Southend Street Lighting Upgrade Supporting Letters Annex 6

Subject: Upgrading Southend's Street Lighting Network to LEDs

Essex Chambers of Commerce

Better for business

Dear Paul,

I understand that Southend Council is about to make a grant funding application to the Department for Transport to assist the Council with the upgrading Southend's street lighting network to LEDs. Essex Chambers of Commerce is pleased to register its strong support for this important renewal programme. With advances in technology and much longer life expectancy of LEDs will substantially reduce carbon emissions and maintenance costs allowing for less impact on more vital Council services. We understand that there will be improvements to night time visibility which should help to reduce crime and road traffic accidents. There will also be benefits to the night time economy when the Council undertakes its review of darker areas and improves routes to and from car parks, the seafront, restaurants, travel centre, taxi ranks and railway stations, as well as complementing the Council's previous investment in CCTV.
This important project, along with other major road improvements in the Borough, will certainly enable our business members to have safer and more reliable journey times which can only help with the further development of the local economy.

Best regards,

John Dallaway
Policy Manager

Essex Chambers of Commerce
2nd Floor Viscount House
London Southend Airport
Southend-on-Sea
Essex, SS2 6YF

T 01702 560100 Southend Office
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Registered Office: Essex Chambers of Commerce & Industry Ltd
8 & 9 St Peters Court, Colchester, Essex CO1 1WD

Subject: Letter of Support re LED

Paul

As per meeting on Monday please accept this email as support from the Southend BID company, in my capacity as Chair and Director and also in my capacity as Centre Manager of the Royals Shopping Centre fully supporting the councils intention to change the lamp columns to LED increasing the luminosity of the High Street, adjacent streets and Seafront areas.

Regards

Dawn Jeakings Dip SCM

Centre Manager

The Royals Shopping Centre

High Street

Southend-on-Sea

Essex

SS1 1DG

T.01702 461650 F.07092 390027

www.royalsshoppingcentre.co.uk

facebook.com/royalsshoppingcentre

twitter.com/@royalsshopping

Subject: RE: Southend Street Lighting Network - Letter of Support

Dear Paul and Alison,

Thank you for the information regarding the proposed improvements to the Southend street lighting network.

The University of Essex is in support of this initiative as we believe that improved street lighting will have a positive impact on safety for staff and students. We would particularly welcome improvements to lighting on routes between, to and from University buildings and car parks, travel centre and railway stations as these are key routes for students and staff. Our Students' Union has also echoed this view indicating that with ever growing student numbers, their safety is paramount.

The University also welcomes the anticipated reduction in energy consumption and associated savings enabling investment in other key local services benefiting our staff and students. The University itself has committed nearly £2m through its Capital Investment Programme for lighting upgrades on our campuses and this will help us to further reduce our carbon footprint.

Regards,

Zoe Manning
Campus Manager

Safe – clean – healthy – prosperous – excellent – Creating a better Southend

South East
Local Enterprise Partnership

c/o LEP Secretariat
Essex County Council
C328, County Hall
Chelmsford
CM1 1LX

Councillor Ron Woodley
Leader
Southend on Sea Borough Council
Civic Centre
Victoria Avenue
Southend on Sea
Essex
SS2 6ER

6th February, 2015

Dear Ron,

Upgrading Southend's Street Lighting Network to LEDs

I am delighted to support Southend on Sea Borough Council's application to the Department for Transport's Challenge Fund (maintenance) to accelerate the replacement of streetlights in the Borough with LEDs.

In supporting wider business and growth investment in Southend - including that enabled by the South East Local Enterprise Partnership - these improvements will further improve the attractiveness, accessibility and safety of the Borough to stimulate new opportunities for employment and investment.

In particular, I note that:

- Recent advances in technology now make it possible to make reductions of between 50% and 80% in the energy consumed by street lighting together with a reduction in carbon emissions, thereby reducing both direct costs and maintenance through longer life expectancy;
- The latest technology incorporated in LEDs makes it possible to achieve a white light rather than the orange/pink light of the existing sodium lighting improving night-time visibility;
- The technology can increase or reduce brightness to suit local conditions, with automatic fault reporting and accurate measurement of power consumed; and
- A review of darker parts of the Borough and the Town Centre will identify routes to and from car parks, the seafront, restaurants, travel centre, taxi ranks and railway stations etc, and target these improvements to boost the night time economy

I am very pleased to add my support for this bid as part of a wide-ranging programme of private and public investment in growth in Southend and much look forward to hearing the outcome of the bid.

With best wishes.

Yours sincerely

Peter Jones, CBE
Chairman
South East Local Enterprise Partnership

cc
Paul Mathieson, Group Manager – Major Projects and Strategic Transport Policy
Rob Tinlin, Chief Executive
Davinia Farthing

OLYMPUS®
Your Vision, Our Future

OLYMPUS KEYMED
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Telephone: +44 (0)1702 616333
e-mail: info@olympus.co.uk website: www.olympus.co.uk

NJW/AMP/PM

3 February 2015

For the personal attention of:

Mr P Mathieson
Group Manager
Major Projects and Strategic Transport Policy
Southend-on-Sea Borough Council
Civic Centre
Victoria Avenue
Southend-on-Sea
Essex
SS2 6ER

Dear Mr Mathieson

Upgrading Southend's Street Lighting Network to LEDs

On behalf of Olympus KeyMed I would like to express our support in relation to Southend Borough Council's programme to replace street lights in Southend with new LEDs. As one of the largest local employers in the borough, we believe this to be an important benefit to our employees and the local community alike, and we also recognise the significant economic impact.

Recent advances in technology have made it possible for local authorities to make reductions of between 50% and 80% in the energy consumed by street lighting together with a reduction in carbon emissions. The longer life expectancy of LEDs of 20-25 years compares with 2-6 years for conventional lighting and will substantially reduce maintenance and costs. Considerable savings can be made as a result, which in turn contributes to the Council meeting its saving targets with less impact on vital services.

A review of darker parts of the Borough and the Town Centre will identify and improve routes to and from car parks, the seafront, restaurants, travel centre, taxi ranks and railway stations etc, boosting the night time economy. This improvement in night-time visibility will also help reduce crime and road traffic accidents.

With this background, Olympus KeyMed is fully supportive of the application being made to the Department for Transport for grant funding.

Yours sincerely

NICK WILLIAMS
Group Managing Director

Federation of Small Businesses
The UK's Leading Business Organisation

Paul Mathieson
Civic Centre
Victoria Avenue
Southend-on-Sea
Essex, SS2 6ER

5th February 2015

Dear Sir/Madam,

I write on behalf of the South East Essex Branch of the Federation of Small Business (FSB) in relation to the recent programme to replace the street lights in Southend with new LED ones.

We've had some feedback from our members, and I have to say that they are very impressed with both the illumination provided by these new lights, but also the fact the saving made by these lights allow for the street lights to be kept on while other councils turn off their lights at midnight.

From what we've heard from our members, they are very much in favour and keen for these lights to spread to more areas, especially in the darker parts of the borough such as areas surrounding car parks, restaurants, taxi ranks, railway stations etc, and thus aiding to boosting the night time economy of the local area.

And given the new white light produced by these new lights, rather than the orange light of the existing street lights, we've heard from our members that they feel safer travelling within these areas.

Once again we would like to praise Southend BC on this initiative, and sincerely hope this programme spreads all over the borough in the not too distant future.

Yours faithfully

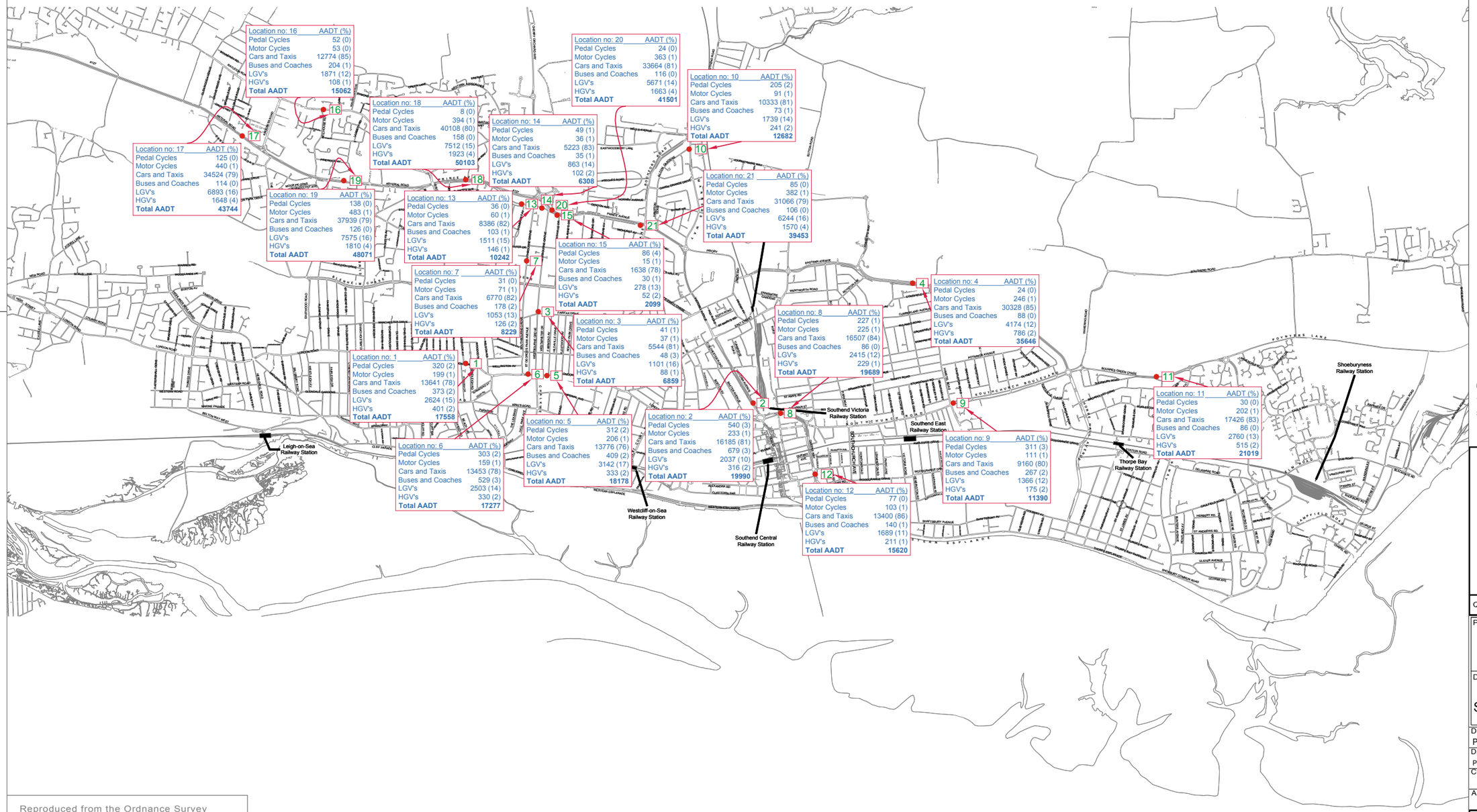
Ken Wickham
Branch Chairman

Annex 7

Highways Maintenance Challenge Fund VfM Pro-Forma

The pro-forma should be filled in with as much of the 'specific data' as possible - with supporting data / information included where possible.
Not all elements will be relevant for every bid - however we would expect for most bids 'specific data' will be available for at least rows 1 and 2.
In the 'Specific Data' Column - please supply the information in the units/format requested.
The 'Other Supporting Data' column should be used to provide salient details not captured under 'Specific Data' and/or further supporting information.
Please add any further information on scheme benefits either at the end of this pro-forma or within the body of the main bid (or annexes)

Input data	Specific Data	Other Supporting Data / Information (either input directly or provide reference to supporting information reported elsewhere)	Information requested
Length of Scheme	(Km)	452	*Provide length of route covered by the scheme - if an area wide scheme then provide total route length covered by scheme.*
Number of vehicles (or users) on affected section (split by vehicle type if possible)	(Total Vehs - AADT)	This project will cover the whole of the Borough of Southend. We have provided a map showing the AADT of the major roads in Southend. See AADT map in **Annex 7**, which is based upon DfT 2013 figures.	*Provide an estimate of the traffic flow on the section of route covered by the scheme - also provide details of the data used to support that estimate (e.g. age, type and duration of count, etc.).*
	(Cars - AADT)		
	(LGV - AADT)		
	(HGV - AADT)		
Details of required restrictions/closures if funding not provided (e.g. type of restrictions; timing/duration of restrictions; etc.)	(restriction type - text description)	During construction some lane closures will be necessary, however roads will be kept open and works shall be carried out during non-peak hours and days. There will also be temporary on-street parking restrictions.	*Provide details of any future restrictions. E.g. If restrictions to particular vehicle types will be needed in the do minimum (i.e. without funding) provide details of why they are required, what vehicle types are covered and when such restrictions will come into place.*
	(start date of restriction - MM/YY)		
Length of any diversion route, if closure is required (over and above existing route)	(Km)	n/a	*Provide estimate of the length of diversion route over and above existing route. It would be helpful to support this with some mapping to demonstrate this.*
Average extra time per vehicle on diversion route (over and above existing route)	(mins)	n/a	*Provide estimate of the average extra time vehicles would spend on the diversion route over and above existing route. It would be helpful to support this with details of any data used/assumptions made (e.g. source of speed data used in any calculations).*
Regularity/duration of closures due to flooding: (e.g. number of closures per year; average duration of closure (hrs); etc.)	(number of closures/year)	n/a	*Provide estimates of closures / durations /delay and provide details of the data used to support those estimates (e.g. number of years of data etc.).*
	(duration of closure - hrs)		
	(length of diversion - Km)		
	(extra time in using diversion - mins)		
Number and severity of accidents: both for the do minimum and the forecast impact of the scheme (e.g. existing number of accidents and/or accident rate; forecast number of accidents and or accident rate with the scheme)	(DM Total Accidents/yr)	105.0	*Provide estimates of accidents (split by severity if possible) or accident rates for the without scheme (DM) case and the with scheme case (DS). Provide details of the data and assumptions/analysis used to support these estimates (e.g. number of years of data, etc.).*
	(DM Slight Accidents/yr)	88.6	
	(DM Serious Accidents/yr)	16.0	
	(DM Fatal Accidents/yr)	0.4	
	(DM Accident Rate - PIA/MVKm)	0.2	
	(DS Total Accidents/yr)	92.5	
	(DS Slight Accidents/yr)	78.1	
	(DS Serious Accidents/yr)	14.1	
	(DS Fatal Accidents/yr)	0.4	
	(DS Accident Rate - PIA/MVKm)	0.1	
Number of existing cyclists; forecasts of cycling usage with and without the scheme (and if available length of journey)	(DM cyclists/day)	An increase in cycling in the mornings and evenings is forecast and will be recorded during the post- scheme surveys. Cycling levels have increased over the last five years and local cyclists have requested better lighting.	*Provide estimates of the number of cyclists (and if possible trip length) for the without scheme (DM) case and the with scheme case (DS). Provide details of the data and assumptions/analysis used to support these estimates.*
	(DM av trip length - Km)		
	(DS cyclists/day)		
	(DS av trip length - Km)		
Other salient information for the VfM Case	Over £25m of savings will include: - £19m savings from energy and CO2 related taxation (25 years) based on current rates (adjusted down in anticipation of short term reductions due to falling oil prices) assuming energy inflation at 5%. - £6.3m savings in maintenance (25 year) from longer life luminaires and the need for fewer attendances. The savings are indexed against RPI (2.5%) and are balanced to reflect the impact of increasing maintenance costs in later years as LEDs start to require replacement. - £0.237m additional cost for computer hosting (indexed at 3%) which is net of additional savings to be generated using the CMS system from more accurate timing settings but not including Part Night illumination. The total cost for the project will be £13.458m funded by £5.09m Challenge Fund grant, £0.12m from recycling energy savings in installation year 2 and £8.248m funding secured from GIB to be repaid from project savings.		



Revisions

Rev	Details	Date
	Original issue of drawing	30-01-15
A	Format of tables updated	02-02-15
B	Title amended and Annex number added	05-02-15

Annex 7

Notes:

1. This drawing has been prepared from AutoCAD file: SBC_AADT_DfT_Export_290115_PWM_v1
2. This drawing has been issued as PDF or Electronice file name: SBC_AADT_DfT_Data_CF_003_300115_PWM_v3

Southend-on-Sea Borough Council

Department for Place

PO Box 5560, Civic Centre
Victoria Avenue, Southend on Sea, SS2 6ZQ

Quality Project No. :

Project Title
Southend-on-Sea Challenge Fund

Drawing Title
Map of Borough Showing AADT DfT 2013 Data

Designed by PWM		Scales @ A3	Not to Scale
Drawn PWM	Date 30/01/15		
Checked	Date / /		
Approved	Date / /	Issued	Date

Drawing Status

Preliminary		Working	
Tender		As Constructed	

Drawing Number
CF_003 **Rev: B**

SBC A3 Titlebox edited by PWM Rev: A3-112013

Annex 7

Southend Street Lighting Upgrade: Accident Data

The vast majority of roads in the Borough are subject to speed limits of 40mph or less and are street lit. The one 50mph road is also street lit. The proportion of night-time (dark) accidents in the latest 5-year period (November 2009 – October 2014) is 24.5%. This is slightly less than the equivalent proportion (26.5%) for built-up roads in Table RAS10007 of Road Casualties Great Britain 2013.

However, the national figure will include 30 and 40 mph roads which are not lit which is unlike Southend-on-Sea Borough where all 30 and 40mph roads are lit. Therefore, The Southend-on-Sea dark proportion of accidents in the dark where street lights were present and lit (23.4%) was compared to national value (22.8%) for dark accidents on roads where street lights were present and lit and with a speed limit of 50mph or less.

As the most appropriate dark percentage comparison for Southend-on-Sea is slightly greater than the national value and the age of the columns are over 30 years old and in some cases over 40 years old, there is confidence that the lighting proposal will have a beneficial effect on the night-time accidents.

The DM values have been assumed to be the current level of night-time accidents as the number of dark accidents is fairly consistent within the five year period.

Using the guidance in the MOSLAR report (recommendations in section 3.4.1), savings in night-time accidents of 10% has been assumed for dual carriageways and 12.5% on single carriageways.

Notes

The accidents are reported personal injury accidents by Essex Police.

The million vehicle kilometre (MVKM) figure was taken as from the 2013 value in DfT Table TRA8904 for Southend-on-Sea.

Annex 8

Southend Street Lighting Upgrade

Project Plan, Gantt Chart

	Mobilisation			Delivery																											
Task	**Month -3**	**Month -2**	**Month -1**	**Month 1**	**Month 2**	**Month 3**	**Month 4**	**Month 5**	**Month 6**	**Month 7**	**Month 8**	**Month 9**	**Month 10**	**Month 11**	**Month 12**	**Month 13**	**Month 14**	**Month 15**	**Month 16**	**Month 17**	**Month 18**	**Month 19**	**Month 20**	**Month 21**	**Month 22**	**Month 23**	**Month 24**	**Month 25**	**Month 26**	**Month 27**	**Month 28**	**Month 29**	**Month 30**
Cabinet approval																																	
Set up project delivery team																																	
Dialogue with suppliers and sub contractors																																	
Use latest MIS to finalise quantities																																	
Produce risk assessments / CDM																																	
Produce detailed programme																																	
Place order with Contractor																																	
Liaison with DNO and agree resource																																	
Produce delivery schedule of apparatus																																	
Order apparatus																																	
Consultation / liaison																																	
Installation in Zone 23					431																												
Installation in Zone 20						398																											
Installation in Zone 32							1043																										
Installation in Zone 21								334																									
Installation in Zone 29									708																								
Installation in Zone 26										552																							
Installation in Zone 16													482																				
Installation in Zone 17														411																			
Installation in Zone 19															453																		
Installation in Zone 22																336																	
Installation in Zone 11																	390																
Installation in Zone 2																		576															
Installation in Zone 15																		407															
Installation in Zone 8																			330														
Installation in Zone 9																			318														
Installation in Zone 34																				165													
Installation in Zone 30																				429													
Installation in Zone 7																					397												
Installation in Zone 6																					352												
Installation in Zone 28																						415											
Installation in Zone 31																							369										
Installation in Zone 27																								385									
Installation in Zone 24																									466								
Installation in Zone 5																										380							
Installation in Zone 12																											374						
Installation in Zone 18																												256					
Installation in Zone 10																													234				
Installation in Zone 33																														256			
Installation in Zone 3																														203			
Installation in Zone 4																														315			
Installation in Zone 25																															248		
Installation in Zone 14																															225		
Installation in Zone 1																																161	
Installation in Zone 13																																139	
Monitor progress and review against programme																																	

Milestone 1 — **Milestone 2** — **Milestone 3** — **Milestone 4**

KEY

- Preliminary Planning Phase
- Consultation with council members, officers and public
- Delivery of materials
- Installation / commissioning phase (inc. column numbers)
- Client verification of works, update MIS and certify for payment
- Site Assessment, ensure correct material ordered
- Issue opening notices
- Monitoring

NOTES

1. The zones have been prioritised on order of energy savings afforded
2. A soft start is programmed into the installation phase to ensure the programme delivery isn't over optimistic
3. It is anticipated that the installation and commissioning will be completed during Month 29.
4. Month 30 has been assigned to cater for any delays in the delivery.

MILESTONES

Milestone 1 4,000 units commissioned* by the end month 12
Milestone 2 7,000 units commissioned* by the end of month 18
Milestone 3 10,000 units commissioned* by the end of month 24
Milestone 4 12,938 units commissioned* by the end of month 30

*Commissioned means, installed and working as designed.

KEY DEPENDENCIES

1. Confirmation and allocation of contractor resource during mobilisation
2. Materials ordered with a minimum of 10 weeks delivery time allowed for
3. Statutory notifications placed within prescribed timescales
4. DNO to provide sufficient jointing resource, to allow ICP's or rent-a-jointer

DfT – Challenge Fund

Annex 9

Corporate Delivery Board

Capital Board

Committee

SE LEP

Major Projects Board

Project Board

Project Assurance
CDM-C
Finance
Procurement
Street Lighting
Maintenance

Senior User
Paul Mathieson

Executive
Andy Lewis
SRO
Peter Geraghty

Senior Supplier
Principal Contractor

Project Manager - Richard Backhouse

Stakeholders

Media

Communication

Asset Register

Reputation

Principal Contractor

Sub Contractors

Construction

Utilities

H&S
Environment

Southend Street Lighting Upgrade

Annex 10

Southend Street Lighting Upgrade
Challenge Fund Risk Register

RISKS AT **BID** STAGE OF PROJECT

Risk Ref.	Nature of Risk	Implications	Mitigation	Owner	Likelihood	Consequence	Rating
1	Availability contractor resources	Lack of contractor resource will cause delay to project	Early contractor involvement, mobilisation period	Authority and Contractor	Possible	Major	High
2	Availability of materials - steel columns, LED etc	Delays to programme, contractor stood idle, costs	Detailed dialogue with suppliers, commitment from suppliers, guaranteed delivery times	Contractor	Unlikely	Major	Medium
3	Availability of DNO supplier	New columns will remain unconnected and unlit attracting adverse public comments	Early discussions with DNO regarding resources and use of independent service providers	Authority and Contractor	Possible	Moderate	Medium
4	Installation and commissioning taking longer than expected	Delays in programme, poor public reaction	Pilot LED scheme used to refine methods of working	Authority and Contractor	Possible	Moderate	Medium
5	Contractor Performance	Fail to deliver replacement programme within three year programme	Early discussion, regular monitoring meetings, continuous monitoring against programme	Authority	Possible	Major	High

Note: the risk register is an evolving document and will be updated throughout the development of the project.

Annex 11

Southend Street Lighting Upgrade
Strategic Case - Supplementary information

Southend`s economy is broad ranging and dynamic and requires good infrastructure assets to serve the needs of a growing town. Retail and tourism are key sectors, with over 6 million day visitors a year to the seaside resort. With a vibrant night-time economy, good quality lighting of streets and public spaces is essential.

During 2014 Southend took part in the NHT Public Satisfaction survey. The public ranked street lighting highly with 90% importance. However, their satisfaction with Southend's street lighting service was only 66%. The proposed improvements are the subject of this application and will increase the public's satisfaction significantly.

Since September 2014, over 1,000 LED lamps have been trialled at various locations, including principal roads and residential streets. Questionnaires were distributed to the public to rate their satisfaction with the new street lighting. The response showed a very good level of support for the introduction of the LEDs, with many stating that the new lights made them feel safer. The survey results relating to the trial can be found at **Annex 5**.

Southend is one of five new recipients of the Purple Flag, given by the Association of Town Centre Management. The Purple Flag is a national accreditation scheme that recognises excellence in the management of town and city centres at night. It is the 'gold standard' for night time destinations and entertainment areas that achieve the standard will be those that offer a better night out to visitors. The Purple Flag aims to raise standards and improve the quality of our towns and cities at night.

Improved street lighting helps to increase surveillance, 'guarding' locations and deterring potential offenders. Street lighting increases the risk of identification for offenders, it encourages more people to use public spaces, increasing the number of potential witnesses to any offence and making it less likely an offender can escape without being identified and later recognised. Routine Activity Theory (RAT) suggests that offenders follow a routine when offending and that if you can interrupt that routine, you can stop further offences. RAT states that for crime to occur, three things need to happen at the same time and in the same space:

1. A suitable target is available – person, property etc.
2. There is the lack of a suitable guardian to prevent the crime from happening.
3. A likely and motivated offender is present.

The theory suggests that if you change any of these then you can discourage potential offenders from offending. Improved street lighting can act as a "suitable (or capable) guardian" and reduce the likelihood that a likely and motivated offender will be present. The Council has a CCTV control room, which will have access to the CMS.

Improved lighting signals investment in the community, increasing community pride and informal social control – and thus reversing the 'broken windows' effect. The broken windows hypothesis suggests that physical dilapidation in an area gives the impression that 'nobody cares' and thus no one will intervene against crime and disorder. Improving the environment displays 'civic pride' that demonstrates how much local people care about their locality. The installation of enhanced street lighting will make locations in Southend more welcoming which will in turn increase informal social control.

With ongoing product development and improvements based on frequent night-test sessions, LED illuminators have been refined to provide the even quality illumination that CCTV cameras require.

Southend-on-Sea's Third Local Transport Plan (LTP3) 2011/12 – 2025/26 supports the implementation of LED street lighting both for improved energy consumption and public safety. Policy 10 refers to reducing energy consumption by introducing renewable energy into transport installations, for example street lighting. Policy 17 also states that safer communities will be achieved through improving personal security, especially after dark, by interventions such as the use of energy efficient street lighting.

On 21st January 2015, the Council approved its second Low Carbon Energy and Sustainability Strategy (LCESS), which focuses on delivering low carbon growth, improving energy efficiency and providing a more sustainable future for our residents, communities and businesses.

Through the successful implementation of this five-year Strategy, the Council will aim to establish Southend-on-Sea as a 'Low Carbon City' and has set ambitious targets to achieve this. A key element of LCESS is to establish a series of 'Eco Innovation Zones' within the Southend, which targets energy efficiency and carbon reduction programmes in identified geographic areas, see **Annex 4**. The LED street lighting proposal forms a key aspect of that programme and installation of the lighting will coincide with the promotion of these zones. For example, an energy saving project at three local schools also includes replacement of the neighbourhood with LEDs at the same time.

The Borough Council has recently joined the EU European Innovation Partnership on Smart Cities and Communities and invited to become a member of the Sustainable Districts and Built Environment Action Cluster, further information can be found at https://eu-smartcities.eu/

This will aid knowledge gathering and dissemination and is contributing towards the ambition for Southend to become a Smart City. Integrating energy, transport and ICT is key and the street lighting project will form an important part of this process, especially in respect of the Central Management System.

Glossary

AAP – Area Action Plan

CDM – Construction Design and Management

CMS – Central Management System

DNO – Distribution Network Operator

EA – Equality Analysis

GIB – Green Investment Bank

H&S – Health and Safety

HMEP – Highways Maintenance Efficiency Programme

ICT – Information Communication Technology

IPMVP – International Performance Measurement and Verification Protocol

ITS – Intelligent Transport System

LCESS – Low Carbon Energy and Sustainability Strategy

LED – Light-Emitting Diode

LSTF – Local Sustainable Transport Fund

LTP3 – Third Local Transport Plan

NEC3 – New Engineering Contract

NHT – National Highways and Transport

OJEU – Official Journal of the European Union

PRINCE2 – PRojects IN Controlled Environments, version 2

Purple Flag – A national accreditation scheme that recognises excellence in the management of town and city centres at night. Purple Flag aims to raise standards and improve the quality of towns and cities at night.

PWLB – Public Works Loan Board

RAT – Routine Activity Theory

SCAAP – Southend Central Area Action Plan

SELEP – South East Local Enterprise Partnership

SRO – Senior Responsible Owner

SSSI – Site of Special Scientific Interest

UMSUG – Unmetered Supplies User Group