

LOW EMISSION STRATEGIES: CASE STUDY

LEICESTER NEW BUSINESS QUARTER DEVELOPMENT

PROPOSALS FOR THE IMPLEMENTATION OF A LOW EMISSION STRATEGY

December 2010

Leicester City Council and the Low Emission Strategies Partnership have worked together to explore the possibility of establishing a Low Emission Strategy for Leicester's New Business Quarter (NBQ) Development. This paper details the Low Emission Strategy development process and resulting recommendations.

Whilst the proposals will not be taken forward through the planning process at the current time, recommendations from Section 4 have been used in the preparation of the adopted City Centre Car Parking Strategy Supplementary Planning Document (<http://www.leicester.gov.uk/carparkingstrategy/>, Appendix 11, p 62).

Leicester notes that the report has high aspirations and the wider implications will need further consideration at a later date. Given the current economic climate, the specific proposals for the NBQ are likely to be revisited before they are progressed.

PREPARED BY LOW EMISSION STRATEGIES PARTNERSHIP

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BACKGROUND

The Low Emission Strategies Partnership (LESP) was formed in 2007 by the 'Delivering Cleaner Air' Beacon Councils, in association with Cenex – UK Centre of Excellence for Low Carbon and Fuel Cell Technologies.

The LESP seeks to address the issues of air pollution and greenhouse gas emissions simultaneously by encouraging the accelerated uptake of cleaner, road transport fuels and technologies. While primarily focussed on the UK land use planning system, the LESP also seeks to incorporate Low Emission Strategy thinking into transport and procurement frameworks.

Funded by Department of Communities and Local Government (CLG) and Department of the Environment, Food and Rural Affairs (DEFRA), the LESP established the 1st Phase Low Emission Strategies Programme in 2008 with the following aims:

- Promote Low Emission Strategy thinking at national policy level
- Produce a Low Emission Strategy Communications Strategy
- Establish a Peer Support Group of local authorities seeking to implement Low Emission Strategies and assist in policy and project development
- Explore the possibility of introducing a national qualification that considers the development of low emission strategy thinking

As a result of the 1st Phase LES Programme, Best Practice Guidance was published by DEFRA – 'Low Emission Strategies: Using the Planning System to Reduce Road Transport Emissions' (January 2010).

A Low Emission Strategies website has been established (www.lowemissionstrategies.org) and a regular e-newsletter is distributed to over 2000 recipients.

Peer Support Group Members, including, City of London, Croydon, Greenwich, Leeds, Leicester, Maidstone, Mid Devon, Oxford, Sefton, Sheffield, South Cambridgeshire, Tunbridge Wells, Wandsworth and Wigan developed a variety of low emission projects and policies, seeking to develop cross sector working, thus increasing capacity and capability to deliver future initiatives. Projects included the development of a City Centre Low Emission Zone in Oxford, low emission vehicle demonstration projects, including the use of biomethane as a road transport fuel, in Leeds, Greenwich and Sheffield, the integration of LES criteria into core planning strategy documents in Mid Devon, Maidstone and South Cambs and the development of supplementary planning guidance, concerning the development of Low Emission Strategies, in Sefton.

Outputs from the 1st Phase Peer Support projects have informed the 2nd Phase of the Low Emission Strategies Programme. Further information on the evaluation of the 1st Phase Low Emission Strategies Programme can be found in the CAG Report (2010), available from the LESP (info@lowemissionstrategies.org).

With further funding provided by CLG and DEFRA, the LESP commenced the 2nd Phase Low Emission Strategies Programme in 2009, which includes the following initiatives:

- Development of a National Low Emission Toolkit (LET), allowing local authorities and developers to quantify the impact of road transport emissions and evaluate mitigation options.
- Introduce the Regional Group Initiative (RGI), whereby Regional Champions from the Leeds City Region, Liverpool City Region and Sussex are funded to lead on the development and delivery of regional project plans, implementing Low Emission Strategies thinking into planning, procurement and transport policies, while initiating low emission vehicle demonstration projects. The LESP provides technical and strategic support to the Regional Champions
- Produce draft Best Practice Guidance on the use of public sector procurement to reduce road transport emissions
- Produce a Low Emission Strategies Case Studies Database
- Provide a series of Low Emission Strategies Workshops, in association with the Royal Town Planning Institute (RTPI)

The Low Emission Strategies Programme has a Board comprising the following authorities:

- Greenwich
- Hillingdon
- Leeds
- Mid Devon
- Sefton
- Sheffield
- Wigan
- LACORS (observer)
- DEFRA (observer)
- Low Emission Strategies Ltd (non-voting member)
- Croydon (1st Phase only)
- City (1st Phase only)
- Cenex – UK Centre of Excellence for Low Carbon & Fuel Cell Technologies (1st Phase only)

The Low Emission Strategies Programme is managed by Green Sphere Ltd

INTRODUCTION

Leicester City Council, as members of the Low Emission Strategies Partnership, requested assistance in the production of a Low Emission Strategy in relation to proposals to develop a New Business Quarter in the centre of the City. An outline project brief was submitted (see Annex 1) and the issue was considered by the LESP Board in February 2010. The LESP Board approved a budget in relation to this work and commissioned Andrew Whittles to develop a project plan for Board consideration. The NBQ- LES Project Plan was approved by the LESP Board on the 11th May, subject to caveats and agreed amendments, which were signed-off by the Board at the end of June. An outline of the Project Plan was submitted to Leicester and was signed-off in due course. A copy of the outline project plan can be found in Annex 2.

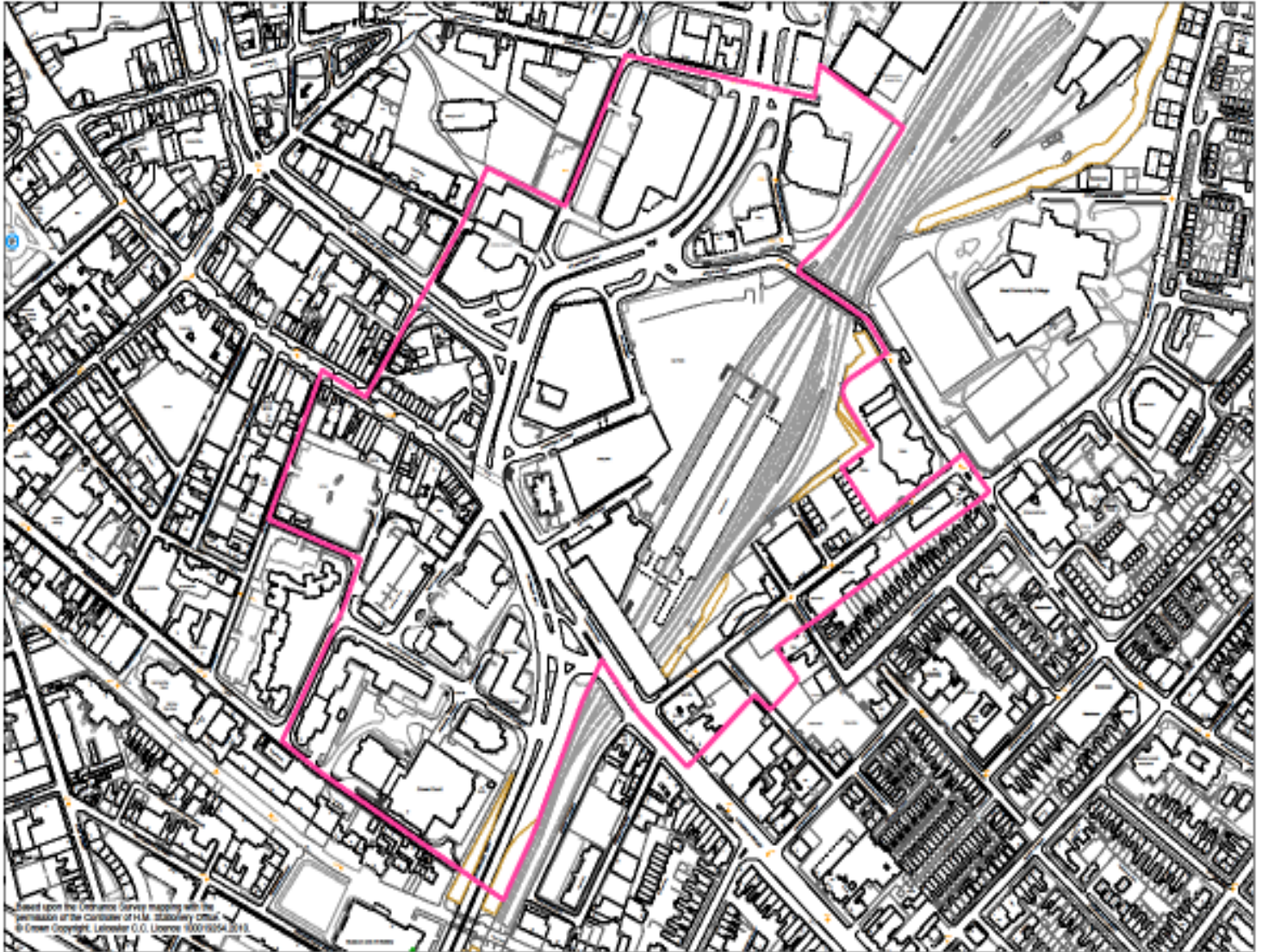
Key outputs of the project plan include:

- Identification of LES measures (policy and technology options) suitable for implementation as part of the NBQ development scheme
- Identification of policy mechanisms capable of delivering the LES measures and key phases in the planning process for optimal intervention
- Provide a workshop forum for the discussion of LES measures and policy mechanisms for delivery pertinent to the NBQ development scheme
- Help secure buy-in for the LES approach and strengthen officer relationships in working towards shared goals
- Provide a worked example of implementing LES through the planning process, written up as a case study
- Enhance the standing of the LES Programme in terms of its ability to add value to development schemes through the introduction of low emission strategies, resolving traditional policy conflicts normally associated with the planning process
- Provide a possible platform for the testing of the LES Toolkit, evaluating its potential application to certain scheme types (it should be noted that it was agreed that quantitative analysis would not be feasible within the project budget and could be considered at a later date, if required)

PROPOSALS FOR THE NEW BUSINESS QUARTER

Discussions are underway between Leicester City Council, Prospect Leicestershire (as potential project managers) and the East Midlands Development Agency regarding proposals for the redevelopment of Leicester City Centre, focussing on the development of an area that would be termed The New Business Quarter (NBQ) – see area outlined in pink, diagram 1. The development of the proposed NBQ is subject to external funding being secured.

Diagram 1 - Leicester City Centre – Outline of Proposed New Business Quarter



The NBQ proposals will potentially provide up to 50,000 sqm of Grade A large office space plus the following additional developments (it should be noted that when the approved Colton Square scheme is netted off, up to 35,000 sqm remains for potential development) :

- Retail, leisure, hotel and conference facilities
- A new public square
- Re-orientated railway station
- Increased railway station car parking
- Improved cycling facilities, reducing the effect of road severance
- Improved bus services

- Existing occupancy improvement and relocation (Mercury and Royal Mail)

Further key considerations of the brief to be considered, include:

- The NBQ concept seeks to generate an innovative, cutting edge identity to compete with similar type and scale developments in Nottingham and Derby
- In order for the scheme to be financially viable, the office accommodation has to be built pre-let
- Access to the development by car, including parking facilities are considered essential to scheme viability
- Scheme development is dependent on securing up to £10 million of public sector funding from the East Midlands Development Agency (EMDA)
- The applicant for the NBQ scheme, should it proceed, will be the City Council, in association with Prospect Leicestershire
- Leicester City Council has no plans to adopt the Community Infrastructure Levy (CIL Regs 2010) at present and is awaiting further announcements on CIL from the Government
- Leicester City Centre and properties adjacent to main arterial routes have been designated as Air Quality Management Areas (AQMAs) due to the likely exceedence of Government targets for Nitrogen Dioxide (NO₂). 95% of NO₂ emissions within the AQMAs are caused by road transport emissions. It is thought that concentrations will need to be reduced by 25% to achieve Government target levels
- Approximately 20 to 25% of Carbon emissions arise from road transport in the City

In addition to the development of a low emission strategy for the NBQ scheme, Leicester has also indicated that they are seeking the following supplementary outputs to the project:

- The work assists in the production of standards that can be included during the revision of the Leicester City Council Supplementary Planning Guidance on Parking, to produce an updated Supplementary Planning Document
- The work assists in the production of a Supplementary Planning Document on Climate Change
- The work informs any future revisions of the Leicester City Council Air Quality Action Plan

NEW BUSINESS QUARTER LOW EMISSION STRATEGY WORKSHOP

As part of the development of the NBQ Low Emission Strategy proposals, a cross-sector/discipline, officer workshop was held at Leicester City Council Offices on the 6th July

2010. The workshop was well attended and provided an opportunity to discuss options to be included in a Low Emission Strategy. Attendees included:

- Paul Statham (Planning Officer responsible for revising Parking SPG)
- Evan Davies (Air Quality Manager – Pollution Control)
- Richard Riley (Urban Designer – Planning Policy and Design)
- Michael Jeeves (Team Leader – Transport Strategy & Development Control)
- Dominic Browne (NBQ Project Co-ordinator – Prospect Leicestershire)
- Darryl Watson (Senior Planner – Planning Management & Delivery)
- Jolanta Obszynska (Air Quality Project Officer – Pollution Control)
- Nick Logan (Planning Officer – Planning Policy and Design)
- Neal Edwards (Transport Strategy)
- Steve Merryfield (Low Emission Strategies Partnership)
- Andrew Whittles (Low Emission Strategies Partnership)

Reference material for the workshop was drawn from the following, published documents:

- Leicester City Council Local Development Framework – Core Strategy Submission Document (Dec 2009)
- Leicester City Council Supplementary Planning Guidance on Parking
- Leicester City Council Air Quality Management Progress Report (2008)
- Leicester City Council Updating and Screening Assessment (2009)
- Leicester City Council Air Quality Action Plan draft consultation document
- Best Practice Guidance – ‘Low Emission Strategies: Using the Planning System to Reduce Road Transport Emissions’
- Air Quality Strategy: Volumes 1 & 2 (DEFRA 2007) and associated LAQM Technical and Policy Guidance
- Economic Analysis to Inform the Air Quality Strategy Interdepartmental Group on Costs and Benefits (DEFRA 2007)
- Investigation into the Scope for the Road Transport Sector to Switch to Electric Vehicles and Plug-In Hybrid Vehicles (Cenex/Arup on behalf of BERR/DfT 2008)
- Air Quality: Action in a Changing Climate (DEFRA 2010)
- Biomethane Toolkit (Cenex 2009)
- Well to Wheel Analysis of Road Transport (CONCAWE 2007)
- Evaluating the UK Opportunities for High Biofuel Blends (TTR/LowCVP 2010)

Further material was drawn from the draft Low Emission Strategies SPD Guidance (the final guidance is available on www.lowemissionstrategies.org)

The workshop comprised presentations on the outlined proposals for the NBQ and potential aims of a low emission strategy. Low emission measures that could be implemented as part

of the LES were identified and also the relevant policies and procedures to support their implementation. These issues were discussed and also the wider implementation of measures that could assist Leicester in achieving reductions in greenhouse gas emissions and regulated air quality pollutants arising from road transport. The Low Emission Strategy aims for the NBQ were identified as:

- Partnership approach to LES development and delivery
- Has potential to reduce road transport emissions from the residual trips associated with the scheme
- Seeks to address the issues of regulated air pollutant and greenhouse gas emissions simultaneously by facilitating and incentivising the accelerated uptake of cleaner fuels and technologies
- Stimulate economic activity associated with technology innovation
- Use the NBQ development opportunity as a catalyst, capable of delivering a step change in behaviour
- The LES should help differentiate the development from others in the region

It was agreed that the NBQ scheme provided good opportunities for intervention, allowing the introduction of low emission technologies and fuels, including:

- Workplace, social and railway station interchange parking (allowing introduction of ev recharging infrastructure)
- Commercial deliveries and services (allowing recommendation/specification of effective low emission technologies such as EV and gas vehicles and associated on and off-site refuelling infrastructure)
- Public deliveries and services e.g. mail and waste (allowing recommendation/specification of effective low emission technologies such as EV and gas vehicles and associated on and off-site refuelling infrastructure)
- Provision of car clubs (specification of low emission technologies)
- Introduction of low emission taxis (through incentivisation and infrastructure provision or requirement through introduction of City Centre Low Emission Zone)
- Promotion of low emission buses (through Quality Bus Partnership or implementation of City Centre Low Emission Zone)
- Improved cycling facilities (including hire and route improvements)

Delivery mechanisms for implementing the NBQ LES focussed on:

- Relevant policy headings within current and emerging Council Strategy documents
- Possible use of planning conditions and Section 106 (Town and Country Planning Act 1990) agreements for delivering on and off-site measures (however, Leicester do

not, and have no plans to, levy any Low Emission Strategy type tariff as part of the Section 106 process)

- Promotion of innovative technology in association with regional economic strategies
- Consideration of the implications of the Community Infrastructure Levy
- Wider synergies of incorporating more far reaching measures in addition to the NBQ LES e.g. City Centre LEZ
- Consideration of Government initiatives and grant schemes, currently available to incentivise the uptake of low emission technologies

SUMMARY OF WORKSHOP DISCUSSIONS AND OBSERVATIONS

The NBQ Workshop was seen as a positive step towards introducing a Low Emission Strategy as part of the development scheme proposals. Feedback from key officers, including the NBQ Project Co-ordinator would suggest that LES ideas were taken on board.

The Leicester City Council Core Planning Strategy Document, submitted as part of the Local Development Framework was recognised for having all the necessary headings that would facilitate the introduction of a Low Emission Strategy for the NBQ

All key Council Departments were represented at the workshop and it was apparent that there is relatively good communication between Council Departments, however, it was not clear how the comments and concerns of different departments are taken on board and weighted in final decision making.

The ability of Councils to tackle air quality issues in particular is often characterised by an acknowledgement of the issue with a resignation as to the inability to influence air pollution levels. To some extent, this is due to looking at air pollution solely in terms of concentrations. By introducing an emissions based assessment methodology it is likely that Councils will become more confident of their ability to introduce low emission technologies, tackling air pollutant and greenhouse gas emissions simultaneously, thus increasing their ability to affect behavioural change.

The following points were raised as part of discussions:

- Leicester is keen to promote ev technology, in particular, and feels that it will provide a distinct image of the NBQ proposals
- The cost of EV technology was also seen as an issue
- The NBQ scheme is reliant on securing external funding and as a Council application it was felt that there would be little possibility to secure Section 106 contributions for off-set measures i.e. car club, community recharging and biomethane refuelling station, as part of the development

- While acknowledging the impact that road transport has on air quality pollutant and greenhouse gas emissions, and despite good public transport links, it was felt that the NBQ had to accommodate private car usage to increase its viability. Nottingham was seen to be a more attractive destination and location for office development – it was recognised that Nottingham has also introduced a work space car parking levy that is being used to improve public transport and reduce car trips.
- It was felt that the environmental degradation caused by the facilitation of private car use could be off-set by the introduction of EV charging infrastructure. There was concern raised as to the lack of use of ev recharging infrastructure introduced elsewhere in the City. A key consideration was the need to encourage the uptake of EV technologies as well as facilitating their use.
- It was recognised that the introduction of LES measures as part of the NBQ should be part of a wider Leicester LES, including the introduction of regulation and specification to enforce the use of low emission vehicles in certain parts of the City. To this extent, the issue of designating the City Centre as a Low Emission Zone was seen as an effective mechanism to help reduce bus and taxi emissions and also promote the uptake of the cleanest technologies. This issue may form part of LTP3 development discussions (Local Transport Plan 3)
- There was a recognition that the incentivisation and facilitation of low emission technologies could have economic development benefits for both Leicester and the region
- It was recognised that any low emission strategy measures, adopted as part of the NBQ, may not be as aspirational as in other cities but would provide a precedent and first steps towards increasing activity and changing hearts and minds. To this extent, the inclusion of low emission measures as part of the Parking Strategy review will greatly assist the Council going forward

IMPLEMENTING A LOW EMISSION STRATEGY AS PART OF THE NBQ PROPOSALS

The New Business Quarter scheme proposals are particularly suited to the adoption of Low Emission Strategy principles as part of the development planning process. The advantages of implementing a Low Emission Strategy (LES) would be:

- Provide a distinctive identity to the NBQ, differentiating it from other regional office space developments and giving it a competitive advantage
- The LES would allow concerns over increased emissions of regulated air pollutants and green house gases, associated with road transport, to be addressed

- The nature of the NBQ allows for the enabling, incentivisation and facilitation of low emission vehicle and fuel technologies, especially EVs.
- The location of the NBQ LES would act as a focal point and catalyst to stimulate further low emission activity in Leicester City Centre, where pollution issues are most marked.
- The timing of the NBQ LES allows for alignment with revised key Council strategy documents, including the new Parking SPD, Air Quality Action Plan and Climate Change SPD
- The design, development and implementation of the NBQ LES, through the planning process, will strengthen/reinforce current Core Planning Strategy policies, setting a precedent for future development schemes.
- It is recognised that the introduction of low emission technologies, as part of the NBQ scheme is dependent on land use functionality

Taking these advantages into account, the following recommendations are made with rationale provided where needed and commentary as to delivery mechanisms, measurable deliverables and phasing of the Low Emission Strategy.

RECOMMENDATIONS FOR IMPLEMENTING THE NBQ LOW EMISSION STRATEGY

1) Low Emission Strategy

The City Council should include provision for the design and implementation of a Low Emission Strategy. The LES should be agreed between the City Council/scheme development applicants and be referred to in the NBQ planning application. The LES should include default criteria for both the construction and operational phases of development. The LES should be reviewed periodically (every 5 years recommended) and should require the use of reasonable endeavours to implement low emission, mitigation measures. The Low Emission Strategy can be specified within a Section 106 Planning Agreement (Town & Country Planning Act 1990) or Unilateral Undertaking, depending on the status of the development scheme applicant, however, it may be appropriate to require on-site low emission infrastructure provision through the use of planning conditions e.g. EV re-charging points.

Policy provision for the implementation of Low Emission Strategies through the planning process should be included as part of the Leicester City Council Air Quality Action Plan adoption.

To provide a distinctive identity for the NBQ Scheme, there should be a focus on incentivising and facilitating electric vehicle technology

The Government announced in December 2010 that Councils are no longer required to have policies setting maximum parking levels on new developments. It was also announced that developments should be designed to allow motorists to make green vehicle choices. The Government wishes to see Councils at the forefront of encouraging the up-take of electric vehicle technology and new developments should include facilities for electric vehicle recharging (EVR), providing schemes are not made unaffordable. While planning permission for EVR in car parks and on-street will no longer be required, it is appropriate to specify EVR provision on new schemes by use of condition or legal agreement.

2) Low Emission Assessment Methodology for Scheme

In order to evaluate the impact of the NBQ Scheme it is recommended that an emissions based assessment is utilised, such as the Low Emission Assessment Methodology illustrated in LES Supplementary Planning Document Guidance, published by the Low Emission Strategies Programme (www.lowemissionstrategies.org). Such methodology should be adapted to suit the requirements of the City Council and published within the adopted Air Quality Action Plan. The emissions assessment to be undertaken for the NBQ Scheme will highlight the scale of impact resulting from emissions of regulated AQ pollutants and greenhouse gases and will inform the intensity of mitigation to be incorporated within the scheme. The following mitigating options are considered to be in line with the scale of development proposed and should be considered as default measures, in lieu of further assessment.

3) Construction Phase Measures

Opportunities to include EV technology within the construction protocols should be considered and included within the LES. The developer should be required, as a minimum standard, to adhere to the measures included within the London Code of Construction Practice (Greater London Authority 2010).

4) Operational Phase Measures

The main focus of the LES will be to facilitate and incentivise the uptake of electric vehicle technology. Additionally, the LES should include provision to make the NBQ a bicycle friendly development.

Projections for take up (Cenex/DfT/BERR Report 2008) suggest that with Government support, electric cars could form between 2.5% to 10% of the passenger vehicle fleet in 2020 and between 11.7% to 60% in 2030. Emerging standards for electric vehicle recharging would suggest that a minimum of 1 point per 10 parking spaces could become the norm nationally, with a requirement of 2 points per 10

spaces required through the newly adopted London Plan. The Government has confirmed that a 25% grant towards the cost of buying an EV, up to a maximum of £5,000, will be available from 1st January 2011.

Given projections, it is recommended that the NBQ Scheme, to provide an identity as an EV enabling development, should adopt the following standards (see Table 1):

- i) 20% of all employee/visitor parking places should have access to an electric vehicle recharging point (EVR). The points should provide single phase supply (13Amp and 32Amp).
- ii) Cable/wiring should be installed from the outset that will allow a minimum of 50% of parking spaces to have access to a single phase (13A and 32A) charging point at some stage in the future. The dates/triggers that will determine the staged increase in EVR provision should be included within the agreed Low Emission Strategy.
- iii) Should future scheme occupants be likely to utilise delivery vehicles, consideration should be given to the provision of 3 phase charging facilities (32A and 64A) and all cabling work should take this into account. Again, any staged increase in commercial vehicle EVR provision should be included within the Low Emission Strategy, including relevant dates and triggers.
- iv) On-site EVR should be required by Planning Condition with any off-site/on-street provision specified by legal agreement.
- v) As part of the NBQ Scheme, some priority parking allocation should be considered for electric taxis. Such technology should be commonplace by 2020 and may form part of future City Council considerations of policies such as the introduction of a Low Emission Zone. The provision of a minimum of 2 up to 10 priority taxi rank bays for electric taxis should be considered as part of the Low Emission Strategy and could be included as a Section 106/Unilateral Undertaking Clause. EVR points (consideration needed as to future charging specifications for taxis – it is likely that Hackney Carriages will require 3 Phase supply, however, private hire vehicles are likely to need Single Phase) for 2 taxi rank bays should be provided at outset, with wiring provided to facilitate all priority bays in future years.
- vi) In order to stimulate demand for electric vehicle technology, future occupants of the operational phase of the NBQ should be required to consider promoting/incentivising/requiring the use of electric vehicles by the following means:
 - Employees provided with incentives to take up the use of EVs through the adoption of Green Travel Plan e.g. electric pool cars, priority

- parking, preferential mileage allowance, differential parking charges or other incentives
 - Visitors may be encouraged to use EVs through priority parking, differential parking charges, discount vouchers or electric taxi provision
 - Contractors required to utilise EVs through procurement specification
- These measures may be required by either Section 106 Agreement or Unilateral Undertaking and should be included within the Low Emission Strategy
- vii) Consideration should be given to the provision of a car club as part of the NBQ scheme. Where practicable, consideration should be made of the provision of EV (or other low emission technology e.g. hybrid/gas etc) technology as part of the car club provision.
- viii) The NBQ should include sufficient provision to encourage the use and uptake of cycling, including, segregated cycle lanes, safe bike storage facilities and adequate changing facilities. Consideration should be made to the provision of bike/electric bike hire schemes, in association with the railway station interchange parking re-configuration. Employee and visitor incentives should be considered to encourage increased bicycle use and may form part of any legal agreement
- ix) The Low Emission Strategy should include provision for the monitoring of the implementation of the measures listed i) to viii), including mechanisms for overall review of the effectiveness of the LES and consideration of the implementation of new measures, as deemed appropriate and reasonable. Consideration should be given to the resource and cost of reviewing the LES at agreed intervals and the relevant approval process to be used.

Wider consideration of policies and measures

In addition to the measures listed above, it is known that Leicester City Council are currently revising their Parking SPD and finalising their Air Quality Action Plan. It is intended that the development of a Low Emission Strategy for the NBQ Scheme will be informed by both.

In order to maximise the benefits of considering the NBQ proposals as a catalyst for improving road transport emissions, the following wider synergistic issues may be considered for introduction, complementing the NBQ LES:

- a) The Leicester City Council Parking SPD revision should consider the inclusion of EV recharging standards for all appropriate City-wide developments. Such standards

may be differentiated by the nature and location of future developments (see Table 1)

- b) The Leicester City Council final Air Quality Action Plan should consider the inclusion of the requirement to implement Low Emission Strategies as part of all appropriate planning development scheme proposals and also consider the integration of Low Emission Strategy considerations within the finalisation of both LTP3 and Council Procurement Strategy development. This could include the provision of low emission infrastructure (EV recharging and biomethane refuelling facilities) as part of LTP3 finalisation, and the requirement to consider specifying low emission vehicles as part of the Council's Green Procurement policies
- c) Leicester should consider the improvement of bus emission standards, particularly those operating the City Centre routes, as part of a Quality Bus Partnership. Standards in other cities, such as Leeds, have seen the commitment by bus companies to remove pre-Euro 3 buses from service and seek to re-engine Euro 3 to Euro 4 Standard. Careful consideration is needed of the real-world NOx emission caused by buses and strategies and recommended timetables for introducing Euro 5, 6 and 7 need evaluation. Many cities, including Liverpool, Coventry, Durham and Milton Keynes are currently introducing electric buses and cities, such as London, Leeds, York, Sheffield and Manchester, are seeing increased deployment of hybrid buses (offering significant PM10 reductions as the engine cuts out when idling). Grants have been made available through the DfT to procure low emission buses through the Green Bus Fund. It is thought that methane powered buses also offer significant potential for emission reduction, particularly when using biomethane, and the bus technology is now available in the UK.
- d) Similar consideration should be given to the development of a Freight Quality Partnership with both future occupants of City Centre premises and also existing freight operators in the City. The articulation of a standard similar to buses would not be unreasonable. The encouragement of key low emission technologies through Council procurement policies may achieve significant benefits in lowering emissions. Freight operators such as Royal Mail, TNT, Marks and Spencers, Sainburys, John Lewis etc are all committed to introducing low emission vehicle technology, including electric delivery vans. The development of a partnership strategy could achieve significant benefits while communicating acceptable standards for Leicester City Centre.
Subsidies for the public sector to buy low carbon emitting vans will be made available from January 1st 2011, through the DfT Low Carbon Vehicle Procurement Programme (LCVPP)
- e) Leicester is looking to bid jointly with the West Midlands to the Office of Low Emission Vehicles, in respect of the Plugged in Places Programme. Plugged in Places

is a competitive Programme, whereby, successful applicants can receive up to 50% funding towards the roll-out of EV charging infrastructure, sharing experience as an early mover. There are significant synergies between the Plugged in Places Programme and the NBQ LES Scheme that should be considered and attempts made to combine benefits

- f) Considering points a) to e) above collectively, Leicester City Council may wish to include all policies and measures, to reduce road transport emissions, within an overall City-wide Low Emission Strategy, providing a co-ordinating framework that links the possible beneficial impact of emission reduction activity that can be delivered through a variety of policy instruments, including, LTP3, Core Planning Strategy, Parking SPD, Climate Change SPD, Procurement Strategies, Quality Bus and Freight Partnerships etc. Such a Low Emission Strategy is being developed for York and could provide a useful transferable model.

The City Council may wish to designate a specific area of the City where the Low Emission Strategy would apply or have increased significance. Such an area could be termed a **Low Emission Zone**.

Table 1. Recommended Electric Vehicle Recharging (EVR) Standards

Development Type	Enabling [^]	Standard [#]	Low Emission Scheme [*]
Commercial (Employee/visitor parking)	Single Phase 13/32 Amp ¹ cabling provision to 50% of parking spaces	1 x 13/32 Amp single phase charging point per 10 parking spaces	2 x 13/32 Amp single phase charging points per 10 spaces with trigger for increased provision ²
Commercial ³ (delivery vehicle parking)	3 Phase (32/64A) /Rapid ⁴ cabling provision as required	3 Phase (32/64A) /Rapid ⁴ provision as required	3 Phase (32/64A) /Rapid ⁴ provision as required

[^] All schemes [#] General development within the Leicester City area ^{*} The NBQ proposed scheme

¹ All available/soon to be available passenger electric vehicles require 13 amp current. Most available passenger electric vehicles should also be designed to take a 32 amp current as well. A 13 amp EVR facility will normally fully charge a passenger car in approximately 8 hours and provide a 30% charge within 3 hours. A 32 amp supply will reduce charging time by approximately 50%.

² Trigger for increased provision pre-determined based on electric vehicle take-up/use of charging facilities, monitored as part of the development scheme Low Emission Strategy

³ Commercial delivery vehicles (vans and hackney carriages) generally require a 3 phase supply (32A and 64A)

⁴ Rapid (DC) charging is a prototype technology and will require evaluation for suitability on the NBQ. At present it is unclear whether vehicle and battery manufacturer warranties will allow rapid charging

ANNEX 1

Brief for consultants – Sustainable Transport in the City Centre

The Problem

The biggest single contributor to congestion in Leicester is car based movement during the AM and PM peaks making commuter journeys into and out of the City Centre and there is an undeniable link between the amount of cars on the road and the amount of air pollution on the radial and arterial routes of Leicester. The current map of the Air Quality Management Areas highlights this further, with most of the main routes into Leicester and most of the area inside the inner ring road being covered by this designation. So to reduce the congestion and therefore air pollution a reduction is in theory needed to the amount of cars entering and leaving the City Centre during the AM & PM peaks.

Leicester's emerging LDF Core Strategy sets a high importance on the City Centre for the continued prosperity of the City with it being the main focus for retail, leisure and high quality office based employment.

Leisure and retail users tend to have only a small impact upon congestion as they on the whole travel outside of the AM and PM peaks and tend to be higher users of public transport.

However with new office jobs being created this is likely to increase the amount of commuter journeys within the City Centre.

Four main areas within the City Centre will be the focus for new offices, these will be the existing Primarily Office Areas as defined by the existing City of Leicester Local plan, as part of the developments at Waterside & St Georges and the New Business Quarter (NBQ). Development within the existing Primarily Office Areas, Waterside and St Georges is likely to be quite small scale, so therefore the main focus for large scale office development within the City Centre will be the NBQ.

The NBQ in the vicinity of the railway station is the key area for providing office based employment and economic growth in the City. The NBQ will be delivered by concentrating new, large floorplate, major office development over 1,000 sqm in the area so that a critical mass of co-located offices is achieved.

The key features will be at least 50,000 sq of new grade 'A' large floorplate offices; supporting retail and leisure uses; a hotel/conference centre; a new public square; a re-orientated railway station; a new car park; and improved bus and rail integration.

One of the key aims also of the NBQ is to try and deliver carbon neutral offices to improve the developments sustainability.

The key way that Leicester City Council has of currently controlling commuter based car journeys is by limiting the amount of car parking in non residential city centre development. Leicester has a standard maximum parking standard but also a percentage based reduction target. Currently the

maximum standard for zone two B1 Offices which covers most of the area within the Central Commercial Zone 1 space per 100 square metres but with a reduction target is 0% i.e. a zero non-residential parking provision.

Leicester aims to establish a new city centre market of 'A' grade offices, in order to be able to compete with other Cities such as Nottingham.

The problem is that for the new grade 'A' office uses to be successful some car parking is needed especially in the early phases. This is to be able to compete with other sometimes lower grade offices in less sustainable locations such as on the edge of urban locations which are able to provide extensive car parking. This has been highlighted further in the first phase of the NBQ, which was completed in 2008 with letting being extremely difficult, the main reason highlighted by the letting agents is the highly constrained car parking provided at the development, rather than the current economic climate.

What we want the consultants to look at

We would like the consultants to develop a strategy/toolkit looking at how sustainable transport measures can be provided to offset the impacts to climate change and congestion caused by the additional car parking required to ensure the success of new office development within the Leicester City Centre.

Measures could include providing specific car parking requirements e.g. parking spaces reserved for specific low polluting vehicles, infrastructure promoting sustainable transport e.g. electric charging points, and other measures such as car clubs/car sharing or subsidised public transport uses for workers. But these must be put in the context of 'Market Demand' for offices compared with other Cities. These measures need to be able to give us a unique selling point for the city.

We would also like to consultants to look at how this could be delivered potentially using 106 agreements in a climate where demand for '106' monies means that priority is normally reserved for other use such a highway improvements, and amenity provision.

Delivery Mechanism

The results of this work will form part of the Leicester City Council parking strategy which will in turn form the basis of the Parking and Travel Plans Supplementary Planning Document and evidence base for the emerging development control policies to be contained with the Site Allocations and Development Control Development Plan Document.

Contact

Paul Statham, Planning Policy

A11 New Walk Centre, Welford Place, Leicester, LE1 6ZG

0116 252 7229 Paul.Statham@leicester.gov.uk

ANNEX 2

LEICESTER PROJECT PLAN DRAFT

Background

Leicester City Council took part in Phase 1 of the Low Emission Strategies Programme as a Peer Group Member. The LES Programme assisted Leicester in organising a key officer low emission strategies workshop and also presented to the wider Leicestershire Sustainability Forum on low emission fuels and technologies.

As part of the Low Emission Strategies Phase 2 Programme, Leicester requested that support be provided to develop a low emission strategy as part of a proposed strategic City Centre development – the New Business Quarter.

The following project plan provides detail as to the project, as outlined by Leicester, and also information relating to proposed options for the Low Emission Strategies Programme to undertake the work in question.

Leicester City Council Project Outline

The project brief, as supplied by Leicester CC, is attached. To summarise, a significant area of Leicester City Centre has been earmarked for urban regeneration – to be called the New Business Quarter (NBQ). Leicester CC would like the LES programme to develop a strategy/toolkit for implementing and promoting LES within the scheme development.

It is clear from the brief that this project can be addressed on several levels, involving different techniques of varying complexity and cost. Given the resource allocations, Andrew Whittles and Steve Merryfield met with the project brief originators to discuss the project brief and agree a methodology for undertaking the work, discussing both quantitative and qualitative approaches and expected outputs.

It was made clear by the project originators that they struggled to get low emission strategies ideas onto the corporate planning agenda and felt that gaining buy-in for any ideas generated was a key output for the project.

In discussing quantitative approaches it was recognised that the resource available would not allow for a robust appraisal of a complex city centre development, however, mindful of the LES Toolkit development timelines, the possibility to undertake some rudimentary analysis with the Toolkit may be possible at a later stage when the Toolkit is available. This analysis, if conducted, would be additional to the project as outlined.

Proposed Project Methodology and Outputs, including Options for Quantitative Analysis

The following methodology is proposed to undertake the Leicester City Council project. Key project outputs are stated:

Methodology (personnel involved given in brackets):

- 1) Initial sounding/scoping meeting to discuss project brief, agree possible approaches and key outputs (completed – AW, SM))
- 2) Review background documentation provided by Leicester CC, including planning, parking, transport, air quality, carbon/sustainability, economic development policies and practices, and evaluating potential for facilitating introduction of low emission strategies as part of the NBQ project (AW, SM).
- 3) Generate a series of low emission measures that could be introduced as part of the NBQ Scheme, including a commentary on the most suitable mechanisms for delivery. This material will be suitably developed as workshop material (AW, SM)
- 4) Deliver a workshop for key Council Officers on the 6th July, for up to 16 delegates, with the aim of securing buy-in for LES ideas and hone in on feasible LES solutions (AW, SM)
- 5) Write up the Leicester – NBQ Project as a draft case study, including output from the workshop and set in context of both national and local policies, both existing and emerging (AW)
- 6) Circulate the draft to Board Members for comment and modify document as required.
- 7) Sign-off by LESP Chair
- 8) Agree final case study report with Leicester CC, prior to web-publication (AW)

Key Outputs of the Work:

- Identification of LES measures (policy and technology options) suitable for implementation as part of the NBQ development scheme
- Identification of policy mechanisms capable of delivering the LES measures and key phases in the planning process for optimal intervention
- Provide a workshop forum for the discussion of LES measures and policy mechanisms for delivery pertinent to the NBQ development scheme
- Help secure buy-in for the LES approach and strengthen officer relationships in working towards shared goals
- Provide a worked example of implementing LES through the planning process, written up as a case study
- Enhance the standing of the LES Programme in terms of its ability to add value to development schemes through the introduction of low emission strategies, resolving traditional policy conflicts normally associated with the planning process
- Provide a possible platform for the testing of the LES Toolkit, evaluating its potential application to certain scheme types