

Public Document Pack



Cambridge City Council

ENVIRONMENT SCRUTINY COMMITTEE

To: Scrutiny Committee Members: Perry (Chair), Gawthrop (Vice-Chair), Bick, Gehring, Ratcliffe and Sargeant

Alternates: Councillors Adey and Smart

Executive Councillor for Environment and Waste: Councillor Roberts

Executive Councillor for Planning Policy and Transport: Councillor Blencowe

Despatched: Thursday, 16 June 2016

Date: Tuesday, 28 June 2016

Time: 5.30 pm

Venue: Committee Room 1 & 2, The Guildhall, Market Square, Cambridge, CB2 3QJ

Contact: James Goddard

Direct Dial: 01223 457013

AGENDA

1 Apologies

To receive any apologies for absence.

2 Declarations of Interest

Members are asked to declare at this stage any interests that they may have in an item shown on this agenda. If any member of the Committee is unsure whether or not they should declare an interest on a particular matter, they should seek advice from the Head of Legal Services **before** the meeting.

3 Minutes (Pages 5 - 14)

To approve the minutes of the meeting held on 15 March 2016 and 26 May 2016 as a correct record.

4 Public Questions

Please see information at the end of the agenda.

Items for Debate by the Committee and then Decision by the Executive Councillor

These items will require the Executive Councillor to make a decision after hearing the views of the Scrutiny Committee.

There will be a full debate on these items, and members of the public may ask questions or comment on the items if they comply with the Council's rules on Public Speaking set out below.

Decisions for the Executive Councillor for Planning Policy and Transport

Items for Debate by the Committee and then Decision by the Executive Councillor

- 5** **2015/16 Revenue and Capital Outturn, Carry Forwards and Significant Variances - Planning Policy and Transport Portfolio** (*Pages 15 - 22*)
- 6** **Barrow Road - Request for Conservation Area Designation** (*Pages 23 - 68*)

Decisions for the Executive Councillor for Environment and Waste

Items for Debate by the Committee and then Decision by the Executive Councillor

- 7** **2015/16 Revenue and Capital Outturn, Carry Forwards and Significant Variances - Environment & Waste Portfolio** (*Pages 69 - 76*)
- 8** **Shared Waste Service** (*Pages 77 - 82*)
- 9** **Ombudsman Complaint: Licensing of a Riverside Mooring** (*Pages 83 - 92*)
- 10** **Use of Fixed Penalty Notices for Small-Scale Flytipping** (*Pages 93 - 98*)
- 11** **Encouraging the Shift to Low Emission Taxis** (*Pages 99 - 148*)

Information for the Public

Location The meeting is in the Guildhall on the Market Square (CB2 3QJ).

Between 9 a.m. and 5 p.m. the building is accessible via Peas Hill, Guildhall Street and the Market Square entrances.

After 5 p.m. access is via the Peas Hill entrance.

All the meeting rooms (Committee Room 1, Committee 2 and the Council Chamber) are on the first floor, and are accessible via lifts or stairs.

Public Participation Some meetings may have parts that will be closed to the public, but the reasons for excluding the press and public will be given.

Most meetings have an opportunity for members of the public to ask questions or make statements.

To ask a question or make a statement please notify the Committee Manager (details listed on the front of the agenda) prior to the deadline.

- For questions and/or statements regarding items on the published agenda, the deadline is the start of the meeting.
- For questions and/or statements regarding items NOT on the published agenda, the deadline is 10 a.m. the day before the meeting.

Speaking on Planning or Licensing Applications is subject to other rules. Guidance for speaking on these issues can be obtained from Democratic Services on 01223 457013 or democratic.services@cambridge.gov.uk.

Further information about speaking at a City Council meeting can be found at:

<https://www.cambridge.gov.uk/speaking-at-committee-meetings>

Cambridge City Council would value your assistance in improving the public speaking process of committee meetings. If you have any feedback please contact Democratic Services on 01223 457013 or democratic.services@cambridge.gov.uk.

Filming, recording and photography

The Council is committed to being open and transparent in the way it conducts its decision making. The public may record (e.g. film, audio, tweet, blog) meetings which are open to the public.

Facilities for disabled people

Level access to the Guildhall is via Peas Hill.

A loop system is available in Committee Room 1, Committee Room 2 and the Council Chamber.

Accessible toilets are available on the ground and first floor.

Meeting papers are available in large print and other formats on request prior to the meeting.

For further assistance please contact Democratic Services on 01223 457013 or democratic.services@cambridge.gov.uk.

Queries on reports

If you have a question or query regarding a committee report please contact the officer listed at the end of relevant report or Democratic Services on 01223 457013 or democratic.services@cambridge.gov.uk.

General Information

Information regarding committees, councilors and the democratic process is available at <http://democracy.cambridge.gov.uk>

Mod.Gov App

You can get committee agenda and reports for your tablet by using the mod.gov app

ENVIRONMENT SCRUTINY COMMITTEE

15 March 2016

5.30 - 7.30 pm

Present: Councillors Gawthrope (Chair), Perry (Vice-Chair), Gehring, Pitt, Ratcliffe, Robertson and Smart

Executive Councillor for Environment and Waste: Peter Roberts

Executive Councillor for Planning Policy and Transport: Kevin Blencowe

Officers:

Director of Environment: Simon Payne

Project Delivery and Environment Manager: John Richards

Environmental Health Manager: Yvonne O'Donnell

Committee Manager: Claire Tunnicliffe

FOR THE INFORMATION OF THE COUNCIL

16/1/ENV Apologies

Apologies were received from Councillors Baigent, Gillespie and C Smart.

16/2/ENV Declarations of Interest

No declarations were declared.

16/3/ENV Minutes

Minutes of the meetings held on 12 January 2016 were approved and signed as a correct record subject to the following amendment (deleted text ~~struck through~~ and additional text underlined) on page 18 of the agenda pack regarding item 16/48/ENV.

In response to the Committee's comments the Project Engineer and Senior Engineer, Streets and Open Spaces, noted the Committee's ~~advice~~ direction that the Queens Green proposal be removed from option 4 and should not be further investigated. ~~This related to the proposal of providing new remote provision on Queens Green.~~

16/4/ENV Public Questions

There were no public questions.

16/5/ENV Shared Services - Building Control Business Plan**Matter for Decision**

To consider the business plan for the shared Building Control Service.

Decision of Executive Councillor for Planning Policy and Transport.

- i. Approved the business plan for shared Building Control Services attached at Appendix 1 of the Officer's report, with two additional recommendations to be included in the plan.

Reason for the Decision

As set out in the Officer's report.

Any Alternative Options Considered and Rejected

Not applicable.

Scrutiny Considerations

The Committee received a report from the Director of Environment.

The report outlined that Cambridge City had become the Employing Authority for Building Control on October 1 2015. All impacted staff from Huntingdonshire and South Cambridgeshire District Councils had successfully transferred under TUPE to their new employer.

The three councils had previously agreed that the achievement of the following outcomes constitute the primary objectives of the sharing services:

- Protection of services which support the delivery of the wider policy objectives of each Council
- Creation of services that are genuinely shared between the relevant councils with those councils sharing the risks and benefits whilst having in place a robust model to control the operation and direction of the service
- Savings through reduced managements costs and economies of scale
- Increased resilience and retention of staff
- Minimise the bureaucracy involved in operating the shared service
- Opportunities to generate additional income, where appropriate

- Procurement and purchasing efficiencies, and
- Sharing of specialist roles which individually, are not viable in the long-term.

Since October 1 2015, each shared service had been working to review staffing structures, working practices and overall service provision in order to deliver the desired outcomes of the shared service partnership, as outlined above.

A key part of the service reviews had been the development of a set of forward-looking business plans that set out the key priorities, objectives, activities and measures of success for each service. These could be found at Appendix 1 of the Officer's report.

It was recommended that the business plan be endorsed to enable the shared service to work to an agreed direction and deliver an agreed set of objectives. In the event that there were any revisions to the business plan that were due to operational matters a decision will be made by the Director of Environment (or successor) in consultation with the Executive Councillor.

In response to Members' questions the Director of Environment said the following:

- i. The £50,000 savings referenced in the report would be made across the three Councils based on an existing cost formula, with approximately £20,000 saving to the City Council.
- ii. The intention would be to move two of the hubs in the next two months and would further be reviewed over the next twelve months to ensure that the optimum arrangements were in place.
- iii. Further detail of how the benefits would be measured would be collated by Officers.
- iv. A schedule was currently being produced to harmonise the fees across all the Councils and the City Council would not subsidise the shared building control services.
- v. Services were being delivered in accordance with building regulations and each Council's climate control and sustainability policies.
- vi. The new arrangements allowed for the expansion of best practice, such as the employment of apprentices, recruiting of permanent staff, development and training which it was hoped would bring young people to the industry, of which there was a shortage.
- vii. Acknowledged that all figures needed to be transparent and clearly show a breakdown of the cost to the City Council.

- viii. Recognised that the speed of service was an important factor and further details could be provided on this matter.
- ix. Acknowledged there would be a risk to ICT when transferring to a single system to support the shared service.
- x. Staff would be encouraged to use remote working and access information on site rather than visit the office.
- xi. Greater risk was employment of staff; currently there were seven permanent positions which needed to be filled.
- xii. Error to say the project was time limited.
- xiii. Agreed to ensure that on the matter of learning across the three Councils that more detail was included in the business plan.
- xiv. Cambridge City was the only Council to be part of the 'Considerate Contractor Scheme' of which there was a cost. Agreed to put the suggestion forward that Huntingdonshire and South Cambridgeshire District Council both sign up to the scheme.

Councillor Robertson proposed that the business plan be amended to include speed of service.

Councillor Gehring proposed that the business plan be amended to include point of learning across the shared service.

Members **resolved (nem com)** to accept both the recommendations.

The Committee **unanimously resolved** to endorse the recommendation with the two additional recommendations to be included in the plan.

The Executive Councillor approved the recommendation and two additional recommendations to be included in the plan.

Conflicts of Interest Declared by the Executive Councillor (and any Dispensations Granted)

No conflicts of interest were declared by the Executive Councillor.

16/6/ENV Silver Street Public Conveniences Improvement

Matter for Decision

To consider the outcome of work to determine suitable options for further more detailed investigation, to include consultation with the public to improve the

existing City Council provided public toilets located beneath the Silver Street river bridge approach.

Decision of the Executive Councillor for Environment & Waste.

- i. Agreed to the results of the scoping exercise on the various options identified in the Officer's report, and support further development work (including detailed design and public consultation) on potential variations around Option 2 (street level on existing site).

Reason for the Decision

As set out in the Officer's report.

Any Alternative Options Considered and Rejected

Not applicable.

Scrutiny Considerations

The Committee received a report from the Project Delivery Team Leader which referred to improving the existing City Council provided public toilets located beneath the Silver Street river bridge approach.

The report outlined the difficulties and challenges faced in maintaining and operating the existing facilities, and the poor level of service they offered to users. It also identified a number of constraints and potential opportunities associated with various options for their improvement.

Investigation and scoping work had been undertaken on a number of options as outlined in the Officer's report. This had involved the production of architectural concept drawings and a technical appraisal of the opportunities and constraints associated with each option, an indication of the likely costs involved in taking each forward and the views of key stakeholders including planning, conservation and heritage interests.

In response to Members' questions the Project Delivery and Environment Manager and the Executive Councillor for Environment and Waste said the following:

- i. If it would be possible to secure a site in the Mill Lane redevelopment would look to secure a nil cost to the City Council but this would be in

- consultation with the developers. It was not known when the redevelopment would begin.
- ii. Officers are liaising with key stakeholders regarding the diversion of the sewer run.
 - iii. To obtain consent to build above the existing sewer run within a 5 to 6 metre distance requires approval and consent.
 - iv. As the canopy for the disabled toilet was currently over the sewer run it was hoped that there could be a possibility to attach the new building to the canopy which would be in the 5 to 6 metre exclusion zone and no diversion needed.
 - v. A smaller building would have less impact to the area and a reduction in the number of cubicles should reduce the cost.
 - vi. The Equality Impact Assessment would continually be updated during the entire process.
 - vii. Option 3 of the Officer's report would mean that the existing underground space couldn't be re-used to any great extent.
 - viii. There was no guarantee that Queens Green would continue to be used as a coach stop but the existing site was a natural walk way to visit various sites.
 - ix. Any income from the kiosk would be a token income.
 - x. Cubicles would meet all equality requirements.
 - xi. New facilities at street level would be kept in the shroud of the willow trees on Silver Street to soften the impact as far as practicable.
 - xii. Fewer cubicles would equate to lower cleaning costs.

The Committee **unanimously resolved** to endorse the recommendation

The Executive Councillor approved the recommendation.

Conflicts of Interest Declared by the Executive Councillor and (and any Dispensations Granted)

No conflicts of interest were declared by the Executive Councillor.

16/7/ENV Business Regulation Plan 2016/17

Matter for Decision

To consider the Business Regulation Plan 2016/17

Decision of Executive Councillor for Environment and Waste

- i. Approved the Executive Summary of the Business Regulation Plan 2016-17, and by implication the full report.

Reason for the Decision

As set out in the Officer's report.

Any Alternative Options Considered and Rejected

Not applicable.

Scrutiny Considerations

The Committee received a report from the Environmental Health Manager.

The report outlined Cambridge City Council's responsibilities for enforcing food hygiene and health and safety enforcement in its area, and was required to produce an annual plan clarifying how this would be achieved. The Business Regulation Plan needed to clearly define the objectives permitting the Council to fulfil its responsibilities for the year, and confirm that it had committed sufficient resources to facilitate this work.

As the Plan was a large document an executive summary had been produced as Appendix A which identified all of the key aspects of the full report, which was available to view in full, and if approved by committee would imply approval of the full Plan.

In response to Members' questions the Environmental Health Manager said the following:

- i. Regulations outlined who were the enforcing authorities responsible for the investigation of an accident, whether it was the Health and Safety Executive or the City Council.
- ii. The City Council were responsible to investigate all accidents and complaints concerning Officers, shops, railway, small factories, small manufactures and building merchants.
- iii. Confirmed there was only one category A premises for food (restaurant) which meant the premises were inspected every six months due to poor standard. Those premises in category B were inspected every twelve months, category C premises were inspected every eighteen months. These standards had been set by the Officers inspecting the properties based on the high risk food served, hygiene and management.
- iv. The City Council was currently promoting a healthy eating campaign working with public health colleagues. Officers had attended seven community events to promote this scheme; in conjunction with the public

health reference group making a contribution to a weight management initiative.

- v. Guidance and mentoring to all food business was available if requested.
- vi. Housing Officers would inspect kitchens in student accommodation as the kitchen was part of the living quarters.
- vii. Invited members of the committee to join Officers when undertaking inspections.

The Committee **unanimously resolved** to endorse the recommendation.

The Executive Councillor approved the recommendation.

Conflicts of Interest Declared by the Executive Councillor (and any Dispensations Granted)

No conflicts of interest were declared by the Executive Councillor.

The meeting ended at 7.30 pm

CHAIR

ENVIRONMENT SCRUTINY COMMITTEE26 May 2016
1.10 - 1.15 pm**Present:** Councillors Gawthrope, Perry, Gehring, Sargeant, Ratcliffe, Bick

Executive Councillor for Environment and Waste: Peter Roberts

Executive Councillor for Planning Policy and Transport: Kevin Blencowe

FOR THE INFORMATION OF THE COUNCIL**16/8/Env Appointment of Development Plan Scrutiny Sub-Committee**

The Environment Scrutiny Committee agreed the membership of the Development Plan Scrutiny Sub-Committee:

Councillors Sarris, Gawthrope, Smart, Baigent, Bick Avery

Alternates: Councillors Sargeant & Nethsingha.

Chair: Councillor Sarris.

Vice-Chair: Councillor Gawthrope

16/9/Env Appointment to Outside Bodies

The committee recommended appointments to the outside bodies listed below.

The Executive Councillor for Environment and Waste and the Executive Councillor for Planning Policy and Transport agreed the appointments below:

	Number of allocation
Joint Strategic Transport and Spatial Planning Group	2 Labour 1 Liberal Democrat 2 alternates
Councillors – Blencowe, Herbert, Bick Alternates: Smart, Gehring	

	Number of allocation
Cambridgeshire and Peterborough Joint Strategic Planning and Transport Member Group	2 Labour 1 Liberal Democrat 2 alternates
Councillors – Blencowe, Bick Alternates: Gehring, TBC	

	Number of allocation
Recycling in Cambridge and Peterborough (RECAP)	1
Councillor – Roberts	

	Number of allocation
Cambridge Future Transport – Cross Working Group	1
Councillors – Blencowe	

	Number of allocation
Members Cycling and Pedestrian Steering Group	4 Labour 2 Lib Dem
Councillors – Blencowe, Abbott, Sargeant, Smith, TBC, TBC Alternate: Barnett	

The meeting ended at 1.15 pm

CHAIR



To Executive Councillor for Planning, Policy & Transport; Councillor Kevin Blencowe

Report by Director of Environment and Head of Finance

Relevant Scrutiny Environment 28 June 2016

Committee

2015/16 Revenue and Capital Outturn, Carry Forwards and Significant Variances – Planning Policy & Transport Portfolio

Key Decision

1. Executive summary

1.1 This report presents, for the Planning, Policy & Transport Portfolio :

- a) A summary of actual income and expenditure compared to the final budget for 2015/16 (outturn position)
- b) Revenue and capital budget variances with explanations
- c) Specific requests to carry forward funding available from budget underspends into 2016/17.

2. Recommendations

The Executive Councillor is recommended to request that the Executive Councillor for Finance and Resources, at the Strategy and Resources Scrutiny Committee on 4 July 2016, approves the following:

- a) Carry forward requests totalling £44.55k revenue funding from 2015/16 to 2016/17, as detailed in **Appendix C**
- b) Carry forward requests of £5,377k capital resources from 2015/16 to 2016/17 to fund rephased net capital spending, as detailed in **Appendix D**.

3. Background

Revenue Outturn

- 3.1 The overall revenue budget outturn position for the Planning Policy & Transport Portfolio is given in the table below. Detail, by service grouping, is presented in **Appendix A**.

2014/15 £'000	Planning Policy & Transport Portfolio Revenue Summary	2015/16 £'000	% Final Budget *
860	Original Budget	(118)	-
-	Adjustment – Prior Year Carry Forwards	82	-
-	Adjustment – Service Restructure Costs	(7)	-
-	Adjustment – Earmarked Reserves	0	-
-	Adjustment – Capital Charges	0	-
-	Adjustment – Central & Support reallocations	14	-
9	Other Adjustments	0	-
869	Final Budget	(29)	-
(267)	Outturn	(974)	-
(1,136)	(Under) / Overspend for the year	(945)	-
82	Carry Forward Requests	45	-
(1,054)	Resulting Variance	(900)	-

*As the net budget is small due to spend and income budgets being netted off, percentages are not a useful indicator.

- 3.2 **Appendix A** shows original and final budgets for the year (with the movements summarised in the above table) and compares the final budget with the outturn position for this Portfolio for 2015/16. The original revenue budget for 2015/16 was approved by the Executive Councillor for Planning Policy & Transport on 12 January 2015.
- 3.3 **Appendix B** provides explanations of the main variances.
- 3.4 **Appendix C** lists revenue carry forward requests.

Capital Outturn

- 3.5 The overall capital budget outturn position for the Planning Policy & Transport Portfolio is given in the table below. **Appendix D** shows the outturn position by scheme and programme with explanations of variances.

2014/15 £'000	Planning Policy & Transport Portfolio Capital Summary	2015/16 £'000	% Final Budget
7,393	Final Budget	8,831	100.0
979	Outturn	3,449	39.1
(6,414)	Variation - (Under)/Overspend for the year	(5,382)	(60.9)
6,305	Rephasing Requests	5,377	60.8
(109)	Variance	(5)	(0.1)

4. Implications

- 4.1 The net variance from the final budget (see above), would result in a decreased use of General Fund reserves of £900k.
- 4.2 A decision not to approve a carry forward request may impact on officers' ability to deliver the service or scheme in question and this could have staffing, equality and poverty, environmental, procurement, consultation and communication and/or community safety implications.

5. Background papers

- Closedown Working Files 2015/16
- Directors' Variance Explanations – March 2016
- Capital Monitoring Reports – March 2016
- Budgetary Control Reports to 31 March 2016

6. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Authors' Names: Chris Humphris; Jackie Collinwood
Authors' Phone Numbers: 01223 - 458141; 01223 – 458241
Authors' Emails: chris.humphris@cambridge.gov.uk
jackie.collinwood@cambridge.gov.uk

Planning Policy & Transport / Environment Scrutiny Committee

Revenue Budget 2015/16 - Outturn

Service Grouping	Original Budget £	Final Budget £	Outturn	Variation Increase / (Decrease) £	Carry Forward Requests - see Appendix C £	Net Variance £
Environment - Parking Services						
Car Parks	(2,860,940)	(2,855,570)	(3,717,428)	(861,858)	0	(861,858)
Shopmobility	114,530	109,530	98,814	(10,716)	0	(10,716)
	(2,746,410)	(2,746,040)	(3,618,614)	(872,574)	0	(872,574)
Environment - Planning						
Concessionary Fares	0	0	808	808	0	808
Building Control Fee Earning	(7,320)	0	0	0	0	0
Building Control Other	223,300	225,380	235,248	9,868	0	9,868
City Development	639,930	649,930	768,100	118,170	0	118,170
Considerate Contractors Scheme	4,170	2,090	(82)	(2,172)	0	(2,172)
Cambridge University Contract		0	(36,942)	(36,942)	0	(36,942)
New Neighbourhoods	0	0	(782)	(782)	0	(782)
Planning Policy	545,830	545,830	548,629	2,799	2,800	5,599
Urban Design & Conservation	510,380	531,380	497,935	(33,445)	20,000	(13,445)
Public Transport Subsidy	134,410	134,410	129,439	(4,971)	0	(4,971)
Taxicard Service	118,070	118,070	84,806	(33,264)	0	(33,264)
Transport Initiatives for the Disabled	42,980	42,980	39,850	(3,130)	0	(3,130)
	2,211,750	2,250,070	2,267,009	16,939	22,800	39,739
Environment - Streets and Open Spaces						
Bus Shelters	13,560	13,560	6,527	(7,033)	0	(7,033)
Street Name Plates	21,770	21,770	13,170	(8,600)	0	(8,600)
Highways Schemes General	92,030	92,030	89,190	(2,840)	0	(2,840)
Walking & Cycling Strategy	13,680	14,180	12,329	(1,851)	1,850	(1)
Flood Risk Management	138,520	188,520	168,606	(19,914)	19,900	(14)
	279,560	330,060	289,822	(40,238)	21,750	(18,488)
Environment - Director & Business & Information Service (BIS)						
Urban Growth Project Management	137,220	137,220	87,785	(49,435)	0	(49,435)
	137,220	137,220	87,785	(49,435)	0	(49,435)
Total Net Budget	(117,880)	(28,690)	(973,998)	(945,308)	44,550	(900,758)

Changes between original and final budgets may be made to reflect and are detailed and approved:

- portfolio and departmental restructuring
- approved budget carry forwards from the previous financial year
- technical adjustments, including changes to the capital account
- virements approved under the Council's constitution
- additional external revenue funding not originally budgeted
- in the January committee cycle (as part of the Budget-Setting Report)
- in the June/July committee cycle (outturn reporting and carry forward requests)
- in September (as part of the Mid-year Financial Review, MFR)
- via technical adjustments/virements throughout the year

Planning Policy & Transport / Environment Scrutiny Committee

Revenue Budget 2015/16 - Major Variances from Final Revenue Budgets

Service Grouping	Reason for Variance	Amount £	Contact
	Environment - Parking Services		
Car Parks	Income exceeded budget expectations due to buoyant local economic conditions. There was also an underspend on maintenance and one off staffing costs resulting in expenditure savings	(861,858)	Sean Cleary
	Environment - Planning		
City Development	Overall, there has been a significant saving on salaries because of the number of vacancies within the planning service over the past 12 months, in both City Development and New Neighbourhoods Team but this has been off-set by equivalent expenditure on temporary agency staff to cover vacancies, given the high volumes of workloads within the teams. Most of the expenditure on temporary staff can be clawed back through planning performance agreement payments which are phased throughout and across financial years and are therefore ongoing. There has been an over-achievement on major applications planning fee income within the City Development Team and an over-achievement generally on other types of planning fee income such as pre-application fees and discharges of conditions, reflecting the high levels of growth activities generally. However, there has been a significant shortfall in planning fee income associated with large-scale strategic major applications within the New Neighbourhoods Team which has created the overall variance. This is a result of some large-scale applications that were due to be submitted before the end of the financial year being delayed. One example of this is the West Cambridge outline application where submission is delayed until the end of May/early June -the planning application fee for this is £86,462. There are also a number of other projects that have been delayed on Darwin Green 1 site where development has not yet commenced. Planning application fee income is volatile and the outturn forecast is difficult to predict accurately because of this. Officers are reliant on developer programme information, which is subject to constant change at short notice, to project this.	118,170	Sarah Dyer
Cambridge University Contract	This is University contract funding for officer resources to progress and provide inputs to University projects The University confirmed that recruitment could not start until the contract had been signed in February 2016 and this first contract payment has only recently been received. Recruitment is therefore ongoing in some cases so this needs to be carried forward into the next financial year.	(36,942)	Sharon Brown
Urban Design & Conservation	The underspend relates principally to funding within on going program of proactive conservation work (updating conservation area appraisals and historic signage/advertising programme) which should be spent in 2016/17. Exec Cllr has approved year on year carry over in order to complete program.	(33,445)	Glen Richardson
Taxicard Service	The variance is due to fluctuations in passenger usage.	(33,264)	Sara Saunders
	Environment - Director & Business & Information Service (BIS)		
Urban Growth Project Management	The underspend relates to the vacancy of the Corporate Growth Programme Manager which was partly offset by part time administrative support.	(49,435)	Simon Payne
Other		(48,534)	-
Total		(945,308)	

Planning Policy & Transport / Environment Scrutiny Committee

Revenue Budget 2015/16 - Carry Forward Requests

Request to Carry Forward Budgets from 2015/16 into 2016/17

Item	Reason for Carry Forward Request	Amount £	Contact
	Director of Environment		
1	Walking & Cycling Strategy - Allocation of funding delayed due to prioritising limited staff time to supporting City Deal project work.	1,850	Alistair Wilson
2	Flood Risk Management - Carry forward request due to delays in starting major drainage projects.	19,900	Simon Bunn
3	Planning Policy - MLEI grant funding received and earmarked for training which will be undertaken in 2016 - 2017.	2,800	Sara Saunders
4	Urban Design & Conservation - Ongoing program of pro-active conservation work which should be spent in 2016/17.	20,000	Glen Richardson
	Total Carry Forward Requests for Planning Policy & Transport Portfolio / Environment Scrutiny Committee	44,550	

Planning Policy & Transport Portfolio / Environment Scrutiny Committee

Capital Budget 2015/16 - Outturn

Capital Ref	Description	Lead Officer	Original Budget 2015/16 £000	Final Budget 2015/16 £000	Outturn £000	Variance - Outturn compared to Final Budget £000	Rephase Spend £000	Over / (Under) Spend £000	Variance Explanation / Comments
SC416	UNiform e-consultee Access Module	Paul Boucher	0	7	5	(2)	0	(2)	Project Complete
SC570	Essential Structural/Holding Repairs - Park Street Multi-Storey car park	Sean Cleary	41	45	28	(17)	17	0	3 Year repair project with majority of 3rd year works completed. Final retention invoices are not due until summer 2016. Capital account will need to be rephrased to carry the remaining £17,000 forward into 2016/17 for this.
SC571	Procurement of IT System to Manage Community Infrastructure Levy	Sara Saunders	0	20	0	(20)	20	0	Implementation of CIL dependant on timing of Local Plan Examination.
SC589	Grand Arcade Car Park Stairwell Refurbishment	Sean Cleary	0	7	4	(3)	0	(3)	Final invoice now received and paid. Project complete and capital account can be closed
SC590	Structural Holding Repairs & Lift Refurbishment - Queen Anne Terrace Car Park	Sean Cleary	360	499	215	(284)	284	0	5 year holding repair project with majority of second year works complete. Some of year 2 works have needed to be rescheduled into year 3 resulting in the need for the remainder of year 2 budget to be rephased and added to preplanned year 3 budget. Will liaise with service accountant for roll over of funds into 16/17
Total Projects			401	578	252	(326)	321	(5)	
PV007	Cycleways	Alistair Wilson	240	275	21	(254)	254	0	Rolling programme delayed due to prioritising limited staff time towards City Deal projects. Spend on Green Dragon Bridge likely to be less than anticipated, with forward priorities under review.
PV018	Bus Shelters	Alistair Wilson	0	127	17	(110)	110	0	Rolling programme delayed due to staffing changes and technical difficulties. Solutions largely identified and in process of being implemented, with further phase to follow later in 2016.
PV033B	Street Lighting	Alistair Wilson	42	82	1	(81)	81	0	City Centre Historic Core upgrades in progress with three Kite area streets works anticipated Spring 2016. Opportunity to undertake additional works under review.
PV532	Cambridge City 20mph Zones Project	Alistair Wilson	140	316	75	(241)	241	0	Phase 2 (East) area works now completed with final phase (South and West Central) designed and being procured for implementation Summer 2016. Monitoring work to continue thereafter.

Planning Policy & Transport Portfolio / Environment Scrutiny Committee

Capital Budget 2015/16 - Outturn

Capital Ref	Description	Lead Officer	Original Budget 2015/16 £000	Final Budget 2015/16 £000	Outturn £000	Variance - Outturn compared to Final Budget £000	Rephase Spend £000	Over / (Under) Spend £000	Variance Explanation / Comments
PV549	City Centre Cycle Parking	Alistair Wilson	190	190	8	(182)	182	0	On-street element of works completed with additional sites included as committed in Portfolio and Operational plans. Scoping work on further opportunities (incl Grand Arcade Cycle Park) continuing.
PV594	Green Deal	Jo Dicks	1,126	5,404	2,894	(2,510)	2,510	0	Good Progress continues to be made on installations and sales of solid wall insulation to private households. Currently Just under 900 (project target of 1000) customers have signed up and paid a deposit. Close to 700 solid wall properties have completed installation. Underspend is very unlikely on this fund as demand remains high.
	Green Deal - Private Rental Sector	Jo Dicks	357	1,829	174	(1,655)	1,655	0	Sales to PRS properties have remained disappointing . However, new sales activity and greater flexibility from DECC as to how this element of the fund can be spent is helping uptake of the funding. Underspent funds return to DECC under the terms of our MoU. DECC are aware of progress through fortnightly updates.
Total Provisions			2,095	8,223	3,190	(5,033)	5,033	0	
PR039	Minor Highway Improvement Programme	Alistair Wilson	30	30	7	(23)	23	0	Contribution to Local Highways Improvement programme delivered by County Council. Year spend to be finalised with transfer of funds accordingly.
Total Programmes			30	30	7	(23)	23	0	

Total for Planning Policy & Transport Portfolio	2,526	8,831	3,449	(5,382)	5,377	(5)
--	--------------	--------------	--------------	----------------	--------------	------------

Changes between original and final budgets may be made to reflect:

- rephased capital spend from the previous financial year
- rephased capital spend into future financial periods
- approval of new capital programmes and projects

and are detailed and approved:

- in the June/July committee cycle (outturn reporting and carry forward requests)
- in September (as part of the Mid-year Financial Review, MFR)
- in the January committee cycle (as part of the Budget-Setting Report, BSR)



To: Executive Councillor for Planning Policy and Transport: Councillor K Blencowe
Report by: Director of Environment
Relevant scrutiny committee: Environment 28/06/2016
Wards affected: Trumpington

Barrow Road – Conservation Area Appraisal

Non-Key Decision

1. Executive summary

Following resident's promotion of a conservation area at Barrow Road, the preparation of an appraisal (largely carried out by residents) and formal public consultation on a draft appraisal document during March 2016, the consultation response – overwhelmingly in support of a conservation area - is summarised in this report and the Executive Councillor recommended to designate a conservation area.

2. Recommendations

The Executive Councillor is recommended:

2.1 To approve the Barrow Road Conservation Area Appraisal document.

2.2 To authorise designation of a conservation area at Barrow Road delineated as set out in the appraisal and appendix 3 of this report.

3. Background

3.1 Under Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990:

(1) Every local planning authority—

(a) shall from time to time determine which parts of their area are areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance, and

(b) shall designate those areas as conservation areas

(2) It shall be the duty of a local planning authority from time to time to review the past exercise of functions under this section and to determine whether any parts or any further parts of their area should be designated as conservation areas; and, if they so determine, they shall designate those parts accordingly.

3.2 Conservation Areas are defined as “areas of special architectural or historic interest, the character or appearance of which it is desirable to preserve or enhance”.

3.3 The Executive Councillor for Planning Policy and Transport agreed to the preparation of a draft conservation area appraisal for Barrow Road (minute 16/43/ENV) as part of approval of the pro-active conservation programme.

3.4 Barrow Road has general significance for the city because it remains one of the most complete examples of Cambridge’s rapid suburban expansion during the inter-war years. Developed by Trinity College in the 1930s with most houses designed by the same architectural practice, its layout and architecture are said to exemplify the combination of Arts and Crafts architecture and town design inspired by the Garden City Movement that was typical of the time.

3.5 With the support of residents, the City Council published for consultation, a Conservation Area Appraisal for Barrow Road off Trumpington Road to the south of the city. This Appraisal forms the basis of a proposal to designate the older phases of Barrow Road as a Conservation Area.

3.6 The formal public consultation period was held from the 1st to the 31st of March 2016. The public consultation was promoted on the City Council website with a link to the draft Appraisal and a comments form. A hard copy of the document was available at Cambridge City Council Customer Service Centre for reference. The amenity societies, English Heritage, County Highways and Planning, the Environment Agency, and Ward Councillors were consulted as statutory consultees.

3.7 The consultation received 39 responses, of which at least 31 were from residents of Barrow Road. All except three noted below expressed unreserved support for the appraisal and conservation area designation. There was agreement with the way that the key characteristics of the area have been described in Section 7 of the Appraisal, and with the Guidance in Section 9 which sets out the sort of requirements that would protect and maintain the character of the road. Comments included that the detailed and thorough Appraisal provides an excellent outline of the merits of Barrow Road in terms of both architectural and road design and makes a convincing

case for designating the road a conservation area. A summary table of the responses has been included as Appendix 1. The C20th Society responded in support. A former Cambridge University director of architecture also wrote in support of the appraisal and designation.

3.8 Two residents supported but with some qualification that forms of extensions allowed in the past would now face greater scrutiny. The officer response to this is that the appraisal comments at sections 7 and 8 on what would be expected to be achieved. A further owner wishes the house to be left out of a possible conservation area as he is concerned inclusion would make future maintenance / repair of the house unaffordable and that the rest of the conservation area would not suffer by the exclusion of the house. The officer response to this is that the designated area has to be based on architectural or historic interest and that the house in question is part of the earlier layout and is contemporary with the houses opposite. It should therefore be included.

3.9 Cambridge Past, Present and Future (CPPF) supports designation and makes detailed comments about the content of the draft appraisal. The response from CPPF is too long to detail with other responses and so is attached here separately as appendix 2. In particular, CPPF consider that the initial designation should be Barrow Road but that in the future, Bentley and Porson Roads should be included within the conservation area. The Officer view however is that Porson Road is not sufficiently consistent with Barrow Road to form part of a conservation area with it. The Porson Road houses are a post-war development, architecturally undistinguished and different in character to Barrow Road and lack the special historic or architectural interest necessary for inclusion within a conservation area.

4. Implications

(a) Financial Implications

Financial costs of the designation of a conservation area would be advertising and officer time and are within existing budgets.

(b) Staffing Implications

A Conservation Area will result in some additional workload arising from planning and tree work applications that involve properties and trees in the Conservation Area boundaries.

(c) Equality and Poverty Implications

There are no direct physical equality and diversity implications. Involvement of local people in the work followed the guidance set out in the Statement of Community Involvement. There are additional responsibilities on householders living within conservation areas who will need to apply for planning permission for certain works to their dwellings and their trees.

(d) **Environmental Implications**

Permission would be required for the demolition of a building or for works to trees. Permitted development allowances are more restricted in conservation areas. Climate change rating: Nil direct impact.

(e) **Procurement**

No procurement implications.

(f) **Consultation and communication**

Consultations as set out in the report above.

(g) **Community Safety**

There are no community safety implications.

5. Background papers

These background papers were used in the preparation of this report:

Consultation draft Barrow Road Conservation Area Character Appraisal
<https://www.cambridge.gov.uk/consultations/have-your-say-on-the-proposed-barrow-road-conservation-area>

6. Appendices

1. Officer response on CPPF points

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name: Christian Brady
Author's Phone Number: Extn.7160
Author's Email: christian.brady@cambridge.gov.uk

Appendix 1. Summary of the consultation responses from residents.

Responses to consultation on Barrow Road were received from residents at: Nos. 3, 4, 6, 7, 8, 9, 10, 11, 12, 15, 16, 17, 18, 19, 21, 24, 25, 28, 29, 30, 31, 32, 35, 36, 37, 39, 41, 43, 45, 47, 1 Barrow Close. Several non-Barrow Road Cambridge residents also responded.

Anonymised responses:

Supporting representations:

I am writing in strong support of the proposed Barrow Road conservation area. Having grown up in this road and still living in Cambridge, I am well aware of the value of the ensemble .. designed and built in a harmonious group along the lines of a "garden city". The similar style of houses, though each is different, together with their pleasing environment, including wide verges, uniform gas lamps in a style contemporary with the houses and an avenue of ornamental cherry trees, should be preserved, in the face of attempts to demolish houses one by one and replace each one with a different style of house (even if only slightly different). Barrow Road is important for the city as a whole because it is one of the most complete examples of Cambridge's expansion during the 1920's/1930's. Maintenance of the avenue of cherry trees should be required as part of the conservation area.

We are, I believe, the newest residents of Barrow Road.....We were very much drawn to Barrow Road given its unique character in the City. Whilst we had an appreciation for the road before moving here, we are constantly marvelling at the wonderful sense of serenity, space and history. Particularly given the rapid development of Cambridge, it would seem imperative to maintain such a special road for future generations.

We have lived here for 47 years and feel that the area deserves some protection from the general relaxation in development standards and densities. Please note our support for this proposal.

We truly believe that Conservation Area status for Barrow Road is the right thing to do. The road in its entirety is more than the sum of its parts - that although the individual houses are not necessarily of outstanding architectural merit, their unity of style and materials and the lay-out of the road and gardens together form a unique asset, a valuable contribution to the architectural history of the city of Cambridge.

In relation to the draft Conservation Area Appraisal for Barrow Road, and as long-term residents (my father bought no. -- in 1951), we would like to register our support for Barrow Road to be designated as a Conservation Area.

The Conservation Appraisal for Barrow road. Please, accept this email, as our support to the application of Barrow road to be designated as a Conservation Area.

As residents of Barrow Road, we are in agreement with the issues listed in Section 8 of the Appraisal document, and fully support the proposed guidance as set out in Section 9.

We are thoroughly in support of the application for Barrow Road to become a conservation area.

Thank you very much for producing the Barrow Road Consultation document. We fully support the proposal to make Barrow Road a conservation area.

We give our full support to the suggestion that Barrow Road be designated as a Conservation Area.

We are writing to give our strongest support for Barrow Road to be designated as a Conservation Area. The road is unique and should be preserved. Thank you.

With regard to the above draft appraisal, we wholeheartedly support the application of Barrow Road to be designated as a Conservation Area.

We at number XX Barrow road give our wholehearted support to the application of Barrow Road to be designated as a Conservation Area." Cambridge has a few roads that need to have a little extra care to keep them looking and in keeping with what they were set out to bring to the local area. Therefore hopefully once in a conservation area this will help to preserve the road appearance for many years to come.

Thank you for your letter of 26th February. I strongly believe that Barrow Road should be designated as a Conservation Area.

As mentioned in your letter, the houses are a good example of the Arts and Craft style of architecture of the 1930s and there are very few such examples in Cambridge. Unfortunately one unique house in the road has already been demolished and a second house (at the entrance of the road and part of a "gateway entrance") is due to be demolished. I believe that Barrow Road should be preserved and being a part of a Conservation Area will surely help to achieve this.

I very much hope that the consultation will be considered favourably by the Council, the Environment Scrutiny Committee and the executive Councillor for Planning Policy and Transport.

I have known Barrow Road for many years and from time to time visit friends and colleagues who live there. In this time I have observed the street's progressive evolution and enjoyed its special qualities at all seasons. I congratulate you on the substance and rigour of the Appraisal, which admirably describes the history of the street's development. I consider that the characterisation of the qualities of the overall layout, with its clear basis in the principles enumerated by Raymond Unwin in *Town Planning in Practice*, to be admirable. Similarly, I feel that the description of the architecture of the individual houses effectively captures their modest virtues. As is stated in the Appraisal, the quality of Barrow Road derives from the whole ensemble and not from individual parts. On an academic point, the complete register you have compiled of the architects of the houses is very welcome.

On the basis of the draft Appraisal, we write to give our wholehearted support to the application of Barrow Road to be designated as a Conservation Area.

We have read the draft Appraisal with care and we have been consistently hoping that our road might become one of the protected gems in Cambridge. On this basis we wish you to record our wholehearted support for the application of Barrow Road to be designated as a Conservation Area.

Thank you for your letter requesting a response to 'A Conservation Area Appraisal for Barrow Road'
We are writing to give our strong and wholehearted support to the application for Barrow Road to be designated a Conservation Area as outlined in the appraisal.
Having lived here happily for over 30 years we are very keen to preserve the style and character of this very special environment.

Regarding the Draft Appraisal for Barrow Road becoming a Conservation Area - we would like to give our unreserved backing.

As residents of Barrow Road we would like to express our support for Barrow Road becoming a conservation area. We have read the documentation and would very much like to see it proceed.

I am writing to express the support of No -- Barrow Road for the Barrow Road Conservation Area Appraisal, both as regards to the area to be delineated and the general contents of the Appraisal. We are very happy that the City Council has managed to progress this to consultation stage.

We very much support the proposal to designate the older phases of Barrow Road as a Conservation Area. We live at -- Barrow Road and would like to see the character and architecture of the road preserved.

My view is that the Conservation Area Appraisal for Barrow Road brings out well the special value of this residential gem of Cambridge. Demolitions and radical reconstructions are already eating in to the fine, unified architectural design initiated by Trinity College. The Appraisal also emphasizes the historical interest and importance of the Barrow road region. So I give my strongest support to the proposal that a Conservation Area covering Barrow Road should be put in place.

In response to your letter concerning Barrow Road, my wife and I, who have lived in Barrow Road for 50 years, are enthusiastic supporters of the road being made a Conservation Area. With all the new building going on in Cambridge at the moment there would seem to be a strong need to conserve some of the more traditional parts of the residential areas.

In reply to your letter of 26 February I am writing to support strongly the proposal that Barrow Road be designated a Conservation Area. Barrow Road is unique and an important part of the heritage of the City of Cambridge.

Thank you for your letter of 26th February informing us that the City Council has published, for consultation, a Conservation Area Appraisal for Barrow Road.

We are writing to let you know that we have considered the Appraisal and are wholeheartedly in favour of the proposal to designate Barrow Road a Conservation Area in accordance with the Planning (Listed Buildings and Conservation areas) Act 1990. In particular we are in agreement with the way that the key characteristics of the area have been described in Section 7 of the Appraisal, and with the Guidance in Section 9 which sets out the sort of requirements that would protect and maintain the character of the road.

We therefore hope that the City Council will approve the recognition of Barrow Road as a Conservation Area. We think that the very detailed and thorough Appraisal shows the case for this very clearly.

We are writing in response to the Conservation Appraisal for Barrow Road, as residents at -- Barrow Road. We were delighted to read the appraisal, and strongly support Barrow Road becoming a Conservation Area.

The broad grass verges, avenue of cherry trees and architecturally beautiful Arts and Crafts houses all combine to give a uniformity and beauty that would undoubtedly be eroded without such status. At a time when there is considerable architectural change across the City, we hope very much that the Council will be able to preserve the charm of this road.

I am a resident of Barrow Road and am writing to express my very strong support, also on behalf of my husband, for turning the road into a conservation area. The draft appraisal provides an excellent outline of the merits of Barrow Road in terms of both architectural and road design and makes a convincing case for designating the road a conservation area.

My understanding of the consultation I have just looked at is that you are proposing designating the Barrow Road area of Cambridge as a Conservation Area.

I am a resident of Cambridge but not resident of the area in question, but would nonetheless like to record my support and approval for such a designation.

Qualified Support:

As the document says, the general characteristics are its " low-density layout with wide green verges planted with flowering cherry trees behind which stand detached two-storey houses, built to a common building line on generous plots...the convention of preserving what can be seen from the road, allowing owners greater freedom to adapt their houses on the garden side." This is what I think needs to be conserved for the future. This is well summarised in Section 7, which I support.

I also support section 8. As a resident, I recognise that this restricts my freedom – but preserves the overall quality of the road. I support it. However, there are already breaches of these rules, and these features will need to be left in place. I think that it is important to emphasise that the preservation should be from the viewpoint of someone viewing the house on the road. In some cases, changes can be made without changing the view from the road e.g., extending houses sideways by converting a garage to domestic use and building a new garage behind an existing front wall (this is what we did in our house).

It would be great for the residents to work out a plan for the trees. We should develop a plan for the long term development of uniform cherry trees. Perhaps the council has an expert who can advise!

I am broadly supportive of this initiative: I think the character of Barrow Road is worth preserving, and that it would be a shame if planning consent was given to demolish any more of the original houses and replace them with contemporary designs. I also believe the the character and charm of the road owes much to the verges, flowering trees and street lamps that are in place, and that these should be preserved. However I would like to understand more about the potential impact on planning consent for improvements to the existing houses on the street. I am wary of preserving the original buildings and not allowing sensitive and appropriate improvements. ...In addition, many of the houses on the road have already had major additions and extensions, and most of these can't be seen by their neighbours let alone from the street itself. I think such additions can enhance the properties, and I while I am ok with greater scrutiny I would not be in favour of the conservation area creating an environment where significant enhancements faced tougher restrictions than they do now. This is particularly given the case given the extensions that are already in place, including perhaps on houses whose owners are now unconditionally supportive of the conservation area: it would be very unfair if they were to enjoy any pre-conservation area benefits in improvements to their homes while denying the opportunity to more recent arrivals such as ourselves.

Objection:

I am concerned that if number -- is included in the proposed Barrow Road Conservation area, limitations or controls may be applied under its terms which may restrict any necessary changes to, or restoration or repairs of the building. I am worried that this may then make any future management of the premises unaffordable.

My mother's wish, before she lost mental capacity, was to be nursed in her own home if possible until her end, and I have been engaged in carrying out this wish now for 11 years, so I am rather anxious that any change, such as the adoption of a conservation area, with its attendant regulations, might make things even more difficult.

Note: Some of the above representations have been shortened but the core concerns have been retained.

Some short supporting representations have been omitted for economy and to reduce repetition.

Appendix 2

Officer response to CPPF's detailed points re. Barrow Rd draft Conservation Area Appraisal.

- *Section 3.1 does not mention the name of the architect*
Response: 3.1 is a general description only. The architect is referenced at 3.3 and elsewhere (especially at 5.1).
Recommendation: no change to draft appraisal.
- *It is surprising that historic maps were not included other than 20th century*
Response: As the appraisal is focussed on the history and layout of Barrow Road itself, and the latter is of the 20th century, earlier maps would not add anything. Recommendation: no change to draft appraisal.
- *Maps and photos should be larger to be read*
Response: Agreed that many of the maps and photos could usefully be larger. Recommendation: maps and photos to be enlarged.
- *Is there any archaeology of note?*
Response: The Appraisal states at 3.2 "no archaeological record of earlier activity." Recommendation: no change to draft appraisal.
- *Context in relation to the adjacent streets should be included setting the scene as overview of the area*
Response: agreed Recommendation: A more general context map be added to section 1 "Location".
- *The history is well known and included*
Response: noted.
- *What is the architectural and historic interest?*
Response: This is set out in Section 3 "Summary of Special Interest" Recommendation: no change to draft appraisal.
- *What are the key features, details, palette of materials? Include description with photos.*
Response: These are described at section 5.2 Recommendation: no change to draft appraisal.
- *Mention of mature trees, but will any be TPO'd?*
Response: It is not currently proposed to TPO particular trees. Trees are protected under a Conservation Area designation – permission being required for any lopping, topping or cutting down. Recommendation: no change to draft appraisal.
- *What about any other landscape features, hedges, fences, walls?*
Response: Features such as the wide verges, low walls and hedges are referred to at section 6 "Streetscape, Trees and Gardens" Recommendation: no change to draft appraisal.
- *References should be made to Local Plan policy- but which one!? 2006 or 2014?*
Response: Currently, both should be and are referenced at Section 2. Recommendation: no change to draft appraisal.
- *Areas that could be opportunity for enhancement should be pointed out and advice given*
Response: The road is fairly uniform in its nature and No areas are being proposed for enhancement. Future review would provide an opportunity for enhancement if it became necessary. Recommendation: no change to draft appraisal
- *The appraisal map is good, should have key with buildings of local interest and other key features shown, including areas that do not enhance*
Response: No BLIs are proposed as part of the consultation. For enhancement see above. Recommendation: no change to draft appraisal.
- *Will this sit next to any other policy documents within the Council like design guides?*
Response: The appraisal would be a background document to historic environment policies within the Development Plan. Associated guidance would apply. Recommendation: no change to draft appraisal.

Appendix 3 Conservation Area Boundary



Barrow Road

Conservation Area Appraisal

Page 33



March 2016

This publication has been produced by:

Planning Services
Cambridge City Council
PO Box 700
Cambridge City Council
CB1 0JH

Tel: 01223 457000

Can be downloaded from www.cambridge.gov.uk

Printed on recycled paper. Please recycle.

Copyright notice

© Crown copyright and database right 2016. Ordnance Survey Licence number 1000197730.

Contents

1. Introduction
2. The Planning Policy Context
3. Summary of Special Interest
 - i) General Character
 - ii) Historical Development
 - iii) Changes since the 1950s
4. The Layout of the Road
 - Architectural Overview
 - Streetscape, Trees and Gardens
7. Key Characteristics of the Area
8. Issues
9. Guidance
10. Summary
11. References

Appendix I: Map

Appendix II: The Houses of Barrow Rd

Appendix III: The Architecture of the Arts and Crafts

Appendix IV: The Garden City Movement

1. Introduction

This Appraisal forms the basis of a proposal to designate Barrow Road as a Conservation Area under the Planning (Listed Buildings and Conservation Areas) Act 1990. Public consultation responses to this Appraisal will be taken into account in the decision on such designation and on changes to the Appraisal's content. The Appraisal provides information about the history of the area's development and its architectural merits and in doing so seeks to define the special interest of the area.

1.1 Method

Working closely with the City Council's Conservation Team, the residents of Barrow Road aided by a researcher, working at the time for English Heritage, assembled the archival and other evidence on which to base a first analysis of the character and qualities of the road. The resulting first draft was then recast under the editorial control of the Conservation Team. The

present document sets out the essential characteristics of the area and proposals for its protection and improvement.

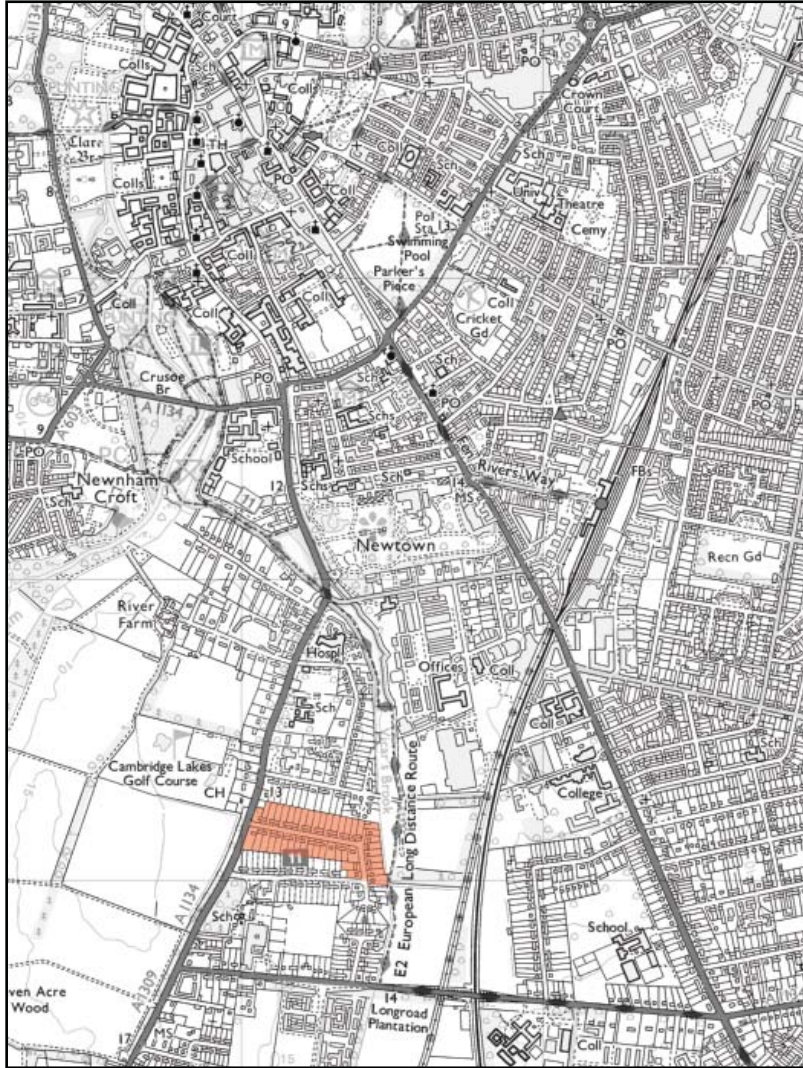
1.2 Aims and Objectives

This document aims to:

- Provide a clear direction to guide future development in the area
- Identify the features which contribute to the special character of the area and those which need to be improved
- Conserve the positive features of the area and target any available resources to those aspects in need of improvement
- Raise awareness and interest in the area
- Seek to ensure that Council services impact on the area sensitively
- Raise awareness of other public sector agencies of the area's special character.

1.3 Location

Barrow Road is located approximately one and a half miles to the south of Cambridge City Centre (see map overleaf). Situated off the major route to the centre, the Trumpington Road, the area is part of the City's low-density southern suburban belt developed during the inter-war years. The area consists of the first two phases of Barrow Road together with Barrow Close developed by Trinity College between the wars but does not extend to the houses to the south in the final phase of Barrow Road built from the mid 1950s onwards. The road forms a direct link between the Trumpington Road and fields and playing fields to the east with a north-south footpath that in turn leads from the city southwards to more open countryside.



Map showing the location of the Conservation Area in red.
From the Ordnance Survey, scale 1:10,000.

2 . The Planning Policy Context

2.1 Section 69 of the Planning (Listed Buildings and Conservation Areas) Act 1990 places a duty on Local Planning Authorities to designate as 'Conservation Areas' any "areas of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance".

The Act requires that all new development in or around Conservation Area must 'preserve or enhance' the special character of the area.

2.2 National policies

The National Planning Policy Framework (NPPF), adopted in March 2012, sets out the Government's requirements for the operation of the planning system, and how these are expected to be applied. Section 12 of the NPPF covers *Conserving and enhancing the historic environment*. Conservation Areas are heritage assets in terms of NPPF guidance and there is great emphasis on considering the *significance* of Conservation Areas, their elements and their settings when change is proposed.

2.3 Local policies

The Cambridge Local Plan 2006 set out Planning policy to 2016. The City Council submitted a review of the Local Plan

(Cambridge Local Plan 2014 submission) to the Secretary of State in March 2014 for independent examination. The emerging Local Plan will guide future development to 2031. Further information about Local Plan policies and the major implications of Conservation Area designation can be found on the Council's website.

3 . Summary of Special Interest

Page 41

General Character

The road is distinguished by its low-density layout with wide green verges planted with flowering cherry trees behind which stand detached two-storey houses, built to a common building line on generous plots. From the Trumpington Road, the entrance to Barrow Road is framed by two matching houses, while the view along the length of the road culminates in the handsome brick façade, topped by a gable that would not look out of place in Holland or north Germany. The predominant impression of greenery and openness is a product of front gardens enclosed by low walls, hedges or flowerbeds that allow views across gravel drives to the road's houses. Built during the 1930s, with most houses designed by the same

architectural practice in the Arts and Crafts manner, the unity of materials and architectural form creates an unity, that comfortably allows the inclusion of two or three houses more classical in inspiration of the same period, along with one or two houses that hint at the coming fashion for modern architecture. With a direct link to the east to fields and Hobson's Brook and the footpath that follows it, Barrow Road provides easy access for residents and visitors alike to the countryside to the south.

3.2 Historical Development

With no archaeological record of earlier activity, the history of Barrow Road starts in the mid 16th century with Trinity College's first interest in the area. This begins with the

granting by Henry VIII to the College on its foundation in 1546 of land in Trumpington, removed from Haliwell Priory at the dissolution. A land register of the rectory of 1612 suggests that this gift amounting to around 50 acres was spread across the parish in various parcels and included the area that was to become Barrow Road.

The essentially medieval layout of these lands remained largely unchanged until the start of the 19th century. In 1801, however, an Act was passed on the urging of the Pemberton and the Anstey families to enclose the land in Trumpington village. On its being finally apportioned in 1809 the College received 313 acres, a portion of which, known as Great Tithe Farm, was leased to the Pembertons. They farmed



the land but made only limited attempts to exploit the resources of the land for brick making, gravel extraction and, after 1850, for the gathering of coprolites for use as fertilizer.

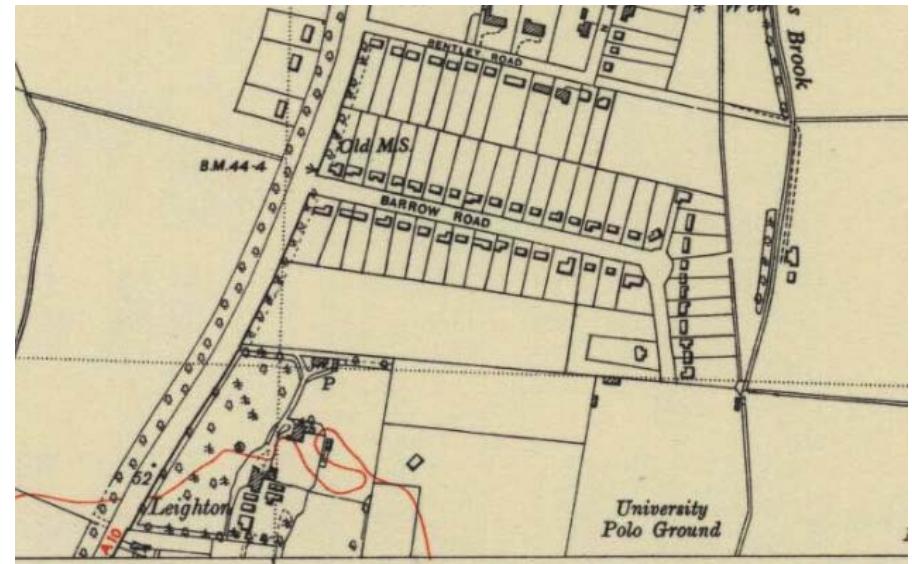
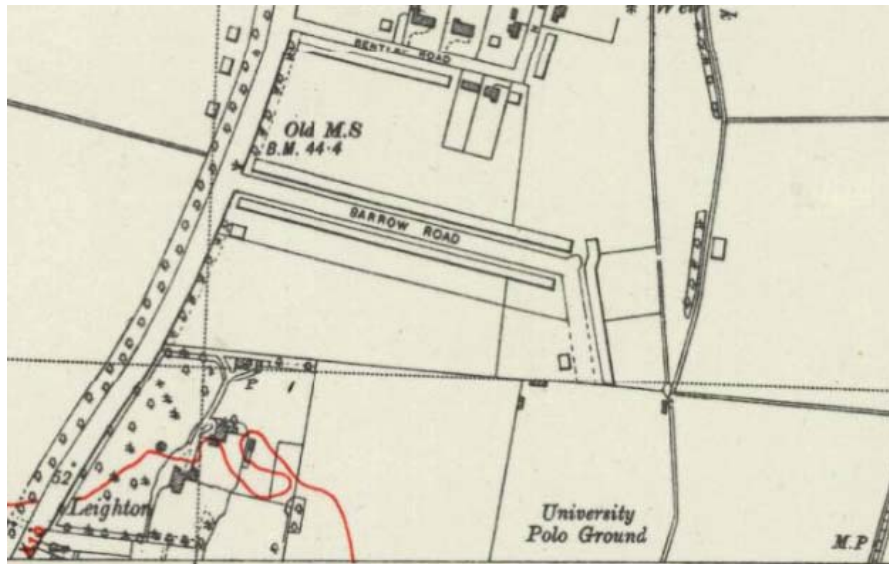
In the 1860s the family's decision to relinquish the lease coincided with the beginnings of a growing demand for housing in Cambridge. This was prompted on the one hand by the spur to the local economy that resulted from the coming of the railway and on the other by the changes in the University statutes that enabled fellows of colleges to marry which in turn led to the dons' demands for housing for their families. The ability of the colleges to respond to this growing demand was greatly eased by charity

legislation in 1856 that made it easier for colleges to sell their estates and buy other land, and a further Act, the University and Colleges Estate Act of 1858, that enabled them to develop their estates by issuing 99-year leases. Development of land belonging to Trinity Hall and to Gonville and Caius lying to the south of the old centre proceeded on this basis during 1860s and 70s.

Further south in Trumpington, development also began at this time with Robert Sayle, for example, taking a lease from the College in 1868 to build Leighton House on the corner of Long and Trumpington Road. However, it was not until the 1880s that development began of the first large plots along the

Trumpington Road and the Pemberton family began to develop their land to form what was to become Chaucer Road. It was only in 1889 that Charles Bidwell, Trinity's agent, was asked by the College to submit a plan for the development of the College's land along and to the east or 'behind' the Trumpington Road.

Bidwell did so reluctantly considering the development premature and likely to encourage a development with small houses of an 'inferior class', but the College thought otherwise and a plan for the Trumpington Road and the fields to the east was approved in 1889. The leasing of the first plots along the Trumpington Road included a plot for the construction of St Faith's along with



Barrow Road in 1927 and 1950



Early additions over garages

a road giving access to land to the east. The completion of Newton Road in 1892 and Bentley Road in 1903 by the College provided access to the lands behind the Trumpington Road with the plan for the area envisaging the continuation of Newton Road south to Long Road. As part of this plan, Barrow Road was to cross this new north-south road and the railway - by means of a level-crossing (of which the College still retains the keys) - to link with the College's other new development on Sedley Taylor and Luard Roads. The take-up of leases on the College's land to the east of the railway was faster than that to the west but houses to the design

and specification of their owners, subject always to approval by College, were being built in Newton Road well before WWI.

Development of the College's Trumpington Road land was interrupted by the war but resumed in the later 1920s when the College agreed to lay out Barrow Road, built to the City's first-class standards and conforming to 'the latest ideas of road construction in residential areas'. On the advice of N.T.Myers of Spalding and Myers, of whom more below, the College agreed to lease 26 plots each with a frontage of 70ft. The

leases stipulated that the houses, whose design had to be approved by the College, were to be detached two-storey houses, architect-designed and built at a rate of 4 per year at minimum cost of £1,500, a handsome sum when a typical semi-detached house might cost no more than £750. By the end of the 1930s those that were sold fetched of the order of £1,750. Nearly half of the leases were taken by Mr H. W. Hunt as an investment, as were the leases to Nos. 3 and 5 by the builder, Kidman and Sons, the leases to Nos. 22 and 43 by Myers, the architect (who lived at No.16), and Nos. 11 and 13 by Geoffrey Baynard, another architect

briefly active on the road. Around a quarter of the leases were taken by individuals, mostly professionals, solicitors and doctors, along with the occasional don. Leasing these houses proved more successful than expected and a second phase of development, which included Barrow Close, was launched in 1934. The design of these houses maintained the form and the scale of the first phase and was to continue up until the outbreak of war in 1939.

Apart from the construction of a house on the last of the plots laid out before the

war, No. 34 built by Roberts and Clark in a different architectural idiom from the pre-war houses, the road changed little before 1960. However, changes in the law relating to the leasing of property would have important consequences for the future of the road. In 1953, the College had considered a report from Bidwells on the question of tenants' rights to buy the freehold but decided to maintain the status quo, not least because they resisted the idea of mixing leasehold and freehold properties in the same development. In 1963, however, following the sale of the freehold of

a house on Long Road, the College moved towards the encouragement of the sale of the freehold to tenants of long-standing and this change in policy was followed by a flow of applications from those on the College's land in Trumpington wishing to buy their freehold at a price set at the equivalent of 40 years ground rent. These provisions were further eased by the Leasehold Reform Act of 1967. Subsequently there were disagreements between tenants and the College on the price for the freehold, but by the early 1980s the majority, if not the totality, of the house-owners in Barrow



Garage extensions

owned the freehold of their property. Trinity continued to own the roadway, despite an attempt to persuade the City to adopt the road, all but agreed, that had foundered at the last moment on the residents' determination to retain the road's gas lamps when faced with the threat of sodium-lamps.

3.4 Changes since the 1950s

The houses on the road have been altered almost as soon as they were built: barely two years after moving in No.2 Alderman Brown, a former mayor of Cambridge,

chose to add a grander entrance porch. Nor was he alone in extending or adding to his house. During the 1930s, as is evident from the applications for building regulations' approval, there were small alterations and additions of all kinds: small garages, potting sheds and greenhouses were added and porches transformed. Occasionally houses were extended more radically: in 1934, the owners of No.4 were one of the first to build over their garage to provide a new bedroom.

Under the terms of the leases Trinity's permission for change was required and

the College actively exercised control at least into the 1970s: adjacent tenants were discreetly consulted and could (and indeed did) refuse their agreement, resulting in the College's withholding of its approval. The result of this policy was the development of a convention that seems by general agreement - overseen and blessed by the College - to have limited to a minimum changes to the street frontage and to have restricted use of the roof-space. By contrast, lessors (and the occasional owner) were granted a greater measure of freedom to alter or extend the houses on the garden side,



Discreet side extensions



An early bathroom extension

typical of a number of rear extensions in the 1950s was the expansion of the drawing room at No.24.

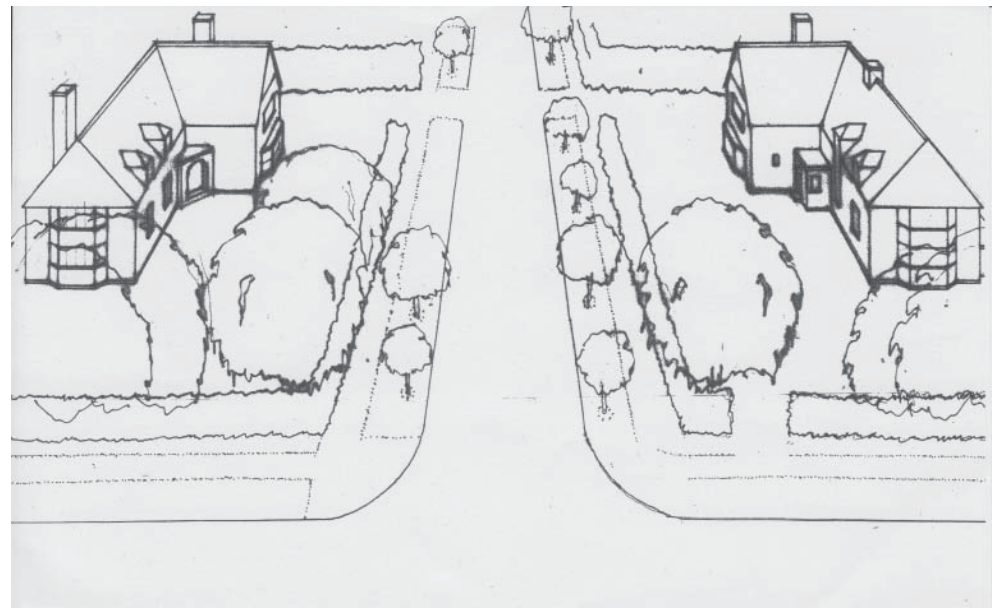
This approach seems still to have generally governed alterations and extensions until the 1980s when many lessors bought the freehold and the College ceased to exert the control that it formerly did. Thereafter alterations and extensions increased, evident in the number and growing size of rear extensions. Equally important was the number of side-extensions that reduced the space between houses and thus the sense of the houses as independent units. Many of these were alterations to garages. As cars became wider and as households began to acquire a second-car, the narrow garages of the 1930s were turned over to storage or turned into an additional ground-floor rooms. A few households, however, chose to build new, wider garages to one side of the house (and in one regrettable case in front of

the common building line), some wide enough to provide for two cars. Other households abandoned their garages to build two-storey side extension with an extra bedroom or bathroom on the first floor. Early example of bathrooms with a dormer to the side are to be found at No.33 and No.29 and, slightly later, those of No. 31.

Despite the powers of the planning authority, the scale of proposed alterations has grown as new families with more ambitious demands have moved on to the road, a trend amplified by the number of new arrivals along the road. An example of this trend was the proposals at the end of the 1990s for the remodelling of No. 35 – but to the rear and not to road front - that resulted in the first suggestion for a conservation area, though fortunately modifications to the design answered neighbours' concerns and the proposal for conservation

area went no further. It is, however, the experience of a few radical changes and the prospect of more that has revived the call for the protection provided by a Conservation Area.

However, this recitation of changes on the road, of alterations and extensions, should not obscure the continuing unity of architecture and streetscape. Notwithstanding the growing ambition for alterations - witness the demolition and rebuilding of No.14 in 2014, to be followed shortly by No.2 – the character of the road remains recognisably as it was when built. Indeed, quite a number of houses remain virtually unchanged. And where there have been alterations these have for the greater part observed the convention of preserving what can be seen from the road, allowing owners greater freedom to adapt their houses on the garden side.



4 . Spatial Analysis: the Layout of the Road

Page 47

Barrow Road is a road of distinct character. The relationship between the buildings and their leafy setting is particularly important for the road's distinctive character. There are no public open spaces in the area but the wide green verges with their cherry trees are visited by people in the surrounding area and beyond who walk along the road to the footpath and the fields that run along Vicar's Brook to the east.

4.1 The streetscape

The layout of the road reflects the leafy vision of that combination of 'Town-Country' championed by the Garden City Movement and first realised by the architects and planners Raymond Unwin and Barry Parker at developments such

as Letchworth Garden City (1903-14) and Hampstead Garden Suburb (1906-14).

Barrow Road's broad frontage houses are quite different in character from Cambridge's earlier suburbs like the de Freville Estate or the area like Harvey Road and Lyndewode Road laid out by Gonville and Caius built before the turn of the century. The narrow frontages, deep plans and back extensions of these older suburbs look back, albeit built to more generous standards, to a form of town extension that was shaped by the by-laws of the late 1870s and early 1880s, more concerned with minimum provision for public health. The inspiration of Barrow Road, the priorities of the Garden City movement as codified in Unwin's Town

Planning in Practice (1909), were very different: providing broad frontages to secure light and airy interiors, orienting houses to catch the sun, and providing gardens large enough to grow sufficient produce to make a contribution to the household budget.

The layout of the road broadly follows Unwin's precepts. The trees, the broad grass verges and the limited width of the carriageway follow the examples cited in his chapter on residential roads. As in Town Planning in Practice, layout and architecture were complementary and the design of the houses provides architectural emphasis to the layout: thus the entrance to the road is 'framed' by two symmetrically designed houses,

Nos. 1 and 2 and the length of the road, potentially monotonous, is broken by a wider passing or turning point. At the Eastern end of the road, the geometry of the road extension and the resulting roundabout called for active collaboration between architecture and layout: the roundabout and the handsome gable of No. 37 together mark the end of the first stretch of the road; the roundabout and the matching gable of No. 33 also mark the start of the main axis of the new extension that runs down to No. 47. At this end of the road, Nos. 45 and 47, like Nos. 1 and 2 at the entrance to the road from the Trumpington Road, 'answer' each other in general disposition, but there is no formal closure to the road which simply ended on the boundary of the University Polo Field. The final phase of Trinity's development of the area would have to wait until after the war.

4.2 Traffic

Apart from parents picking up children at St Faiths in Porson Road, the road is fortunate that it has little through car-traffic due to the fact that the link through Rutherford Road, extensively used by pedestrians and cyclists, is not open to cars. As a private road, public parking is not allowed and the residents and the majority of their visitors park their cars in their driveways.





5 . Architectural Overview

Page 19

The architecture of the road follows the English conventions of the period with the use of the Arts and Crafts for houses in the suburbs or out of town. The predominant Arts and Crafts manner is perfectly suited to the easy-going expectations of suburban life: a detached house and a garden large enough for a tennis court. In Cambridge the Arts and Crafts is best represented by the houses designed by Baillie Scott and by Lutyens, on Grange Road, Storeys Way and on the Madingley Road. The skill of N.T.Myers, the architect of most houses on Barrow Road, was to interpret this way of building for the more modest needs (and pockets) of the middle-classes in developments planned by Trinity for Barrow Road.

Built for a handsome sum, the houses provided the comforts expected by a middle-class household of the period. On the ground floor most provided a porch and vestibule (with adjacent WC), a drawing room, dining room and study and accommodation for a live-in maid; on the first floor there were typically five bedrooms and a bathroom. Most houses had a garage from the start or added one soon afterwards.

The houses of the road, the majority in the Arts and Crafts manner, exemplify the diversity within an overarching unity. To meet the College's aspirations for 'a certain harmony between the several houses', Trinity turned for the design of

many of the houses to Norman 'Toller' Myers of Spalding and Myers, a local firm, but one that had the cachet of a London address (New Court St, Lincoln's Inn) and whose partners could claim the title FRIBA as fellows rather than mere associates of the Royal Institute of British Architects. Other architects were employed too without undermining the essential unity of the road's architecture. Geoffrey Baynard, another local architect, was responsible for some of the houses in the first phase of building. In the second phase, Spalding and Myers were retained for most of the houses but some clients brought in their own architects: Mr Oscar Borer chose to employ A.S.Gorham for



Variants of mild classicism

the design of No.25 and Mr W.J. Dowson employed Alan Fortescue FRIBA, another London firm with a national reputation, for the design of No. 26.

Though individually varied, the design of the houses follows a few simple unifying conventions. The formal vocabulary of the Arts and Crafts and the use of the same vernacular materials, the tiled, hipped and gabled roofs, the large

brick chimneys, the simple brickwork or rendered walls, the tile hanging, though up-dated to include Crittall's metal windows, provides an underlying unity. The compositions of the road-side elevations vary. Most are handled with asymmetrical informality: something is generally made of the front door, to one side there will generally be a two storey bay, with a hip or gable above, set against the simplicity of the rest of the

front, the whole enlivened by a forward-stepping garage. Others are symmetrical, with a matching set of windows, the whole composition held together under a large central gable.

The Arts and Crafts manner predominates, but the road welcomed a few houses more classical in feeling and even the occasional exercise in cautious modernism. Geoffrey Baynard was the designer of Nos. 11 and 13 both mildly classical in style, more or less symmetrical, one rendered, one brick,

that look as comfortably at ease with their neighbours as they might in the suburbs of any northern European or Scandinavian suburb of the time. More daringly, in the second phase of the road's construction Myers was even prepared to play with motifs that foreshadow the coming of Modernism. The round-cornered bays and the elongated proportions of the

Crittall windows on Nos. 27 are a gesture, however muted, towards the coming stylistic revolution and his last houses are yet more modern in feel with different proportions to the divisions in the metal windows and a simpler style of brick detailing, reminiscent of the houses from Hamburg or Holland photographed by Frank Yerbury for the progressive journal

Architect and Building News. However, the house that is most full-bloodedly modern is No. 26. Designed by Alan Fortescue and featured in 1934 as one of Ideal Home's 'Houses of the Year'. It was conceived as an asymmetrical play of brick cubes complemented by finely detailed brickwork copings and chimneys, the whole topped with a flagpole.

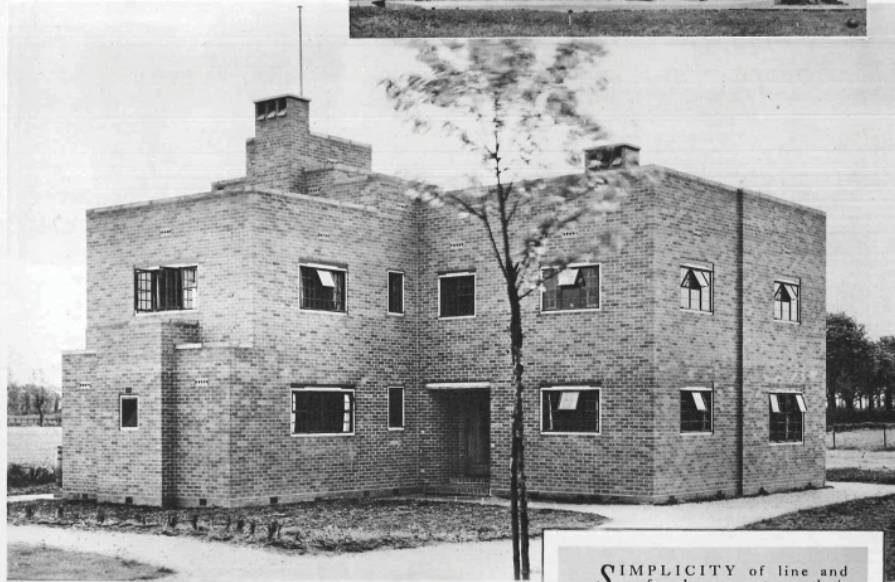
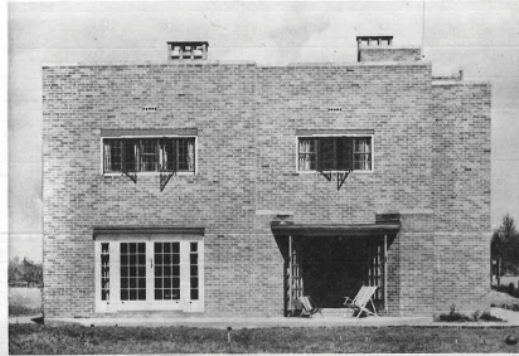


Cautious modernism

May, 1934

The Ideal Home

*Contemporary
Design*
*A House at Cambridge by
Alan Fortescue, F.R.I.B.A.*



SIMPLICITY of line and surface has a greater aesthetic value than masses of ornament. Monotony is avoided by different levels in the wall face and top line. Multi-coloured bricks are used and the coping is of artificial stone. The entrance faces north, but is sheltered by the wing on the east.

TRADESMEN'S entrance is on the east side, and the photograph on the left gives also a glimpse of the south and garden front. The tank tower is an integral part of the design, and is very effective, especially with the flag pole.

DINING and drawing rooms, and two main bedrooms face south over the garden as shown in the top picture.

6 . Streetscape, Trees and Gardens

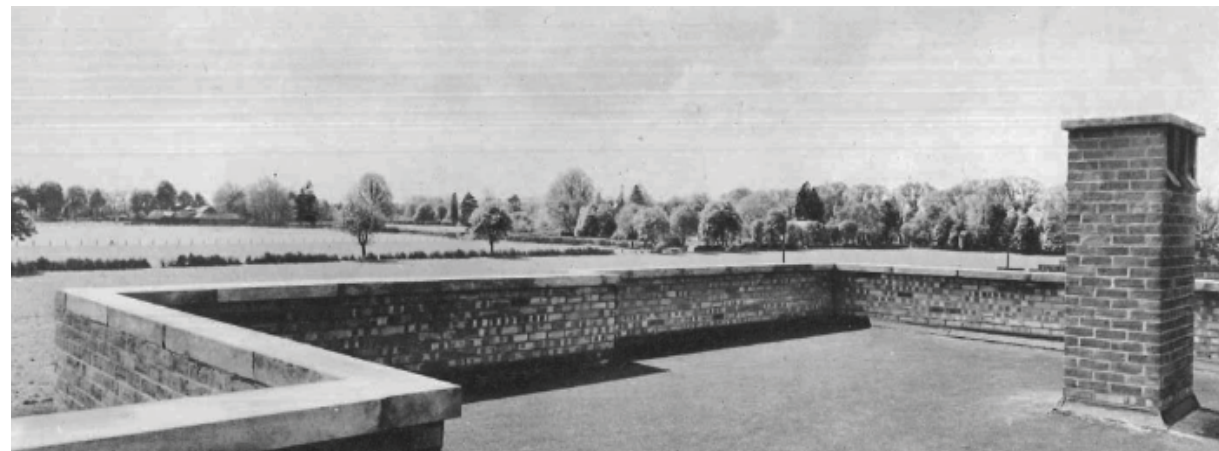
Page 55

One of the most important features of the road and one that does so much to create an impression of unity between the different houses is the layout of the road itself. With its wide verges and double-flowering cherry trees (*Prunus Avium flore pleno*) it exemplifies the approach to the design of residential roads favoured in Swin's Town Planning in Practice and repeated in manuals of domestic layout of the inter-war years. Indeed the generosity of the verges and the front-gardens, most of which have low walls and hedges, does much to create the sense of openness of the road. Most of the original cherry trees have been replaced but the overall effect of trees, verges and front gardens remains constant, a source of pleasure to residents and visitors alike. To give emphasis to the roundabout at the top of the road pink-flowering almond trees are substituted for the white flowering cherry trees. Another notable feature of the road is the retention of the gas lamps in a form that closely resembles the originals.

To the residents this form of lighting was sufficiently important to constitute a sticking point in the negotiations to have the road adopted by the City: it was the residents' determination to see them retained that resulted in the failure of this initiative.

As originally laid out by Bidwells, the plots

of Barrow Road houses were large enough to accommodate a tennis-court, but apart from their handsome size, the plots were, as the photograph below shows, were initially featureless. Since then, however, the tastes and the ingenuity of the residents have transformed them. Shielded from view by the houses - and their privacy is one of their principal



A view southwards over the uncultivated plots of the newly finished houses Nos. 22, 24 and 26.



Front gardens: current 'cultivated' state



qualities - they show an extraordinary range of different styles that range from the formal, for example the garden of No. 11 or No. 43, to the 'naturalness' of the informal garden represented inter alia by that of No. 24. Some are the product

of special expertise: Mr Dowson, original owner of No. 26 was a keen botanist and the garden of No. 47 was laid out by Mr Wilmer, better known for his design of Clare's Fellows' Gardens. Many of the trees planted in the early years have reached

maturity and are handsome examples of a wide variety of different species, which are protected under a Conservation Area designation - permission being required for any lopping, topping or cutting down.

7 . Key Characteristics of the Area

The preceding pages describe the characteristics of the Barrow Road Conservation Area. It is these, in combination, that give it a special identity amongst Cambridge's suburban developments. The elements fundamental to the character of the area can be summarised as follows:

- A wholly residential area comprised of large, detached properties of individual high-quality design;
- The generous green verges planted with flowering cherry trees or with flowering almond trees at key points like the round-about;
- The houses built to a common building line on large plots: to the front there are gardens whose boundary to the road is formed by low walls or hedges that create a general impression of openness; to the rear the houses have generous gardens with mature trees and hedges.
- Despite a variety of architectural idioms, architectural unity is ensured by the common scale of the houses: all were originally designed as detached two storey dwellings and have the same ridge height.
- The choice of materials and detailing contributes in an important way to the impression of unity: tiled roofs, red brick, render and tile-hanging and use of small paned Crittall Windows or their current their equivalent.

8 . Issues

8.1 Introduction

Over the years, the houses in Barrow Road have been adapted to suit the changing needs of new owners. As explained in section 5.2 this, at least until the 1980s, was generally limited, incremental rather than radical. As formal vocabulary of the Arts and Crafts allows greater measure of freedom than the symmetry of a classical composition or rigorous composition of some modern houses of the 1930s, this degree of change could be accommodated without undermining the unity of the whole. Since then, however, the scale of alterations has increased and the unity of the road can only be preserved by resisting drastic change and by following a limited number of simple conventions that have governed and should continue to govern the appearance of both road and houses.

8.2 Conserving the layout of the road:

- Preservation of the green verges, the cherry trees and the gas lamps;

- Maintenance of the general openness of the front gardens with low walls and hedges to give views across the frontages;
- Preservation of those buildings whose form serves to give emphasis to key elements of the road: the framing of the entrance from the Trumpington Road by Nos. 1 and 2; the closing of the east-west axis of the road by No.37 and the north-south axis by No.33.

8.3 Conserving the road's architecture:

- Preservation of the roofs: the common ridge height; the sweep of the road-side of the roofs with no dormers, roof-lights or solar panels; to retain the chimneys in their present form;
- Limitation of further side extensions in order to avoid the erosion of the sense of the houses as independent dwellings;
- Preservation of the general form and materials of the elevations facing the road: retention of the existing door frames and doors; resisting the

rendering of existing brickwork with the resulting loss of architectural detail; encouraging the use of glazing that matches (whether double-glazed or not) as far as possible the form of the original Crittall windows.

8.4 The pressures to remodel the houses radically or, more extreme, to demolish and replace an existing house, are exacerbated by the demands of those looking for large houses within easy reach of the centre, the railway station, Addenbrookes and the bio-medical campus. No.14 was demolished in 2014 and is being rebuilt; permission for the demolition and rebuilding of No.2 was granted in 2015. Changes of this magnitude undermine the very qualities of the road summarised in section 3.



9 . Guidance

Any proposed development, both extensions and new buildings within the Conservation Area or its setting should meet the requirements of the relevant guidance.

The following notes supplement those in the Appraisal, and aim to protect and maintain the elements of the area that have been identified as important to its character.

The road is residential and in order to maintain its original character, any change of use should be resisted as should the subdivision of plots.

The open and leafy character of the road should be preserved by maintaining the green verges, the white double-flowering cherry trees and pink flowering almond trees and by encouraging the use of low walls, hedges and flower beds to mark the boundaries of front gardens with the road. It is important, too, to ensure that no development takes place in front of the common building line. Certain houses give emphasis to elements of the layout such as the entrance and the

roundabout and these façades should be preserved: the entrance to the road from the Trumpington Road is framed by Nos.1 and 2; the view east along the length of the road is closed by No.37 and the view north along the second phase of the road is, again, closed by No.33.

The architectural unity of the road depends in large measure on the similarity of tiled roofs and chimneys and the shared palette of materials. Apart from No.26, the houses on the road share a common language of hips and gables with a common ridge height and carefully detailed chimneys, mostly in brick but some rendered. Within the freedom of the Arts and Crafts manner, the design of the houses along the road may be viewed as variations on a theme whose unity derives in large part from the use of the same range of materials and similar detailing. Common materials include a redish brick, render, tile-hanging and wooden window frames with Crittall windows. Certain elements such as the front doors are handled as distinctive features on the road elevations with a

variety of brick or wooden surrounds. These common features and the shared range of materials should be respected and used in new alterations or extensions.

The gradual accumulation of unsympathetic repairs and alterations to the fabric of the buildings should be monitored and harmful alterations discouraged. Where replacement or alteration is necessary, care should be taken to ensure it is sympathetic to the original.

The monitoring of change is as important as its control. A photographic survey of the Conservation Area should be undertaken once every five years to update the survey carried out in 2015 in order to enable evaluation and action where necessary in the case of unauthorised changes. This photographic survey should coincide with the review and updating of the Conservation Area Appraisal.

Although the road is a private residential road, which still belongs to Trinity College, the upkeep of the road and the cherry

and almond trees along the road has for some time been the responsibility of the individual owners. As some of the older trees reach the end of their natural lives they should be removed and every encouragement should be made to ensure that they are replaced with the same species of tree in order to preserve the character of the road.

10. Summary

This Appraisal has sought to identify the special interest and character of Barrow Road and to provide policies for the future preservation and enhancement of the area.

The area is defined by its high quality predominantly Arts and Crafts houses and by the green and leafy quality of the road created by its wide green verges, its cherry trees and the views across front gardens. The back gardens with their mature vegetation and trees visible from

the road establish a sense of enclosure and privacy. Both the built and the natural elements of the Conservation Area, and indeed the relationship between the two are fundamental to the character of the Barrow Road Conservation Area.

This document has appraised the character of all the elements of the Conservation Area. Its content and the policies should be used to inform the future management of the area.

11. References

Bullock, N. Barrow Road, an appreciation, typescript, 2015

Livesey, J. Semi-suburban Cambridge, essay submitted for the First Diploma in Architecture, University of Cambridge, 1997

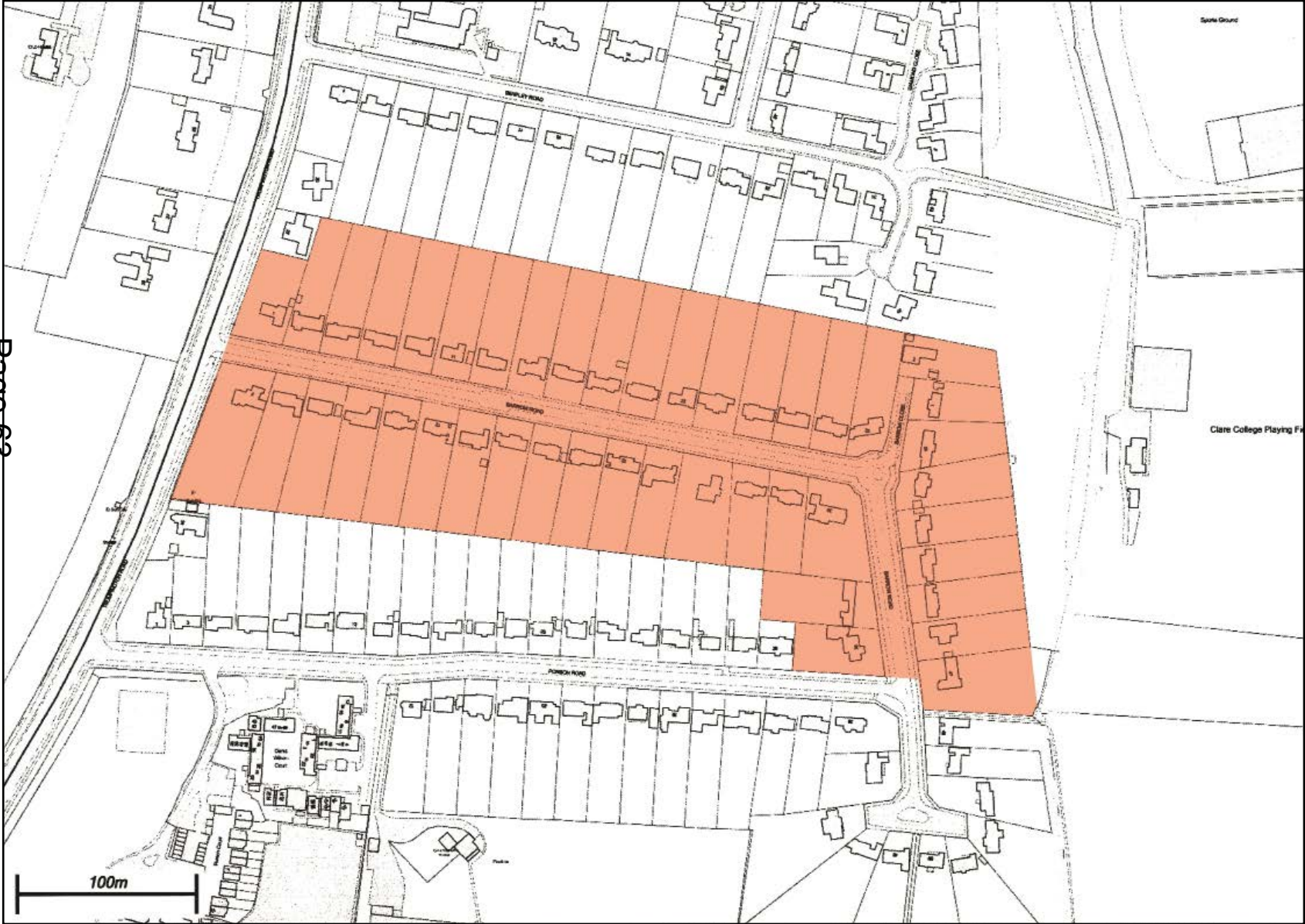
Myers, B. (daughter-in-law of Toller

Myers), Barrow Road and Barrow Close, Cambridge, typescript, 2004

Smith, J. Building in the 'back-lands': Trinity College's development of its Trumpington estate, (n.d.) typescript, Trinity College Archive.

Appendix I: Map

The Boundary of the Conservation Area



Appendix II: The Houses of Barrow Road

The information on the individual houses comes from the files on each house, submitted for Building Regulation approval and held in the City's Archives. One of the complications with this information is that it is held by the developer's plot number and is not straightforwardly related to the Road's current house numbering: there were 26 plots in the first phase and a further 13 in Barrow Road Extension, with the two houses in Barrow Close, the second phase of development. There are also references to a Baynard Lodge, sold in June 1953, which appears to have been demolished to release the plot for the construction of house No. 34. For each house the list below gives the architect, the date of Building Regulation approval, the lessee and (where known) the tenant and the original plot number. The alterations to the houses since built, available until 1960 from the record of Building Regulations approvals and thereafter from enquiries of the owners are recorded separately.

No. 1 Spalding and Myers, 1931, for Mr Edward Owen Brown, plot 1, 1931

No. 2 Spalding and Myers, 1931, Barrow House for F.C Knight, plot 14

No. 3 Spalding and Myers, 1932, for Harry William Hunt, plot 2

No. 4 Spalding and Myers, 1932, for C.W.Sleeman, plot 15

No. 5 Spalding and Myers, 1930, for Kidman and Sons, Builders, plot 3

No. 6 Spalding and Myers, 1930, for Dr W.C.Devereux, plot 16

No. 7 Spalding and Myers, 1930, for Kidman and Sons, Builders, plot 4

No. 8 Spalding and Myers, 1931, for H.W.Hunt, for A.K.Bird, plot 17

No. 9 Spalding and Myers, 1932, for Mr H.W.Hunt, plot 5

No.10 Spalding and Myers, 1931, for Mr H.W.Hunt, plot 18

No.11 Geoffrey Banyard, 1931, plot 6,

No.12 Spalding and Myers, 1931, for Mr H.W.Hunt, plot 19

No.13 Geoffrey Banyard, 1931, plot 7

No.14 Spalding and Myers, 1931, for S.W.P.Steen, plot 20

No.15 Spalding and Myers, 1933, for Mr H.W.Hunt, plot 8

No.16 Spalding and Myers, 1931, initially for Mr H.W.Hunt but purchased by Toller Myers, plot 21

No.17 Spalding and Myers, 1933, for Mr H.W.Hunt, plot 9

No.18 Spalding and Myer, 1931, for Mr Denton Smith, plot 22

A first set of drawings (Feb 1931) for 22 and 23 by Banyard, both to the same design and not handed)

No.19 Spalding and Myers, 1933, for Mr H.W.Hunt, plot 10

No.20 Spalding and Myers, 1934, for Mr H.E. Ambrose, plot 23

No.21 Spalding and Myers, 1933, for Mr H.W.Hunt, plot 11

No.22 Spalding and Myers, 1931, for Mr H.W.Hunt, plot 24

No.23 Spalding and Myers, 1933, for Mr H.W.Hunt, plot 12

No.24 Spalding and Myers, 1934, for Mr H.W.Hunt, plot 25

No.25 A.S. Gorham, 1934, for O.Borer, plot 13

No.26 G. Alan Fortescue, 1932, for J.J.Dowson, plot 26

No.27 Spalding and Myers, 1934, for W.H.Hunt, plot 1 Barrow Road Extension

No.28 Spalding and Myers, 1934, W.H.Hunt, plot 13 Barrow Road Extension

No.29 Spalding and Myers, 1934, for W.H.Hunt, plot 2 Barrow Road Extension

No.30 Spalding and Myers, 1934, for W.H.Hunt, plot 14 Barrow Road Extension

No.31 Spalding and Myers, 1934, for W.H.Hunt, plot 3 Barrow Road Extension

No.32 Spalding and Myers, 1936, plot 15 Barrow Road Extension

No.33 Spalding and Myers, 1936, for W.H.Hunt, plot 4 Barrow Road Extension

No.35 Spalding and Myers, 1938, plot 6a Barrow Road Extension

No.36 Spalding and Myers 1937, for C.F.Morley, no plot number

No.34 Roberts and Clark, 1955, for David and Leonie Mumford

This is believed to be originally the plot occupied by Baynard Lodge which appears on Ordnance Survey maps before WWII. The Lodge was owned by the Hon Mrs Kathleen Mary de Beaumont and advertised for sale in June 1953. A very small-scale plan of Baynard Lodge still appears on the site plan for the alterations to No. 47 in 1953.

No.37 Spalding and Myer, 1935, plot 7

No.39 Spalding and Myers 1935, plot 8

No.41 Spalding and Myers 1935, plot 9

No.43 Spalding and Myers 1935, for Toller Myers, plot 10

No.45 Spalding and Myers 1935, plot 11

No.47 Spalding and Myers 1935, plot 12

1 Barrow Close Spalding and Myers, 1939, plot 6 Barrow Road Extension

2 Barrow Close Spalding and Myers, 1939, plot 5 Barrow Road Extension

The Architects Working on the Road

Inter-war

Reginald Henry Spalding (died 1945) and Norman Toller Myers (died 1956) FRIBA, Norwich Union Chambers, St Andrews St. and 12 New Court St, Lincoln's Inn, London;

Geoffrey Banyard, ARIBA, 4a Market St, Cambridge;

A.S. Gorham, Architect AIAA;

G. Alan Fortescue, FRIBA, 30 Bedford Square, London

Post-war

David Roberts (died 1982) FRIBA and Geoffrey Clarke (died 19) FRIBA

The RIBA Library holds a short biography of all except Gorham.

Appendix III: The Garden City Movement

Named after the book, *Garden Cities of Tomorrow* (1902) by Ebenezer Howard, the goals of the early movement, a mixture of utopian idealism and pragmatic accounting, were to build around cities like London a series of satellite cities whose design would combine the irresistible advantages of both town and country which, by attracting the population away from existing cities, would permit of their eventual reform.

The first Garden City planned on these lines was started at Letchworth in 1903 to the designs of Raymond Unwin and Barry Parker. However, from 1906 with his involvement in the construction of Hampstead Garden Suburb, Unwin broke with the purists of the movement and their

insistence on the building of independent satellite towns. Built in conjunction with Edwin Lutyens under the provisions of the first Town and Country Planning Act (1909), Hampstead Garden suburb, with its Arts and Crafts architecture, low density housing and generous leafy streets, set the pattern for future suburban design. The approach adopted by Unwin was widely publicized by his book, *Town Planning in Practice* (1909) which codified the experience that he acquired from working at New Earswick (York), Letchworth and Hampstead and became in effect the manual for that surge of suburban development encouraged by the growth of suburban railways and permitted by the new planning legislation.

After WWI the Garden City ideal proved in Unwin's hands to be as adaptable and as influential as ever. First, as the secretary to the government's war-time committee responsible for the form of post-war housing to be built by local authorities and then, from 1919 to 1928, as chief architectural advisor to the Ministry of Health, Unwin ensured that the cottage housing built by the state after 1919 would be laid out on low-density Garden Suburb lines. The quality of these developments in turn did much to persuade private developers to abandon the narrow frontage, deep plan layouts of the by-law street for the wide-frontage houses of the inter-war suburbs.

Appendix IV: The Architecture of the Arts and Crafts

The Arts and Crafts movement began in Britain in the mid 19th century as a reaction, inspired by the writings of Pugin, Ruskin and William Morris, against the established classical and academic conventions in the arts, design and architecture. These, they argued, could only be reformed by transforming contemporary methods of production and the social and economic context which promoted them.

The immediate influence of these ideas on architecture is exemplified by the Red House, designed in 1859 for William Morris by Phillip Webb, that showed how the Gothic Revival style might be simplified and softened to produce an

approach that avoided the formulae of the established styles. In place of classical symmetry, buildings were to be planned to suit their functions and form was to be based on the correct use of simple materials and vernacular forms of building. By the turn of the century, in the hands of architects like Lethaby, Ashbee, Voysey, Baillie Scott or Lutyens, the Arts and Crafts, with its freedom of planning and composition, provided an extraordinarily flexible architectural idiom as much at home in Hampstead Garden suburb as it was on the shore of Lake Windemere.

In the inter-war years the Arts and Crafts

was welcomed as the chosen style for Britain's burgeoning suburbs. At a modest scale, it was as suitable for the council houses, the 'Homes for Heroes', built by local authorities, as it was for the houses built by private enterprise. That 'Toller' Meyer should have used it for Trinity's new houses on Barrow Road is a reminder of how comfortably it could be adapted to the informality of middle class life in the Cambridge suburbs.

This page is intentionally left blank



To Executive Councillor for Environment & Waste
Report by Director of Environment and Head of Finance
Relevant Scrutiny Environment 28 June 2016
Committee

2015/16 Revenue and Capital Outturn, Carry Forwards and Significant Variances – Environment & Waste Portfolio

Key Decision

1. Executive summary

1.1 This report presents, for the Environment & Waste Portfolio :

- a) A summary of actual income and expenditure compared to the final budget for 2015/16 (outturn position)
- b) Revenue and capital budget variances with explanations
- c) Specific requests to carry forward funding available from budget underspends into 2016/17.

2. Recommendations

The Executive Councillor is recommended to request that the Executive Councillor for Finance and Resources, at the Strategy and Resources Scrutiny Committee on 4 July 2016, approves the following:

- a) Carry forward requests of £418k capital resources from 2015/16 to 2016/17 to fund rephased net capital spending, as detailed in **Appendix D**.

3. Background

Revenue Outturn

- 3.1 The overall revenue budget outturn position for the Environment & Waste Portfolio is given in the table below. Detail, by service grouping, is presented in **Appendix A**.

2014/15 £'000	Environment & Waste Portfolio Revenue Summary	2015/16 £'000	% Final Budget
8,447	Original Budget	7,823	98.2
-	Adjustment – Prior Year Carry Forwards	96	1.2
-	Adjustment – Service Restructure Costs	(7)	(0.1)
-	Adjustment – Earmarked Reserves	0	0.0
-	Adjustment – Capital Charges	5	0.1
-	Adjustment – Central & Support reallocations	45	0.6
(374)	Other Adjustments	0	0.0
8,073	Final Budget	7,962	100.0
7,776	Outturn	7,728	97.1
(297)	(Under) / Overspend for the year	(234)	(2.9)
96	Carry Forward Requests	0	0.0
(201)	Resulting Variance	(234)	(2.9)

- 3.2 **Appendix A** shows original and final budgets for the year (with the movements summarised in the above table) and compares the final budget with the outturn position for this Portfolio for 2015/16. The original revenue budget for 2015/16 was approved by the Executive Councillor for Environment & Waste on 13 January 2015.
- 3.3 **Appendix B** provides explanations of the main variances.
- 3.4 **Appendix C** lists revenue carry forward requests for which there are none for this portfolio.

Capital Outturn

- 3.5 The overall capital budget outturn position for the Environment & Waste Portfolio is given in the table below. **Appendix D** shows the outturn position by scheme and programme with explanations of variances.

2014/15 £'000	Environment & Waste Portfolio Capital Summary	2015/16 £'000	% Final Budget
1,411	Final Budget	1,566	100.0
874	Outturn	1,186	75.7
(537)	Variation - (Under)/Overspend for the year	(380)	(24.3)
537	Rephasing Requests	418	26.7
0	Variance	38	2.4

4. Implications

- 4.1 The net variance from the final budget (see above), would result in a decreased use of General Fund reserves of £234k.
- 4.2 A decision not to approve a carry forward request may impact on officers' ability to deliver the service or scheme in question and this could have staffing, equality and poverty, environmental, procurement, consultation and communication and/or community safety implications.

5. Background papers

- Closedown Working Files 2015/16
- Directors' Variance Explanations – March 2016
- Capital Monitoring Reports – March 2016
- Budgetary Control Reports to 31 March 2016

6. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Authors' Names: Karen Whyatt; Jackie Collinwood
Authors' Phone Numbers: 01223 - 458145; 01223 - 458241
karen.whyatt@cambridge.gov.uk
Authors' Emails: jackie.collinwood@cambridge.gov.uk

Environment & Waste Portfolio / Environment Scrutiny Committee

Revenue Budget 2015/16 - Outturn

Service Grouping	Original Budget £	Final Budget £	Outturn £	Variation Increase / (Decrease) £	Carry Forward Requests - see Appendix C £	Net Variance £
Environment - Environmental Services						
Control of Disease	114,520	111,960	104,910	(7,050)		(7,050)
Out of Hours	150,860	150,860	136,357	(14,503)		(14,503)
Scientific Team	390,960	398,960	374,793	(24,167)		(24,167)
Food and Occupational Safety	463,790	464,380	415,288	(49,092)		(49,092)
Enforcement	168,910	168,910	161,808	(7,102)		(7,102)
Residential Statutory Notice	70,630	70,630	72,163	1,533		1,533
Food & Occupation - Income Generation	(8,250)	(8,840)	(7,017)	1,823		1,823
Enforcement - Income Generation	(8,240)	(8,240)	(2,337)	5,903		5,903
Cambridge University Funded EHO post	0	0	9,674	9,674		9,674
	1,343,180	1,348,620	1,265,639	(82,981)	0	(82,981)
Environment - Licensing						
Liquor Licensing	(70)	(70)	(9,662)	(9,592)		(9,592)
Gambling Act	(100)	0	0	0		0
Miscellaneous Licensing	(40)	0	0	0		0
Private Hire Vehicles	0	0	0	0		0
Taxis	0	0	0	0		0
	(210)	(70)	(9,662)	(9,592)	0	(9,592)
Environment - Streets and Open Spaces						
Rangers	399,880	405,380	376,741	(28,639)		(28,639)
Abandoned Vehicles	0	0	0	0		0
Public Realm Enforcement	342,190	358,180	352,978	(5,202)		(5,202)
Control of Dogs	87,900	103,970	97,391	(6,579)		(6,579)
Public Toilets	0	532,750	479,721	(53,029)		(53,029)
Toilet Cleaning - Direct	604,020	121,830	217,384	95,554		95,554
Street Cleansing	2,224,310	2,277,020	2,156,174	(120,846)		(120,846)
Grounds Maintenance	0	0	0	0		0
	3,658,300	3,799,130	3,680,389	(118,741)	0	(118,741)
Environment - Waste & Recycling						
Green Waste Recycling	912,360	854,720	846,360	(8,360)		(8,360)
Domestic Refuse	850,360	922,350	916,472	(5,878)		(5,878)
Domestic Special Collections	(70,860)	(80,310)	5,937	86,247		86,247
Trade Refuse	(409,310)	(393,770)	(499,460)	(105,690)		(105,690)
Trade Waste Bulky Collections	15,740	3,760	(22,331)	(26,091)		(26,091)
Dry Recycling	659,650	674,940	688,257	13,317		13,317
Clinical Waste	(3,820)	(3,820)	(4,367)	(547)		(547)
College/Bring Bank Recycling	0	0	0	0		0
Bin Deliveries	51,540	52,540	51,168	(1,372)		(1,372)
Fleet Direct	0	0	0	0		0
Garage External Work	43,600	37,280	42,375	5,095		5,095
Recycling Strategy	(75,070)	(40,390)	(87,525)	(47,135)	0	(47,135)
Waste Development	230,610	214,430	220,388	5,958		5,958
Shared Waste Implementation Costs	46,740	44,930	125,571	80,641		80,641
	2,251,540	2,286,660	2,282,845	(3,815)	0	(3,815)
Environment - Service & Dept Management						
Refuse & Environment Operational Support	570,220	527,370	508,577	(18,793)		(18,793)
Head of Streets and Open Spaces	0	0	0	0		0
	570,220	527,370	508,577	(18,793)	0	(18,793)
Total Net Budget	7,823,030	7,961,710	7,727,788	(233,922)	0	(233,922)

Changes between original and final budgets may be made to reflect:

- portfolio and departmental restructuring
- approved budget carry forwards from the previous financial year
- technical adjustments, including changes to the capital accounting regime
- virements approved under the Council's constitution
- additional external revenue funding not originally budgeted

and are detailed and approved:

- in the January committee cycle (as part of the Budget-Setting Report)
- in the June/July committee cycle (outturn reporting and carry forward requests)
- in September (as part of the Mid-year Financial Review, MFR)
- via technical adjustments/virements throughout the year

Environment & Waste Portfolio / Environment Scrutiny Committee

Revenue Budget 2015/16 - Major Variances from Final Revenue Budgets

Cost Centre	Reason for Variance	Amount £	Contact
	Environment - Environmental Services		
Scientific Team	There are two main reasons for this underspend. Firstly funds to deal with a specific potential contaminated land issue were carried forward from 14/15. This issue was resolved without substantial expenditure on our part and so no further carry forward is requested. This accounts for £15,631 of the variance. Also additional income was received for Planning Performance Agreements and Air Quality Services.	(24,167)	Jo Dicks
Food and Occupational Safety	The underspend is due to two staff vacancies and the reduction of hours by 1 officer.	(49,092)	Frank Harrison
	Environment - Streets and Open Spaces		
Rangers	Underspend due to part year staff vacancies	(28,639)	Wendy Young
Public Toilets	Expenditure budget for programmed works is for twelve months with only ten months of actual charges - linked to the toilet cleaning cost centre which holds the first two months worth of costs	(53,029)	Anthony French
Toilet Cleaning	Linked to the Public Toilets cost centre - this represents the first two months of costs prior to the transfer to CCS	95,554	Don Blair
Street Cleansing	Variance relates to additional income (£60k) from Cbid and underspends on staffing, fleet maintenance and subcontractors	(120,846)	Don Blair
	Environment - Waste and Recycling		
Domestic Special Collections	A budget saving of £90k was approved to review bulky waste in 2015-16. The project to realise this saving could not commence due to resource constraints and pressures of other changes within the service. The saving was deleted for 2016-17 onwards in the October 2015 MFR.	86,247	Simon Payne
Trade Refuse	Income was higher than budgeted for largely due to new contracts (230k). This was partly offset by additional expenditure on bin purchase and refurbishment (77k) and gate fee and waste disposal charges (37k). Budget bids were approved to take account of these variances in 2016-17.	(105,690)	Greg Hutton-Squire
Trade Waste Bulky Collections	The variance is mainly due to increased income.	(26,091)	Greg Hutton-Squire
Recycling Strategy	The variance is due to increased recycling credit income and an underspend on the purchase of bins budget.	(47,135)	Simon Payne
Shared Waste Implementation Costs	The shared waste implementation budget was overspent largely due to the delay in appointing the new shared head of service plus other costs that were greater than expected and were not covered by the efficiency fund budget that was allocated to the project.	80,641	Simon Payne
Other		(41,675)	-
Total		(233,922)	

Environment & Waste Portfolio / Environment Scrutiny Committee**Revenue Budget 2015/16 - Carry Forward Requests**

Request to Carry Forward Budgets from 2015/16 into 2016/17

Item	Reason for Carry Forward Request	Amount £	Contact
	No carry forwards are requested for this portfolio		
	Total Carry Forward Requests for Environmental & Waste Services Portfolio / Environment Scrutiny Committee		

Environment and Waste Portfolio / Environment Scrutiny Committee

Capital Budget 2015/16 - Outturn

Capital Ref	Description	Lead Officer	Original Budget 2015/16 £000	Final Budget 2015/16 £000	Outturn £000	Variance - Outturn compared to Final Budget £000	Rephase Spend £000	Over / (Under) Spend £000	Variance Explanation / Comments
SC588	NW Cambridge Development Underground Collection Vehicle	Simon Payne	210	210	0	(210)	210	0	Vehicle order now place (136719) awaiting confirmation of deliver date, expected sept/Oct. 2016. Total cost of vehicle 265k. 108k to be reclaimed from the university on delivery
SC607	Fleet Maintenance & Management Service at Waterbeach	David Cox	0	34	0	(34)	34	0	Original budget bid was based on a 1 April 2016 occupancy at the Waterbeach garage. This has now slipped to early 2016/17 so a rephase of the budget is requested.
Total Projects			210	244	0	(244)	244	0	
PR016	Public Conveniences	Alistair Wilson	0	41	11	(30)	30	0	Final account for Lion Yard refurbishment still to be agreed. Business Case for Silver St. upgrade under development following options shortlisting Exec Cllr & Env Scrut C'tee March 2016. Public consultation anticipated Summer 2016.
Total Provisions			0	41	11	(30)	30	0	
PR017	Vehicle Replacement Programme	David Cox	597	1,027	1,065	38	0	38	Overspend due to individual cost of one Refuse Collection Vehicle (fleet 238) being greater than expected
PR028	Litter Bin Replacement Programme	Don Blair	125	132	18	(114)	114	0	Litter bin replacement programme is on-going for 2016/17
PR035	Waste & Recycling Bins - New Developments (S106)	Simon Payne	78	122	92	(30)	30	0	The original budget was based on the housing trajectory at the time of setting the budget however the actual build out profile differed.
Total Programmes			800	1,281	1,175	(106)	144	38	
								0	
Total for Environmental and Waste Services Portfolio			1,010	1,566	1,186	(380)	418	38	

Changes between original and final budgets may be made to reflect:

- rephased capital spend from the previous financial year
- rephased capital spend into future financial periods
- approval of new capital programmes and projects

and are detailed and approved:

- in the June/July committee cycle (outturn reporting and carry forward requests)
- in September (as part of the Mid-year Financial Review, MFR)
- in the January committee cycle (as part of the Budget-Setting Report, BSR)

This page is intentionally left blank



To: Executive Councillor for Environment and Waste
Report by: Director of Environment
Relevant scrutiny committee: Environment 28/06/2016
Wards affected: All

Shared Waste Service: Performance and Policies Developments Non-Key Decision

1. Executive summary

- 1.1 The Single Shared Waste Service (SSWS) between Cambridge City Council and South Cambridgeshire DC (SCDC) was designed to facilitate financial savings, greater innovation, increased recycling performance and lower landfill. This report outlines performance and policy measures that can be taken in the current year to contribute to delivering on those objectives.
- 1.2 A further report will be brought for Members' decisions in January 2017 relating to the commissioning of a harmonised vehicle fleet operating for both councils.

2. Recommendations

The Executive Councillor is recommended to:

- 2.1 Approve aggregation of recycling and waste performance with South Cambridgeshire DC for official reporting to the Government's national Waste Data Flow system.
- 2.2 Authorise improvements in the Council's policies to make recycling even easier for residents, and discourage landfill waste, as follows: -
 - a) Permit residents to put out reasonable amounts of recyclates for collection next to the recycling bin if it is already full, and put in place arrangements and communicate with residents to allow implementation from 3 October 2016.

- b) Explore opportunities within existing budgets to assist residents in reducing landfill waste, and increasing recycling, particularly packaging, food/organics, textiles and real Christmas trees.
- c) Households of at least six people, or at least two children of nappy age, may qualify on application (and subject to ongoing qualification) for an additional residual waste bin of 140 litre capacity with a red lid. Existing 240 litre additional residual waste bins with red lids will be surveyed to establish continuing qualification and, if approved, be replaced with 140 litre bins in due course.
- d) Remove administration charges for additional residual waste bins on the basis that only households that qualify may receive an additional bin (at no charge).
- e) Remove the charges to residents for the replacement of damaged residual waste bins (black bins) thus ensuring there are no charges for damaged bins for recycling, green waste or residual services.
- f) Remove the need for residents to secure Police Incident Numbers (PINs) in relation to stolen bins, and remove the charges to residents for stolen residual waste bins (black bins).

3. Report

- 3.1 The Single Shared Waste Service (SSWS) between Cambridge City Council and South Cambridgeshire DC (SCDC) came into being in November 2015. This comprised co-location of the two councils' vehicle fleets and staff at the Waterbeach Depot.
- 3.2 The top tier of management for the SSWS has been re-organised. The new Head of Waste Resources came into post this year, and the two supporting senior managers in July 2015.
- 3.3 The commercial services staff of both councils transferred line management responsibility to the Head of Waste Resources on 16 May 2016.
- 3.4 The SSWS Board is taking forward a range of projects to deliver £700k of efficiency savings over three years (2015/16 to 2017/18). Savings are being shared equally between the two councils. £120k was saved in 2015/16. The SSWS is on target to save £300k in 2016/17. The remaining £300k (of the £700k) is due in 2017/18.

- 3.5 The councils' decisions to create the SSWS open the door to cross-border working of vehicle fleets. Modelling work is underway to assess technical logistics, and resultant financial benefits. Plans are progressing to facilitate cross-border working in the current financial year wherever possible – particularly with the collections of green garden waste and residual waste. Plans for cross-border working on recycling services are being taken forward with a view to implementation in 2017.

Aggregated Performance Reporting

- 3.6 An inevitability of cross-border working is that it will not be possible to assign tonnages collected in all vehicles to one council or the other. In terms of official reporting of statistics to the national Waste Data Flow system operated by Defra, reported performance will be on the basis of the SSWS under the name of Cambridge City and South Cambs Councils. This will take effect at the latest from 1st April 2017.
- 3.7 However, Defra is willing to facilitate the change now. This enables both councils to secure efficiency savings through cross border working in the current financial year rather than to wait until next year.
- 3.8 A major benefit from aggregating performance, consistent with the SSWS ethos, is that both councils will be recorded as exceeding recycling rates of 50%+. This means both councils will have reached the national target of 50% in 2020 several years early.
- 3.9 All UK councils that reach/exceed 50% in 2020 will be best placed to avoid any fines that are required by the Government from local authorities as included in the Localism Act 2011.
- 3.10 The recommendation to Members is to agree performance reporting on an aggregated basis with effect from 1st April 2016, which Defra is willing to support.

Increasing Recycling, Reducing Landfill

- 3.11 Members will be aware the overall costs to councils, and taxpayers, of recycling are generally lower than for landfill. In large part this is because Waste Disposal Authorities (such as the County Council) have to pay the Landfill Tax to HM Treasury of £84.40 per tonne. This tax is on top of all collection, haulage and treatment costs. Whilst the tax is not borne by the City Council it is right we consider whole system costs to the taxpayer and take action to reduce overall costs wherever possible.

3.12 Increasing the amount of household waste recycled is a major way to reduce landfill, and thus reduce costs. As costs and the legislative framework change over time, it is right that the Council reviews policies to ensure they are up-to-date in encouraging residents to recycle. Additionally, the creation of the SSWS allows Members to consider harmonising policies at the current time.

3.13 Practical policy measures include: -

- a) Allowing residents to put out reasonable amounts of recyclates along side recycling bins if they are already full (this is called side recycling). This policy has been in place at SCDC for some time where the evidence is that residents tend to make use of the side recycling policy at seasonal times of year (e.g. Amazon packaging at Christmas) or after special occasions (e.g. glass bottles). Allowing side recycling rather than the Council needing to promote (and pay for) additional recycling bins is better value for taxpayers. It also means residents do not need to have two recycling bins if space is at a premium, and their need for side recycling is occasional. Members are asked to agree an implementation date of 3 October 2016 in order to put in place internal arrangements and communicate with residents.
- b) Exploring options to further increase the capture of recyclable packaging, food/organics, textiles throughout the year, and real Christmas trees (December/January). Officers of both councils will work together, and with the wider RECAP¹ Partnership, to put in place practical initiatives that help deliver greater recycling capture within existing budgets.
- c) Households with six or more people, or two or more children of nappy age, can qualify (on application) for a second residual waste bin. Whilst the provision of a second bin will remain, the size of bin tends to encourage greater landfill waste rather than recycling. Thus, all new applications for a second residual waste bin, if they qualify, will be provided with a 140 litre bin rather than a 240 litre bin. This will still mean such households have 50% greater residual waste capacity than the vast majority of households. For the 1,200 current households with second bins, work will be taken forward to ensure households still qualify and, if so, to replace the 240 litre bins with 140 litre over time.

¹ Recycle for Cambridgeshire and Peterborough. The RECAP Partnership comprises all seven district, county and unitary councils.

Removal of Charges to Residents

3.14 A number of charges to residents have been reviewed. For a variety of reasons, it is recommended that these are removed in the following areas: -

- a) Charges for additional residual waste bins will be removed. Currently these are £50 for a 240 litre bin or £25 for a 140 litre bin. Only those households that qualify for an additional bin will receive one (and free of charge). Households that do not qualify will not be able to increase their residual waste by purchasing an additional bin. Instead, households are encouraged to make appropriate use of their recycling bin as the vast majority of households should not need 240 litres of residual capacity a fortnight.
- b) The Council currently charges residents £50 for replacement residual waste bins (240 litre) or £25 (140 litre) if they are significantly damaged. There are no similar charges for green garden waste bins or recycling bins. Thus, bringing the policy into a common position so that no residents are charged for replacement of damaged bins is appropriate.
- c) The Council currently requires residents to gain Police Incident Numbers (PINs) in order to replace stolen bins of any kind. In addition, for residual waste bins only, the Council charges residents £50 for replacement. As PINs are no longer available for stolen bins, the Council needs to remove the requirement on residents. Additionally, bringing the charging policy into a common position such that residents are not charged for replacement of any stolen bins is appropriate.

3.15 It is recommended Members agree the proposals in paragraphs 3.6 to 3.14 to support aggregated performance, increase recycling rates and reduce landfill, and remove charges to residents as outlined.

4. Implications

(a) Financial Implications

All proposals will be contained within existing budgets.

(b) Staffing Implications

Discussions with staff and unions will take place on the collection of side recycling and the implementation date.

(c) **Equality and Poverty Implications**

All of the measures proposed in this report, including removal of charges, are likely to provide positive impacts for residents, particularly people among the protected characteristics in the Equality Act 2010. However, an Equalities Impact Assessment (EIA) will be taken forward as part of the implementation of the proposals.

(d) **Environmental Implications**

The recommendations will have a positive medium impact on climate change. Landfilled waste is known to be a high contributor to methane emissions in the UK. Increasing recycling, especially of organic waste, and reducing landfill, is beneficial.

(e) **Procurement**

There are no procurement implications arising from this report.

(f) **Consultation and communication**

A plan will be implemented to communicate improvements in recycling services, and removal of charges, to residents in due course.

(g) **Community Safety**

There are no implications as a result of this report.

5. Background papers

None

6. Appendices

None

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name: Paul Vanston, Head of Waste Resources
Author's Phone Number: 01954 713154
Author's Email: paul.vanston@scambs.gov.uk



To: Executive Councillor for Environment and Waste,
Councillor Peter Roberts

Report by: Head of Legal Services and Head of Streets and
Open Spaces

Relevant scrutiny Environment Services Scrutiny 20/6/2016
committee: Committee

Wards affected: Abbey, Market, West Chesterton

FINDING OF FAULT WITHOUT INJUSTICE BY THE LOCAL GOVERNMENT OMBUDSMAN RELATING TO A MOORING LICENCE Not a Key Decision

1. Executive summary

1.1 The Local Government Ombudsman has upheld a complaint relating to the provision of temporary accommodation. The LGO found that Council was not at fault in refusing to grant Mr Y a second sole residential license permitting him to use its riverside moorings after he separated from his partner. It was at fault through delay in considering his representations about the matter. But, he was able to continue living on the river during this period. So, he did not suffer significant injustice.

1.2 In these circumstances, the Head of Legal Services, as the Council's Monitoring Officer, has an obligation to report the findings to the Executive. The Executive is obliged to set out what action has already been taken in respect of the findings, what action it intends to take and the reasons for taking the action.

1.3 This report summarises the complaint and sets out the action taken in response.

1.4 The Executive Councillor is asked to consider the action taken and to decide whether it is adequate or whether further steps should be taken.

1.5 The full report is appended.

2. Recommendations

The Executive Councillor is recommended:

To endorse the actions taken by officers in response to the finding of the Local Government Ombudsman.

3. The Complaint and the Ombudsman's Decision

3.1 The complaint

The complainant, referred to as Mr Y, complained that the Council:

a) had wrongly denied advising him that a residential mooring license held jointly by a married/cohabiting couple could be split into two separate licenses if they separated;

b) had failed to properly consider his appeal against the Council's refusal to grant him a sole license for the boat on which he now lives; and

c) had failed to take effective enforcement action against widespread noncompliance by other license holders with the terms of their agreements.

3.2 The Ombudsman's final decision

The Ombudsman's final decision in respect of a) was that, as the Investigator acting on behalf of the Ombudsman had not seen evidence that the Council told Mr Y it would grant him a second sole license if he separated from his partner, he could not conclude that the Council was at fault in relation to this point.

The Ombudsman's report concludes, in respect of b), that the Council's way of considering Mr Y's appeal was adequate. The Investigator found that there was delay in responding to contact from Mr Y regarding the grant of a sole licence. He also noted that It took almost six months for the Council to decide Mr Y's appeal. There was delay by both Mr Y and the Council. While the Investigator considers that the Council's delay amounted to fault, he does not consider that this caused Mr Y significant injustice.

The Investigator did not consider part c) of Mr Y's complaint because:

- Mr Y raised this issue in an earlier complaint to the Ombudsman;
 - She decided she would not pursue this issue in the absence of injustice to Mr Y;
- and

- The Ombudsman will not reconsider a complaint about which she has already made a decision in the absence of new evidence.

4. Response to the Ombudsman's findings

Officers have amended the Mooring Licence to reflect the advice given by the Ombudsman. The Licence now clarifies the position where a joint licence has been terminated, whether by notice or by surrender, because one or more of the licence holders has ceased to occupy the boat as their only permanent residence.

The Council may in the Council's absolute discretion grant a further licence to one of the former licence holders provided that they are continuing to occupy the boat as their only permanent residence. The Council shall be under no obligation to grant a further licence.

Anyone aggrieved by the Council's decision not to grant them a further licence following termination of a joint licence may appeal in writing to the Executive Councillor for Environment and Waste. The Council must receive the appeal within 10 days of the date of the Council's decision.

5. Implications

- (a) **Financial Implications** There are no financial implications.
- (b) **Staffing Implications** There are no staffing implications.
- (c) **Equality and Poverty Implications** There are no equality or poverty implications.
- (d) **Environmental Implications** There are no environmental implications.
- (e) **Procurement** There are no procurement implications.
- (f) **Consultation and communication** The Monitoring Officer is obliged to consult the Head of Paid Service (Chief Executive) and the Chief Finance Officer (Head of Finance) in preparing this report, and has done so.
- (g) **Community Safety** There are no community safety implications.

6. Background papers

The Ombudsman decision letter is appended to this report. There are no other background papers.

7. Appendices

The Local Government Ombudsman's decision letter.

8. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name:	Alistair Wilson
Author's Phone Number:	01223 - 458514
Author's Email:	alistair.wilson@cambridge.gov.uk

Complaint reference:
15 002 420

Complaint against:
Cambridge City Council

The Ombudsman's decision

Summary: The Council was not at fault in refusing to grant Mr Y a second sole residential license permitting him to use its riverside moorings after he separated from his partner. It was at fault through delay in considering his representations about the matter. But, he was able to continue living on the river during this period. So, he did not suffer significant injustice.

The complaint

1. The complainant, to whom I shall refer as Mr Y, complained that the Council:
 - a) has wrongly denied advising him that a residential mooring license held jointly by a married/cohabiting couple could be split into two separate licenses if they separated;
 - b) failed to properly consider his appeal against the Council's refusal to grant him a sole license for the boat on which he now lives; and
 - c) has failed to take effective enforcement action against widespread non-compliance by other license holders with the terms of their agreements.

What I have investigated

2. The Ombudsman considered a previous complaint from Mr Y about the same issues in 2014. The information Mr Y provided in re-submitting his complaint has persuaded me that I should reconsider parts a) and b) of this.
3. I comment in my paragraph 36 below on part c) of Mr Y's complaint, which I have not considered.

The Ombudsman's role and powers

4. The Ombudsman investigates complaints of injustice caused by maladministration and service failure. I have used the word fault to refer to these. The Ombudsman cannot question whether a council's decision is right or wrong simply because the complainant disagrees with it. She must consider whether there was fault in the way the decision was reached. (*Local Government Act 1974, section 34(3)*)
5. If the Ombudsman is satisfied with a council's actions or proposed actions, she can complete her investigation and issue a decision statement. (*Local Government Act 1974, section 30(1B) and 34H(i)*)

How I considered this complaint

6. I have read all the documents submitted by both Mr Y and the Council. The history and correspondence associated with this case is clearly extensive and detailed, but I have only found it necessary to include a summary of the main events below.
7. I have written to Mr Y and the Council with my draft decision and considered their comments.

What I found

Joint and Sole License Holder policy

8. With regard to moving from a joint to a sole license, the policy says only that: “where one of the tenants may wish to remain in the property, the request for a sole tenancy should be considered by the Head of Streets and Open Spaces before the remaining tenant is required to give Notice to Quit.”

Residential mooring license terms and conditions

9. At paragraph 7.3 the terms and conditions accompanying the residential mooring license agreement say only that: “the boat must be the Licensee’s only permanent residence, and the Licensee must notify the Council as soon as the boat ceases to be his only permanent residence.”

Background

10. The Council granted Mr Y and his then partner a narrow beam residential mooring licence in mid-February 2013. This ran to the end of March 2014. (The normal renewal date was 1 April each year.)
11. Mr Y said that when he and his former partner first signed up as license holders officers said they could convert their joint license to two sole licenses if they separated. There is no evidence that officers said this.
12. Mr Y said he first asked the Council for a separate residential mooring license in November 2013, when he and his partner split up.
13. Periodically, Mr Y telephoned the Council asking to convert the joint license to two sole licenses. When the officer he spoke to told him he could not do this, Mr Y asked to speak to her manager. The officer passed on his request, together with an account of the telephone conversation. I have not seen evidence that the manager did telephone Mr Y back.
14. Shortly afterwards Mr Y and his former partner renewed their joint license. Mr Y has always remained a joint residential license holder.

August 2014

15. In August Mr W told the Council in writing that he and his partner had split up. He asked for the residential mooring license to be split. He also:
 - complained that officers had not responded to his previous request to have the license split; and
 - asked about the Council’s decision to issue an additional narrow beam license to a named third party.

September 2014

16. Early in September the manager concerned responded to Mr Y’s complaints. He said officers had not told Mr Y that he and his former partner could split their joint

license into two separate ones. License holders could surrender a joint license in exchange for a sole license if they separated. But, it was a private matter for the licensees concerned as to which of them should remain on the boat. The Council could not adjudicate on such matters.

17. Mr Y remained dissatisfied and continued to pursue his complaint. So the Council appointed an independent Investigating officer to consider matters.

The Independent Investigating Officer's investigation

Findings

18. The Independent Investigating Officer said in early October:
- the Council's position that it should not adjudicate in what was essentially a private matter was a reasonable one. It was for the joint licensees involved to decide who should become the sole license holder;
 - if the Council issued sole licenses to both parties when a couple separated, this would disadvantage applicants on the waiting list, given that the Council had closed the waiting list due to over-subscription;
 - in the absence of recordings or independent witness evidence, she considered that Mr Y had misunderstood what his position would be in the event of a separation from his partner. On the balance of probabilities she thought it unlikely that officers would have told him something that contradicted all previous policy; and
 - on a previous occasion the Executive Councillor for the service area concerned had allowed a separating couple to have a second temporary sole residential license. This was to allow them time to resolve a child care issue. The Executive Councillor had considered that the circumstances were exceptional enough to justify this.

Recommendations

19. The Independent Investigating Officer recommended that:
- the Council should review its Residential Mooring License policy and agreement to clarify the position of separating couples. It should make clear that it would not grant a second license, and would only grant a sole license to one of the parties on surrender of their joint license;
 - the Council should also introduce a right of appeal for separating couples who considered their circumstances exceptional enough to justify the grant of two sole licenses;
 - the Executive Councillor should now consider Mr Y's personal circumstances; and
 - as the manager concerned had said he was willing to meet Mr Y, this meeting should take place as soon as possible.

The appeal against the refusal of a license

October - November 2014

20. Mr Y emailed the manager in late October to arrange a meeting with him. But, the manager was away from the office. So, the meeting could not take place until his return in early November.
21. Following the meeting, the manager wrote to Mr Y in late November. He said he had discussed matters with the Council's Chief Executive. She considered that Mr Y should write to the Executive Councillor setting out his request for a residential

mooring license. He said he would be happy to arrange a meeting between Mr Y and the Executive Councillor.

January - March 2015

22. In late January 2015 Mr Y emailed the manager asking him to arrange a meeting with the Executive Councillor. At the manager's request he provided a written statement early in February setting out the salient points of his case. These were that:
- the Council had previously granted an additional license to a separating couple;
 - he had previously waited for three years to obtain a license as part of a couple. He should not now have to re-apply and wait again;
 - in fact, he could not re-apply as the Council had closed the waiting list for narrow beam licenses; and
 - the Council was promoting an unfair system which made one half of a couple homeless when they only wished to continue with their chosen lifestyle.
23. The manager emailed Mr Y in late February to let him know he was pursuing matters. A month later, he emailed the Executive Councillor asking for a meeting with her to discuss Mr Y's appeal.

April 2015

24. Two weeks later, in early April, Mr Y asked the Lead Officer to move matters forward. The manager responded that he would try to arrange a meeting with the Executive Councillor during that week.
25. In mid-April, the manager emailed Mr Y's written appeal to the Executive Councillor, together with his draft response to the points Mr Y had made. The Executive Councillor confirmed that she was happy for the manager to send this to Mr Y.
26. The manager's letter:
- explained the circumstances in which the Council had previously issued a second sole license. He said that the Council was now taking enforcement action against the third party concerned, who no longer had a license;
 - repeated that the Council could not make the decision about who was to be the sole license holder when a couple no longer wished to hold a joint license;
 - said that the Council's Scrutiny Committee had approved the way in which the waiting list for residential moorings licenses operated; ie officers issued these in chronological order;
 - said that the Council had closed the narrow beam waiting list. It would re-open this when it considered it could offer existing applicants a license within 18 months;
 - Mr Y was currently 40th on the Council's wide beam waiting list;
 - in living on another boat moored on council land, Mr Y was in breach of the terms and conditions that applied to waiting list applicants. So, he could be removed from the waiting list.
27. The manager's letter also said that the Executive Councillor had instructed him:
- not to issue Mr Y with a (permanent) residential mooring license outside the Council's current policy;

-
- to issue Mr Y with a temporary license for eight weeks to allow him time to resolve matters with his former partner with regard to the change from a joint to a sole license. But, after this time, his current boat should be removed from the Council's moorings;
 - to offer assistance and advice with regard to the change from a joint to a sole license; and
 - to remove Mr Y from the wide beam waiting list, if he failed to move his boat from the Council's moorings. The Council would also take enforcement action in the County Court.

November 2015

28. The Council confirmed to Mr Y that as his former partner was giving up her boat and leaving the river, officers were willing to convert their joint residential mooring license to a sole license in his name.

Was there fault and, if so, did this cause injustice requiring a remedy?

29. As I have set out in my paragraph 6 above, it is not open to the Ombudsman to question the merits of the Council's decisions simply because a complainant disagrees with these. The Council was entitled to take the view that it would not convert a separating couple's joint license to two sole ones. I also share the Council's view that it is a private matter for the separating couple as to who should retain the license.
30. I have not seen evidence that the Council told Mr Y it would grant him a second sole license if he separated from his partner. So, I cannot conclude that the Council was at fault in relation to this point.
31. I have not seen evidence that the manager contacted Mr Y when he was asked to do so in April 2014. I share the Independent Investigating Officer's view that if he had done this, there would be a written record. So, on balance I consider this failure to reply was fault, But, I do not consider that Mr Y suffered significant injustice. If the manager had called Mr Y, the likely outcome would have been that events would have played out sooner, including the refusal of Mr Y's appeal and the prospect of enforcement action.
32. I have carefully considered the way in which the Council considered Mr Y's appeal. The information that the manager concerned put to the Executive Councillor consisted of Mr Y's written appeal case, together with the manager's draft letter refusing the appeal and giving reasons for the refusal. He asked the Executive Councillor to approve the draft. On balance, I accept that this way of considering appeals is adequate. Councillors frequently make decisions based on officers' reports either recommending approval or refusal. I consider that the key point was that the Executive Councillor had Mr Wright's written submission available to her.
33. It took almost six months for the Council to decide Mr Y's appeal. There was delay by both Mr Y and the Council. While I consider that the Council's delay amounted to fault, I do not consider that this caused Mr Y significant injustice. The Council left him in a position of uncertainty for longer than it should have done. But, I consider the fact that he was been able to continue living on the river, albeit without a license, outweighed this uncertainty.
34. I note that the Council has amended its residential mooring license and mooring agreement documents as the Independent Investigating Officer recommended.

Decision

35. As I do not consider that Mr Y suffered significant injustice through the Council's fault, I have completed my investigation.

Parts of the complaint that I did not investigate

36. I have not considered part c) of Mr Y's complaint because:
- Mr Y raised this issue in an earlier complaint to the Ombudsman;
 - she decided she would not pursue this issue in the absence of injustice to Mr Y; and
 - the Ombudsman will not reconsider a complaint about which she has already made a decision in the absence of new evidence.

Investigator's decision on behalf of the Ombudsman



To: Executive Councillor for Environment: Councillor Peter Roberts

Report by: Joel Carré, Head of Environmental Services

Relevant scrutiny committee: Environment 28/6/2016 Scrutiny Committee

Wards affected: Abbey Arbury Castle Cherry Hinton Coleridge East Chesterton King's Hedges Market Newnham Petersfield Queen Edith's Romsey Trumpington West Chesterton

FIXED PENALTY NOTICES (FPNs) FOR SMALL SCALE FLY TIPPING

Key Decision

1. Executive summary

The purposes of this report are:

- a) To inform the Executive Councillor and Scrutiny Committee Members of the new powers for small scale fly tipping that have come into force under The Unauthorised Deposit of Waste (Fixed Penalties) Regulations 2016 (the Regulations), which amend section 33 of the Environmental Protection Act 1990.
- b) To seek delegated authority to the Head of Environmental Services to introduce the new fixed penalties and to authorise the appropriate officers to issue fixed penalty notices (FPNs), under section 33ZA of the Environmental Protection Act 1990 (EPA), to persons whom the officer has reason to believe have committed a small scale fly tipping offence
- c) To seek authority to use the legal maximum FPN level of £400 for all small scale fly tipping offences and to give a discount of £240 (i.e. discounted fine value of £160) for early payment provided payment is made within 10 days of the date the FPN was issued.

2. Recommendations

The Executive Councillor is recommended to:

- a) Delegate authority to the Head of Environmental Services to introduce the new fixed penalties for the enforcement of small scale fly tipping offences and to authorise appropriate officers to issue these FPNs in accordance with section 33ZA of the Environmental Protection Act 1990.
- b) Adopt the legal maximum FPN level of £400 for all small scale fly tipping offences and to give discount for early payment of £240 (i.e. discounted fine value of £160) provided payment is made within 10 days of the date the FPN was issued.

3. Background

3.1 Fly tipping is a significant problem to local communities and a risk to the environment. It is a drain on council resources and undermines legitimate waste businesses, where unscrupulous operators undercut those that operate within the law. Prior to the introduction of the Regulations and subsequent FPN powers, the option for dealing with small scale fly tip cases was limited to prosecution when other formal action was not possible or suitable.

3.2 In 2014/15, local authorities reported 900,000 incidents of fly tipping, costing taxpayers in England an estimated £50 million to clear. In Cambridge, over the same 2014/15 period, there were 1056 reported incidents of fly tipping, which cost an estimated £76k to clear and dispose of. The costs to local authorities of investigating, bringing prosecutions, clearance and disposal of fly tipping are considerable. Where fines are issued, as a result of a successful prosecution, they are paid to the court and prosecuting authorities must seek to recover their costs through a separate process, which often can result in an award levels significantly less than the actual costs incurred for the investigation and prosecution. Evidence from local authorities has estimated that the average cost recovered from a successful fly tipping case prosecution is, on average, only 60% of actual cost of bringing the case to court.

3.3 The new 2016 Regulations amend section 33 of the Environmental Protection Act 1990 to give new powers to local authorities to deal with 'small scale fly tipping'¹. The Regulations also provide local authorities with a more efficient and proportionate response to fly tipping, i.e. the power to issue FPNs, instead of the current enforcement by prosecution

¹ Guidance from the Environment Agency refers to 'small scale fly tipping' as: "deposits of non-hazardous waste ranging from a more than a bin bag (approximately 100 litres) to volumes of waste less than 500 litres/0.5 m³ ("a car boot")" and can include like items such as pieces of broken furniture, old televisions and mattresses.

sole response option. The new Regulations also give local authorities the flexibility to set their own FPN rates for small scale fly tipping.

- 3.4 The intention is that the new fixed penalties will act as a deterrent to offenders; and that local authorities using them will see a decrease in the number of small scale fly tipping incidents and the number of prosecutions for fly tipping.
- 3.5 FPN's are an effective and visible way of dealing with low level environmental crime and will be supported by the public provided they are used sensibly, enforced fairly and are seen as a reasonable response to genuine problems.
- 3.6 The council has already approved the use of FPNs as an alternative to prosecutions when dealing with other environmental crimes including litter, dog fouling, illegal advertising and abandoned vehicles. These FPNs are issued by authorised officers within the Enforcement and Dog Warden teams of Streets and Open Spaces. The same authorised officers will be responsible for issuing FPNs for small scale fly tipping.
- 3.7 In accordance with the Environmental Protection Act 1990 and new Regulations, the income received by local authorities from FPN's has to be spent on functions relating to litter, dog fouling and cleansing. It is not to be used as a means of generating income for other uses.
- 3.8 In determining the appropriate levels of a fixed penalty for small scale fly tipping, the council will need to take into account the deterrent effect of different levels, peoples' readiness to pay and the levels of fines for fly tipping currently imposed in the magistrates' courts. Fixed penalties that are set too high for local conditions or are likely to be higher than the Court imposed fine in the event of non-payment, will lead to substantial non-payment rates and so are counter-productive,.
- 3.9 There is a set legal standard payment period of 14 days for the payment of fixed penalties. Once a fixed penalty notice has been issued, an authority cannot prosecute for the alleged offence if the fixed penalty is paid within this period, and this must be stated on the notice itself. For this reason, the period during which a discount for early payment is offered must be less than 14 days and in line with the Regulations cannot be more than 10 days. Again, this will be consistent with the standards set by other local authorities and the approach already in place for other environmental crime fixed penalty notices.
- 3.10 The new fixed penalty notices for small scale fly tipping will not be appropriate for operators in the waste management industry, repeat offenders or those responsible for large-scale fly tipping, or the fly tipping

of hazardous waste. These types of offences will continue to be enforced by prosecution in line with the Corporate Enforcement Policy.

3.11 The council's new FPN powers for small scale fly tipping will be used as part of the package of enforcement options available in accordance with the council's Corporate Enforcement Policy.

4. Implications

(a) Financial Implications

The use of FPNs has the potential of yielding a modest income. In accordance with the Regulations, FPN receipts will be used for the purpose of exercising functions to improve street cleanliness and enforcement of offences; it is not being regarded as an 'income generator'. It is not envisaged that the revenue generated from the fines will be significant, but it will reduce the need to pursue costly prosecution in some cases² and enable a more flexible approach in dealing with specific offences under the Environmental Protection Act 1990.

(b) Staffing Implications

The introduction and issuing of the new fixed penalties for small scale fly tipping will be achieved within existing resources.

(c) Equality and Poverty Implications

An EQIA has been completed please see attached appendix A.

The impact on businesses, charities or voluntary bodies is expected to be positive, as these proposals should act as a deterrent to fly tippers and help level the playing field for legitimate waste businesses.

(d) Environmental Implications

There are no adverse environmental implications. The introduction of FPNs for small scale fly tipping will deliver a net positive climate change impact, through the reduction in fly tipping and associated additional vehicle movements required to clear and dispose of it. A reduction in fly tipping will also deliver an increase in the quality of the local environment, a reduction in associated environmental pollution and contamination and associated improvements in public perception, health, civic pride and inward investment.

² The Validation Impact Assessment, that forms part of the new Regulation, indicates there is a potential saving of between £52 and £182 per case when issuing fixed penalties as an alternative to prosecution

(e) Procurement

No procurement is necessary for the introduction of FPNs for small scale fly tipping. Any procurement involved in delivering the associated enforcement service will be undertaken in accordance with the procurement and financial regulations of the council.

(f) Consultation and communication

FPNs are an accepted means of discharging liability to deal with small scale environmental crime and have been used by the council for almost 10 years.

The extension of the scope of environmental crime for which FPNs can be issued to include small scale fly tipping is now allowed through the 2016 Regulations. The Regulations have been set as a result of evidence obtained by Government, as set out in The Unauthorised Deposit of Waste (Fixed Penalties) Regulations 2016: Validation Impact Assessment (ref. Section 5 below).

To communicate the introduction of the new FPN powers, promotional literature will be developed and provided to council staff and members, builders merchants, public outlets (including community centres/ council receptions and libraries), Cambridge BID (for dissemination to its members), and advertised to the wider city community through news releases, social and web media and inclusion in fly tipping campaigns.

The departments and officers who will be responsible for the delivery of this enforcement procedure have been consulted.

(g) Community Safety

There are no adverse community safety implications. Improvements to personal accessibility and the wider public realm are likely to have a positive effect upon access and public safety.

5. Background papers

These background papers were used in the preparation of this report:

- Council's Corporate Enforcement Policy - <https://www.cambridge.gov.uk/content/enforcement-policy>
- Council Constitution - <https://www.cambridge.gov.uk/constitution>

- The Unauthorised Deposit of Waste (Fixed Penalties) Regulations 2016 - <http://www.legislation.gov.uk/uksi/2016/334/contents/made>
- Explanatory Memorandum to The Unauthorised Deposit of Waste (Fixed Penalties) Regulations 2016 - <http://www.legislation.gov.uk/uksi/2016/334/memorandum/contents>
- The Unauthorised Deposit of Waste (Fixed Penalties) Regulations 2016 Department for Environment, Food and Rural Affairs Regulatory Policy Committee - http://www.legislation.gov.uk/uksi/2016/334/pdfs/uksiod_20160334_en_001.pdf
- The Unauthorised Deposit of Waste (Fixed Penalties) Regulations 2016 Validation Impact Assessment - http://www.legislation.gov.uk/uksi/2016/334/pdfs/uksiod_20160334_en.pdf

6. Appendices

Appendix A: EqIA - Introduction of fixed penalty notices for small scale fly tipping

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name: Wendy Young
Author's Phone Number: 01223 - 458578
Author's Email: wendy.young@cambridge.gov.uk



To: Executive Councillor for Environment, Waste and Public Health: Councillor Peter Roberts
Report by: Joel Carré- Head of Environmental Services
Relevant committee: scrutiny Environment 28/6/2016
Scrutiny Committee
Wards affected: All

Encouraging the Shift to Low Emission Taxis.

Key Decision

1. Executive summary

There is a need to reduce polluting emissions to improve poor air quality in City Locations dominated by emissions from buses, taxis and service vehicles. This must be achieved whilst maintaining sufficient levels of access and capacity for travel in the City, for the vehicles using those areas.

This can only be achieved by intervening to ensure uptake of low emission technologies within those vehicle fleets. Evidence to support intervention was brought before Environment Scrutiny Committee for consideration in March 2015 alongside a set of headline proposals for a more detailed Air Quality Action Plan.

This report seeks to take forward one element of that plan relating to taxis. This follows a period of consultation, detailed planning and bid preparation for Central Government funds through the Office for Low Emission Vehicles (OLEV) to support these interventions.

Financial Support for rapid charging infrastructure has already been committed at Full Council in February 2016.

Further policy and fiscal commitment from within the Council is now needed to both support the bid and help effect the change to Low Emission Taxis over the next 5-10 years. This proposal has been presented to Environment Scrutiny Committee as there are revenue implications and the policy changes presented are a significant part of the proposed Air Quality Action Plan.

A series of options and costs are presented in this report, which will then be consulted upon alongside a wider review of Taxi Licensing policy. This will take place following a further report to July Licensing Committee. Following consultation, a further report with a fixed, detailed set of agreed policies will be put to Licensing Committee in October 2016 for adoption.

2. Recommendations

The Executive Councillor is recommended:

- To approve consultation with the trade and stakeholders on changes to taxi licensing policy to incentivise uptake of low emission taxis.
- To approve, in principle, revenue support to offset the reduction in income associated with the waiving of taxi license fees for low emission taxis.

3. Background

The City Council has already set policy direction for pursuing a low emission strategy for Buses and Taxis within Cambridge over the next 10 years through its outline Air Quality Action Plan presented to Environment Scrutiny Committee in March 2015.

In pursuance of this aim for Taxis, the Council's Environmental Quality and Growth team has taken forward a bid to Central Government Office for Low Emission Vehicles (OLEV) for funding to support rapid electric charging infrastructure for Taxis and to subsidise the purchase of new low emission, wheelchair accessible, Hackney Carriage Vehicles (HCV).

We have been successful in the first stage of that bid process by being one of eight local authorities to be granted a funded Taxi Scheme Feasibility Study for the introduction of ultra-low emission vehicles in Cambridge.

The Feasibility Study has recently been completed and has looked at Taxi Driver behaviour and attitudes towards Low Emission Vehicles, the need for and location of rapid charging infrastructure; the likely uptake of electric capable taxis for both Hackney Carriages and Private Hire Vehicles (PHV) under different scenarios and the local policy environment for taxi licensing. The report is attached as Appendix I

A successful second stage bid would provide funding for a minimum of four Rapid Charge Point installations but could provide funding for more than twenty in a high uptake scenario. The bid would also provide £3000 of additional grant funding per taxi on top of existing subsidies to discount the purchase price of new low-emission, wheelchair accessible HCV.

Whilst it is clear that, without effective infrastructure in place to allow charging of vehicles during an operational working day, there would be very little uptake for electric taxis. It is also clear from the report that the local policy and regulation of taxi licensing can drive the rate of change within the fleet. It is also implied in the Government's OLEV funding guidance that, when awarding funding for the main part of this bid, the ambition of local policies will be a crucial factor in OLEV's decision making on whom to fund.

Policy Proposals

With this in mind, discussions have taken place between the Council's licensing team, air quality officers, The Executive Councillor and Licensing Committee Chair and representatives of the taxi trade to determine the most effective policy incentives to bring about the most cost effective shift to Electric Taxis.

Some generally available subsidies for purchase of low emission electric vehicles are available to all currently (see below). Further subsidy of up to £3000 per vehicle will be made available for the purchase of electric, wheelchair accessible, HCV if our OLEV bid is successful.

Vehicles eligible for a Plug-In Grant – from March 2016 there will be different levels of grant for different vehicles. List of vehicles in Appendix 2.

- **Category 1**
CO₂ emissions less than 50g/km and zero emission range of at least 70 miles £4,500
- **Category 2**
CO₂ emissions less than 50g/km and zero emission range of 10 – 69 miles £2,500
- **Category 3**
CO₂ emissions 50 – 75g/km and zero emission range of at least 20 miles £2,500

Source: OLEV

These incentives will drive some uptake of Electric Vehicles, if infrastructure is in place but it is acknowledged that this alone will be slow.

A consensus has emerged from discussions between officers and the trade, that, in order to facilitate this change effectively, whilst maintaining the support of the Taxi Trade, a long term policy plan is needed which incentivises Electric Vehicle uptake in early years, rewarding early adopters, and that in the longer term new vehicles entering the taxi fleet will need to be Low Emission Hybrid or Electric Vehicles in order to receive a vehicle license.

The Air Quality Action Plan outlines a 10 year strategy to effect this change and this is in line with current age restrictions on the Cambridge taxi fleet which means that all current taxis will be replaced over the next 9 years.

Whilst there are a significant number of possible detailed policies, which could be implemented, the list below summarises the key categories of intervention, which could be made and an indication of where funding would come from. These key categories are proposed to form the basis of the policy options consultation, for which Executive Councillor approval is being sought.

Potential Incentives and Regulatory Policies

INCENTIVES

1. Renewal / Registration fee discount or exemption.

Currently a new Hackney Carriage (HCV) or Private Hire Vehicle (PHV) registration attracts an annual, £225 fee; an HCV license renewal costs £210; and renewal of a PHV costs £200.

It would be possible to reward those drivers who license an 'ultra-low emission' electric or plug in hybrid vehicle (ULEV) with a full fee exemption, for a period, to encourage early adoption. Discussion with licensing officers and trade representatives have

indicated that a period of up to five years would be an appropriate period in which to incentivise uptake.

We also seek to incentivise the uptake of established hybrid vehicles which have been shown to deliver significant emission benefits over diesel engines. A fee reduction for non-plug-in petrol/electric hybrids (not diesel) such as the Toyota Prius, Auris, Honda Insignia or Accord and others would encourage further uptake of these low emission vehicles, and reward those making the step.

A 50% fee reduction in these cases for both the existing (currently 31 in the fleet) and new vehicles is suggested. The suggestion of a 50% fee waiver acknowledges that standard hybrid vehicles will not have as much impact on emissions as will a full ULEV compliant vehicle but will encourage the shift away from Diesel whilst being simple to administer.

Both of the suggested incentives here have a financial cost as the Taxi licensing service is self-funded through the collection of fees. Any fees waived would need to be made up from general revenue funds. The implications for the suggested fee waiver are modelled below under Financial implications taking in to account the OLEV funded feasibility study (Appendix I) and our own data on fleet renewal rates.

Whilst the modelling is indicative of the likely uptake of low and ultra-low emission taxis it remains difficult to be certain how uptake will occur over time. For this reason a maximum funding cap covering the five year period is also proposed to give greater certainty over the financial commitment required.

2. Waive or extend age limit for ULEVs or Hybrids.

This policy measure changes the business case for Taxi drivers considerably, by allowing vehicle cost to be spread over 10 or more years rather than 8 or less. We would consider up to a 15 year age limit for fully electric vehicles (subject to roadworthiness etc.) and 10 years for petrol / electric hybrids which do have internal combustion engines.

This would be a cost free yet significantly attractive incentive for the trade.

3. Waive requirement for 6 month inspection

Currently we require all City Licensed cabs to be inspected at our garage twice a year this could be relaxed to one inspection per year, for example, for the first 5 years of operation.

There would be a loss of revenue to the City Council garage of £56 per exempted vehicle per year as a result of this suggested policy. This has been modelled for the expected uptake scenario in the financial implications section below.

4. Create an Electric Taxi only rank

This would need to be in a popular location or replace part of an existing all vehicle rank to be effective. It may need to be located to complement charging infrastructure, and only implemented once a suitable number of Electric Vehicles have entered the fleet. The costs would be partly met by a successful OLEV Bid but there is a cost to any Traffic Regulation Orders required.

5. Vehicle Purchase Subsidies for Electric vehicles

Details of currently available subsidies are set out in the table above – A successful OLEV Bid would provide an additional £3000 subsidy for purpose built electric Hackney Carriages, per vehicle.

6. Provision of ‘Rapid - Taxi Only’ charging infrastructure

An initial number of charging points would be funded by a successful bid to OLEV with further four locations funded through an existing City Council capital commitment.

REGULATORY POLICIES

7. Set date for all newly registered vehicles to be low or ultra-low emission

Setting a date after which traditional internal combustion engine taxis could not be newly registered as a PHV or HCV in Cambridge would focus the minds of Taxi drivers to plan for moving to electric or hybrid vehicles.

A sensible suggestion would be to set this for 5 years hence (say April 1st 2021) and phase out any fee exemptions at the same time. Five years notice will give the trade more than reasonable notice of the change and allow proper business planning.

8. Set date for all licensed taxi vehicles to be low or ultra-low emission

Setting a back stop date where all taxis licensed for operating in the City must be low or ultra-low emission vehicles. We would propose a date, 10 years hence (April 1st 2026).

Currently the age restrictions on taxis mean that no licensed vehicle can be in operation if it is over 9 years old. Therefore setting a cut-off date 10 years hence for all taxis to be ULEV or Hybrid means no one will be forced to change vehicle earlier than they would have to under the current rules, thus giving more than reasonable notice of the change to allow proper business planning for the trade.

9. Restrict City Centre Access to ULEV and Hybrid Taxis only

This will be possible with the changes to access management of the City Centre (currently by transponder and rising bollard) to Automatic Number Plate Recognition ANPR which are pending installation by Cambridgeshire County Council.

There will potentially be considerable flexibility in how this is enforced and could be time limited for peak times. This policy is outside our own licensing powers and is only deliverable with the cooperation of the County Council. It is likely to be an important factor in ensuring compliance should the low emission criteria become mandatory.

Discussions have taken place with relevant County Officers and there is agreement that these restrictions could be delivered using the proposed mechanisms.

The Cambridge City Deal consultation is considering the implementation of a number of further traffic restrictions on key access routes outside the City Centre by introducing Bus

Gates. These will use the same mechanism ANPR to facilitate preference for buses, and could also allow access for low emission taxis.

Funds to replace current rising bollards with ANPR enforcement have already been committed by the County Council as transport authority and work will be commissioned in August and September 2016. The proposed 'Bus Gates' outside the core area will be delivered through the City Deal funding.

The Policy options detailed above are proposed for consultation and it is unlikely that all measures will be implemented. Indeed it is important to not prejudice the formal consultation with the trade nor the cap on total maximum revenue commitment detailed below.

4. Implications

(a) Financial Implications

- 1) There are revenue support costs for the reduction in income associated with the '**Renewal / Registration fee discount or exemption**'. Officers are explicitly seeking an in principle commitment to support these costs should consultation lead to uptake of the Taxi Vehicle license Fee Waiver incentive.

In terms of cost to the council these fee waivers would need to be funded. Given the current age limits on vehicles and the composition of the current fleet 60-80 vehicles would need to be replaced each year due to age alone. Recent years have seen over 100 new registrations in a year as drivers do sometimes replace or renew vehicles ahead of the age limit.

An indicative cost estimate based on the figures above and making the following assumptions:

- 80 replacement vehicle registrations per year
- 50% of which are ULEV or Hybrid in year 1 rising to 90% in year 5
- Of which 50% are ULEV and 50% are Hybrid

These estimates are informed by significant analysis in the third party feasibility study funded by OLEV (Appendix I) and are considered realistic, but ambitious in terms of uptake and so can be considered at the upper end of the required revenue support required.

Year	16/17	2017/18	2018/19	2019/20	2020/21	2021/22
low emission Registrations		40	48	56	64	72
New ULEV	1	20	24	28	32	36
Renewal ULEV	0	1	21	45	73	105
New Hybrid	0	20	24	28	32	36
Renewal Hybrid	31	31	51	75	103	135
Revenue cost £	£0.00	£10,225.00	£17,877.00	£26,789.00	£36,961.00	£48,393.00

Costs would fall to Zero in 2022/23 as from that year it is proposed that it be mandatory for new taxis to be either a ULEV or hybrid vehicle. The proposed financial model has the added advantage of incentivising early adoption most with a potential 5 year fee waiver for those who chose to take advantage in 2017/18 and only a 1 year waiver for those adopting in the final year.

2) Lost Revenue if We Waive requirement for 6 month inspection

Using the same assumptions stated above lost Garage testing revenue would follow the following pattern over the proposed 5 year period:

Year	16/17	2017/18	2018/19	2019/20	2020/21	2021/22
Exempt Vehicles	32	72	120	176	240	312
Lost Income	£0	£4,032	£6,720	£9,856	£13,440	£17,472

The total projected cost of both revenue negative proposals modelled here is £191675 over the whole 5 year period and is significantly back-loaded as the costs are cumulative as more vehicles become fee exempt.

In order to provide certainty to members on the maximum financial support being provisionally sought here, we would seek to limit the total commitment to a maximum of £150000 over the five year period and report spend and low emission vehicle uptake to the Executive Councillor on a quarterly basis. Should early uptake exceed expectations fee exemptions could be ceased for new entrants or further funds could be sought from Council. In any event we would expect to return to committee if this limit looks likely to be reached early

There is also a notional cost of running a consultation with the trade. This is cost will be mitigated by combining with a wider consultation on a review of taxi licensing policy.

(b) Staffing Implications

The decision requires no additional staffing resources to be committed.

(c) Equality and Poverty Implications

An Equalities Impact Assessment (EQiA) was carried out for the Air Quality Action Plan report to ESC in March 2015 and is appropriate for this case as the proposal forms part of the actions considered then. It is referenced below. A further EQiA will be carried out following consultation with the Taxi trade when a final detailed set of policies is presented for adoption at Licensing Committee in October 2016

The EqIA demonstrated that the revised Plan, if carried out, will have positive impact on public health in particular benefitting those who live in areas of poor air quality. For example, a recent paper in Environmental Pollution noted higher concentrations of air pollutants in the most deprived 20% of neighbourhoods in England (Fecht, D. et al. 2015).

(d) Environmental Implications

The proposal has been assessed with a Medium Positive +M rating - The project will reduce overall use of Fossil Fuels and will reduce local CO2 and polluting emissions substantially.

(e) Procurement

Any projects requiring the engagement of external contractors will be subject to the Council's procurement and contract procedure rules.

(f) Consultation and communication

We are proposing to undertake a 5 week consultation on the proposals in July and August 2016.

The consultation will be undertaken through a variety of means including letters to the trade and key stakeholders, via the Taxi Newsletter, at the Trade Forum and will also be published on our website.

All feedback is encouraged and all comments will be considered as part of the review and in preparation of the final policy document.

The results of the consultation exercise will be put to Members at the next Licensing Committee to take account of the feedback from the trade and other stakeholders in order to consider any amendments to the Hackney Carriage and Private Hire Licensing Policy.

(g) Community Safety

The presented taxi policy changes would have no material impact on community safety as the vehicles incentivised would meet all required roadworthiness tests.

Some benefit to community health would result from the improvements in pollutant levels.

Public Health data attributed 257 deaths in Cambridgeshire in 2010 to Particulate Air Pollution, compared with 34 deaths from Road Traffic Accidents. Quantification of evidence provided by the World Health Organisation (2013) of deaths attributable to nitrogen dioxide will increase this figure. Meanwhile, any steps taken to lower pollutant levels will improve public health by lowering rates of death and illness, and thus increase community safety.

5. Background papers

These background papers were used in the preparation of this report:

Report to Environment Scrutiny Committee 17th March 2015 – Cambridge Air Quality Action Plan 2015-2025 (includes EQiA)

<http://democracy.cambridge.gov.uk/ieListDocuments.aspx?CId=177&MId=2570&Ver=4>

Tate, J. E. (2013) Cambridge Real Emissions Project

https://www.cambridge.gov.uk/sites/www.cambridge.gov.uk/files/documents/Cam_VEMS_ProjectReport_v1.0.pdf

Transport Strategy for Cambridge and South Cambridgeshire (2014)

http://www4.cambridgeshire.gov.uk/info/20006/travel_roads_and_parking/66/transport_plans_and_policies/2

2015 Updating and Screening Assessment - Report for Cambridge City Council (2014)

<https://www.cambridge.gov.uk/sites/default/files/documents/Updating%20%26%20Screening%20Assessment%20%202015.pdf>

Fecht, D. et al. (2014) Associations between air pollution and socioeconomic characteristics, ethnicity and age profile of neighbourhoods in England and the Netherland, Environmental Pollution

<http://dx.doi.org/10.1016/j.envpol.2014.12.014>

6. Appendices

Appendix I - ULEV Taxi Scheme Feasibility Study - Cambridge City Council – Energy Saving Trust Report ,1st March 2016

<https://www.cambridge.gov.uk/sites/default/files/ulev-taxi-scheme-feasibility-study.pdf>

7. Inspection of papers

To inspect the background papers or if you have a query on the report please contact:

Author's Name:	Jo Dicks
Author's Phone Number:	01223 - 457892
Author's Email:	jo.dicks@cambridge.gov.uk

energy saving trust

ULEV Taxi Scheme

Feasibility Study
Cambridge City Council

Ian Featherstone, Jacob Roberts &
Bob Saynor

1st March 2016



Contents

01 Introduction	3
Background and project context	3
Scope of project	3
Hackney carriage and private hire vehicle fleet	3
Air quality in Cambridge	10
02 Technical overview	11
Vehicle technology	11
Charging plug-in vehicles	12
Plug-in taxis	13
03 Private hire survey and implications for future vehicle charging network	14
Introduction	14
Meetings with trade representatives	14
Private hire survey	14
04 Hackney carriage drivers' survey and implications for future vehicle charging network	15
Drivers' working patterns and implications for a chargepoint network	15
Drivers' attitudes to plug-in vehicles	18
05 Regulatory change and ULEV taxi uptake scenarios	19
Introduction to taxi licensing	19
Regulatory measures available to increase electric taxi uptake	19
Hackney carriage age limit policy analysis	20
Scenarios for ULEV uptake and chargepoint network requirement	21
Measures proposed to attain ULEV uptake in different scenarios	23
Air quality implications of hackney carriage ULEV uptake scenarios	25
06 Infrastructure: guidance for installers and operators	26
Existing chargepoint network	26
Proposed chargepoint locations	26
Best practice for operators and installers	27
07 Potential challenges to ULEV taxi uptake	31
Existing charging infrastructure	31
Convenient charging sites in central locations	31
Vehicle running costs	31
Drivers' perceptions of plug-in vehicles	32
Current regulatory framework	33
08 Roadmap	34
Total funding requirement	34
Hackney carriage top-up grants	34
Hackney carriage chargepoint funding	35
Recommendations to help overcome identified challenges	35
Next steps	37
Annex	38
Glossary of terms	38
Existing chargepoint locations and type	39

01 Introduction

Background and project context

Cambridge has a population approaching 125,000, including nearly 25,000 students, and a strong and diverse economy. It is at the heart of 'Silicon Fen' with technology, software and bioscience companies, many set up as spin-offs from Cambridge University, which is ranked in the top five in the world. Cambridge Science Park is the largest commercial R&D centre in Europe and Microsoft's UK research offices are also based in Cambridge. The city is administered by Cambridge City Council.

Despite having some of the highest cycle use in the UK, Cambridge has a congested road network. In an effort to alleviate congestion Cambridge has five park-and-ride schemes, all of which operate 7 days a week, and several bus services including the Cambridgeshire Guided Busway. The mainline rail station has frequent direct trains to London King's Cross and Liverpool Street.

Cambridge City Council is surrounded by South Cambridgeshire Council, a mostly rural area with a population of 153,000. These two councils are responsible for licencing taxi services within their respective jurisdictions. Cambridge City Council licences approximately 320 taxi drivers (Hackney carriages).

Scope of project

This is a joint bid encompassing Cambridge City Council, South Cambridgeshire District Council (SCDC) and Cambridgeshire County Council. Cambridge City Council are co-ordinating all aspects of the bid and managing the project. The City and SCDC are covering engagement with the licenced trade, provision of information and promotion of initiatives arising from the project. The County Council's role concerns city centre access arrangements and wider transport related issues.

Wider stakeholders include: Abellio (train station operator), Cambridge Hackney Carriage Association, Cambridge University Hospitals NHS Foundation Trust, EValue8, Panther Cars, and University of Cambridge.

The city council provided all the necessary vehicle registration data, rank details and vehicle policy documents. Reports including air quality action plan, wider AQ research documents, local transport plan and unmet demand survey were also provided.

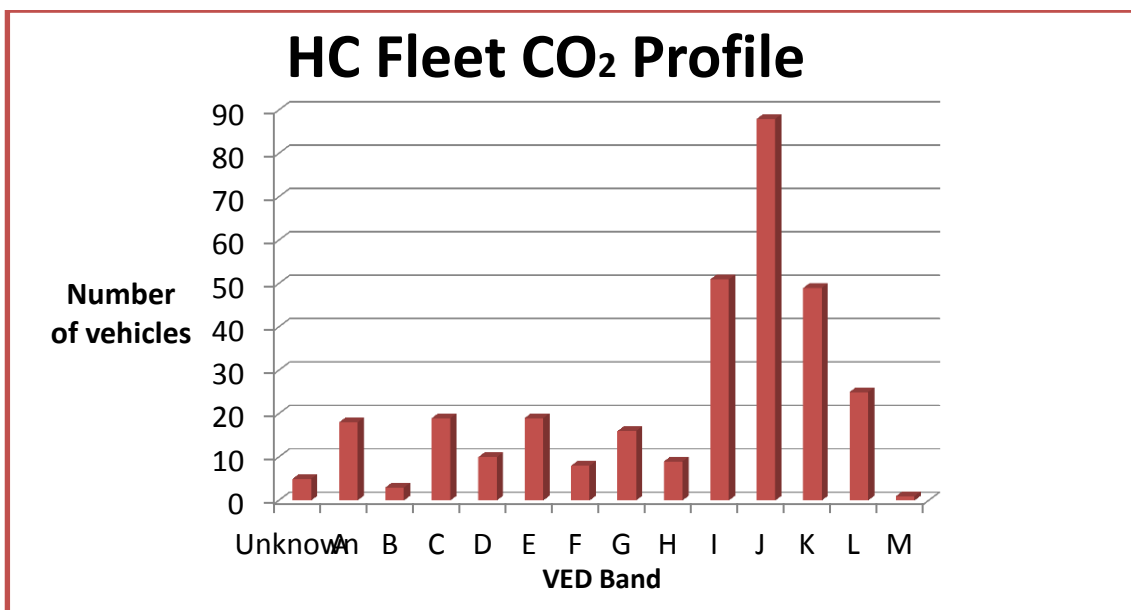
Hackney carriage and private hire vehicle fleet

Hackney carriage

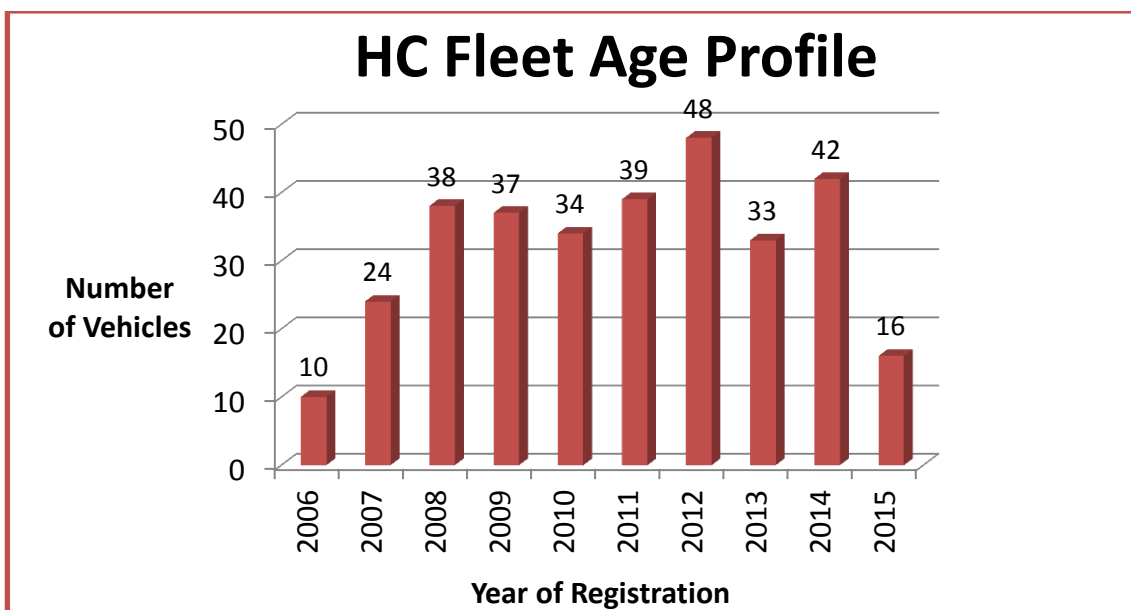
There are 317 licenced Hackney carriages in the city and c.200 private hire, with 36 operators in total. 121 of the hackney carriages are saloon cars with grandfather rights, the remainder are wheelchair accessible (side access), of which 17 are TX4 models. There is a cap on numbers and a new vehicle licence won't be granted unless it is less than four years old and either registered after 1st September 2009 or is compliant with Euro 5 standard or higher. A nine year age limit is in place (minimum Euro 4). Most of the 928 licensed drivers hold dual licences and 10% of survey respondents share a vehicle. Access to the station rank is negotiated on behalf of the drivers by Cambridge City Licenced Taxis (CCLT), around 160 drivers pay for access.

South Cambridgeshire District Council has only 11 licenced Hackney carriages. There are no age limits in place for hackney or private hire vehicles and therefore there is a relatively large private hire fleet.

The current fleet has average official CO₂ emissions of 177 g/km, with individual vehicles ranging from 85 to 251 g/km.¹

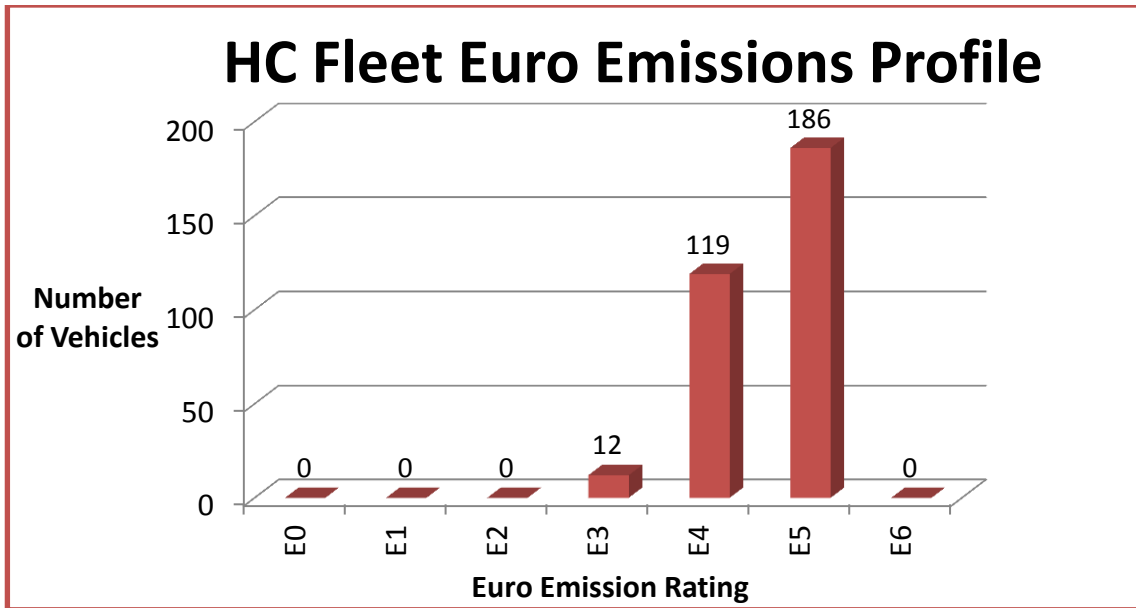


The average taxi is 4.6 years old, with no taxis more than 10 years old. This means the taxi fleet in Cambridge is relatively young compared to fleets in some other UK cities.

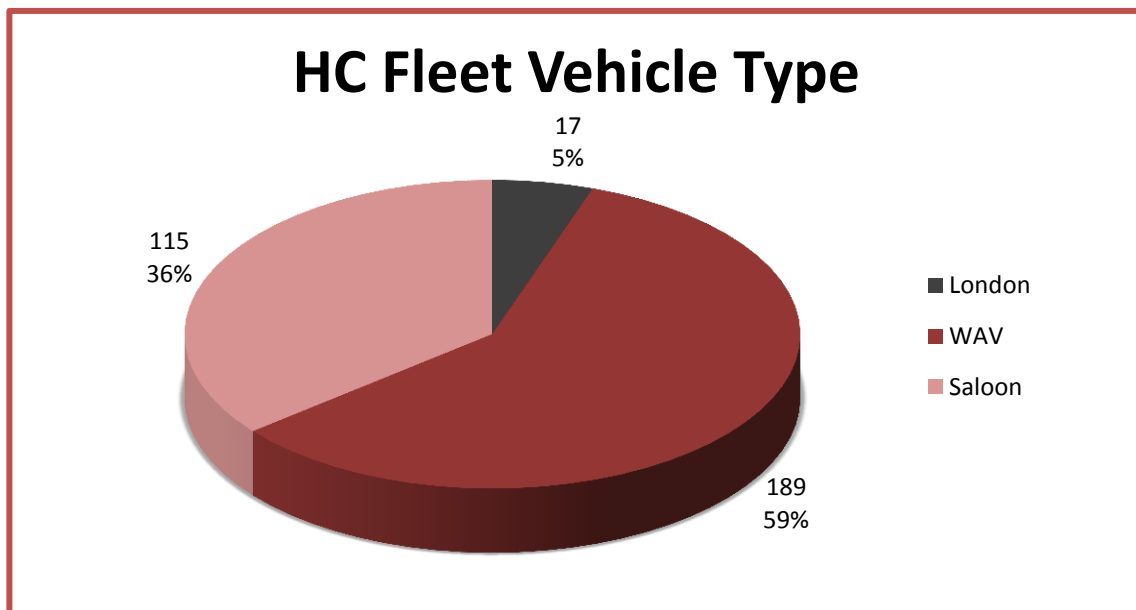


¹ Based on 317 vehicles for which data was available. The true average would be slightly higher as there were 5 van-derived vehicles for which CO₂ data were not available but which would be higher than the average stated above.

58% of taxis meet the Euro 5 emissions standard introduced in 2009/10. 37% meet the Euro 4 standard and the remaining 4% meet the Euro 3 standard².



The hackney carriage fleet in Cambridge is comprised of both wheelchair accessible vehicles and saloon vehicles. Cambridge City Council presently holds ‘grandfather licenses’ for 121 saloon type hackney carriages, but only 115 of these were included in the analysis dataset. Saloon vehicles represent 36% of the hackney carriage fleet. The remaining 64% are wheelchair accessible vehicles (WAVs), which further breaks down to 5% conforming to the London specification for hackney carriages and 59% not³.



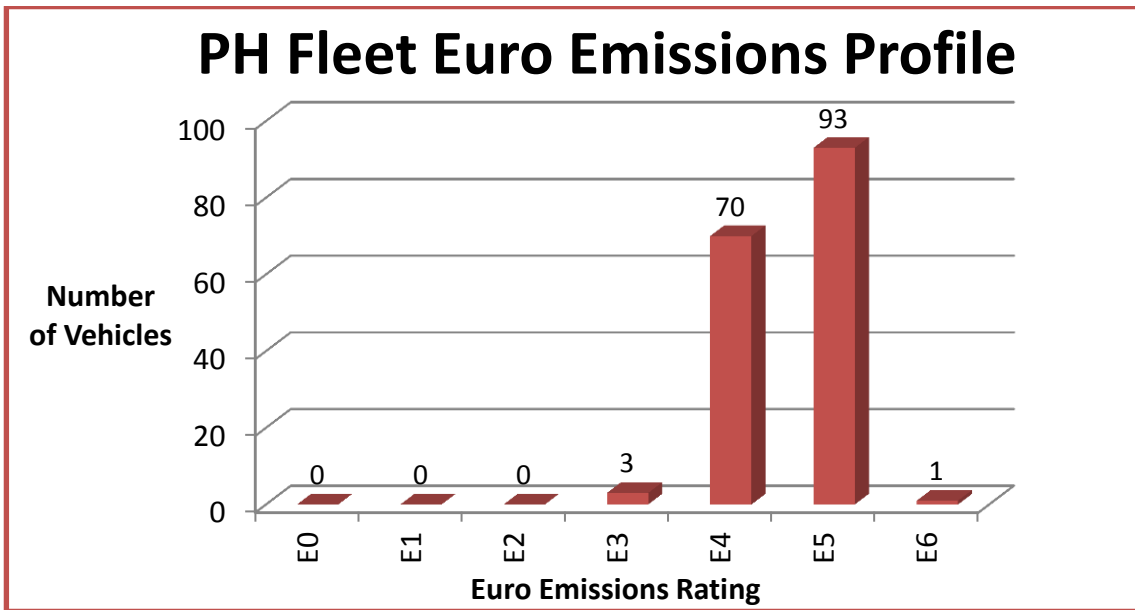
² Euro data not available for 4 vehicles (approx 1% of the fleet) but the age of these 4 vehicles implies they would all be Euro 4

³ It was assumed for the purposes of this analysis that only purpose-built ‘black cab’ type taxi vehicles completely conform to the London specification (e.g. LTC TX series, Metrocab, etc.). There is insufficient evidence to categorically identify London specification conversions. For example, a Mercedes Vito Taxi conversion may or may not be rear steering, where rear steering would be required to meet London standards. DVLA information against the vehicle does not clarify this and therefore we assume the vehicle does not meet the London specification.

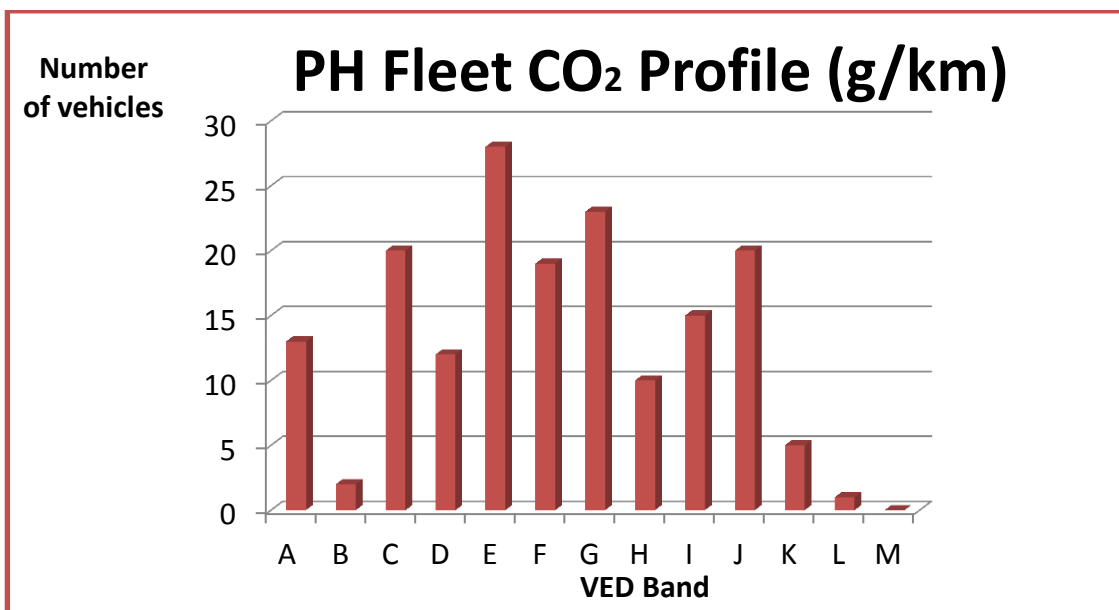
Private hire

Cambridge City Council licenses 854 private hire vehicles and 1,020 drivers, with a further 50 on the private hire waiting list. Due to the conditions of fitness in Cambridge and the vehicle age restriction in place the private hire fleet, in common with the hackney carriage fleet, is relatively modern.

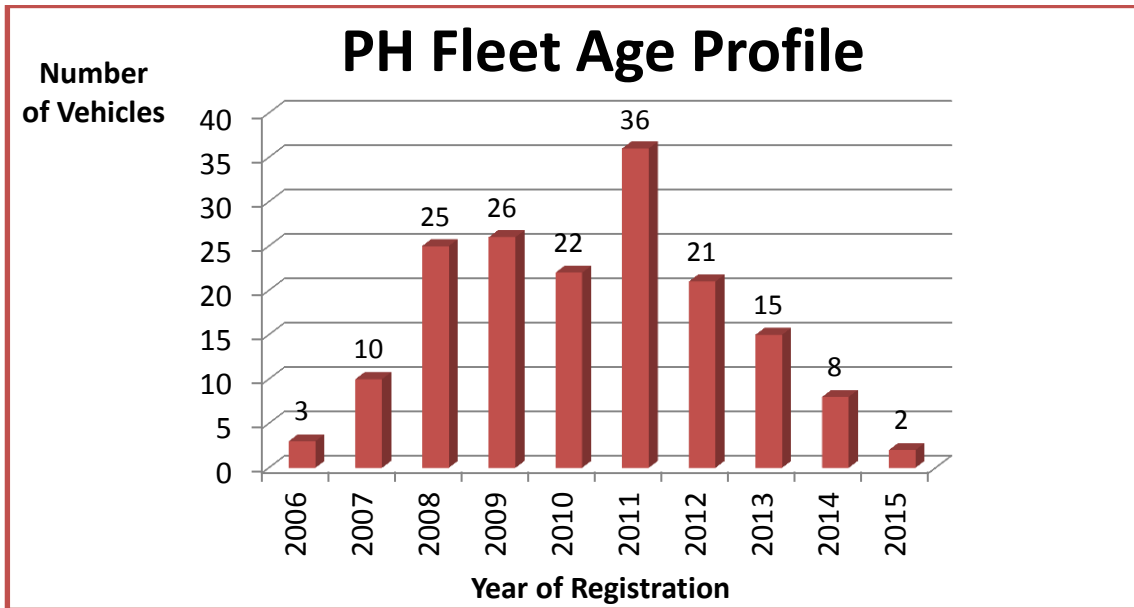
With 55% of the fleet being Euro 5 and 42% Euro 4, the adoption of pure electric and plug in hybrid vehicles should be relatively straightforward as the range of models available from manufacturers grows further.



The CO₂ profile of the vehicles is relatively modest too, with 45% of the vehicles having tailpipe emissions of 140g/km or fewer.



Less encouraging is that only ten cars have registration dates in 2014 or 2015, indicating that many are bought as used vehicles by drivers.

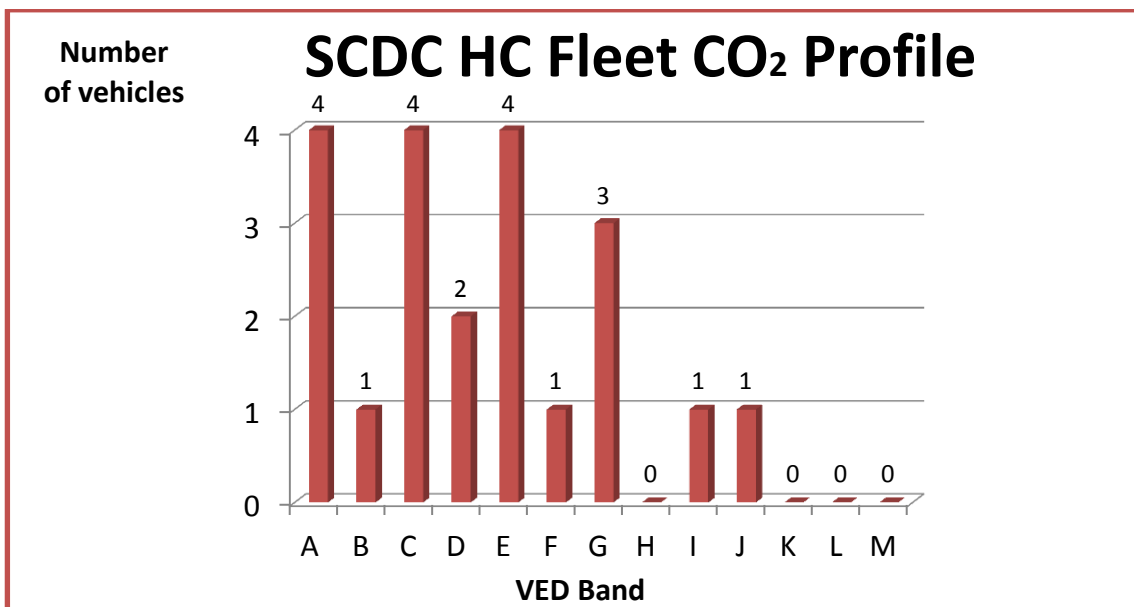


South Cambridgeshire District Council fleet analysis

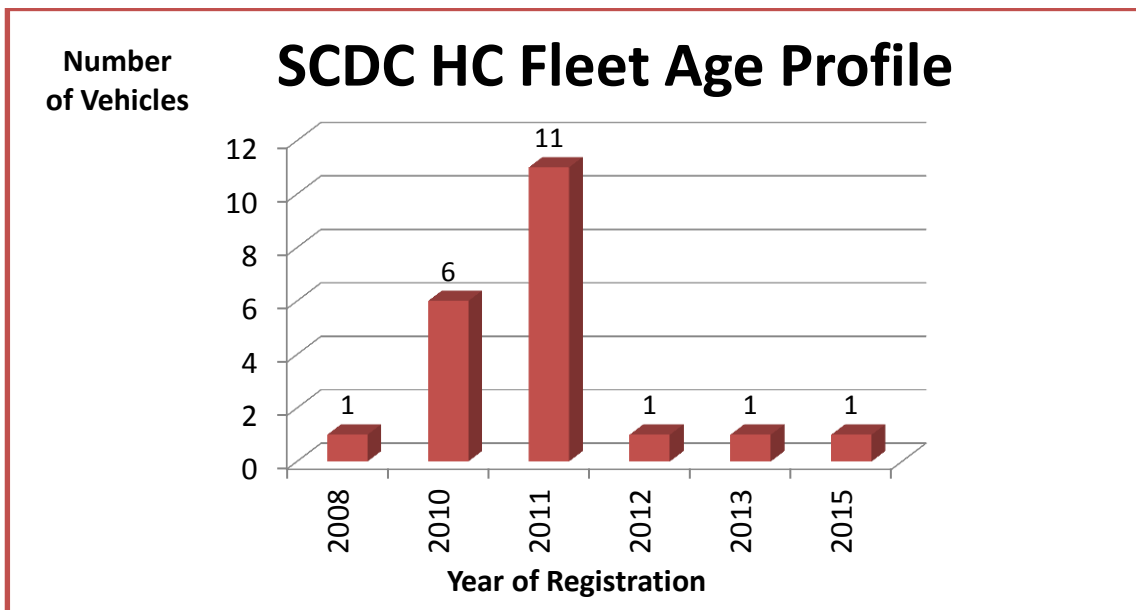
Hackney carriage

SCDC licenses only 21 hackney carriages. Saloon cars are allowed as hackney carriages and this accounts for the lower average CO₂ rating of the fleet (there are no larger wheelchair accessible vehicles). Vehicles must be no more than five years old when first presented for licencing.

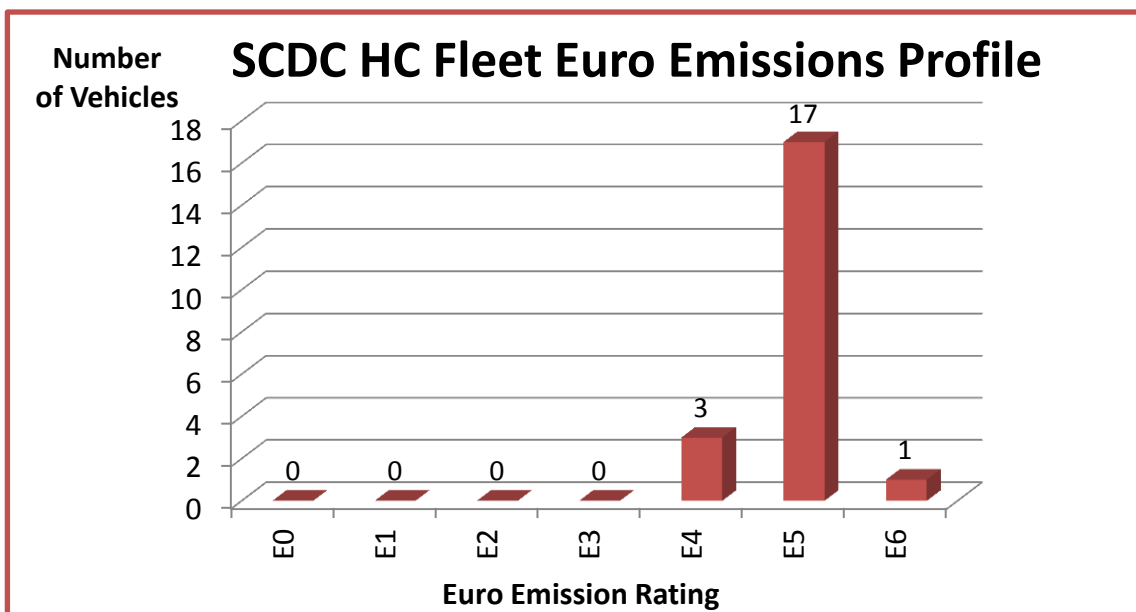
The current fleet has average official CO₂ emissions of 129 g/km, with individual vehicles ranging from 92 to 186 g/km.



The average taxi is 4.7 years old, with the oldest being 8.1 years. This means the taxi fleet in South Cambridgeshire is relatively young compared to fleets in some other UK cities.



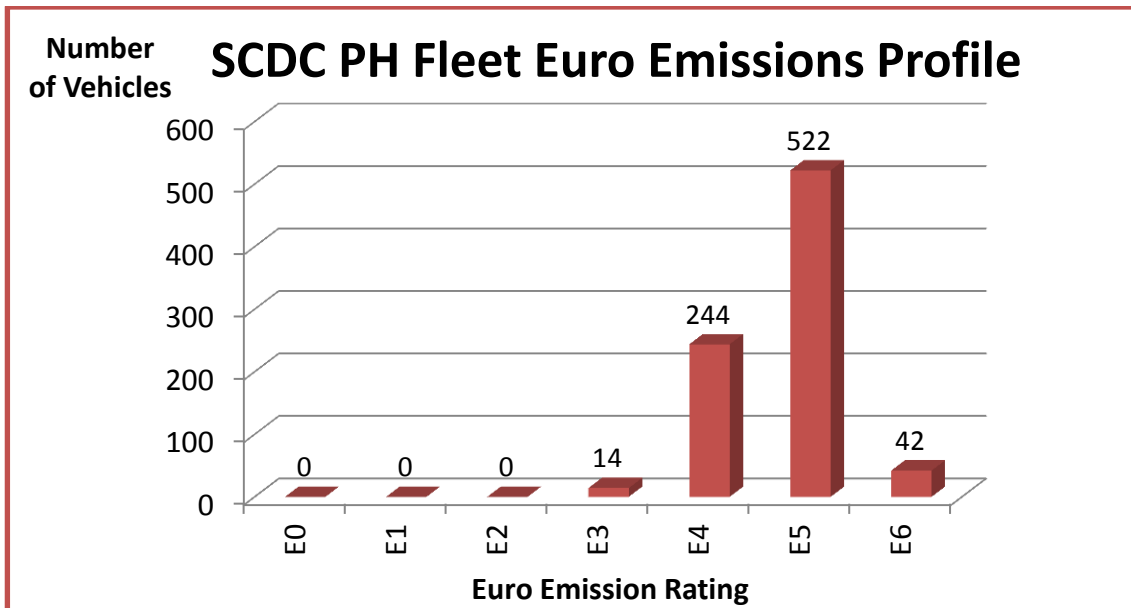
The majority (81%) of taxis meet the Euro 5 emissions standard, 14% meet the Euro 4 standard and the remaining vehicle is Euro 6.



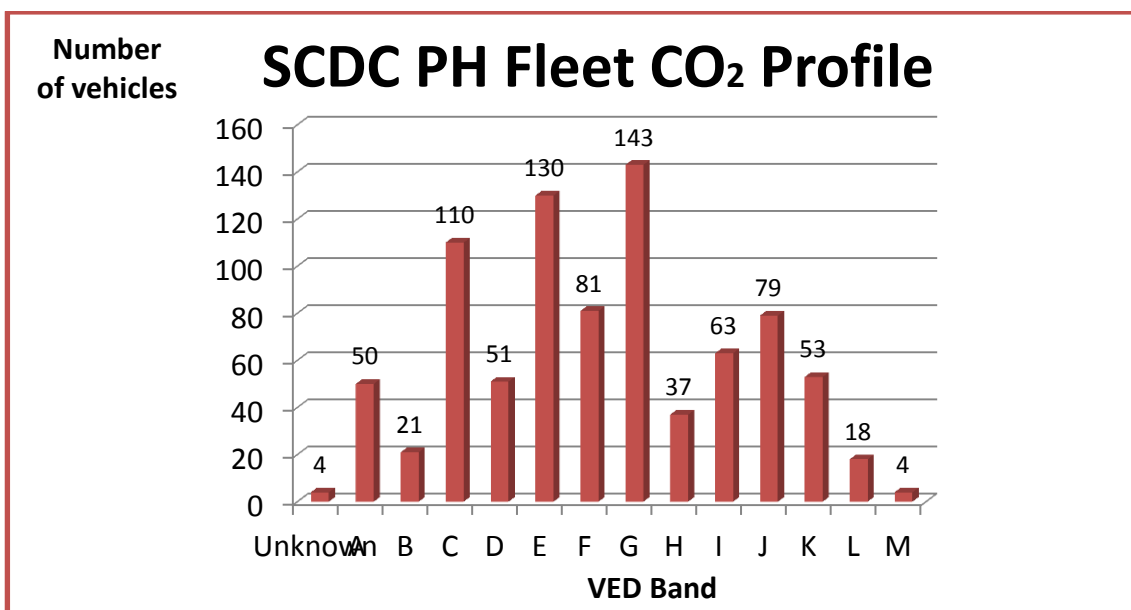
Private hire

South Cambridgeshire District Council licenses 867 private hire vehicles and 1,020 drivers, with a further 50 on the private hire waiting list. The private hire fleet is relatively modern, with an average age of 5.1 year, however, there is no age limit on private hire vehicles and therefore there are cars dating back to 2003 on the fleet.

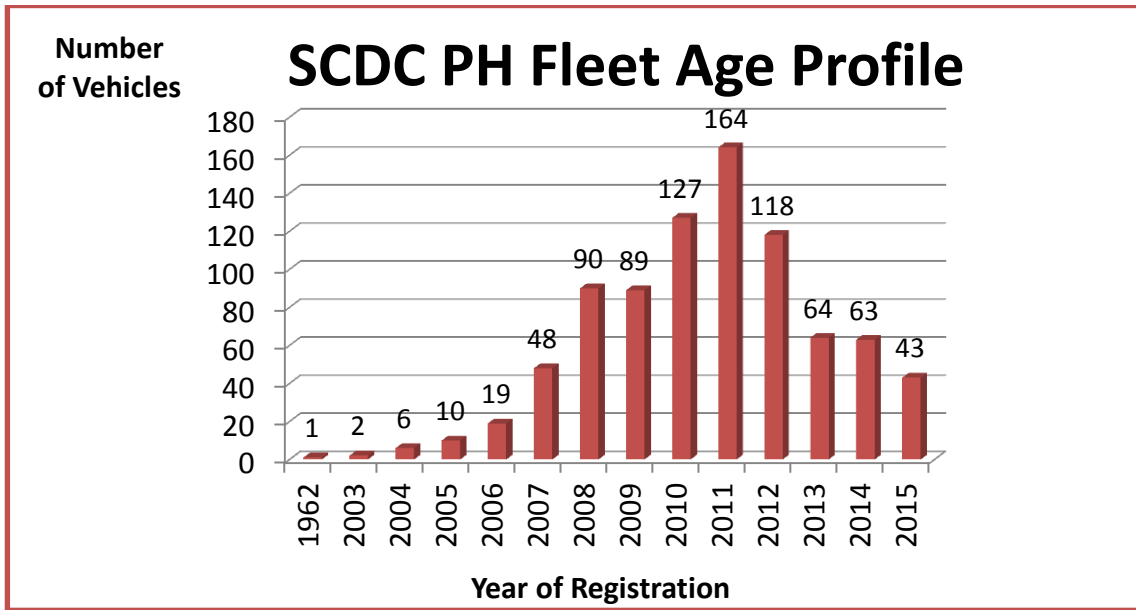
The vehicles perform relatively well in terms of Euro emissions factors with 6% being Euro 5 and 5% Euro 6.



The CO2 profile is similar to the Cambridge City fleet with 44% of the vehicles having tailpipe emissions of 140g/km or fewer.



106 cars have registration dates in 2014 or 2015, indicating that a small but significant number of vehicles may be registered from new.



Air quality in Cambridge

The central area of Cambridge was declared an Air Quality Management Area in 2004. The first Air Quality Action Plans focussed on lowering emissions based on improving Euro standards of the Cambridge bus and taxi fleets. Because these emissions did not improve as predicted, Cambridge City Council was granted funding from Defra in the form of an Air Quality Grant in 2012 to measure real exhaust emissions in the city. The study found that taxis comprised 27.4% of the traffic in King St (in the controlled city access area) and that they contributed up to 11% of NOx locally-derived traffic exhaust emissions and 21% of measured PM locally-derived traffic exhaust emissions in this location. NOx locally-derived traffic exhaust emissions from Euro 2-4 diesel taxis were found to be around 2.5 times as high as those from diesel cars.

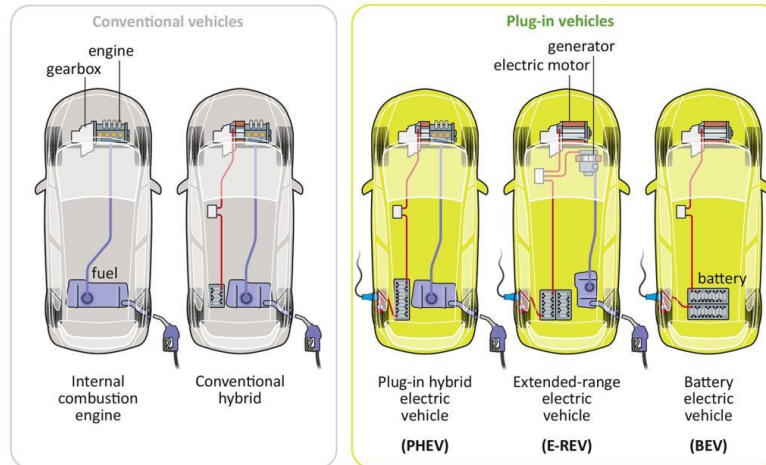
There is a clear public health benefit for those who work in the city from the adoption of ULEV taxi and private hire vehicles and they would complement the work the County Council has embarked on with Stagecoach to improve the bus fleet (which the study found contributed 80% NOx and 65% of PM locally-derived traffic exhaust emissions in King Street).

There is scope for further infrastructure improvement in the city centre which is already a restricted access area with transponder controlled bollards. The County Council is considering improving the management of this zone through the replacement of the bollards, replacing them with an ANPR camera system, which could be used to restrict access to vehicles with lower emissions.

02 Technical overview

Vehicle technology

There are several different vehicle types which involve some degree of electric power.



Source: Office for Low Emission Vehicles

Conventional hybrids: Hybrids burn fuel in an internal combustion engine (ICE) which drives the wheels via a gearbox. A battery charged by regenerative braking stores energy which is used to drive an electric motor and therefore the vehicle for a short distance (usually < 1 mile).

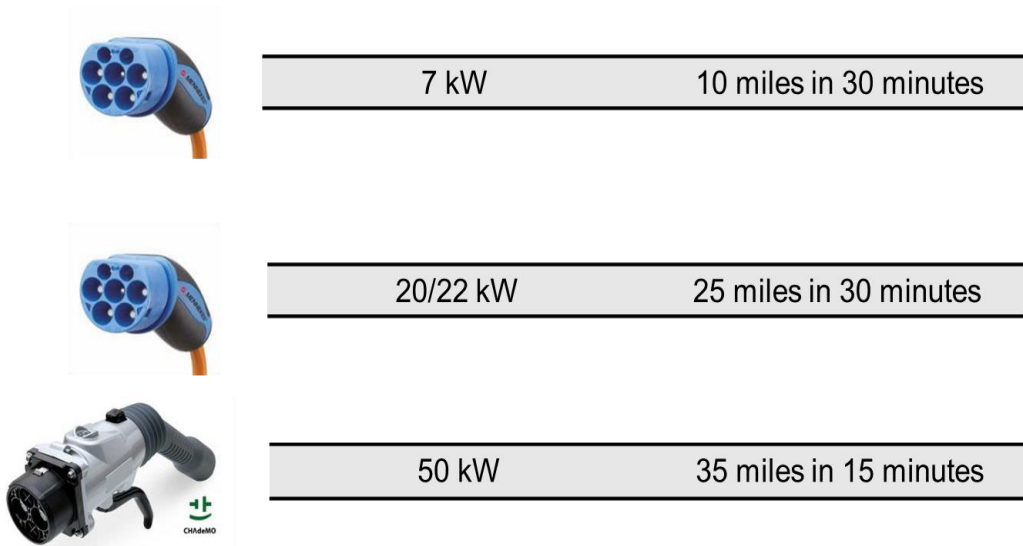
Plug-in hybrid electric vehicle (PHEV): Combine a battery, electric motor and ICE like a conventional hybrid, a larger battery provides a longer electric only driving range. The battery can be recharged from a charge point reducing the amount of fuel consumed over a given distance. The vehicle reverts to petrol or diesel power when the battery charge is depleted.

Extended-range electric vehicle (E-REV): Also combines a battery, electric motor and an ICE, however unlike a PHEV the electric motor always drives the wheels. The ICE acts as a generator when the battery is depleted. The vehicle can also be recharged from a chargepoint. The battery in an E-REV battery is usually larger than in a PHEV, providing longer electrically driven range.

Battery electric vehicle (BEV or Pure-EV): Powered only by electricity, a pure-EV has a larger battery than an E-REV or a PHEV and does not have an ICE.

Charging plug-in vehicles

Vehicle range is primarily determined by the storage capacity or size of a battery (measured in kWh). Larger batteries take longer to charge at a given charging rate and vehicles may be offered with more than one charging technology. Charging rates can be expressed more usefully as the mileage added for a particular time on charge. The following diagram shows how useful fast and rapid charging is when the time available for charging is constrained⁴.



Standard and fast charging:

Vehicle charging uses either alternating current (AC) or direct current (DC). AC supply is used for slower rates of charging (typically 3.5 kW or 7kW) and three phase 22kW charging⁵. An appropriate charging cable must be carried in the vehicle when using AC public chargepoints which deliver up to 22kW. Chargepoints providing a fast charging rate of 20kW DC are available which use the same connectors and tethered cables as DC rapid chargers.

For home charging a dedicated chargepoint is recommended, typically rated at 16 amps (c. 3.5kW) or optionally for faster charging, at 32 amps (c.7kW). Drivers would be eligible for the Electric Vehicle Homecharge Scheme, a grant which at the time of writing provides 75% towards the cost of an installed chargepoint up to £700 (inc. VAT) per household or vehicle⁶.

Rapid charging:

Rapid chargepoints are usually 43kW AC or 50kW DC. In the UK, three rapid charge protocols are in use by mainstream manufacturers:

1. CHAdeMO, primarily used by Japanese manufacturers as well as Citroen and Peugeot.

⁴ It should be noted that the mileage added per 15 or 30 minutes is indicative only and does not relate to any specific vehicle.

⁵ The connector illustrated is suitable for fast charging at 22kW AC, a similar range will be provided by a 20kW DC chargepoint using one of the two DC connectors.

⁶ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/418525/electric-vehicle-homecharge-scheme-guidance-for-customers-2015.pdf

2. Mennekes (Type 2) is the adopted UK standard for public 3.5 and 7kW chargepoints. It can also be used for fast AC charging at 22kW or rapid AC at 43kW.
3. Combined Charging System (CCS or Combo 2) is currently used by BMW and Volkswagen. Ford and General Motors have indicated that they will use CCS.

Rapid chargepoints all have a tethered cable. Chargepoints which incorporate connectors for all three protocols are available, providing fast or rapid rates of charge. The fast chargepoints are approximately half the cost of rapid units and generally require fewer electricity supply upgrades.

Plug-in taxis

Plug-in vehicles emit zero tailpipe emissions while driving using electric power, making them the ideal solution to reduce taxis' impact on air quality. Equally, taxis' duty cycles make them ideal for utilising plug-in technology:

- They are driven predominantly in an urban, stop-start environment, where plug-in vehicles operate most effectively.
- Plug-in hybrids or extended range EVs could meet the needs of drivers who carry out a mixture of predominantly urban driving with occasional longer journeys.
- Duty cycles usually include periods of downtime, for example waiting for a passenger or during breaks, so charging events can be incorporated into working patterns.

A number of manufacturers are developing plug-in electric Hackney cabs. Vehicles are expected to be on the market by 2017 with specification details including charging protocol and rates of charge to be announced closer to their on sale date. In Cambridge standard saloon cars and people carriers are licensed as Hackney carriages for which a range of plug-in hybrid and pure electric vehicles are available from mainstream manufacturers. For example some models from Nissan are available in a specification suitable for licensed use including non-tinted rear passenger windows. The Office for Low Emission Vehicles (OLEV) provides grants for plug-in cars and vans; details of the eligible models can be found online at: <https://www.gov.uk/plug-in-car-van-grants>.

03 Private hire survey and implications for future vehicle charging network

Introduction

Cambridge City Council provided registration data for the 168 licenced vehicles in the city. The age restrictions for private hire licences echo those for hackneys; a new vehicle licence won't be granted unless it is less than four years old and either registered after 1st September 2009 or it meets Euro 5 standard or higher. A nine year age limit is in place (minimum Euro4); there is no requirement for wheelchair accessible vehicles.

South Cambridgeshire has 867 licenced vehicles and although they cannot be more than five years old when first presented for licencing, there are no upper age limits in place and the vehicles simply require a Certificate of Compliance. The larger operators have a licence in both the city and SCDC. There is some concern in Cambridge that older vehicles licensed outside the city are operating in and contributing to the areas of poor air quality in the city centre.

The three main operators in the area are Panther who have a mixed fleet of hackney and private hire vehicles, A1 who also have a mixed fleet and Camcab, private hire only. A smaller operator Green Air Cars, are planning to introduce pure EV private hire vehicles.

Meetings with trade representatives

Representatives from Panther taxis, the largest company and Green Air Cars were interviewed. As well as providing details about the operation of the trade in the area, their views on the practicality of introducing ULEV private hire vehicles was sought and where charging infrastructure should be located, taking into account the anticipated performance of vehicles currently on the market. Their willingness to complete a survey and engage with the project on the future was confirmed.

Private hire survey

A concise survey distributed by e-mail to private hire operators is the basis of the detailed engagement with the private hire trade. Unlike Hackney drivers who, in the main, determine their ranking locations and working patterns, the activity of private hire drivers is managed, to a significant extent, by the company they take their bookings from. Certain jobs may be allocated to certain drivers due to vehicle, for example wheelchair accessible, or driver, for example skilful in the care of vulnerable passengers, attributes. This ability to allocate appropriate types of work can enable drivers operating pure electric vehicles to be integrated into the operator's business model. In addition to the ability to allocate appropriate jobs to drivers, many drivers prefer certain types of work. This may take the form of airport and long distance runs; however others prefer to spend their day working within the city boundary.

The survey captured details including:

- Vehicle numbers, ownership and vehicle type
- Daily mileage driven and end of shift location
- Future plans for the introduction of ULEVs
- Best locations for charging infrastructure
- Measures that would encourage/increase the number of ULEVs

Responses to the survey sent out by the city council to the main trade representatives resulted in replies from Panther and Green Air Cars. Their responses contributed significantly to the final locations of charging points / hubs.

04 Hackney carriage drivers' survey and implications for future vehicle charging network

Introduction

To prepare for the introduction of plug-in taxis and ensure that suitable charging infrastructure is available, it is crucial to understand how drivers use their current vehicle, including:

- How many miles do they cover during a typical shift?
- How far do they travel from their home location?
- Which ranks do they frequent?
- Where and for how long do they stop for breaks?
- What are their attitudes towards plug-in vehicle technology?

Licensed hackney carriage taxi drivers were invited to complete a short online survey about their working patterns. 72 out of 322 licenced taxi drivers completed the survey, a sufficiently high proportion (22.5%) for the data to be analytically useful. However we would urge caution when using this sample to draw conclusions about the total population as it is impossible to tell to what extent those that responded were representative of the whole population.

Drivers' working patterns and implications for a chargepoint network

Mileage covered

The mileage covered by taxis and therefore the effective vehicle range required is arguably the most important factor in planning chargepoint infrastructure. It is vital that plug-in vehicles do not restrict the distance that drivers wish to cover. The table below shows the average mileage of survey respondents and the proportion within various mileage thresholds.

	Daily Working mileage	Total Daily Mileage (Commuting & working)
Average (median / mean)	91 / 90	112 / 111
<= 60 miles per day	17%	2%
<= 80 miles per day	30%	8%
<= 100 miles per day	72%	20%
<= 120 miles per day	76%	53%
<= 140 miles per day	100%	65%
<= 160 miles per day	100%	88%

Break durations

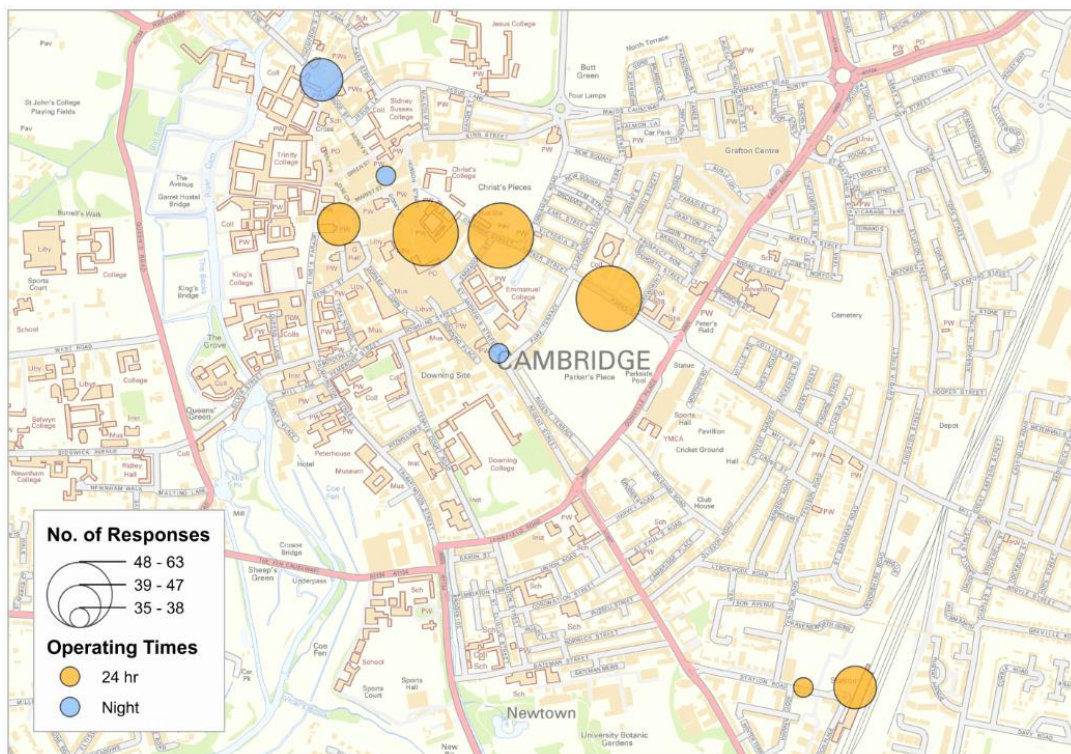
The survey included questions about the number and duration of breaks that drivers take during the day as these could provide vehicle recharge opportunities.

61 drivers provided information for at least one break they take during a typical day. 11 drivers did not respond to the questions about breaks. It is possible that all or most of these 11 drivers omitted the questions because they do not take breaks. Therefore in the table below we have presented the analysis in two ways: as percentages of the 61 drivers that supplied information about breaks, and also as a percentage of all 72 drivers that responded to the survey.

	% of Drivers that Responded about Break Duration	% of All Drivers Responding to Survey
No breaks	3%	3%
At least one break of any duration	97%	82%
At least one break of more than 15 minutes	69%	58%
At least one break of more than 30 minutes	39%	33%

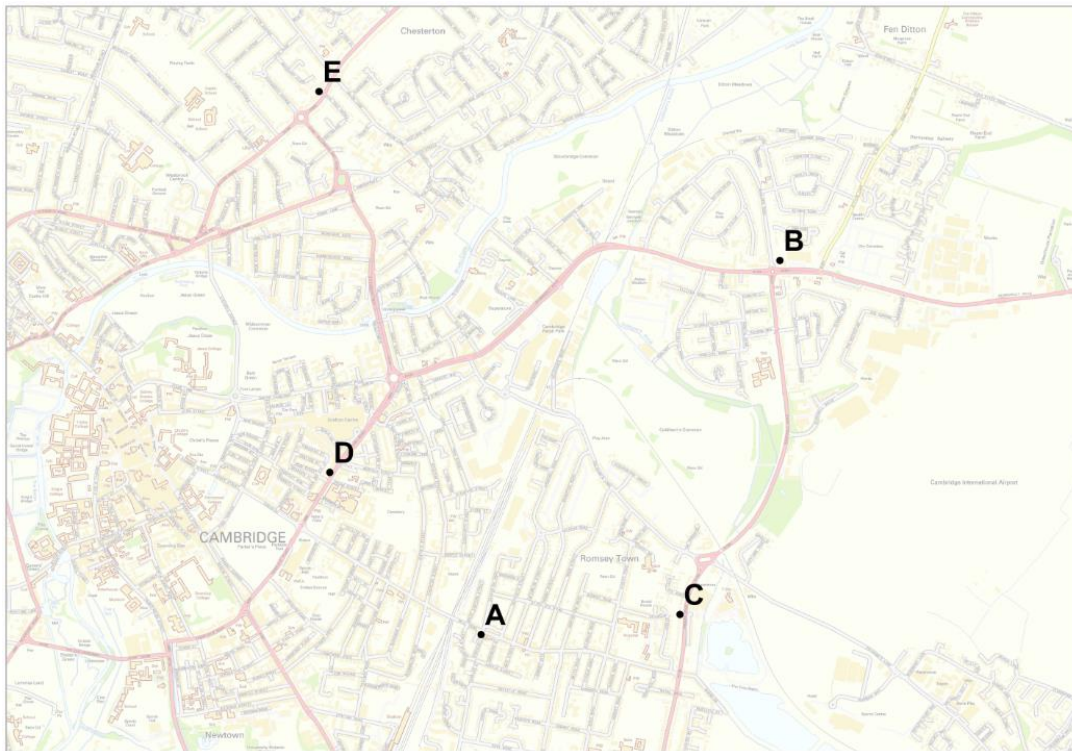
Frequented ranks and break locations

Survey respondents were asked to identify ranks they use most frequently. The results are shown on the map below.



Rank Name	Number of responses
St Andrew's Street	63
Parkside	55
Drummer Street	55
Cambridge Rail Station	47
Market Hill / Market Square	45
Bridge Street	42
Sidney Sussex	38
Station Road	38
St Andrew's Street, Park Terrace	35

The locations where drivers most frequently take breaks are shown on the map below.



Rank Name	Point
Mill Road	A
Newmarket Road	B
Sainsbury's Coldham Road	C
Adam & Eve Street	D
Milton Road	E

Drivers' attitudes to plug-in vehicles

Drivers were asked how likely they are to consider acquiring a vehicle with different drivetrains when they next replace their vehicle. The results are shown in the table below:

	Diesel	Petrol	Pure electric	Plug-in hybrid
Very unlikely	12%	33%	21%	18%
Unlikely	10%	35%	16%	7%
Likely	38%	16%	21%	31%
Very likely	26%	7%	28%	31%
Don't know	14%	9%	16%	13%

- Nearly half (49%) of respondents are likely or very likely to consider a pure electric taxi when they next replace their vehicle.
- 62% of respondents are likely or very likely to consider a plug-in hybrid taxi when they next replace their vehicle.
- If we exclude those who answered "Don't know", the proportion of respondents likely or very likely to consider a pure electric taxi rises to 57% and the proportion likely or very likely to consider a plug-in hybrid taxi rises to 72%.

Drivers were also asked about their perceived barriers to operating ULEV taxis:

Perceived barrier	Proportion of sample
High lease / purchase cost	57%
Nowhere to charge during shifts	48%
Nowhere to charge between shifts	48%
Insufficient range (in miles) between charges	65%
Charging during the day would impact on my productive working time	48%
The technology is new and unreliable	22%
None	6%
Other	4%

The provision of a network of chargepoints to support plug-in taxis is not without its challenges and these will be addressed in more detail in the following sections of this report.

05 Regulatory change and ULEV taxi uptake scenarios

Introduction to taxi licensing

The hackney carriage and private hire trade (TPH) operate under local licence and are therefore subject to regulation that is established and enforced by local government authorities. This means that taxi fleets vary considerably between different local authority areas. This variation can come in the form of several factors over which local authorities may choose to regulate their respective local taxi industries. These factors include:

- Total number of hackney carriages licensed to operate in a local authority area
- Vehicle restrictions; including age limits, accessibility criteria and technical conditions of fitness
- Rate-setting on taxi fares
- Annual licence fees
- Location and size of taxi ranks

Additionally, many local authorities also tender for and subsequently contract TPH companies to provide transport services for local schools and social services contracts. These contracts can provide a significant source of income to local operators and drivers, meaning that local authorities also have some degree of influence over the local industry in the criteria they set when tendering these contracts.

Taxi vehicle caps and unmet demand surveys

In setting a cap on the number of taxis licensed in their area, local authorities typically commission unmet demand surveys, which assess whether the existing number of taxis in the area is appropriate for the level of local demand for taxi hire. Cambridge City Council's most recent unmet demand survey concluded that there was no significant unmet demand, and therefore recommended that it maintain its existing cap of 317 vehicles.

Regulatory measures available to increase electric taxi uptake

There are a number of regulatory measures to encourage or enforce the uptake of zero-emission capable vehicles. We have divided these measures into soft measures - largely focussing on encouragement and small, step-changes – and firm measures – involving specific and firm regulation and enforcement.

Soft measures

Many local authorities have separate age restrictions for new taxi licenses and license renewals and, in phasing in more ambitious age restrictions; we would recommend that local authorities first **revise the age restrictions for newly licensed vehicles**. This will ensure all newly licensed vehicles meet a higher environmental standard and will make zero-emission capable taxis a more competitive option in terms of capital expense. In only applying this to new taxis, local authorities may mitigate the risk of trade resistance to the measures.

This measure could be combined with **phasing in a more ambitious age restriction on existing vehicles**, allowing local authorities to more rapidly phase out the older, more pollutive taxis. In doing this, local authorities would need to consider not only the age restriction itself, but also the consequences for vehicles older than that age. Many local authorities enforce a policy where vehicles over the age limit are allowed to operate, but must pass more frequent vehicle examinations to ensure

they are in exceptional condition. In changing this to a more comprehensive restriction on older vehicles, the impact of an age restriction on existing taxi fleets could be far more effective.

Local authorities could also consider **including criteria in their TPH contract tenders to make them more favourable to operators with a low or ultra-low emission fleet of vehicles**. This is an effective soft measure as it utilises local market competition to encourage taxi operators to utilise zero-emission capable taxis in order to obtain lucrative local authority contracts.

Finally, local authorities could **work with operators of local transport hubs to ensure zero-emission capable taxis are permitted to ply for trade in desirable locations at less or no expense**. Railway stations and airports typically charge a recurring fee to hackney carriage drivers, in order for them to accept fares from customers on their property. Local authorities could negotiate the cessation of these fees for zero-emission capable taxis, on the basis that there is some benefit to the property owner in encouraging environmentally sound taxis to work on their property. This would provide a considerable financial incentive to encourage taxi drivers and operators to purchase zero-emission capable taxis, as transport hubs are generally regarded as prime locations to ply for trade.

Firm measures

In terms of firmer, more specific measures, local authorities could **revise conditions of fitness for newly licensed vehicles to state that they must be zero-emission capable**. This would be an incredibly effective measure in enforcing a transition towards electric taxis, but care should be taken to ensure that the local industry will support such conditions. We would recommend that such a measure should be phased in over a significant length of time, with considerable notice.

Another firm option available to local authorities is to **restrict access to either current or future air quality management areas (AQMAs)/low emission zones (LEZs) to all but low and ultra-low emission taxis and private hire vehicles**. As these areas typically form central locations with lucrative potential for the trade, incorporating taxis into the restrictions enforced as part of current or future AQMAs/LEZs would provide a compelling business case for TPH drivers and operators to purchase zero-emission capable vehicles. Care should be taken to ensure this does not lead to unmet demand in central locations.

Introducing ULEV only taxi ranks (or spaces at the head of ranks) in prime locations would provide a great financial incentive for taxi drivers and operators to utilise zero-emission capable taxis. However, a measure such as this would require a great deal of proactive enforcement and engagement with the trade, especially in its initial stages. Local authorities must therefore consider the cost and benefit of imposing such regulation in several locations and assess the local benefit of such regulation.

Hackney carriage age limit policy analysis

Cambridge City Council's taxi licensing policy currently enforces an eight-year age limit on all new and renewed licensed hackney carriages. After this age, hackney carriages will no longer be granted a license (with the exception of limousines and other specialised vehicles). This is fairly uncommon in the sense that most local authorities enforce an age limit by requiring more frequent vehicle inspections, rather than refuse a license entirely.

The clear advantage of this eight year age limit is Cambridge City Council's existing hackney carriage fleet is comprised of very young vehicles, compared to many other fleets. The other advantage of this

limit is that a very predictable pipeline of hackney carriage vehicles leaving the fleet every year has already been established.

We would recommend that this cap is maintained at eight years, as it already represents a very effective measure (and an ambitious one in the context of most other local authorities). Maintaining this cap, rather than reducing it to less than eight years, will reduce the likelihood of relationships with the trade being compromised and will continue to produce a consistent pipeline of ineligible vehicles leaving the fleet. The following table illustrates how many vehicles this limit would effect and how different limits impact upon the consistent and predictable pipeline.

Age limit imposed	Number of existing licenses expiring per year			
	2017	2018	2019	2020
6	110	48	33	42
7	71	39	48	33
8	37	34	39	48
9	0	75	34	39
10	0	0	109	34

As is displayed above, imposing an age limit of six years would result in a considerable spike of ineligible vehicles leaving the fleet occurring in 2017, as this would include all vehicles first registered in a larger period of time (between 2009 and 2011). On the other hand, imposing a limit of ten years would result in very few vehicles becoming ineligible as there are no vehicles in Cambridge City Council’s hackney carriage fleet which currently exceed this age, or will do for another two years.

Scenarios for ULEV uptake and chargepoint network requirement

Hackney Carriage

Without regulation to enforce uptake of plug-in taxis, acquisition of these vehicles is likely to occur slowly. We have created three potential scenarios of plug-in vehicle uptake rates, based on a combination of increasingly firm regulatory change and on preferences shown in the drivers’ survey. The method used to calculate these scenarios is as follows:

1. **Low.** Eight year cap is maintained for vehicles; voluntary uptake (supported by top-up grants) of a proportion of taxis older than eight years, with that proportion being based on “*very likely*” responses to survey question on whether next vehicle will be pure-electric or PHEV
2. **Medium.** As above, with accelerated uptake associated with the availability of new models; a greater proportion of taxis older than eight years, with that proportion being based on “*very likely*” and “*likely*” responses to survey question on whether next vehicle will be pure-electric or PHEV, as well as undecided responses shown in the survey of taxi drivers
3. **High.** As above, with regulatory change to mandate that, as of 2017, all newly licensed taxis must be ULEVs

These scenarios are based on a predictable pipeline of vehicles becoming ineligible due to their age, as a result of maintaining the existing eight year age limit. Without imposing any upper-limit on vehicle age, demand will be unpredictable, more difficult to respond to and almost certainly lower.

ULEV uptake is taken as a proportion of hackney carriage owner/operators opting to replace their old, outgoing vehicle with a brand new zero-emission capable taxi. This proportion reflects vehicle preference results obtained through the drivers' survey.

Based on the assumptions made in the explanations of each scenario, the forecast **annual** numbers of plug-in taxis entering the fleet are as follows:

Scenario	2017	2018	2019	2020	Total
Low	6	6	7	8	27
Medium	16	14	17	20	67
High	37	34	39	48	158

The forecast **cumulative** numbers of plug-in taxis in the hackney carriage fleet, with proportion of fleet being ULEVs expressed as a percentage (assuming fleet remains at present size) are as follows:

Scenario	2017		2018		2019		2020	
	No.	%	No.	%	No.	%	No.	%
Low	6	1.9	12	3.8	19	6.0	27	8.5
Medium	16	5.1	30	9.5	47	14.9	67	21.2
High	37	11.7	71	22.5	110	34.8	158	50

Based on these numbers and a range of assumptions⁷ about the market, the forecast **annual** chargepoint numbers that we suggest should be installed by the end of each year to 2020, split by charging speed, are in the table below. R: Rapid, F: Fast, T: Total

Scenario	2017			2018			2019			2020			Total		
	R	F	T	R	F	T	R	F	T	R	F	T	R	F	T
Low	1	0	1	1	0	1	1	0	1	1	0	1	4	0	4
Medium	3	0	3	2	0	2	3	0	3	3	1	4	11	1	12
High	4	3	7	3	3	6	4	3	7	4	4	8	15	13	28

The forecast **cumulative** chargepoint numbers that we suggest should be installed by the end of each year to 2020 are in the table below.

Scenario	2017	2018	2019	2020
Low	1	2	3	4
Medium	3	5	8	12
High	7	13	20	28

⁷ Average daily working and total mileages are 91 and 112 miles respectively. It is assumed that PHEV / E-REV drivers use electric power for working and ICE for commuting. Vehicles are assumed to have an approximate energy consumption of 210 Wh/km.

Private Hire

In the case of private hire, we have applied a different methodology to each scenario in order to forecast number of ULEVs entering the private hire fleet by 2020. The methods used to calculate these scenarios are as follows:

1. **Low.** Voluntary uptake, with no proactive encouragement or incentive. Based on private hire operators trialling ULEVs in 5% of their fleets (1/20 vehicles) in order to establish business case prior to more substantial ULEV procurement.
2. **Medium.** Lucrative local private hire contracts are tendered to specify that private hire companies will be expected to own a fleet comprised of at least one third ULEVs. Free market competition results in 30% ULEV uptake by private hire companies.
3. **High.** As above, but regulation changed to enforce that, as of 2017, all private hire vehicles must meet Euro 5 standard and all newly licensed vehicles must be zero-emission capable.

Projecting the uptake of ULEVs by year in the private hire fleet is more difficult to achieve, as drivers typically have less say than the private hire operators whom employ them. These operators are more capable of making large changes to their fleet relatively quickly, therefore providing an annual projection would be unreliable without further study.

However, considering the measures and the assumptions made in the scenarios above, the number of private hire ULEVs predicted to enter the fleet in Cambridge by 2020, as well as the number of chargepoints required to support these vehicles, is as follows:

Scenario	ULEVs by 2020	% of Existing Fleet	Rapid Chargepoints	Fast Chargepoints	Chargepoints Required
Low	8	5%	1	0	1
Medium	50	30%	7	2	9
High	73	44%	7	6	13

Measures proposed to attain ULEV uptake in different scenarios

Low

The low scenario is assumed to be of a reactive nature. This implies that infrastructure will be provided as demand arises, which will not improve confidence within taxi fleets and will limit short-term uptake considerably. In this scenario, uptake is predicted to be limited to taxi drivers who are already considering purchasing an ULEV. This level of uptake would quite possibly occur without any intervention but we would suggest the following measures would be appropriate to achieve this scenario:

- Monitoring mechanism implemented to track the licensing of ULEVs, in order to assess and respond to demand and evaluate success of measures taken
- Internal processes and working groups established to streamline selection of chargepoint sites and subsequent installation
- Further engagement with hackney carriage and private hire trades to ensure actions taken are done so with a degree of support from local TPH industry
- ULEV awareness raising exercise undertaken with hackney carriage drivers and private hire operators

Medium

The medium scenario involves a degree of proactive encouragement, undertaken mostly through free-market principles. This implies infrastructure will be provided in surplus to immediate demand, in order to improve confidence and generate a local increase in short-term uptake. In this scenario, uptake will include drivers who are already considering purchasing an ULEV, as well as drivers who are encouraged to purchase ULEVs on the basis of good confidence in the commitment of their respective local authority to provide and maintain infrastructure and support. This level of uptake would require some intervention by local authorities, additional to the measures suggested to achieve the low scenario. These additional measures include:

- Commit to installing the number of chargepoints required to support the predicted uptake of ULEVs in the local TPH industry
- Work with local NHS Trust(s) and/or schools to modify criteria of patient/pupil transport contract tenders to require private hire operators to possess and use a certain amount of ULEVs in their fleet
- Work with local land owners and station operators, as well as internally cross-departments, to provide a package of benefits to ULEV taxi drivers/operators, which allow them to be more competitive (e.g. access to AQMAs/LEZs and/or ranks on privately owned sites)
- Conduct analysis and produce case studies illustrating the local, real-life business case for taxi drivers and operators
- Engage with hackney carriage and private hire trades to gain feedback on what actions could be taken to facilitate the greater uptake of ULEVs and consider their suggestions

High

The high scenario involves considerable regulatory change, undertaken on the basis of a market failure. In this scenario, uptake will include all drivers matching criteria set out in new regulation (such as drivers with vehicles over a certain age). This scenario would require further, additional intervention to the measures expressed above, including:

- Make an assertive effort to remove oldest taxis from the roads through regulation and enforcement
- Regulating that all or a selected proportion of TPH vehicles must be ULEVs by a certain date
- Review all appropriate local regulation which could potentially serve to make ULEVs more competitive in the local market

Air quality implications of hackney carriage ULEV uptake scenarios

The average NOx output of vehicles in Cambridge City Council's hackney carriage fleet is 0.288g/km. This is a very low value for what is a predominantly diesel fuelled fleet and suggests that, on average, each vehicle in the fleet qualifies for a Euro 4 classification.

The average daily mileage of the hackney carriage fleet (combined working and commuting mileage), as indicated by the drivers' survey is 110 miles. Assuming a six day working week, this means the approximate total NOx emissions of Cambridge City Council's hackney carriage fleet is 5.06 tons per year. The table below shows how this NOx output would be improved by the various ULEV uptake scenarios described in this section.

	Present	Low	Medium	High
NOx Ave. g/km	0.288	0.227	0.201	0.144
Total NOx (g)	5,068,718	3,996,620	3,548,157	2,534,359
Total NOx Change (g)		1,072,098	1,520,561	2,534,359
Percentage Change		21%	30%	50%

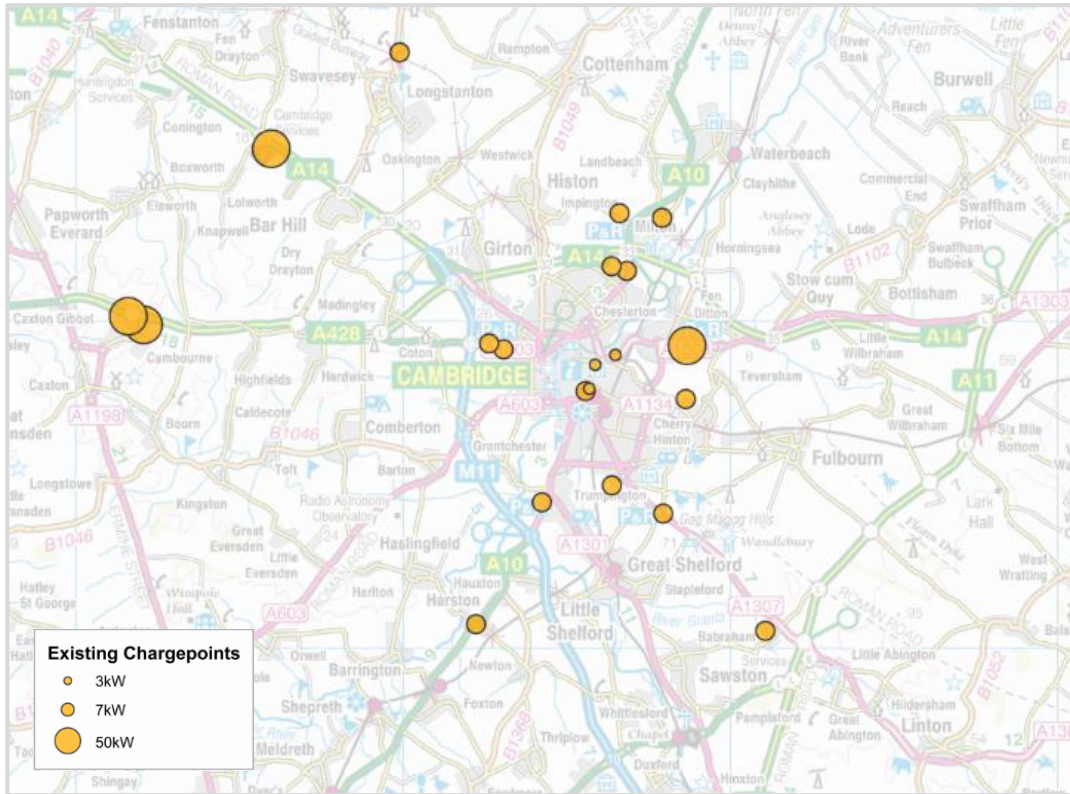
Depending on which scenario is achieved, Cambridge City Council could reduce its annual taxi-attributable NOx output by between approximately 1.07 tons per year and 2.5 tons per year. This would represent a reduction of 21% to 50%, assuming that the hackney carriage fleet remains the same size.

This total amount does not necessarily have any direct correlation with improvements in localised air quality, as this is determined only in part by the emission performance of fleet vehicles. The remainder of the factors governing localised air quality concern driver behaviour and areas of work, for which further investigation would be required to determine. That being said, a reduction of the total NOx emitted by the taxi fleet would almost certainly have a positive impact on local air quality.

06 Infrastructure: guidance for installers and operators

Existing chargepoint network

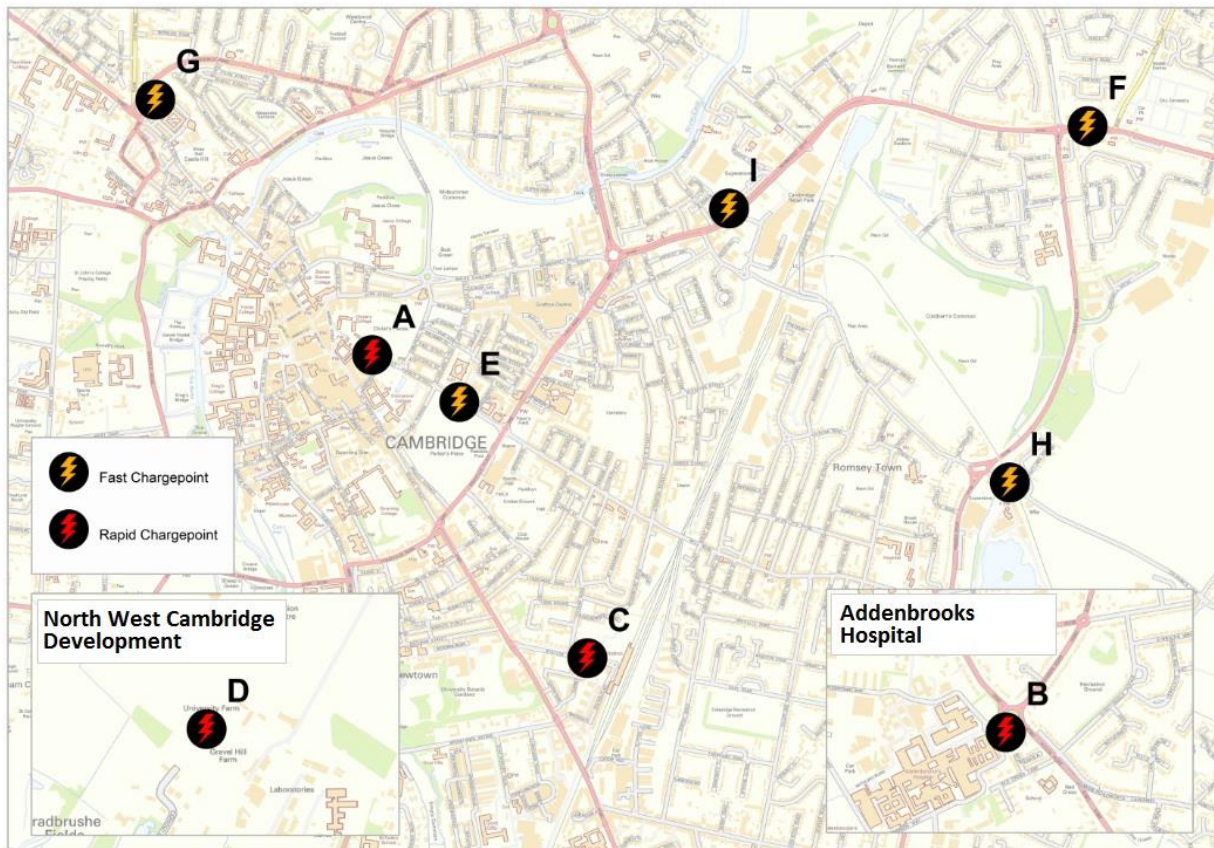
The map below displays the chargepoints in the Cambridge City area which provide 3kW/7kW (slow) or 43kW/50kW (rapid) rates of recharging. The full list of these chargepoints, as well as a brief description of their respective locations, is available in the annex. Currently there are insufficient chargepoints providing an appropriate rate of charge to support the introduction of plug-in taxis.



Proposed chargepoint locations

The locations displayed on the map on the following page are shown in the table below. The proposed chargepoint locations A to I are listed in priority order, based on their importance to the continuity of the existing taxi trade (as indicated by survey responses from the industry).

Rank Name	Indicator	Charge Speed
Drummer Street Bus Station	A	Rapid
Addenbrooks Hospital	B	Rapid
Station Road	C	Rapid
North West Cambridge	D	Rapid
Parkside	E	Fast
Barnwell Road/Newmarket Road	F	Fast
Castle Hill Car Park	G	Fast
Coldhams Lane/Brooks Broad	H	Fast
Newmarket Road	I	Fast



The high-priority chargepoint locations (A-D) proposed form a linear network of rapid charging coverage running from the North West, through Cambridge City Centre and to the south east. This covers many of the typical journeys made by taxis in Cambridge, as indicated by the drivers' survey these points will allow most early-adopters of ULEVs to continue accepting the majority of their current typical fares.

The lower priority points (E-I) both strengthen this linear network and expand it to cover the east of the city. It is proposed that these lower priority points are fast charging, as opposed to rapid, in order to save costs. Most of these chargepoint locations are proposed to be near to local amenities, making them ideal for drivers taking breaks and not requiring a rapid charge. The locations were also proposed to reflect the preferences that were shown in the drivers survey, regarding where they typically take breaks

Best practice for operators and installers

Choosing the right equipment

It is recommended that a mix of fast (20kW DC/22kW AC) and rapid (50kW DC /43kW AC) chargepoints are installed at different locations. These recommendations are based on the nature of use that can be foreseen for a given chargepoint site. For example, sites which will be used frequently and/or typically on shift are better suited to rapid charging, where speed is essential to prevent loss of earnings. Sites which will be used less frequently and/or whilst drivers are on breaks are better suited to fast charging, where speed is of less importance than convenience of location. This mitigates excess expenditure on unnecessary rapid charging equipment and additional infrastructure upgrades required to support them.

Business planning

The estimated infrastructure costs in relation to the grant required in the period to 2020 (see roadmap) relates purely to the charging equipment. Cambridge City Council should use the chargepoint locations and number of chargepoints required to provide location and capacity details to UKPN who will provide budget estimates for the proposed installations. It is recommended that the city appoints a chargepoint network operator who will manage the network and provide a payment system. Determining the cost to charge by time or kWh should be carefully considered. It is important to encourage the use of the infrastructure by maintaining a positive financial benefit to drivers, particularly those in range extended vehicles, who will otherwise elect to drive the vehicle on its petrol engine once the energy in the battery is depleted. It will be possible to model the cost to charge more accurately once the energy consumption of the new vehicles is known, including their fuel consumption when driven by their ICE.

Grid capacity

One of the potential issues in many cities is constraints on the supply of electricity from the grid, particularly when installing rapid chargepoints or several fast chargepoints at a single site. UK Power Networks (UKPN) the Distribution Network Operator (DNO) covering Cambridge offer an “ask the expert” service providing a 90 minute one-to-one meeting to take callers through technical advice on electrical connections to their network. In addition EValu8 have been contracted to provide advice to Cambridge City Council in respect of EV charging infrastructure.

We recommend that a network operator is appointed to oversee the process, from site identification through to chargepoint operation. Electrical contractors will manage tasks such as installing and testing the infrastructure.

Site selection and planning

1. Identify sites for installing infrastructure based on land availability and the locations proposed in this report.
2. Apply to UKPN for a free initial budget estimate, providing details of the location and the required power. UKPN will provide an approximate idea of costs for connection and any necessary upgrades. Any capacity identified is not reserved at this stage.
3. Carry out a site audit, taking into account the following considerations:
 - The layout and location of charging bays, including whether double lines or underutilised existing parking bays are appropriate.
 - The location of the existing or proposed substation in relation to the parking bays which may need to be rearranged to reduce cable runs and ground works.
 - Land ownership in the vicinity may impact on routing of electricity connections.
 - Location of other utilities such as gas, sewers and telephone. Service covers may indicate underground congestion, increasing complexity of connection.
 - Proposed bays should be away from areas of high density footfall. Ensure that proposed infrastructure will not negatively impact surroundings.
 - CCTV and lighting to ensure security and safe operation of infrastructure
 - Availability of GPRS (2G) mobile phone signal or specified alternative
 - For an on-street site audit, consider how parking will fit in with existing restrictions and where signage for parking bays will be installed.
 - Ensure that vehicular access to and from the site is adequate.

4. Chargepoint appearance should be discussed with the relevant planning department. Refer to Department for Transport⁸ guidance on the impact of street furniture on traffic management and streetscapes.
5. Request a free formal quotation from UKPN to determine exact costs, providing the power on date, substation location and meter positions. A contingency will be necessary to cover any unforeseen additional costs incurred by the DNO.
6. If the chargepoint will be on-street, a Traffic Regulation Order (TRO) will be required to allow enforcement of the bay.
7. Engage an electricity supplier.

Installation

UKPN must carry out all non-contestable work, including determining the connection point to the distribution system, reinforcing the distribution system, agreeing and obtaining legal consent, connecting to the distribution system and energisation. Contestable work (the rest of the installation process) can be carried out by an Independent Connection Provider (ICP) or UKPN.

Further considerations when completing the installation include:

- Controls and outlets should be between 0.75 and 1.2m above the ground so that they are accessible to everyone, including disabled users.
- Chargepoints should be installed so that maintenance access covers can be removed.
- Trip hazards should be avoided and provision made for the storage of tethered cables.
- Impact protection should be installed, e.g. bollards to protect the infrastructure.

Service Level Agreements (SLA)

It is crucial that hardware is reliable to facilitate adoption of the new technology by drivers and vehicle owners. The network operator(s) will be responsible for reliability and it is suggested that a relatively high rate of uptime⁹ (c. 90 per cent) should be set as a KPI.

Payment methods

Electric vehicle charging is generally paid for by a Pay as you go (PAYG) model. Options include:

- SMS
- RFID card, currently used for much of the public infrastructure installed in the UK.
- Smartphone app.
- Contactless credit or debit card

Connectivity and back office software

Chargepoints should communicate with a back office system through the Open Charge Point Protocol (OCPP)¹⁰. OCPP allows chargepoints and control systems from different vendors to communicate with each other, rendering the network operator less vulnerable to individual suppliers. OCPP should facilitate

⁸ Department for Transport streetscape guidance www.gov.uk

⁹ The time that an individual chargepoint will be fully functional

¹⁰ Details of the OCPP are available from the Open Charge Alliance www.openchargealliance.org

the integration of new technologies (e.g. inductive charging) as the software to provide additional functionality would be compatible across the network.

Back office software should provide functionality including:

- Detailed information on chargepoint activity including real-time status.
- Charging start and finish times.
- Electricity consumption by chargepoint.
- Energy provided to each vehicle during each charge event.
- Power demand management to avoid network overload.
- Remote software updates and maintenance.
- Support for customer service and chargepoint maintenance staff.
- Ability to book chargepoint access.

A comprehensive management system will enable identification of the most popular chargepoint locations and peak periods of use. This should be used to inform expansion of the network.

07 Potential challenges to ULEV taxi uptake

Existing charging infrastructure

There are two issues with the existing EV charging infrastructure in Cambridge, that each represent challenges to the swift uptake of ULEV taxis. Firstly, there are very few EV charging options in Cambridge City Centre, meaning much work needs to be done to facilitate the practical use of ULEVs in the local taxi industry. This lack of existing infrastructure can also impact the confidence of taxi drivers and private hire operators in ULEVs, playing a major role in any decision whether or not to purchase them.

Secondly, the limited charging options presently available in and around Cambridge generally provide a slow charge (3/7kW, 2-4hrs for 80% charge). Whilst charging at this speed can be a cost-effective solution to consumers, especially in off-street public car parks, taxi drivers and private hire operators would not remain profitable, or even sustainable, if their vehicles were required to spend a significant portion of their working time being charged. The use of ULEVs in the taxi industry is therefore heavily dependent on the provision of fast and rapid charging infrastructure and, in that provision, Cambridge is presently lacking.

Convenient charging sites in central locations

As a city of great heritage, development of sites in the city centre could prove challenging. However, charging infrastructure is most effective when installed in central locations, where they can be easily accessed by taxi and private hire drivers from across the city and beyond. Central charging locations are of even greater importance to hackney carriage drivers, as working time would be lost were they required to significantly depart from the main city centre taxi ranks in order to charge their vehicles. The challenge this presents to Cambridge is how to provide charging infrastructure in convenient central locations, without any significant redevelopment.

Vehicle running costs

Plug-in vehicles must cost less per mile in fuel when charged from a fast chargepoint than a new, efficient taxi would cost to run on conventional fuel. A taxi powered by petrol would cost around 14 pence per mile (ppm) for fuel if it returns 35 mpg¹¹. The table below compares this to the cost per mile of using a 20kW rapid chargepoint for a plug-in vehicle with an energy consumption of 210 Wh/km:

Cost per 30 minute charging event	Cost per mile on electric power
£1.00	5p
£2.00	9p
£3.00	13p
£4.00	17p
£5.00	21p

¹¹ An E-REV taxi with a depleted battery being driven on petrol power may return a figure of this order.

A fee of more than £3 per 30 minute charging event is unlikely to offer drivers of plug-in hybrid and extended range vehicles an incentive to use electric rather than petrol power. In the absence of this price incentive:

- The air quality benefits associated with plug-in vehicles will not be maximised.
- Chargepoint utilisation rates will be low and therefore installing infrastructure may not be cost effective.
- Drivers will not achieve the full benefit of the potentially lower running costs of plug-in vehicles.

Where drivers are able to recharge vehicles at home or at rates equivalent to, or lower than home recharging costs, there is a positive financial benefit when driving a pure electric vehicle or a plug in hybrid in electric mode as the following table demonstrates.

Electric Vehicle				Diesel or Petrol Vehicle					
Hackney/Executive		Saloon		30mpg		40 mpg		50 mpg	
ppm	£/10K	ppm	£/10K	ppm	£/10K	ppm	£/10K	ppm	£/10K
4.7	475	4.1	412	15.6	1,561	11.7	1,171	9.4	936

The energy consumption of the hackney/executive cars in this example are assumed to be 210Wh/km and the conventionally fuelled saloon vehicle to be 182Wh/km (NEDC consumption of Nissan LEAF + 21% real world factor). The cost of petrol or diesel is assumed at £1.03 per litre and domestic electricity at 14.05 pence per kWh.

Fuel consumption petrol or diesel (MPG)	Cost saving potential per 10,000 miles (Hackney EV)	Cost saving potential per 10,000 miles (Saloon EV)
30	£1,086	£1,149
40	£696	£759
50	£462	£525

Drivers' perceptions of plug-in vehicles

The survey responses indicate that more is required than simply making chargepoints available; concerns highlighted include the high lease / purchase cost of plug-in vehicles, (perceived) insufficient vehicle range and the impact of charging on productive working time. Provision of appropriate and reliable charging infrastructure must be supported by measures such as training for drivers in techniques to maximise the range of their plug-in vehicle and instructions on how to use chargepoints.

In light of the above, one option may be for Cambridge City Council to support the introduction of plug-in hybrid and extended range vehicles (both of which have petrol engines as well as battery drivetrains) without providing such an extensive network of chargepoints around the city. Plug-in hybrid vehicles typically have real-world electric-only ranges of around 30 miles, which would cover the average return commute – 20 miles – but leave little more for driving within the city. This could lead to the vehicles being run predominantly on petrol, rather than electricity and, whilst this would reduce pollutant emissions compared to the diesel taxis currently on the fleet, it would not maximise either the potential air quality benefits or the potential cost savings for drivers. A consideration which Cambridge City Council would need to make, were they to promote the use of plug-in hybrid vehicles for taxi purposes,

would be how to encourage drivers to maximise their electric-only travel time by utilising charging infrastructure effectively.

Current regulatory framework

In many ways, Cambridge City Council's existing taxi licensing regulations provide an excellent position from which to generate uptake in ULEVs for taxi purposes. The maximum licensing age of eight years, for example, means that not only is the current fleet of taxis relatively modern but it also means that there is a predictable timescale over which ULEVs could be phased in, were Cambridge City Council to regulate further.

However, Cambridge City Council's current regulatory framework poses some challenges in terms of offering taxi drivers and operators the best incentives available, through an enhanced top-up grant (to be made available by OLEV). The criteria for this grant is, at present, that the applicant's vehicle must be a purpose-built, wheelchair accessible taxi. One third (121/321) of Cambridge's hackney carriage fleet currently possesses 'grandfather' licenses for saloon type vehicles, which have no ULEV equivalent that would satisfy this criteria. Therefore, this portion of existing hackney carriage drivers would not be able to access the enhanced top-up grant and would have less incentive to purchase an ULEV. It may be necessary for Cambridge City Council to consider changing this element of their licensing regulation to maximise uptake. This will be discussed in section 08.

08 Roadmap

Total funding requirement

The table below shows the total amount of grant funding required between 2017 and 2020, in order to achieve ULEV taxi uptake targets across the three uptake scenarios (described in section 05), split by funding requirements for vehicle top-up grants and infrastructure grants for both hackney carriage and private hire use.

Scenario	Top-up Grants	HC Infrastructure Grant	PH Infrastructure Grant	Total
Low	£30,000	£120,000	£30,000	£180,000
Medium	£78,000	£345,000	£225,000	£647,000
High	£180,000	£635,000	£300,000	£1,115,000

The following table shows the total amount of grant funding required between 2017 and 2020, in order to achieve ULEV taxi uptake targets across the three uptake scenarios (described in previous sub-section), split by year with amounts shown per year and cumulatively. These figures do not include private hire requirements, as these requirements cannot be broken down by year without further evidence and engagement with local private hire operators.

Scenario	2017		2018		2019		2020	
	Yearly	Cmtive.	Yearly	Cmtive.	Yearly	Cmtive.	Yearly	Cmtive.
Low	£36,000	£36,000	£36,000	£72,000	£39,000	£111,000	£39,000	£150,000
Medium	£108,000	£108,000	£78,000	£186,000	£108,000	£294,000	£129,000	£423,000
High	£207,000	£207,000	£164,000	£371,000	£210,000	£581,000	£234,000	£815,000

Hackney carriage top-up grants

Taxi top-up grants are available specifically for purpose-built, wheelchair accessible taxis. The predicted number and cost¹² of taxi top-up grants are as follows:

Scenario	2017		2018		2019		2020	
	Grants	Cost	Grants	Cost	Grants	Cost	Grants	Cost
Low	2	£6,000	2	£6,000	3	£9,000	3	£9,000
Medium	6	£18,000	6	£18,000	6	£18,000	8	£24,000
High	14	£42,000	13	£39,000	15	£45,000	18	£54,000

Cambridge presently licenses 121 saloon-type taxis, which have no ultra-low emission equivalent that is eligible for the top-up grant, under present criteria. Therefore, the predicted number of ULEVs entering the taxi fleet (as described in section 05) has been modified to reflect this.

¹² This assumes a top-up grant value of £3,000 per vehicle, with all vehicles being purpose built for taxi use. OLEV has not released any information about this grant; the figure used has been selected by EST and is indicative only.

Hackney carriage chargepoint funding

The forecast **annual** chargepoint numbers that we suggest should be installed by the end of each year up to 2020, split by charging speed, are in the table below. R: Rapid, F: Fast, T: Total¹³

Scenario	2017				2018				2019				2020			
	R	F	T	Cost	R	F	T	Cost	R	F	T	Cost	R	F	T	Cost
Low	1	0	1	£30,000	1	0	1	£30,000	1	0	1	£30,000	1	0	1	£30,000
Medium	3	0	3	£90,000	2	0	2	£60,000	3	0	3	£90,000	3	1	4	£105,000
High	4	3	7	£165,000	3	3	6	£125,000	4	3	7	£165,000	4	4	8	£180,000

This study recommends that the required number of chargepoints (as described in section 05) are all newly installed to support the uptake of zero-emission capable taxis. This is due to the current stock of city centre public chargepoints being of predominantly slow charge speed (3/7kW), making them of limited use to taxi drivers whilst on shift.

Recommendations to help overcome identified challenges

This feasibility sets out a road map by which Cambridge can introduce charging infrastructure across the city and encourage the adoption of ULEVs by the taxi and private hire trade.

Existing charging infrastructure

Determine the feasibility of the locations identified for charging points and future hubs and obtain budget estimates from UKPN. Further engagement with the University and NHS Trust is required to ensure that infrastructure is installed where the drivers need it. Considerable development (including additional housing) at these locations is underway or planned and there is a great opportunity to ensure that any infrastructure upgrades can take account of the charging requirements.

Convenient charging locations in central locations

The main city centre locations required for infrastructure to be installed are the bus and railway stations or in their locality. The railway station redevelopment is underway and the operator (Abellio) should be further engaged in the project with a view to providing charging for both trades. In discussions over the proposed redevelopment there appears to be a road parallel to the current station rank which should be explored for this purpose. It is not sensible to install chargepoints on the station rank which is particularly busy and this would also remove the possibility of the private hire trade being able to recharge in an area close to where they will be dropping off fares.

Vehicle running costs

With a relatively new fleet in the city the medium scenario for vehicle uptake is almost aligned with the city's ambitions to achieve 30% ULEV uptake by 2020. The cost of the new vehicles will be covered to

¹³ Chargepoint installation costs are displayed at an indicative £30,000 per rapid charger and £15,000 per fast charger. These prices will vary dependent on location, both regionally and site-by-site. These costs are based on general estimates from leading chargepoint suppliers.

some extent by the top-up grants but further measures will be required to overcome the relatively low numbers of new vehicles registered in the private hire trade. Cambridge should consider further incentives to encourage drivers and operators to purchase plug-in taxis, such as:

- Lower access costs to the station rank
- Review of local authority tender scoring to encourage drivers to invest in the vehicles.
- Further work with the University and NHS trust to review travel arrangements.

Plug-in vehicles must cost less per mile to fuel when charged from a chargepoint than a new, efficient taxi would cost to run on petrol or diesel. The city should work with potential network operator(s) to ensure that suitable fees are charged to taxi drivers.

Drivers perceptions of plug-in vehicles

The city should engage with LTC in particular once the specifications and costs of the TX5 are known. By providing drivers and their representatives with whole life vehicle running cost predictions and access to cost effective driver training in the operation of the vehicles will help overcome many of the negative perceptions. It is recommended that the private hire trade should be encouraged to obtain vehicle demonstrators to determine real world range and costs; the City Council can play a central part in this process.

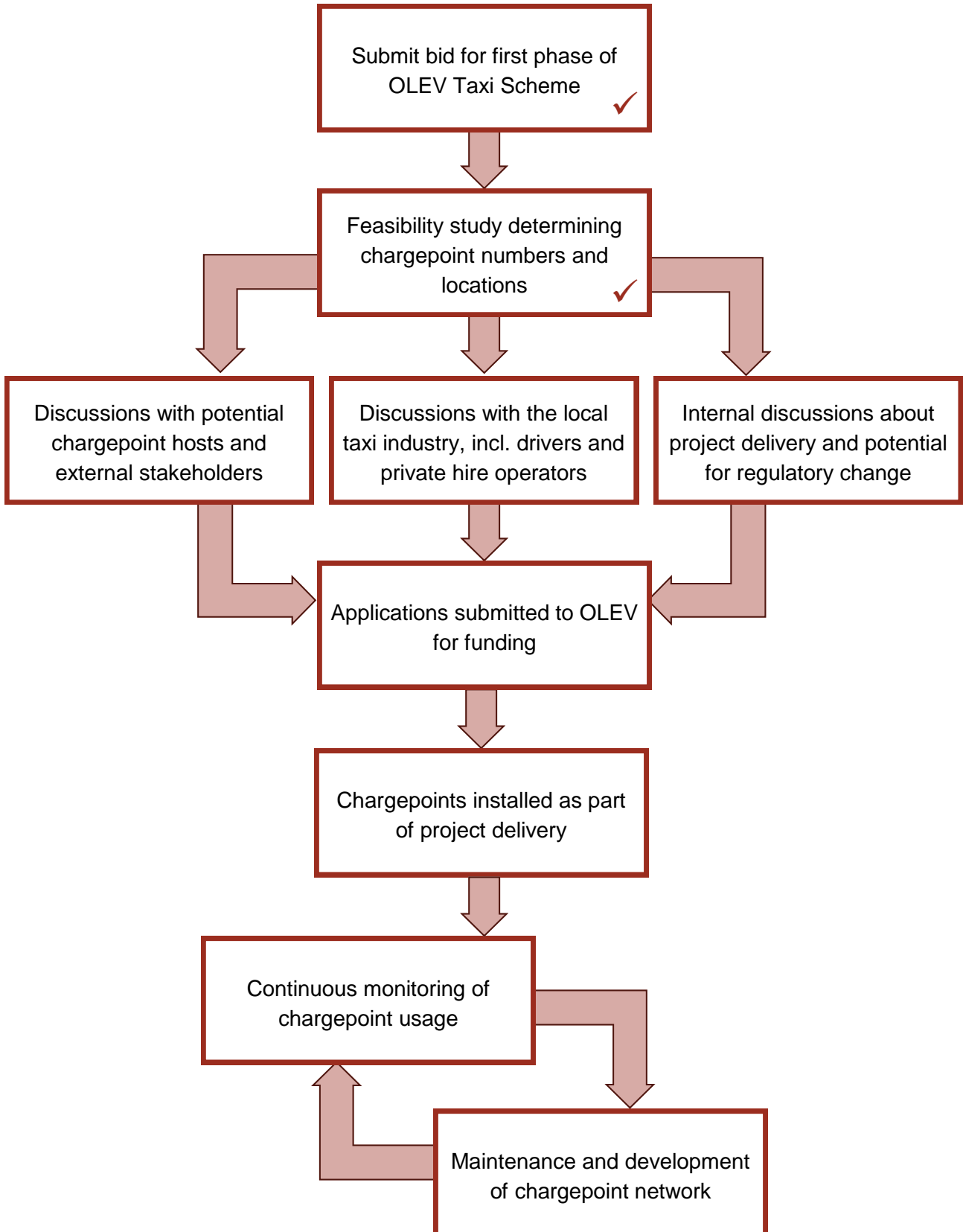
Current regulatory framework

With an established licensing policy which removes the license from taxi vehicles older than eight years, a step-change to this policy could ensure that all newly licensed taxis are ULEVs. This approach is reflected by the 'high' scenario of the uptake analysis at the beginning of this section of the study. Were this policy applied immediately, Cambridge City Council would have an entirely ULEV hackney carriage fleet by 2024.

Secondly, using Cambridge City Council's network of rising bollards and road traffic cameras to control road access to the city centre, there is an opportunity to provide taxi drivers with the incentive that only ULEVs will be permitted into the centre. This would likely be unpopular if introduced quickly, but may prove effective if phased in with the agreement of the industry. These opportunities for regulatory change should be explored further in order to maximise uptake.

Next steps

The flowchart below illustrates the next steps for Cambridge City Council in their bid to receive government funding from the Office for Low Emission Vehicles to develop infrastructure and provide grant support in order to hasten its transition towards an ultra-low emission taxi fleet.



Glossary of terms

Term	Definition
AC	Alternating current
Battery electric vehicle (BEV or pure-EV)	A vehicle powered only by electricity. The vehicle is charged by an external power source and incorporates regenerative braking which helps to extend the available range.
CHAdeMO	A charging protocol for delivering a DC supply to plug-in vehicles. CHAdeMO is primarily used by Japanese vehicle manufacturers, including Nissan and Mitsubishi, as well as Citroen and Peugeot.
Charging event	The time when a vehicle is connected to a chargepoint while power is transferred
Combined Charging System (CCS or Combo)	A charging protocol for delivering a DC supply to plug-in vehicles. It is currently used by BMW and VW. Most American and European manufacturers, including Ford, General Motors and Porsche have indicated that they will use CCS.
Conventional hybrid	Vehicles primarily powered by petrol or diesel which also have a storage battery charged by regenerative braking. This stored energy is then used to drive an electric motor which can assist the conventional engine to drive the wheels or drive them entirely for a short distance (usually less than a mile).
DC	Direct current
DNO	Distribution network operator
Euro (3, 4, or 5)	Increasingly stringent standards for the acceptable limits for exhaust emissions of new vehicles sold in EU member states.
Extended range electric vehicle (E-REV)	A vehicle which combines a battery, electric motor and an ICE. The electric motor always drives the wheels with the ICE acting as a generator when the battery is depleted.
Fast charging	Charging a plug-in vehicle at typical rates of 7kW AC, 20kW DC or 22kW AC
kW	Unit of power
kWh	Unit of energy
Mennekes (Type two)	The recommended standard for public 3.5kW and 7kW AC chargepoints. It can also be used for fast AC charging at 22kW or rapid AC at 43kW.
NOx	A generic term for nitric oxide, nitrous oxide and nitrogen dioxide.
On-board charger	Systems on-board plug-in vehicles which use a rectifier circuit to transform alternating current (AC) to direct current (DC).
Open Charge Point Protocol (OCPP)	A protocol which allows chargepoints and central control systems from different vendors to easily communicate with each other
Opportunity charging	Re-charging a plug-in vehicle during daily use (rather than overnight at home or depot). Typically requires a fast or rapid chargepoint.
Plug-in car grant / plug-in van grant	Grant funding to support private and business buyers looking to purchase a qualifying ultra-low emission car or van.
Plug-in hybrid electric vehicle (PHEV)	Similar to a conventional hybrid, with a larger battery and the ability to charge the battery from an external power source.
PM (10 and 2.5)	Suspended particulate matter categorised by the size of the particle (for

	example PM10 is particles with a diameter of less than 10 microns).
Private hire operators / vehicles	Operators including minicab, executive car and chauffeur-driven services. Private hire vehicles cannot be hailed in street and must be pre-booked with a licensed private hire operator.
Rapid charging	Charging a plug-in vehicle at typical rates of at least 43kW AC or 50kW DC
Regenerative braking	Converting the kinetic energy of the car into electricity which is stored in the battery.
Slow or standard charging	Charging a plug-in vehicle at typical rates of no more than 3.5kW AC
Taxi	Licensed cabs which can be hailed in the street or from a rank.
TCO (total cost of ownership or whole life cost)	The full cost of owning or operating a vehicle, including purchase / lease cost, fuel, tax, insurance and residual value.
TPH	Taxi and private hire

Existing chargepoint locations and type

Postcode	Location Type	Charge Speed
CB1 1ND	Public	3kW
CB1 1PS	Public	3kW
CB5 8HD	Dealership	3kW
CB1 1LY	Hotel	7kW
CB1 3LN	Dealership	7kW
CB10 1HH	Public	7kW
CB2 0QQ	Public	7kW
CB2 9FT	Public	7kW
CB22 3AB	Public	7kW
CB22 3AT	Public	7kW
CB22 7NH	Public	7kW
CB24 3DS	Public	7kW
CB24 6DB	Public	7kW
CB24 6DQ	Public	7kW
CB3 0DY	Public	7kW
CB3 0EX	Public	7kW
CB4 0FZ	Public	7kW
CB4 0WN	Public	7kW
CB8 0TF	Public	7kW
CB23 4WU	Public	50kW
CB23 6BW	Hotel	50kW
CB23 6EF	Dealership	50kW
CB5 8SQ	Dealership	50kW
CB8 0XG	Public	50kW

This page is intentionally left blank