to be taken. Lights within settlements will be retained.

11. Switching off these lights will save the tax payer around £150,000 and reduce our carbon emission by about 1,000 tonnes every year.

12. A list of these lights and a plan of each site within the Ashford Borough is shown in Appendices A and B respectively. The works will be undertaken on a District by District basis and, is due to commence in early summer 2013. The programme of switching off surplus columns will take

approximately 2 months to complete. The specific dates for the trial switch off in the Ashford Borough will be notified to Members nearer the time. Signs informing of the trial switch off will be erected at each site.

Phase 2 - Part-night lighting

13. This proposal involves installing a light sensor in each column which has a built in timer. This means that the column would turn on automatically at dusk, turn off at 12.00 midnight, turn back on at a 05.30a.m and stay on until first light. Apart from switching off and removing the columns, this is the most effective way of saving energy, very much like a householder turning off lights at night when going to bed.

14. This would apply to two categories of roads; minor roads (which include residential, industrial estates and rural roads) and high speed roads. There are around 70,000 street lights in these roads which could be changed to part-night lighting and could result in a reduction of up to15% in the annual energy bill, around £750,000, and reduce carbon emission by around 4,000 tonnes every year

15. Here too, community safety will be paramount, before any street lights are changed to part night, risk assessments will be carried out to make sure that it will not have an adverse impact on the locality.

16. Some may consider that implementing part-night lighting might lead to increases in road accidents, antisocial behaviour and an increased fear of crime. The implementation of part night lighting by other Local Authorities however has shown that this is not the case as sites where streetlights have been dimmed or switched off traffic accidents and crime have not increased. This fear is based on perception rather than actual data. As with the trial switching off proposals, (Phase 1), Kent County Council's aim is to target the wasted energy whilst ensuring we maintain safety and help reduce crime.

17. The programme for conversion to part night lighting is at a much earlier stage as we need to consult with interested parties, including residents and the police, about the hours of switch off and whether any further criteria needs to be considered.

Exclusion Criteria

18. The approach proposed in Kent is similar to other local authorities. Locations for this energy saving initiative will be considered suitable for inclusion unless they meet one or more of the exclusion criteria listed below

    - Main routes and locations with a significant night-time traffic record between 12.00 midnight and 05.30am.
    - Town centres.

- Areas identified by the Police as having an existing record of crime or having the potential for increased crime levels if the street lighting is changed.
- Areas with sheltered housing and other residences accommodating vulnerable people.
- Areas with operational emergency services site including hospitals and nursing homes.
- Formal pedestrian crossings, subways and enclosed footpaths and alleyways where one end links to a road that is lit all night.
- Where road safety measures are on place in the highway, such as roundabouts, central carriageways islands, chicanes, speed humps, etc.
- Roads that have local authority CCTV or Police surveillance equipment.
- Sites with existing or with potential road safety concerns.

Recommendations

I. Members are asked to consider each site selected for the trial switching off of surplus lights and suggest any local information that may help officers to determine how to proceed with each location.
II. Members' are asked to consider the exclusion criteria used for the Part-night Lighting initiative and suggest any changes.
III. Members views are sought on the hours of switch off for Part Night Lighting.

Contact Officers:

Sue Kinsella Street Lighting Manager
Tel: 08458 247 800
Email: sue.kinsella@kent.gov.uk

Chris Hatcher Project Manager
Tel: 08458 247 800
Email: chris.hatcher@kent.gov.uk

APPENDIX A

APPENDIX B

A Common Sense Plan for Safe and Sensible Street Lighting

Report to Spring JTB's **Appendix A**

SURPLUS COLUMNS TO BE SWITCHED OFF

DISTRICT: ASHFORD

Road Name	Column Ref No	Location
Charing Hill	MCBL001	in verge rear of footway
	MCBL002	in verge rear of footway
	MCBL003	in verge rear of footway
	MCBL004	in verge rear of footway
	MCBL005	in verge rear of footway
	MCBL006	in verge rear of footway
	MCBL007	Rear of Footway
	MCBL008	in verge rear of footway
	MCBL009	in verge rear of footway
	MCBL010	Rear of Footway
	MCBL011	Rear of Footway
	MCBL012	in verge rear of footway
	MCBL013	in verge rear of footway
	MCBL014	Rear of Footway
	MCBL015	Rear of Footway
	MCBL016	in verge rear of footway
	MCBL017	Rear of Footway
	MCBL018	in verge rear of footway
	MCBL024	Rear of Footway
	MCBL025	Rear of Footway
	MCBL026	in verge rear of footway
Romney Marsh Road	MRDA005	Verge
	MRDA006	Verge
	MRDA007	Verge
	MRDA008	Verge
	MRDA009	Verge
	MRDA010	Verge
	MRDA011	Verge
	MRDA012	Verge
	MRDA013	Verge
	MRDA014	Verge
	MRDA015	Verge
	MRDA016	Verge
	MRDA017	Verge
	MRDA018	Verge
	MRDA019	Verge
	MRDA020	Verge
	MRDA021	Verge
	MRDA022	Verge
	MRDA023	Verge
	MRDA024	Verge
	MRDA025	Verge
	MRDA026	Verge
	MRDA027	Verge
	MRDA028	Verge

Romney Marsh Road	MRDA034	in verge rear of footway
	MRDA035	in verge rear of footway
	MRDA036	in verge rear of footway
	MRDA037	in verge rear of footway
	MRDA038	in verge rear of footway
	MRDA039	in verge rear of footway
	MRDA040	in verge rear of footway
	MRDA041	in verge rear of footway
	MRDA042	in verge rear of footway
	MRDA043	in verge rear of footway
	MRDA044	in verge rear of footway
	MRDA045	in verge rear of footway
	MRDA046	in verge rear of footway
	MRDA047	in verge rear of footway
	MRDA048	in verge rear of footway
	MRDA049	in verge rear of footway
	MRDA050	in verge rear of footway
	MRDA051	in verge rear of footway
	MRDA052	in verge rear of footway
	MRDA053	in verge rear of footway
	MRDA054	in verge rear of footway
	MRDA055	in verge rear of footway
	MRDA056	in verge rear of footway
	MRDA057	in verge rear of footway
	MRDA058	in verge rear of footway
Romney Marsh Road	MRDD048	Verge
	MRDD049	in verge rear of footway
	MRDD050	Verge
	MRDD051	in verge rear of footway
	MRDD052	Verge
	MRDD053	in verge rear of footway
	MRDD054	Verge
	MRDD055	in verge rear of footway
	MRDD056	Verge
	MRDD057	in verge rear of footway
	MRDD058	Verge
	MRDD059	in verge rear of footway
Romney Marsh Road	MRCY004	Verge
	MRCY005	Verge
	MRCY006	Verge
	MRCY007	Verge
	MRCY008	Verge
	MRCY009	Verge
	MRCY010	Verge
Romney Marsh Road	MRCY017	Verge
	MRCY018	Verge
	MRCY019	Verge
	MRCY020	Verge
	MRCY021	Verge
	MRCY022	Verge

Romney Marsh Road	MRCY023	Verge
A20 Maidstone Road, Ashford	MMAF050	Verge
	MMAF051	Verge
A20 Maidstone Road, Tutthill / Hothfield	MUAA101	in verge rear of footway
	MUAA102	Verge
	MUAA103	Verge
	MUAA104	in verge rear of footway
	MUAA105	Verge
	MUAA106	in verge rear of footway
	MUAA107	Verge
	MUAA108	Verge
	MUAA109	Verge
	MUAA110	Verge
	MUAA111	Verge
	MUAA112	Verge
	MUAA113	Verge
	MUAA114	rear of footway
	MUAA115	Verge
	MUAA116	Verge
	MUAA117	Verge
	MUAA118	Verge
	MUAA119	Verge
	MUAA120	Verge
	MUAA121	Verge
	MUAA122	in verge rear of footway
	MUAA123	in verge rear of footway
	MUAA124	in verge rear of footway
	MUAA125	in verge rear of footway
	MUAA126	in verge rear of footway
	MUAA127	in verge rear of footway
	MUAA128	Verge
	MUAA129	Verge
	MUAA130	Verge
	MUAA131	Verge
	MUAA132	Verge
	MUAA133	Verge
	MUAA134	Verge
	MUAA135	Verge
	MUAA136	Verge
	MUAA137	Verge
	MUAA138	Verge
	MUAA139	in verge rear of footway
	MUAA140	in verge rear of footway
	MUAA141	Verge
	MUAA142	Verge
	MUAA143	Verge
	MUAA144	Verge
	MUAA145	Verge
	MUAA146	Verge
	MUAA147	Verge
	MUAA148	Verge

(A20) Maidstone Road, Tutthill / Hothfield	MUAA149	Verge
	MUAA150	Verge
	MUAA151	Verge
	MUAA152	Verge
	MUAA153	in verge rear of footway
	MUAA154	in verge rear of footway
	MUAA155	Verge
	MUAA156	in verge rear of footway
Templer way	MTFT005	in verge rear of footway
	MTFT006	in verge rear of footway
	MTFT007	in verge rear of footway
	MTFT008	in verge rear of footway
	MTFT009	in verge rear of footway
	MTFT010	in verge rear of footway
A20 Ashford Road, Charing	MACH001	in verge rear of footway
	MACH002	in verge rear of footway
	MACH003	rear of footway
	MACH004	in verge rear of footway
	MACH005	rear of footway
A20 Maidstone Road, Charing	MUAA001	Verge
	MUAA002	rear of footway
	MUAA003	Verge
	MUAA004	in verge rear of footway
	MUAA005	In verge rear of footway
	MUAA006	in verge rear of footway
Trinity Road	MTFH004	Verge
	MTFH005	in verge rear of footway
	MTFH008	in verge rear of footway
	MTFH009	in verge rear of footway
Trinity Road	MTFJ004	Verge
	MTFJ005	Verge
	MTFJ006	Verge
	MTFJ007	Verge
	MTFJ008	Footway/Cycleway
	MTFJ009	Verge
	MTFJ010	Verge
	MTFJ011	Footway/Cycleway
	MTFJ012	Verge
	MTFJ013	Verge
Hoxton Close. Ashford	MHEX005	Verge

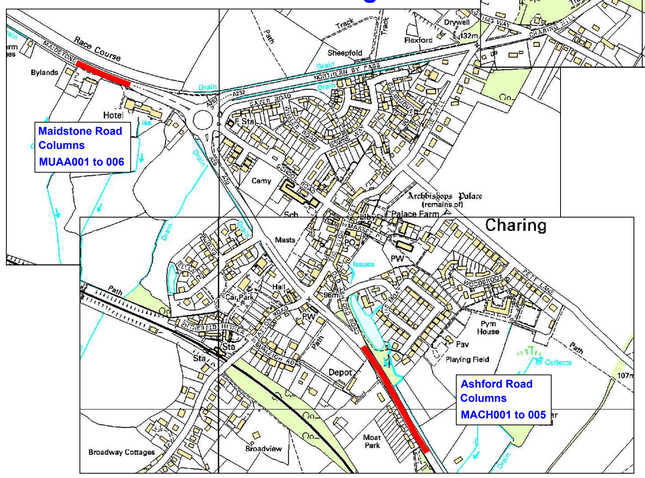
Drawing number
KCC/HL/ESP/Ashford/01/Rev 1

KEY

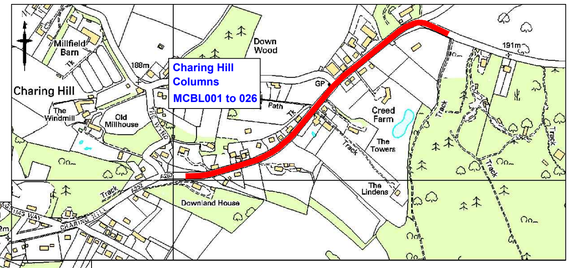
Extent of Columns to be switched off.

MTFH004 Column Ref No. of columns to be switched off.

A20 Maidstone Road. Charing

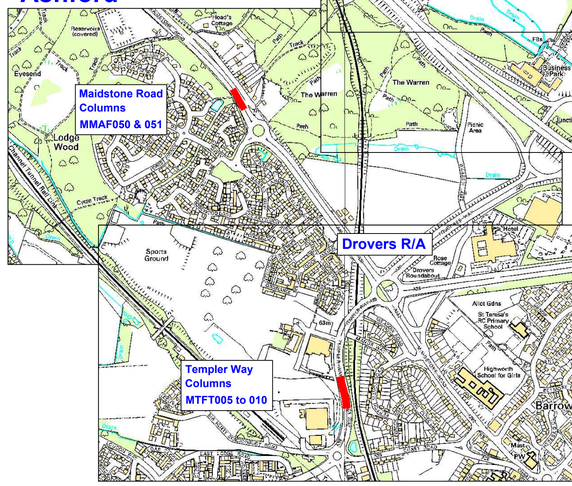


Charing Hill

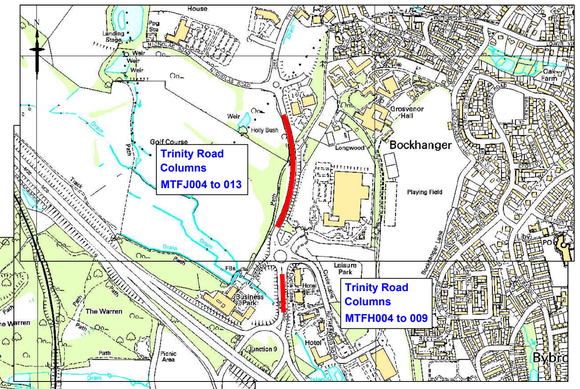


Ashford Road. Charing

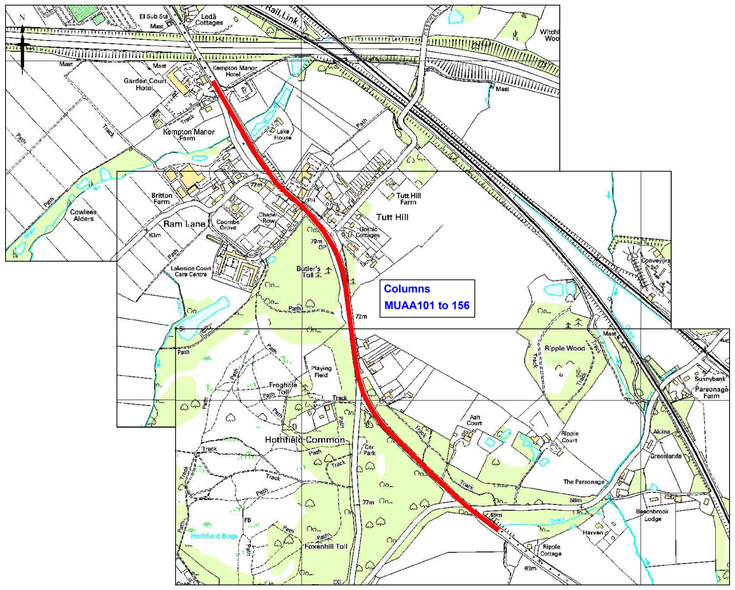
A20 Maidstone Road Ashford



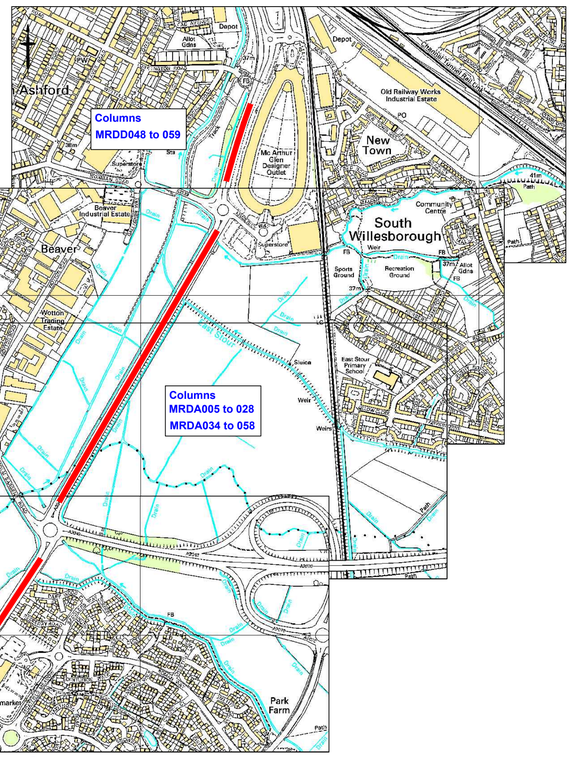
Templer Way



Trinity Road



A20 Maidstone Road, Tutt Hill/Hothfield



Romney Marsh Road

ASHFORD

1	22.01.2013	Notes changed to indicate switch off	HC	CH	CH
0	03.12.2012		HC	CH	CH
Rev	Revision Date	Purpose of revision	Drawn	Checked	Approved

Kent County Council
kent.gov.uk

Kent County Council
Ashford Highway Depot, Javelin Way,
Ashford, Kent, TN24 8AD
Tel: 08458 247 800

Project
Safe and Sensible Street Lighting
Phase 1
Trial Switch Off of Surplus Lights

Drawing title
Location Plan - Ashford District

Drawing status
For Consultation

Scale
Not to Scale | Do not scale

Drawing number
KCC/HL/ESP/Ashford/01

Rev
1

FILEREF

A1