List of Appendices

Appendix 1	Steering Group meetings
Appendix 2	Workshop and Round Table Discussion 14 th January 2008
Appendix 3	Interviews The Crown Estate, Soho Estates, Jonathan Lane
	(Shaftesbury PLC) (Summaries)
Appendix 4	Study area resident population estimate
Appendix 5	The London Energy and CO ₂ Emissions Inventory 2003
	(LECI) grid for London
Appendix 6	Time scales and decision-making cycles
Appendix 7	LECI data on energy consumption
Appendix 8	Sustainability checklist
Appendix 9	List of streets in Soho

Appendix 1: List of Steering Group meetings at the University of Westminster

Meetings date	Page
Thurs, 6 October 2008, The Chalk Suite Meeting Room 6, 14:30 to 16:30	2
Thurs, 19 June 2008, The Chalk Suite Meeting Room 4, 10:00 to 13:30	4
Thurs, 28 January 2008, The Chalk Suite Meeting Room 5, 14:30 to	7
15:45	
Thurs, 5 November 2007, The Chalk Suite Meeting Room 2, 14:00 to	10
15:30	
Thurs, 13 September 2007, The Chalk Suite Meeting Room 6, 09:30 to	13
11:30	
Tuesday, 3 July 2007, The Chalk Suite Meeting Room 5, 10:30 am - 1:00	16
pm	
Friday, 25 May 2007, The Chalk Suite Meeting Room 5, 10:00 – 11:30	20
Thurs, 19 April 2007, M134, 10:00 – 11:15	23

Retrofitting and Sustainability for City Centres Project Steering Group Meeting Monday, 6 October 2008, 2:30 pm to 4:30 pm

The Chalk Suite Meeting Room 6, University of Westminster, 35 Marylebone Road NW1

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1.	Mike LeRoy (Westminster City Council)	ML
2.	Lydia Clarkson (Westminster City Council)	LC
3.	Richard Langston (Westminster City Council)	RL
4.	Richard Greenslade (the Crown Estate)	RG
5.	Claire Craig (English Heritage)	CC
6.	Matthew Bennett (Soho Society/SCEF)	MB
7.	Jo Hammond (Central City Institute)	JH
8.	Tony Lloyd-Jones (Max Lock Centre)	TLJ
9.	Adam Eldridge (Central Cities Institute)	AE
10.	Budhi Mulyawan (Max Lock Centre)	BM

Apologies

Penny Thomas (Shaftesbury plc)

PT

1. Final draft of report

Discussion on the final report highlighted as follows:

Focus on recommendations in the report

Issues of differences between commercial and residential properties were noted by CC, with regard to her study on the subject. There is a lack of information on who the building owners are and the ownership status of the buildings. MB added the necessity of addressing small commercial properties that could be potential as a starting point.

JH noted the importance of the green lease in Corporate Social Responsibility (CSR).

ML said there are no immediate solutions with regard to tenant/owner issues. However, the report should try to address short-term solutions.

ML, RG and BM highlighted the different between business products (green products) and building operations. ML noted that green leases in the text should be able to address the building operations. TLJ suggested that this issue could be highlighted in the text.

Target groups of the study

JH raised the issue of target groups of the study and who the recommendations should be directed at. MB noted the need to address the question of 'who is going to take the lead?' ML suggested setting out a simple matrix, which could include time scales.

RG noted the commitments of some landlords to adopt green technology. However, it is not easy to justify green technology in terms of cost effectiveness. ML and RG highlighted the role of building codes in guiding retrofitting. LC noted the need to target commercial organisations and businesses as the main target group.

Section 106

RG questioned the scope of Section 106 in retrofitting, whether it is a new addition to current planning practice. LC confirmed that current Section 106 has not covered retrofitting issues.

Recycling

MB said recycling and garbage collection in the limited and restricted space of Soho needed to be highlighted. The current scheme of putting out plastic bags just before collection is good, but there are potential benefits that could be realised through a more communal approach.

Website

TLJ noted that a website could be set up to help in disseminating retrofitting ideas. But there was concern that a web site requires a lot of resources to maintain and keep up to date.

Report output

It was agreed that the main published output would be the Executive Summary. The whole main document will be in digital files in a CD in the back of the Executive Summary. TLJ suggested printing a limited number of the main report. Website dissemination will also be used.

Time table of report completion

LC summarized the new dateline for the report as follows:

- Finalising the text by 31st October after comments for the next 2 to 3 weeks.
- TLJ to rewrite recommendations in the Executive Summary by 17th October

2. Launch of report

ML and LC suggested launching the report in a breakfast launch event at the Westminster City Council sometimes towards the end of November or early December.

ML will suggest a list of invitees and list of media organisations to promote the launch event. CC will also contribute to the list of invitees with regard to EH's interests.

TLJ noted the possibility of involving the Parliamentary Committee.

MB noted the need to contact the press and media organisations.

3. A.O.B

The additional budget requirement for printing the final report will be looked at with financial support offered by English Heritage.

Retrofitting and Sustainability for City Centres Project Steering Group Meeting

Thursday, 19 June 2008, 10:00 to 12:30

The Chalk Suite Meeting Room 4, University of Westminster, 35 Marylebone Road NW1

11.	Mike LeRoy (Westminster City Council)	ML
12.	Penny Thomas (Shaftesbury PLC)	PT
13.	Matthew Bennett (Soho Society/SCEF)	MB
14.	Richard Langston (Westminster City Council)	RL
15.	Tony Lloyd-Jones (Max Lock Centre)	TLJ
16.	Budhi Mulyawan (Max Lock Centre)	BM

Apoligies

17.	Lydia Clarkson (Westminster City Council)	LC
18.	Claire Craig (English Heritage)	CC
19.	Richard Greenslade (The Crown Estate)	RG
20.	Adam Eldridge (Central Cities Cluster)	AE
21.	Jo Hammond (Bone Wells Associates)	JH

Discussion on the draft report

A. Executive summary

MB and ML thought that the executive summary is too long and quite repetitive, and need to be shortened. ML added it conflates the recommendations, introduction and conclusions.

PT agreed that it covered different areas including those unrelated to property. It should be short and concise for busy property people.

ML suggested to shorten executive summary into 3 A4 sides to make a better impact. He added it would be a public PR documents for people not in the know on the issues.

ML also said the report needs to highlight 'who by' and 'who for'.

MB said the report should highlight the lessons of the complexity of Soho and relevance to other mixed-use and commercial inner city areas in London, e.g. Fitzrovia, Covent Garden, Marylebone, Victoria, Queensway and Camden Town.

He added the summary should be a separate document so it can be used at seminar events and for the wider distribution.

B. Content

ML suggested that the report should be divided into a concise Executive Summary, Introduction, which contains methods and structure, and a concluding section which sets out numbered recommendations related to more specific issues.

MB added that the recommendations ought to target various actors e.g GLA, Property owners, including recommendations to Westminster City Council.

He added it is necessary to identify somebody to take the lead for a partnership with Westminster City Council. He/she will be the key person in setting out Retrofitting Soho pilot project.

TLJ discussed the pivotal role of creative industries in the area as defined by the UDP.

TLJ then asked steering group members to give their views on what should be retained in the draft report and what should be omitted. The responses are as follows:

- MB thought that the discussion of websites was not valuable.
- ML suggested TLJ to take out elements of criticism of Central Government because it will only move the focus away from the main issues.
- ML asked TLJ to review the evidence to support statements of which he does not agree, such as the lack of electric vehicle charging station in Westminster.
- ML emphasised the need to highlight possibilities at the local level and other practical possibilities e.g. insulation and draftproofing. He added the importance of accessing expert advice in dealing with retrofitting solutions.
- ML added that the report could also highlight the Flagship Homes case study and why it has not been replicated, in relation to applying best practice.
- MB and TLJ responded that current policies and case studies are still limited to housing than commercial uses. All agreed that the report should focus on mixed-use of both commercial and housing in buildings of multiple occupation. PT confirmed that Shaftesbury PLC has significant housing areas above its commercial properties.
- CHP is discussed as an essential aspect in the report and the possibility of retrofitting in Soho. ML said that as predominantly commercial uses, CHP should also include cooling, hence CCHP. CCHP would be potential in reducing the clutter of external cooling installations.
- MB suggested TLJ highlights computer-based industries which were vulnerable to power cuts and role of creative industries using their marketing skills to make Retrofitting Soho happen.
- ML highlighted CC's email on her appeal for more inclusive and partnership approach in the report content.
- MB added the possibility of using thermal imaging to find out about the focus and priorities of retrofitting. This was mentioned by Councillor Alan Bradley in his talk at RIBA.
- All agreed that roof area needs to be looked more detail to see the
 possibilities of retrofitting as mentioned in the draft report. ML mentioned
 about the technology of using stereo aerial photo to see 3D images of roof
 building.
- Building conservation issues need to be coordinated with CC and to find out about the most relevant issues. ML noted cavity wall is not much an issue for buildings in Soho.
- MB agreed on exhibition and the use of website instead of setting up one stop shop in promoting retrofitting in Soho. He also emphasised on the need of public private partnership instead of depending on limited public funding.

MB was concerned about the length of report. He thought that much of Sections 3, 4 and 5 could go to annexes. TLJ responded that annexes could be separated in a CDrom and not to be printed. Annexes can also be downloadable from website.

Agreed that the report should be published by the University of Westminster with the Soho Community Environment Fund. All partners involved will be mentioned in the report as sponsors and steering group members.

Further contact suggestions

ML suggested TLJ to contact Alison Tickell, director of Julie's Bicycle.

ML also suggested TLJ contact Brady Gun to get more detailed information on Electric car station scheme in London.

MB said that it is still possible to link up with Berwick Street partnership.

MB suggested TLJ to liaise with John Walker, Head of Development Planning and plan for round table meeting.

TLJ mentioned the possibility of plugging into London Better Building Partnership. Other potential links are with GLA planners and RICS.

Report launch and exhibition

MB and ML agreed that the launch should be in mid September. MB and ML will look at the possibility of using important buildings for the venue such as in the Town Hall. TLJ added that the event could be organised at the University of Westminster at Regent campus (e.g. Fyvie hall)

MB will find out about important people to support the launch of the report. Tentative dates are 8 or 15 September.

ML discussed the possibility of involving key politicians in Westminster City Council. He also suggested to contact Cllr Barrow of Go Green fund who has funded the project through LC.

Next meeting

Comments from all will be by 4 July. ML will send his marked comments on print papers next week before his long on-leave period until August.

TLJ will finalise the changes by the end of July for final print out. The updated report can be circulated in pdf by email.

Retrofitting and Sustainability for City Centres Project Steering Group Meeting Monday, 28 January 2008, 14:30 to 15:45

The Chalk Suite Meeting Room 5, University of Westminster, 35 Marylebone Road NW1

Lydia Clarkson (Westminster City Council)	LC
Mike LeRoy (Westminster City Council)	ML
Claire Craig (English Heritage)	CC
Richard Greenslade (The Crown Estate)	RG
Matthew Bennett (Soho Society/SCEF)	MB
Jo Hammond (Bone Wells Associates)	JH
Adam Eldridge (Central Cities Cluster)	ΑE
Tony Lloyd-Jones (Max Lock Centre)	TLJ
Budhi Mulyawan (Max Lock Centre)	BM
Apologies	
Penny Thomas (Shaftesbury PLC)	PT

Contractual issues

LC said the contract between Westminster CC and the University has been generally agreed with Cameron Thompson. LC will confirm. The Intellectual Property rights will be given to Westminster CC who will license them to all parties involved in the project funding. RG said The Crown Estate will channel its funding through SCEF.

<u>Tasks</u>: RG and MB will co-ordinate The Crown Estate funding. TLJ will chase CT to ensure that contractual arrangements have been finalised. LC to confim.

Update on the progress of project

TLJ reported that although the project was running several months behind the schedule, progress has been made especially as a result of the workshop in 14 January 2008. The workshop lacked property owner participation but there were significant outputs.

Report on Workshop on 14 January 2008

The summary and draft notes of the workshop were distributed to all. AE noted that the workshop had gone well and would give significant inputs into the research. ML commended AE on his facilitation of the event. As there was no representation from major building owners, more discussions will be necessary to tackle specific issues relating particularly to building owners, such as tenant-landlord issues. Adam will follow up by conducting interviews with 3 major landlords (including The Crown Estate) and other users in Soho. He will aim to carry these out in the next month.

MB noted a correction to the Workshop Notes regarding the green roofs, which should read that they can act as a green corridor for wild life (not vermin!). The workshop note will be circulated for comment before final issue.

There was a brief discussion of the outcomes of the two discussion groups. One had focused on district heating and CHP schemes as the most promising and cost effective way to reduce carbon emissions from buildings (and minimise impacts on protected buildings) as outlined in Chris Dunham's presentation of his model for Central London. The other group had ignored this option because of the significant investment constraints and had focused on other issues such as managing traffic, recycling and green roofs.

Discussion on follow-up

TLJ noted that CC had requested details of the range of measures contained in Chris's model for English Heritage. ML noted that these should be published in the relevant section of the Mayor's web site.TLJ said that, in relation to Soho, a narrower and more focused range of options should be identified.

He had discussed with Chris the possibility of developing a Soho-specific model that would greatly augment the findings of the study. Chris had given a ballpark range of costs from £5-9,000.

On top of this, the Max Lock Centre would have to carry out some kind of survey to identify the range and proportion of different building types and ages in the area, each of which would have a different retrofitting requirement. CC noted that she would explore the possibility of providing in-kind English Heritage input on such a survey. This would be very much welcomed. She will liaise with TLJ on this. However she will be away during 5 Feb until 27 Feb. TLJ suggested CC might focus on a sample pilot survey and will get back to CC with a proposal.

MB noted that the study should aim to point to the most cost effective solutions in retrofitting for the range of building types (and conditions). We already have data on where the listed buildings are. The Conservation Audit might cast some light on building typology in the area.

It was noted that the simplest and least intrusive measures were at roof level. There were limited opportunities for cavity wall insulation. RG noted that the main issues regarding facades related in particular to Grade 1 listed buildings. With other buildings in conservation areas, street facades could be an issue, although The Crown Estate had no particular problems with the facades on their Regent Street properties in terms of retrofitting, and it was easier to deal with performance improvements internally.

He noted that they have identified the 10 biggest energy users among its tenants and had building-specific data on carbon footprints. There He intended to invite his colleague, Geoff Hart, who was working on criteria for improving environmental performance in building management, to join the follow-up interview focusing on the property management and development issues. TLJ suggested that BM could attend this meeting with AE to cover the technical data side.

TLJ raised the issue of stakeholders with an interest in the project and getting a broad breakdown of property ownership, ensuring that we knew who all the main property owners were. He asked if the Council was a significant property owner in the area. LC replied that there were only a few Council-owned buildings – mainly unattractive tower blocks built in the 1960s.

ML noted that there would be information on Kemp House in the Berwick Street Area Regeneration brief where environmental issues are highlighted and which may include proposals on building refurbishment and CHP. The best direct contact would be Darren Levy at City West Homes, the Council's arms-length management company, which holds the purse strings. Another key stakeholder is the Soho Housing Association whom AE would approach for interview.

CC noted there had been a recent English Heritage conference at the Royal Society. The EH Research and Standards Unit will be carrying out a major (3-year) study with EON/EDF on improving the energy efficiency of the 20% of housing stock in the UK built before 1919. Our study could feed into this rather than vice versa.

The study has identified important issues of legal constraints (e.g. length and scope of leases), split incentives and multi-ownership of properties in Soho. RG noted that the building owner has no control over tenant activities. ML noted that although most issues were addressed during the workshop the issue of who is going to pay for

retrofitting remained the absolute key challenge. If the study could come up with recommendations regarding the management issues of who does what, who pays and who benefits, it would be making a major contribution.

TLJ asked RG if there was any good practice in this aspect within The Crown Estate. RG replied that this was really a question about the effectiveness of different managing agents (with possible implications for managing agent good practice).

This is an area where RICS would be able to offer expertise (as well as on he building surveying side). TLJ will follow up on this with the surveyors within the School of Architecture and the Built Environment and/or directly with RICS.

MB noted that, given the success of the workshop format, it would be helpful to have follow-up workshop/seminars with other groups of stakeholders perhaps in two sessions:

- 1. Exploring the management and tenure issues with tenants, landlords or building owners.
- 2. Exploring other physical issues such as recycling, traffic and green agenda.

TLJ said that the current level of funding of the study and time scale would not run to this, although it would be important for stakeholder participation in the longer term. ML suggested that follow-up interviews can focus on these two areas in the meantime. It might be possible to talk with people who deal with the issues directly such as recycling and waste companies in the area. There was also good information from the Council, which is part of a very good environmental/green activity network with other councils.

JH noted a good case study in the Paddington Recycling scheme. She also raised the issue of seeking support from the Mayor of London who was currently very active in the area of green initiatives. ML noted that the Mayor's activities are mainly at the strategic level. MB asked if there was a route through he London Councils. ML replied that the relevant organisation was the Transport and Environment Committee but that he was also part of the London Environment Co-ordination Group. There was also discussion regarding Westminster's Go Green Agenda and Task Group. Associated funding related to capital works. Energy policy concerns in relation to conservation areas were being addressed in the Local Development framework through Gillian Dawson.

MB raised the issue of a follow-up to the study with a local exhibition. TLJ suggested this might take the form of an electronic display. MB gave a copy of the Soho Action Plan to BM.

LC said Westminster CC needed a brief report on progress and the programme of work from now on to report back to the relevant Councillors (Warner and Bradley). TLJ promised to supply this by the end of the week.

Tasks

TLJ and CC to liaise on possible building survey. TLJ to email brief project progress report to LC and follow-up on RICS leads.

Retrofitting and Sustainability for City Centres Project Steering Group Meeting Monday, 5 November 2007, 14:00 to 15:30

The Chalk Suite Meeting Room 2, University of Westminster, 35 Marylebone Road NW1

Lydia Clarkson (Westminster City Council)	LC
Mike LeRoy (Westminster City Council)	ML
Richard Greenslade (The Crown Estate)	RG
Matthew Bennett (Soho Society/SCEF)	MB
Jo Hammond (Bone Wells Associates)	JΗ
Tony Lloyd-Jones (Max Lock Centre)	TLJ
Budhi Mulyawan (Max Lock Centre)	BM
Apologies	
Claire Craig (English Heritage)	CC
Adam Eldridge (Central Cities Cluster)	ΑE
Penny Thomas (Shaftesbury PLC)	PΤ

Draft Brief – Mike and Lydia will send their comments in the next few days. Mike gave Tony a hard copy of his.

<u>Action</u>: TLJ will revise the Brief to incorporate latest comments and any EH concerns raised by Claire. He will circulate the revised version.

Contract: Matthew concerned about Westminster CC having excluding intellectual property rights. This is also a concern for the University and The Crown Estate. Lydia agreed there should be a clause included covering this (i.e. establishing the basis for licensing the other parties to disseminate the outputs). Given the contractual delays, the programme for the study will be put back two months to end of March 2008.

Tony will send the form of words used by the University. Agreed we would try to agree and resolve all the outstanding contract issues in the next few weeks.

Action: TLJ, LC, MB, RG to progress contracts.

Update: Tony reported back on activities since the last meeting. Budhi has been collecting information on case studies and policies and MLC have begun to build up information on Soho. Tony and Budhi attended two events that provided some useful background information on building conservation and sustainability issues, the GHEU (Government Historic Estates Unit) seminar at BRE (9/10/07) and Eco-Renovation organised by Camden CAN (Climate Action Network) (23/10/07). Richard and Mike also attended the seminar at BRE.

These events highlighted individual buildings, and historic buildings in particular, not sustainability issues relating to areas and groups of buildings, or the particular urban management issues of Soho. However, they presented some good practices in retrofitting that can be referred to in the study. There is potential to follow up with more information from some of the presenters from both seminars.

The CAN presentations demonstrated that substantial reductions in the use of energy could be achieved through basic improvements such as insulation and draft proofing. Both case studies used solar water heating and rainwater harvesting, high efficiency boilers, controls and appliances but not micro-generation and solar voltaics. Both cases were individual owner-occupied houses not evident in Soho where there is multi occupancy, mixed use, tenant occupancy and more commercial than residential floor-space use.

Tony noted the main issue of energy usage in non-domestic buildings and heat island aspects of Soho, which meant cooling was more of an immediate pressing

concern than it was for other areas. There is ongoing EPSRC research modelling energy use in non-residential buildings for the UK as a whole. The energy use profile for non-residential buildings showed a similar proportion of energy used in heating (more than 60%) but, whereas the second biggest use in dwelling was hot water, in commercial buildings it was lighting, followed by cooling.

In Soho, the heat island effect means central London is up to 5 degrees warmer than the surrounding countryside, and climate change could intensify this effect and local demand for cooling. This kind of information would help us in building a sustainability profile of Soho.

In response to the query about any work being done on describing the urban and sustainability context of Soho, Tony noted that this would be the part of the study that the research team would address first. A background paper would be needed to inform the round table discussion outlined below. This would be followed by the review of stakeholders' views, review of policies (including inter-policy tensions and the constraints and demands of central government policy) and finally work on case studies. Mike noted that there should be a limited range of examples that were practical and could be implemented in the Soho context.

There was a discussion about software (management, maintenance, operation and use) vs hardware solutions and the importance of occupiers behaviour and the challenges of trying to effect this when energy costs e.g. for lighting were still a relatively small proportion of peoples budgets.

It was noted that new devices were already available for monitoring the energy consumption of devices for use as part of energy budgeting. In between the behaviour-focused approach, and 'big' technology solutions, there was also a possibility of making better use of 'smart' technology, for example in the use of automatic and sophisticated controls.

Jo noted that it is critical that occupiers have the information about how to maintain and manage equipment and on how to monitor and report on energy use. They need to be made aware of the benefits and to be motivated to change their behaviour.

Round table/focus group event: following Mike's suggestion at the BRE/EH event and subsequent discussions, it was agreed that we should organise a round table meeting, with a facilitator, for around 8-10 people in the second week of January.

Interests that should be represented included property owners and developers. Jo emphasised that occupiers should be represented. Matthew thought this might include a representative of the retail/local business sector.

Mike stressed a careful choice of occupants and use of a facilitator to avoid the meeting becoming focused on particular areas of dispute between the different interests. He though the focus should be on efficiency in energy and resource use (including water). Other essential issues are planning and legal aspects and management of shared space.

From Westminster CC, it was suggested we should invite someone from planning policy and possibly a design/conservation planner to engage in a dialogue with the property stakeholders. Mike and Lydia will advise on this.

Other possible invitees are representative of national agencies such as the Carbon Trust and someone from one of the professional institutes – RICS, who have a practical focus and cover facilities management angle, and/or possibly the RTPI.

The main aim would be to look at what obstacles are inhibiting an effective response to sustainability measures relating to property. Matthew thought that Jonathon Lane

(Chief Executive of Shaftesbury PLC) would be keen to be involved and will follow this up with Penny,

Richard would follow up on the various interests within The Crown Estate and in property development. (He noted that work on carbon foot-printing of their properties was ongoing). He thought it was important to write a personal letter of invitation, and get invitees to nominate an stand-in in the event of their not being able to make it for any reason.

It was envisaged the event would take three hours to be effective, although anything longer would probably not be practical.

<u>Action</u>: TLJ to confer with AE and MB and produce an outline of the event and its methodology and a draft letter of invitation to circulate. All to comment and input on list of invitees.

AOB: Mike reported on a recent meeting of the London Climate Change Partnership Forum and noted that there was an event about the Kensington and Chelsea/Westminster show house at Kensington Town Hall in November.

Matthew will co-ordinate with Tony on the LivCom event which are attending in order to put in a proposal for funding future research.

Next meeting: suggested dates: Monday 21st or 28th January (probably pm) – alternatively Thursday 24th or 31st (if there is any problem with a Monday for Penny or Claire).

Action: All to confirm availability for next Steering Group meeting.

Retrofitting and Sustainability for City Centres Project

Thursday, 13 September 2007, 09:30 to 11:30

The Chalk Suite Meeting Room 6, U. of Westminster, 35 Marylebone Road NW1

22.	Lydia Clarkson (Westminster City Council)	LC
23.	Mike LeRoy (Westminster City Council)	ML
24.	Richard Greenslade (The Crown Estate)	RG
25.	Penny Thomas (Shaftesbury PLC)	PT
26.	Matthew Bennett (Soho Society/SCEF)	MB
27.	Claire Craig (English Heritage)	CC
28.	Tony Lloyd-Jones (Max Lock Centre)	TLJ
29.	Adam Eldridge (Central Cities Cluster)	AE
30.	Budhi Mulyawan (Max Lock Centre)	BM

Update on LivCom awards proposal

MB noted our proposal has been selected for the final stages selection of the LivCom awards in a series of events from 22nd to 26th November. We are required to make a presentation of the Soho Retrofitting proposal on 23rd or 24th November – possibly one on each day – in a 25 minute presentation in the Central Hall of Westminster City Council.

Action: MB to liaise with TLJ and BM on event

Discussion of the brief for the Study

TLJ outlined his Draft Research Brief, previously circulated and updated the previous day.

ML and LC thought that the scope of the study set out in the brief was still too wide. LC reiterated the need to focus on sustainability and conservation issues in Soho area. ML noted that the key issues for Westminster CC related to the conflict of sustainability with conservation policy. The Local Development Framework has incorporated major responses to the challenge of sustainability. The main barrier to retrofitting in Westminster remains conservation policy, as there are around 3,000 listed buildings. Therefore this issue needs to be looked at in depth. ML noted that Westminster CC already has significant planning policies such as the recent Supplementary Planning Guidance on Sustainable Buildings.

TLJ explained that the draft brief was aimed at reflecting discussions in previous meetings and incorporated some of the material provided by Jo Hammond. The brief set out to reach various target audiences. It is a development of the original proposal, which aimed at reviewing good practice in retrofitting and its potential application in the Soho context.

It includes a review of policy gaps but remains a scoping study rather than an indepth exploration of the application specific solutions to the conservation and sustainability conflicts in Soho, which would require more extensive technical studies beyond the current budget. Measuring the impact of retrofitting on reducing carbon emissions, for example, would require detailed and specific technical considerations in a dense and complex urban environment such as Soho.

MB supported this view and said it was necessary for the study to produce a wider understanding of how sustainability can be applied in Soho through retrofitting approaches. He added the main emphasis should be on raising public and political awareness. MB agreed that the current budget would not stretch to a detailed building study. A wider approach to sustainability was necessary, in particular, to address the technical, financial and management issues associated with retrofitting

sustainable building in the Soho context with its high level of multi-occupancy and range of building uses.

He noted the example of the uncoordinated installation of individual air conditioners to the rear of his restaurant, how open space for waste management and goods transport and delivery could be better planned and coordinated; as well and the coordination of siting of photo-voltaic equipment to make the best use of sunlight within the narrow street network in Soho.

There was agreement that it would be necessary to look beyond solutions at the individual building level to shared and collective solutions and TLJ emphasised this is why an area-wide approach had been adopted. ML noted that there were interesting examples of CHP (combined heat and power) approaches that could be looked at.

MB noted that the areas identified in the study map (holdings of The Crown Estate and Shaftesbury PLC and the Berwick Street Regeneration area) represented 20% of the whole Soho area was a large enough sample area to scope out the key technical issues.

ML agreed that the paper should take the form of a 'think piece' that set out the technical, management and finance issues and obstacles to retrofitting buildings in Soho. ML and LC emphasised that analysis of best practice should focus on the implications of the case studies to the Soho area and not just be case study summaries. ML noted that Copenhagen could be an appropriate case study.

TLJ briefly summarised the working method of the study, which drew on two approaches previously used:

- The Steering group would act as a working group representing the key stakeholders. The research brief provides the initial study framework that would be worked up as a draft report incorporating the contributions of the group.
- 2. Selected retrofitting case study material would be used to illustrate the main points of the report, which would also include a concise summary that could stand alone if necessary.

Separate interviews with stakeholders would be carried out by the study team, within the resource limits of the study. AE would be involved with this part of the study.

LC and ML agreed to meet with the study team for a specific discussion of issues, potential case studies and access to data for the study and arrange a meeting with the Development Control and Policy team in WCC.

LC suggested the study team look at the good example of a model home in Kensington and Chelsea. The contact person for eco model home from Kensington and Chelsea is David McDonald (Conservation and Design Team Leader).

Action: TLJ to revise and circulate Research Brief; TLJ to contact ML and LC to set up a meeting with relevant Westminster CC officers.

Issues for English Heritage

CC explained English Heritage's strong support and interest in developing policies for the sustainability of conservation areas. Their guidance on renewable energy is downloadable from the English Heritage website.

CC noted the important aspect of energy saving installation through micro renewable energy solutions in listed buildings to avoid radical interventions may conflict with conservation aims. She added the need to address how to make buildings more efficient before the deciding on retrofitting renewable energy installations.

CC said that English Heritage is also responsible for practical matters in the sustainability of listed buildings and conservation areas. She noted that Merton was a good example of the use of micro solutions in conservation areas.

CC noted that she was very interested in looking at a 'systems' approach as this related to her own research. She agreed to become a member of the Steering Group.

CC agreed to have a separate meeting with the study team to discuss specific issues concerned with English Heritage.

Action: BM to include CC on Steering Group mailing list and get details of Merton scheme from CC; TLJ to arrange a separate meeting of the study team with CC.

Issues for Shaftesbury and The Crown Estate

PT distributed a brochure of Shaftesbury's recent Longmartin Properties landmark project in Covent Garden and described its integrated sustainability approach.

PT though that the discussion had made progress and were highlighting significant aspects of sustainability that were of interest to Shaftesbury.

The Crown Estate has a particular issues relating to the location of its properties along Regent Street. Heating is also a particular issue. RG noted that raising awareness of tenants is essential as The Crown Estate is not responsible for the improving energy performance of the individual units.

Action: PT will send the contact details of the architect from Rolfe Judd for the Longmartin scheme and TLJ will contact PT to arrange a visit.

Contract issues

RG said that there is a wording issue in the contract but he will liaise with the officer who deals with the contract in The Crown Estate and get back to TLJ.

LC will check again the draft contract based on the input required by Westminster CC and the outcome of today's meeting

Action: LC and RG to get back to TLJ on contract issues.

A.O.B.

ML and MB discussed about the need for reaching a wider audience through an exhibition or linking with an existing street festival in Regents Street. AE noted that the study would have a web page, which will also target wider audience.

Arrangements for future Steering Group meetings

Agreed that next meeting would be on Monday 5th November at 2 pm, unless otherwise notified.

Action: All to get back to TLJ to confirm their attendance.

Retrofitting and Sustainability for City Centres Project Steering Group Meeting Tuesday, 3 July 2007, 10:30 – 13:00

The Chalk Suite 5 Meeting Room, University of Westminster, Marylebone Road.

Lydia Clarkson (Westminster City Council)	LC
Richard Greenslade (The Crown Estate)	RG
Penny Thomas (Shaftesbury PLC)	PΤ
Matthew Bennet (Soho Society/SCEF)	MB
Jo Hammond (Bone Wells Associates)	JH
Tony Lloyd-Jones (Max Lock Centre)	TLJ
Adam Eldridge (Central Cities Cluster)	ΑE
Budhi Mulyawan (Max Lock Centre)	BM

1. Introductions

2. Background to the project

- 2.1. MB gave a general introduction to the project and highlighted particular issues of sustainability in Soho. The Soho area faces sustainability issues relating to its urban and historical character and its central London location.
- 2.2. Some of the key issues it shares with other parts of central London/Westminster and other historical city centre areas. Therefore the outcomes of any research could have a much wider application.
- 2.3. Most publicity regarding sustainability has focused on sustainable new buildings (usually in non-central locations) but the rate of building additions and replacement relative to the building stock as a whole is very small. The impact of new building in Soho will be marginal hence the need for a focus of retrofitting and other ways of improving the sustainability performance of the area including recycling, biodiversity and transport improvements.
- 2.4. Soho faced particular problems as a heat island with its night-time economic activities.
- 2.5. At the same time, it offered particular advantages as a high profile area (fashion, media, music) attracting a large number of visitors. Manifestations of a 'Sustainable Soho' pilot project or series of projects, therefore, could have a potentially large impact.

3. Objectives of the research

- 3.1. TLJ noted that, although it would have wide implications in terms of retrofitting for sustainability, the study was essentially concerned with an integrated area-wide approach to sustainability in the central district of Soho.
- 3.2. A wide range of sustainability measures that could be explored and implemented in the area covering building and estates, streets and the public realm, street lighting, the management of waste and deliveries, transport issues, green spaces, etc had previously been discussed. As part of some initial background research to inform the study, JH has suggested a framework for looking at these measures in generic terms (see attached file JHRetrofittingdiagram.jpg). It was agreed a holistic approach was needed. TLJ also suggested a framework that related to the study area and the various systems, physical and human within it. One possible longer-term research outcome might be a computer model that integrated the various sustainability measures.
- 3.3. It was also noted that it would require a set of additional in-depth studies with appropriate experts to look at any of these approaches in any detail. Any initial

research should take the form of an outline scoping study, setting out the issues, stakeholder roles and interests, policies and potential measures in general terms and exploring a framework or frameworks for relating these. At the same time, the original ToRs placed an emphasis on retrofitting buildings as the main focus of interest and all the key stakeholders were likely to share this central interest.

3.4. LC confirmed the funding commitment by Westminster City Council to the project as long as it addresses the Council's main concerns – primarily sustainability issues relating to the historic building stock.

Action: LC will email TLJ a copy of Westminster CC's standard brief that can be adapted for the project (including the aspects set out in the document she has already circulated)

- 3.5. LC shared information on current Westminster CC policies and programmes such as the Go Green pot and the funding potential within her department of Planning and the Department of Environment and Leisure. MB noted that WCC could also help to direct the project to other sources of funding in the future. Westminster CC has a considerable amount of data to contribute to the study and TLJ noted that he would be contacting LC to set up meetings with relevant officers.
- 3.6. BM noted the importance of urban form character of Soho with its narrow streets, orientation issues and visual aspects to retrofitting strategy of the buildings in the area. TLJ noted that many of the issues around the retrofitting of the outside of historical buildings related to visibility and proximity to other buildings and these were essentially issues of urban design.
- 3.7. PT said Shaftesbury has looked at key areas such as recycling, waste water management, and monitoring of the sustainability of its assets. It has done studies on the energy performance of its buildings, has data available and published a consultants' report on its website. She noted the importance of multi-tenanted buildings in Soho area.
- 3.8. RG noted the interest of The Crown Estate in the improving the energy usage of its assets. He highlighted the challenge of creating a balance between innovation and building conservation. He also added the need for practical, cost effective solutions in retrofitting in order to influence the occupants and other landlords and address the key management issues.
- 3.9. TLJ confirmed that human system and management issues are essential elements apart from technical solutions in retrofitting. The management of property and the behaviour of building occupants were critical sustainability factors. AE would be taking a leading role in this key area of the study. A life cycle perspective should be adopted and the impacts on areas such as service charges addressed.
- 3.10. LC cautioned that the project should not to be too wide in its scope and should relate to the existing policies for the area. However, there was work to be done in integrating these. LC noted that the current Westminster CC policies cover public health, global warming and climate change, vehicular movement and permeability, and other related issues. These are set out in the newly-adopted UDP. There are gaps, however, in the implementation of green policies by the conservation officers and development control officers.
- 3.11. LC recommended a recently published guidance by RICS on Green Values for its practical, business-oriented approach.
- 3.12. JH reported her recent follow up meeting with the English Heritage (EH) who demonstrated a strong interest in the project. Funding may be available. However, any potential EH funding will not support a demonstration project. Rather, they are

interested in developing good practice guides. It was agreed that EH be invited to the next Steering Group meeting.

Action: JH will get back to Claire from EH and TLJ will follow up to inform or discuss areas of common interest. Invite EH to next meeting.

- 3.13. TLJ summarised his and MB's meeting with planners from Grosvenor Estates. While Grosvenor are unlikely to take a direct interest in the research, not being major property owners within the study area, they could contribute information of their own good practice and cost benefit impacts. They are also likely to be interested in any outputs relating to upgrading and retrofitting existing building stock.
- 3.14. With reference to maps distributed by BM, the study area for the project was agreed. This includes Chinatown, where Shaftesbury is a major property owner. (It is also perceived as an integral part of Soho).
- 3.15. MB noted that currently funds for the study are limited, as is the research time available. It was emphasised that the project should take the form of scoping study using illustrative examples rather than try to set out guidance on best practices for a range of measures at this early stage. It should include:
 - 1. The general element, setting out the 'big picture' for the study area, addressing polices and stakeholder interests and roles.
 - 2. A strong focus on buildings and the development of a methodology of building type classification.
 - 3. A particular focus on building conservation issues (in coordination with EH).

Action: TLJ will produce and circulate a more detailed brief for the study for comment on his return from vacation at the beginning of August and drawing on Westminster CC's standard brief.

4. Other stakeholders

- 4.1. There was a discussion on other potential stakeholders.
- 4.2. Transport for London (TfL) is considered as an important potential stakeholder because of the impact of its major projects (Crossrail and North-South link) that will will affect the area. MB suggested it would be problematic to involve TfL in the initial stages, similarly with the Mayor of London's office. TLJ suggested they be considered as part of long-term scope of the project. It was noted that, as part of the ongoing revision of the London Plan, much greater attention was being given to retrofitting. The Sustainable Soho study is likely to attract interest as a result.
- 4.3. It was noted that public transport issues for Soho are most appropriately focused on pedestrian accessibility within the area to public transport infrastructure around it. LC noted that there was already a project to improve signage.
- 4.4. AE and MB then added the Soho Housing Association and the Housing corporation with its headquarter in Soho as potential stakeholders.

5. Funding and contract arrangements

5.1. MB noted that current commitments toward the funding of the project are £5,000 from SCEF, £5,000 from The Crown Estate and £10,000 from Westminster CC. Several other funding bids have been submitted. These are an application for a Bursary Award to the International Awards for Liveable Communities and for an Environmentally Sustainable Project (ESP) Award to the International Awards for Liveable Communities, submitted on 27th June 2007. The anticipated completion date for the study as it currently stands is end of December 2007

5.2. TLJ distributed a draft contract document drawn up by WestmARC (Westminster Applied Research and Consultancy). This has been drawn up for use by SCEF. A contract will need to be agreed before funds can be accessed.

Action: MB to get back to TLJ on acceptability of and/or with comments on the draft contact. RG will refer this draft contract to The Crown Estate solicitors and get back to TLJ with comments. TLJ will email a blank version of the draft contract document prepared by WestmARC, if required.

5.3. LC requires a completed brief document for her to follow up the contract to be issued by Westminster CC. TLJ will also look at a sample of previous contract from WCC to Central City Institute with AE.

Action: Following receipt of the standard format document from LC, TLJ will email her the brief for the project and a blank version of the draft contract document prepared by WestmARC, if required.

- 5.4. All agreed the title of the project remains the same as stated in the latest correspondence from TLJ. 'Sustainable Soho' is a useful shorthand title that could be adopted for the initial scoping phase.
- 5.5. MB noted the potential for promotion of the project through the media or exhibitions, and welcome any support from The Crown Estate, Westminster CC or Shaftesbury Estates in providing space to launch the project to the public.
- 6. Future Steering Group meetings and actions
- 6.1. Agreed the next meeting would on a Monday in September (probably early September).
- 6.2. PT wish to be guided on areas where she and Shaftesbury Estates could contribute to the project before coming to the meeting. TLJ noted that this could form part of the more detailed brief for the study.

Summary list of action points from above

- 3.4. LC will email TLJ a copy of Westminster CC's standard brief that can be adapted for the project (including the aspects set out in the document she has already circulated). (LC)
- 3.15. TLJ will produce and circulate a more detailed brief for the study for comment on his return from vacation at the beginning of August and drawing on Westminster CC's standard brief. (TLJ)
- 5.3. Following receipt of the standard format document from LC, TLJ will email her the brief for the project and a blank version of the draft contract document prepared by WestmARC, if required. (TLJ)
- 3.12. JH will get back to Claire from EH and TLJ will follow up to inform or discuss areas of common interest. EH to be invited to next Steering Group meeting. (JH/TLJ)
- 5.2. MB to get back to TLJ on acceptability of, and/or with comments on, the draft contact. (MB)
- 5.2. RG will refer this draft contract to The Crown Estate solicitors and get back to TLJ with comments. TLJ will email a blank version of the draft contract document prepared by WestmARC, if required. (RG/TLJ)

Generally – research team will contact Steering Group members individually regarding access to baseline data and setting up individual meetings, where required.

Retrofitting and Sustainability meeting

Friday, 25 May 2007, 10:00 - 11:30

At the Chalk Suite 5 Meeting Room, School of Architecture and the Built Environment. University of Westminster

Matthew Bennett (SCEF)
Tony Lloyd-Jones (Max Lock Centre)
Adam Eldridge (Central Cities Cluster)
Jo Hammond (Bone Wells Associates)
Budhi Mulyawan (Max Lock Centre)

MB
TLJ
AE
BH
BH
BH
BH
BH

TLJ opened the discussion of potential stakeholders for steering committee members. MB named the three people who would join the steering committee and added that he had made a note on the follow up of the project and will email this to others. The note sets out some of the issues he feels we will need to consider but would welcome comment and amendments to it.

Issues on retrofitting and the outputs of the research project

There should be a strong emphasis on Soho as a 'Heat Island within a Heat Island' and a 'Central Core area'. This will define the research project methodology, which is very much area-based. Using the building type as a basic element of the methodology means that any findings would have a much wider application beyond Soho. Other issues such as distribution will be approached on an area wide basis. Both mitigation and adaptation aspects of Sustainable Development need to be considered. BM added that most green building projects tend to be located in suburban or rural areas away from city centres. This project will specifically address a high-density green building and retrofitting characteristics. TLJ stressed the importance of developing a strong conceptual framework for the project. He highlighted the question of 'where do issues in the area fit' such as the key issues of behaviour and management. There needs to be an exploration of cost-benefit impact methodology to be able to gauge the relative importance of different measures. It should be a scoping study that highlights key issues and illustrates these through case studies and examples of good practice.

Issues mentioned included microgeneration, solar panels, use of heat pumps, waste management, sustainable procurement, supply chains and delivery. MB mentioned green transport issues and the development of cycling and walking strategies. BM discussed that the character of the building type can affect the type of retrofitting and the stakeholders' concerns. MB added the aspect of supply and management of utilities in buildings, especially in relation to the English Heritage (EH) interest in conservation areas. BM added the current plan for ORB that promotes the increase use of street lightings and electricity demand.

BM discussed the potential case studies from overseas. He added his preliminary search on the web highlighted potential case studies in the USA and Europe. JH added good practice in Melbourne, Australia. She will email the detail of the Australian case study to BM.

TLJ will prepare his cv for sending to potential stakeholders especially for the potential Steering Committee members.

JH suggested creating a simple diagram to draw together the various issues and the aims and objectives of the research project. She will forward to BM some information on issues and list of stakeholders in the environment which she has done. TLJ emphasised the need for a coherent story in the diagram.

Meeting with potential stakeholders

1. English Heritage

MB and JH noted that EH showed interest and there is a possibility of obtaining funding for this or a follow up proposal. A possible route is through the Capacity Building Fund of EH and there is currently £150,000 left in the fund. However 50% match funding is required and this might be an issue. Claire from EH will contact MB and JH in June with her feedback. Following this, a funding bid can be considered. TLJ suggested that an output might be guidelines of good practice. He added the key issue is how conservation areas might be affected by sustainability requirements and the physical adaptation to building likely to be needed. JH added that the EH project will be good practice and TJL noted that a Best Practice (BP) approach would need to relate to planning constraints.

TLJ noted that we need to clarify whether the potential EH project will be additional to the existing proposals or submitted under a separate bid.

2. Grosvenor

MB reported on his and TLJ's meeting with the Grosvenor last week. There is unlikely to be any major involvement by Grosvenor but they may be able to help in terms of providing case studies of their own practice e.g. the use of a pile driven ground source heat pump for cooling at Scott's Restaurant, Mayfair.

3. Shaftesbury PLC

MB reported that Penny Thomas, company Secretary will represent Shaftesbury who own large parts of Seven Dials, China Town and Carnaby Street. Their property consists mainly of small buildings which typify these conservation areas. Shaftesbury can provide data on these buildings and referred people to the information on Shaftesbury's website. MB highlighted corporate responsibility policies of various large private companies as one reason driving the recent concern with the environment by these organisations.

4. City of Westminster

MB met with Lydia Clarkson responsible for the Soho Action Plan. She will suggest other contacts within the council to get more information for the study. One contact is Mike Leroy, Environmental Manager at Westminster. An important parallel initiative is the regeneration of the Berwick Street Market Area.

Potential stakeholders and Steering Group members

JH suggested a need to involve London Mayor (and the GLA). The London Plan is being reviewed with a greater emphasis on green/ environmental issues and makes reference to 'retrofitting' for the fits time. BM highlighted the GLA policy 4 (4B/4I) on green/environmental issues. However MB suggested caution in involving the GLA because there might be political sensitivities. One sensitive issue is the late night economy where the Mayor has very different concerns to those of the local residential community and Westminster. A potential link was through the LDA who had an interest on the basis of economic sector based interest groups, such as the restaurant business. AE also noted the potential involvement of the Housing Corporation as their headquarters is in Soho. Peabody and TfL were also potential longer term stakeholders. TLJ suggested that we might have a 'brainstorming' session with a wider group of stakeholders at some stage recognising the need to keep a tight focus in the initial phases.

Date of Steering Group Meeting

The two preferred dates for the Steering Group Meeting are 26 and 28 June, although we may also need to offer dates in the following week commencing 2 July. Tony will email potential members of steering groups.

MB provided the following contacts for invitations to the meeting:

- 1. Penny Thomas, Shaftesbury PLC. Tel. 020 7333 8118 ext 3311 email: penny.thomas@shaftesbury.co.uk
- 2. Lydia Clarkson, The City of Westminster, Project Manager, West End Team. Tel: 020 7641 7923, email: lclarkson@westminster.gov.uk
- 3. Richard Greenslade, The Crown Estate, 7581 5243. email: Richard.Greenslade@thecrownestate.co.uk

List of tasks:

- Contact potential Steering Committee for the next meeting in June (TLJ)
- Project diagram (JH).
- Project note (BM to email others)
- TLJ's CV for potential stakeholders

Retrofitting and Sustainability meeting

Thursday, 19 April 2007, 10:00 - 11:15

At the Max Lock Centre, M134, School of Architecture and the Built Environment. University of Westminster

Matthew Bennett (SCEF)
Tony Lloyd-Jones (Max Lock Centre)
Adam Eldridge (Central Cities Cluster)
Budhi Mulyawan (Max Lock Centre)

MB
TLJ
AE
Budhi Mulyawan (Max Lock Centre)
BM

Project stakeholders and steering committee

Matthew noted the main stakeholders for the project. The Soho Society, the City of Westminster and The Crown Estate are funding the study. The Shaftesbury Estate will provide support and data. The Crown Estate will contribute 25% of the funding to the project. Matthew added that The Crown Estate might also provide an empty unit for a temporary exhibition at a later stage. The City of Westminster Council has agreed to provide 50% of the funding but this needs to be confirmed and formalised.

Currently the Council has committed £150,000 to the Soho Action Plan, which may help in the longer-term development of the project. Matthew and Jo Hammond from CCI could contact the LDA in the long-term project development. Charlie Mayfield, new chairman of the John Lewis Partnership has also expressed an interest although their Oxford Street building is slightly outside the study area.

Matthew confirmed his support to the project and that the initial cost of the project can be covered by SCEF, based on the project's working timetable and phasing.

In relation to setting up a Steering Committee for the project, Matthew will initiate contact with various organisations. Tony will set out an agenda and draw a list of potential invitees. A short email will be distributed to potential stakeholders for the next project meeting.

Matthew highlighted and discussed major land and building owners on the study area. Tony added the need for strategy and identification of who to be involved. Transport for London is also a potential stakeholder that can be contacted later on in relation to the Tottenham Court Road station project and the Crossrail.

Project research method

Matthew noted one issue of sustainability in Soho area as a 'heat island within a heat island'. Waste and recycling are also significant issues.

Matthew suggested data on building types in the study area could be obtained from the City of Westminster and key landowners. Matthew noted that Soho Housing Association currently has 750 housing units in the study area. There is a major Council regeneration programme for the Berwick Street market area.

Matthew supplied background information as follows:

- The Central London Partnership, an SRB funded project and the Central London.
- Freight Quality Partnership (FQP). The FQP highlights a best practice in Paris.

The meeting then focused on the aims of the project. Adam highlighted 3 main aims in the proposal (1st, 4th and 6th pointers). Matthew said Soho Action Plan can contribute in the area policy analysis. He will meet Head of Planning for the West End Area at Westminster City Council in May to discuss Live Com.

Tony noted the potential role of GIS in the future development of the project, integrating maps and data for sustainability impact analysis.

Project contract

Tony will find out more about drawing up a project contract, which will involve WestMARC. He clarified the University of Westminster as the legal body in the contract document. He will raise this issue when meeting with the Finance Director of the University this afternoon. The first contract can cover initial work with the already agreed funds of £10,000.

Meeting agenda

Regular meetings can be conducted on Monday or Tuesday every week. Proposed date for the first meeting will be Monday 14 or Tuesday 15 May or Monday 21 or Tuesday 22 May (pm).

List of tasks:

- Contact and list potential Steering Committee (MB, TLJ)
- Project brief and email notification for invitation of next meeting in May (TLJ)
- Preparation of project brief and presentation material for next meeting (BM, TLJ)
- Initial inspection of the area to explore scope of initial study (BM, MB)

Appendix 2: Workshop and Round Table Discussion on Making Buildings in Soho Sustainable

14thJanuary 2008, 14:30 – 17:00.

The Chalk Suite Meeting Room 3, the Marylebone Campus of the University of Westminster, 35 Marylebone Road, London NW1 5LS.

Topic:

What factors inhibit Soho from becoming more sustainable in building management and renovation and what are the best strategies for retrofitting sustainability?

Facilitators:

Adam Eldridge Central Cities Institute, University of Westminster
Tony Lloyd-Jones Max Lock Centre, University of Westminster

Chris Dunham Sustainable Energy Action/ Renewable Energy in the Urban

Environment

Budhi Mulyawan Max Lock Centre, University of Westminster

Attendees

Claire Craig (English Heritage)
Gillian M Dawson (City of Westminster)
Matthew Bennett (SCEF)
Matthew Pendleton (City of Westminster)
Mike LeRoy (City of Westminster)
Sarah Gatehouse (City of Westminster)
Simon Ramsden (English Heritage)

Simon Wilson (Heart of London Business Alliance)

Workshop Notes

The workshop started at 2:30 with an introduction of all participants and a power point presentation on the project by TLJ. CD then presented energy issues, various energy usage and carbon emissions calculation and scenarios for reducing carbon emissions in Central London. AE led the round table discussion as follows:

01. Introduction to policies in sustainability and improving energy efficiency of buildings. The discussion focused on existing policies and the implementation as follows:

- Westminster City council has promoted the issues in particular in the latest SPG on Sustainable Buildings in 2003. However the focus is still on new development (ML).
- EH focuses on policies in energy efficiency of historic buildings and has published Part L Building Regulations 2000 (2002 edition) (SR and CC).
- SW noted that the business community does not seem to be aware of the policies.
 However, the business community is aware of sustainability issues and has tried to
 adopt the issues by improving energy efficiency in its business operation. SW
 represents Heart of London Business Alliance, which has 250 members and 9

property owners. TLJ responded that facility management would play an important role in saving energy demand and reduce the environmental impact of building operation.

• The local community will be only aware of the current policies and its implementation if there is a 'carrot and stick' process (MB).

02. The discussion moved on the strategy to reduce carbon emissions and improving energy efficiency in buildings.

CD noted that decentralising energy supply is the best solution with the use of Combined Heat and Power (CHP). However, the obstacles include finding common space for plant and supply piping for CHP in Soho (MB). CD further noted that CHP can be built outside the area or using underground space (possibility of working together with the London Underground or agencies dealing with underground services). CHP also requires a massive upfront capital cost and requires the active role of the local authority as the leader to initiate or promote this system (ML and CD).

03. The discussion divided into 2 groups as follows:

Group Discussion led by TLJ

The discussion group led by TLJ consisted of Claire Craig (English Heritage), Mike LeRoy (City of Westminster), Simon Wilson (Heart of London Business Alliance), Gillian M Dawson (City of Westminster) and Chris Dunham (Sustainable Energy Action).

Exploring the issues on sustainability in Soho

CC emphasised the significance of cultural heritage in central areas such as Soho as the key element apart from the economic, social and environmental issues. It particularly affects the economic sustainability of the area. Cultural identity underscores its economic role. It is important to emphasise the historical continuum

ML noted that small scale changes such as those relating to gas and electricity installations with better integration into existing historical fabric are possible,. CHP is a potential solution and it might be integrated with new developments within or nearby Soho.

CD noted that the mechanisms to be explored in Soho should not just refer to insulation but also to energy generation through CHP as the most effective solution. There are also issues of cooling that relate to air conditioning installations, and related additional carbon emissions. As a heat island with 24 hour uses, Soho has major cooling issues and requires innovative thinking in retrofitting strategies.

TLJ emphasised different aspects of sustainability including the environment, but also bringing in social and economic issues. Soho has a character based on a huge variety of activities and buildings from different periods. In terms of cultural heritage, Soho has been undergoing continuous change in terms of actual building stock but the tight 'urban grain' resulting from the dense development of narrow street front plots gives the area its physical, social and economic character.

ML agreed with the wider view on sustainability, noting that there are differences of view even within the environment sector itself. An important issue is who is going to initiate to process of change. Changes require new legal arrangements in the case of multiple ownerships and tenure. Changes to windows, thermal efficiency and roof insulation will raise conservation concerns. Currently there is a lack of financial incentive to improve the sustainability of historic buildings.

CC noted that a balanced approach in changing historic environments based on a high historic building standard is required. EH is aware of the current constraints on retrofitting because of restrictions to changing historic buildings. Sustainability issues need a higher profile. There is a potential for an EH-supported area partnership, e.g. relating to historical shop-fronts.

GD agreed with a partnership approach and noted the potential for such a partnership e.g. in Wardour Street. The issue should not just look at individual buildings but also wider environmental sustainability.

SW noted that private landlords are mainly concerned with capital costs. Currently there is not sufficient incentive for retrofitting. There are good examples in residential development but these have not been replicated in the commercial sector.

Implementation

CD noted the importance of having a major public initiative in implementing retrofitting targeting large property – both private and public. This public initiative can bring in the community and link it with new development projects. Private players are also essential. Climate change partnerships (such as that in Islington) have brought in major private sector partners into the initiative. CC added that an EH supported area partnership scheme could augment such a scheme.

TLJ directed the discussion to the need to set up initiatives, such as bringing businesses in Soho together in renovation and planning. There would be added value is bringing an area focus into the existing strategic funding proposals such as those of the Mayor of London.

ML emphasised the potential of a district heating system with CHP installation involving major building owners. CD stressed the importance of funding or support to cover the capital investment required.

Group Discussion led by AE

The discussion group led by AE consisted of Matthew Pendleton (City of Westminster), Sarah Gatehouse (City of Westminster), Simon Ramsden (English Heritage), Matthew Bennett (SCEF) and Budhi Mulyawan (Max Lock Centre).

The group set out a list of initiatives on retrofitting as follows:

Bollards – promoted by SR to reduce traffic and air pollution.

- Recycling organic waste MP noted that the large level of food waste in Soho gave rise to a problem of vermin.
- Green Roofing This is favoured, but the SEDA roof should not be the only option
 as it can result in monodiversity (SG). The Council promotes different types of green
 roofing. MB noted that green roofs acts as green corridors and encourage wild life.
- Rainwater harvesting resource there is potential relating to the large area of roof surface in Soho.
- Semi permeable footways recommended by SR
- Personal responsibility highlighted by MB and SG.
- Insulation Insulation is not essential in historic buildings because most old buildings have good performance in energy conservation (SR)
- Grant and tax relief recommended by SG. (ML noted that grants were already available)
- CHP CHP was left out of the discussion as it was thought beyond the local authority's scope of influence (SG, MP).
- Street Lighting Energy-efficient street lighting is something that Westminster City Council can promote
- Air service pumps added by MP
- Ground source heat pumps added by MP. Could be an issue in archaeologically sensitive areas

The discussion highlighted issues as follows:

Different building types mean that there are different strategies for different buildings. There is a trend of installing individual air conditioning units in response to the increasing cooling demands in Soho. It has negative impacts in terms of noise and visual impact (MB). MB suggested combined units for entire blocks. SG expressed concern that air conditioning units may no longer be regulated under the new planning laws.

The potential of using ground pipe network for the ground source heat/cooling pumps (MP) or CHP: SG noted that we need a 'system' which recognises what can be done for different types of buildings, e.g. Georgian, early Victorian, late-Victorian Grade II listed, etc., rather than a blanket approach. This would promote measures and strategies unique to different types of buildings.

04. Concluding discussion highlighted issues as follows:

TLJ noted the essential importance of data on building age. SG said that this data is available on the Westminster City Council website from Conservation Area audit.

As a result of the heat island effect, Soho shows a increasing trend in air conditioning installation. It results in the problem of a messy appearance outside buildings and noise from the installation. SG added that installing air conditioning might not require planning permission. ML added that this should be covered in new policies appearing within the Local Development Framework (LDF).

TLJ and CC discussed the heat island impacts and cooling strategies in buildings, which in currently being studied in GLA-funded research at South Bank University.

CC noted that the Conservation Building audit could cover categories of buildings providing information on different energy performance and could relate to ML's idea of a strategic approach to CHP/District Heating in Soho, linking up with other schemes within or outside Soho. CHP plant could also be built outside the area (the chimney could be a problem in the area itself). CD noted that heat losses were not great from remote plants. It is critical to assess how much power required and to create a balance approach with historical conservation of the area.

MB added that a short-term solution and adaptation measures are still required apart from CHP/district heating which would require 15 or 20 years to set up and operate. A timetable needs to be set out.

Planning issues were discussed by CC and SG in terms of changing in building or area appearance such as the Chimney of a CHP. SG emphasised the need to restrain changing building uses as a result of retrofitting.

MG and GD discussed the means to involve the community in changing and improving the buildings for sustainability. SW noted that local government policies such as the Disability Discrimination Act (DDA) has encouraged a change. ML noted that the LDF is aiming at more ambitious sustainability targets. CC also noted the essential approach in historical buildings in achieving sustainability. MP added that the energy performance of historical buildings varies and depends very much on when the building was built. For example, buildings in the 1960s have poor energy and draught proof performances. The Home Information Pack (HIP) will promote better energy performance in new buildings and the improvement of current building stocks.

05. The discussion finally addressed the strategies for sustainability to be adapted to the Soho context. Current policies on promoting sustainability still focus on new buildings or development. The strategies would refer to CD's presentation on various scenarios for improving buildings performance and his recommendation on adopting CHP for Soho. At the end of the discussion, MB noted that the outcome of the current stage of the project does not necessarily provide solutions, rather a clarification of the issues and potential strategies.

Annex

Workshop timetable

14.30-17.00

- 1) Introduction and welcome: 30 minutes
 - Introductions
 - Introduction to the workshop, research background and the Soho context
 - Discussion of retrofitting issues and strategies
- 2) Round table discussion: 40 minutes
 - Discuss current strategies around the theme of sustainability. What does each participant do – what can they do, in their capacity?
 - Impediments/impeders. What are the hurdles?
 - Should measures and strategies be top-down or bottom-up. Who has to take the lead?
 - How can sustainability be implemented?
- 3) Exercises: 1 hour (10-20 minutes per exercise)
 - Exercise 1: What is sustainability in this context? A short 10 minute brainstorm to discuss what the term means to them
 - Exercise 2: List/display 4 or 5 measures or strategies that could be easily adopted. In groups of 2 or 3, participants order them from easy to hard/doable to impossible
 - Exercise 3: Using a detailed map, which includes different structures, participants then organise what could go where – using the examples from exercise 3
 - Exercise 4: Recommendations, with timescales for implementation
- 4) Discussion (30 minutes)

Open discussion, any follow-up and concluding remarks

Appendix 3: Interviews with Key Actors (Summaries)

- 1. Chris Best (Soho Housing Association) Interviewed by Adam Eldridge, February 2008
- 2. Richard Greenslade and Jeff Hart (Crown Estate) Interviewed by Adam Eldridge, March 2008
- 3. John James (Soho Estates) Interviewed by Adam Eldridge March 2008
- 4. Jonathan Lane (Shaftesbury PLC) Interviewed by Adam Eldridge and Tony Lloyd Jones, 2008

Chris Best: Soho Housing Association Interviewed by Adam Eldridge February 2008

The Soho Housing Association (SHA) is a small company with less than 20 staff. Their holdings are across Westminster and Camden, with no listed buildings but in conservation areas. They do not have a designated environmental officer, but they do have 'champions' amongst their residents and on their board, as well as a 'sustainability action plan'. The SHA is actively involved in the sustainability agenda. Their residents are strongly encouraged to be more environmental and the SHA produce a list of 'green tips for residents. These include providing energy efficient bulbs to guidance on turning off electrical devices otherwise left on stand-by and dusting coils of refrigerators. This is motivated by environmental concerns, but also economics; fuel poverty is an important issue for their residents. The Association also aim for green roofs on their new developments and install dual flush toilets. They work closely to government directives such as the Building Greener Homes agenda. As a social housing group, there are limits, however, to what can be achieved.

Maintenance is undertaken on a 6 yearly cycle, not when tenants leave. When refits are carried out they actively look for more environmentally efficient and sustainable technologies. A third of their holdings are 'quite new' and these are up-to-date in terms of providing double glazing, energy efficient boilers, and thermally efficient. Cycling is encouraged for staff (sheds and showers are available at the office) and on new developments where racks and sheds are available for residents.

The SHA also aim to be 'socially sustainable', and avoid commercial tenants who may produce late-night disturbance and noise.

Inhibitors to being more sustainable include: the council's current refuse arrangements. As this occurs three times a day the SHA believe this may discourage people who live on smaller sites where there are no large refuse bins from recycling. Wind turbines and solar panels pose problems in a conservation sense, but also because turbines require 'height' which may not be achievable.

Whilst the SHA is actively involved in bottom-up initiatives, they feel there needs to be more encouragement from the level of government.

Richard Greenslade and Jeff Hart: The Crown Estate

Interviewed by Adam Eldridge March 2008

The Crown Estate have a number of holdings across Britain, with a large proportion of their holdings in Westminster listed and / or in conservation areas. A member of the Estate's corporate responsibility team monitors issues pertaining to sustainability. Issues relating to the environment are discussed in their Corporate Responsibility Report. The Estate has marine and rural interests and issues about the environment were initially discussed in relation to these holdings. The urban environment has been integrated into their corporate responsibility report for approximately three years. A concern for environmental issues is also part of their marketing agenda, and the Estate aims to do business with likeminded, environmentally aware, companies.

Much of their stock is multi-tenanted which can pose problems for wanting to do entire re-fit, but they do re-furbish their units and have a maintenance program for all stock which is laid out years in advance. For new developments, the Estate aims for an 'excellent' rating; for refurbishments a 'very good'. However, it can be very difficult to achieve full marks, in both an economic sense, but also in terms of how the marks are weighted.

One new development, which includes a number of sustainable technologies initiated by the Estate, is about to go on the market. It will test if tenants are willing to pay more in the beginning for the long-term savings that come with such technologies.

The Estate has began working with their tenants on measures such as recycling and using energy efficient lighting. There are limits to what the council can do in terms of suggesting new technologies and the Estate do not go to them for advice. The council has, however, been very positive about proposals for more sustainable measures. Impediments tend to come from conservation authorities. They also have a number of long and head leases which means control of the building is not in the hands of the Estate.

Knowing what to do can also cause problems, as there is no single approach that works for all their stock, and there continues to be debate about the value of certain technologies. Introducing sustainable measures is a goal, but it is process entailing numerous options and alternatives, rather than a single blanket approach.

John James: Soho Estates

Interviewed by Adam Eldridge March 2008

Soho Estates are a small, privately owned family company initially ran by the property and magazine tycoon Paul Raymond. The majority of Soho Estates' stock is in a conservation area and dates from 1770 to the 1850s. They do not have an environmental officer, but are interested in sustainability. The problem, for them, however, is that maintenance is in the hands of the tenant. If the tenant was to propose a sustainable technology, such as a wind turbine, and it passed the council, they would approve. To date, no tenant has made such a request and there is little impetus and encouragement for them, the landlord, to install sustainable technologies. Whilst they support any initiatives that encourage sustainable measures, businesses may not be entirely supportive if there is a significant overhead involved. Further to this point, they question who exactly benefits from sustainable technologies. If solar panels were to be affixed to roofs, for example, it would only be the tenant who would benefit. There is little encouragement for the landowner to take the lead, other than being able to offer a building with lower energy costs.

In terms of problems, lack of space is an issue in Soho, particularly for refuse disposal, compacting machines, shredders or recycling machines. Being on top of underground tube lines also means ground heating is all but impossible and they would not want to 'own' any power generators. Tenants may be reluctant to rent a building where the landowner had sole control of electricity.

A final problem in Westminster is a conflict between planning and conservation, especially in regards to roof lines.

Jonathan Lane: Shaftesbury PLC

Interviewed by Adam Eldridge and Tony Lloyd Jones 2008

The roots of Shaftesbury's land holdings in the area go back to 1991-2 when it was discovered that 15 'funny old buildings' in Chinatown were the only part of the company's portfolio that continued to hold up in value during the recession. Since then, other properties were sold off and the company has only invested in the West End. (Apart from Chinatown and the Carnaby Street area in Soho, it has extensive holdings in the Seven Dials area and the newly-tagged 'Opera Quarter' of Covent Garden).

The focus is on location and regeneration (as in the Longmartin scheme in Covent Garden: see box 7.1 in the Main Report) and not new construction. The West End is unique globally in terms of its concentration of public and cultural facilities, with 7 of the World's top 30 museums and its cluster of theatres, as well as cinemas and restaurants. The whole foundation of the success of the West End is rooted in this cultural sustainability.

The company concentrates on creating 'villages' behind the prime shopping streets like Regent Street using street patterns that were largely established at the end of the 17th century. The built form is at a human scale that is attractive to most people. The small properties are marketed to those who need to be near but not on the principal streets – e.g. small independent fashion stores but also big name tenants with flagship stored on Oxford or Regent Street that want to test new brands in small outlets.

The buildings, being mixed use, are very adaptable and stand the test of time better than larger purpose built single use buildings that have become the norm. Many of the buildings in Soho have far outlived their anticipated life span and are environmentally sustainable in terms of the lifetime of their embodied resources.

Several upper floor properties are reverting back to uses such as residential not seen since before the nineteenth century. Shaftesbury has been converting its (small walk up) office space to other uses at a rate of 5% of the total per annum. In Chinatown, what the community wants is complete flexibility in their use of buildings with 'flexispace' on the upper floors. It is the mix of uses that accounts for liveliness and vibrancy in Chinatown. While restaurants and retail account for the bulk of space, typically the first floor provides space professional services that are critical to the community – hairdressers, lawyers, accountants, medical services, etc. Upper floors are often residential, occupied by people who work in the area.

Shaftesbury has 1000 tenants in 400 buildings. They have 279 wholly owned flats and maisonettes that are let on assured shorthold tenancies of 1-3 years, occupied by a largely young, multi-cultural population that works in or near the area. Shaftesbury's portfolio requires an intensive management approach. They are the only mixed use property company listed on the Stock Exchange but are consistently among the best performing.

The company aims at preventative maintenance to ensure that buildings last and work well. Major maintenance and repair works tend to be carried out at point of purchase, as building become vacant or 'automatically' on a regular cycle made possible by well organised and coordinated lease structures.

Shaftesbury has not been approached by tenants for measures to improve environmental sustainability but is actively involved in environmental initiatives. They take a utilitarian approach to corporate social and environmental responsibility. They are not constrained by PR concerns like many other companies who adopt CSR

policies seen mainly in marketing terms. The view is that environmental sustainability will only be taken seriously when the top financial institutions own the process and force the companies in which they have shares to change.

The company follows recognized CSR procedures. Each year it produces an action plan and is subject to an external audit of its performance www.shaftesbury.co.uk/responsibility_csr.php. Shaftsbury's historical understanding of the area and involvement in regeneration schemes over the past two decades has given it considerable experience and knowledge.

Shaftesbury has a particular interest in street lights, maintenance and cleaning. In terms of waste management, they have initiated several good practices in the area. Chinatown requires a high level of waste management (particularly food waste) with five collections every 24 hours. There is very limited space to store waste, no accessible rear service areas and barriers have to be operated to allow access to certain streets. On Shaftesbury's recommendations, a problem of dripping liquids was resolved by putting drip trays on the vans collecting food waste and using stronger bags. Bottles are collected separately and noise is not such an issue as most residents are working in the 24 hour economy.

South of Shaftesbury Avenue, the company has created a new vegetable market quarter serving the ethnic community in a courtyard area that used to be dominated by rubbish. Waste bins are now concentrated in a reserved area and sub basement floorspace has been turned into shops fronting on to the market area. Recycling of building waste is a problem as skips are not permitted in the streets but this has to be balanced against the fact that the buildings last so long.

Shops and restaurants take care of their own heating needs whilst Shaftesbury provides electricity to common parts and heating for the upper floor premises. Each unit has its own system. The company has a policy of converting roof space into living space which improves the efficiency of use of their buildings as well as being very profitable. Insulation is applied to the underside of the roof surfaces. Whilst there is little opportunity for green roofs, external patios are often incorporated.

Regulations are getting more complex and difficult to manage with the introduction of EPCs, which are seen as having little practical value. Although Shaftesbury have faced considerable planning hurdles in developing their scheme for Kingly Court (see figure 7.4 in the Main Report) and there are conservation constraints on what can be done with their buildings, 20-25 % of which are listed, public policy is not seen as the main problem and Shaftesbury live with the regulations. The company has worked closely with Westminster City Council to draw up Supplementary Planning Guidance for Chinatown which recognizes the special value of mixed use occupation to the local community.

The main challenge is seen rather as the lack of experienced, professional expertise. The Council has a problem in keeping experienced staff and there is a lack of continuity. There is a need for more planners, engineers and other professional staff who understand the particular historic and cultural issues of the area.

Appendix 4: Study area resident population estimate in Soho

The Soho area is defined by Oxford Street, Regent Street, Coventry Street, Leicester Square and Charing Cross Road.

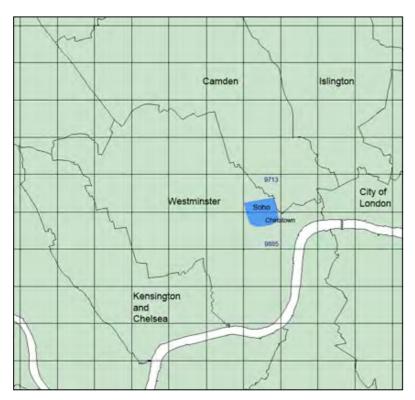
This area is covered by 13 Census Output Areas (2001) seven of which are in the area in their entirety. The remaining six lie across the outer boundary of the area and estimates have been made of the proportion of the persons counted in those areas falling within the defined Soho Area. These are shown in the following table.

Output Area Ref Number	Location	Total Persons	% in Area	Area Population
000BKGW0001	Brewer Street	208	100	208
000BKGW0003	Carnaby St	169	100	169
000BKGW0005	Lower John St	182	60	109
000BKGW0024	Soho Square	305	50	153
000BKGW0025	Grt Marlb'gh St	189	95	170
000BKGW0026	Old Compton St	252	100	252
000BKGW0027	Peter St	229	100	229
000BKGW0029	Beak St	164	100	164
000BKGW0031	Shaftsb'y Av N	201	100	201
000BKGQ0003	Leicester Crt	189	60	113
000BKGQ0004	Whitcomb St	220	80	176
000BKGQ0010	Coventry St	209	10	21
000BKGQ0035	Newport Crt	236	100	236

Total Persons 2201

Note: The boundaries for each Output Area as shown on the Census web site http://neighbourhood.statistics.gov.uk/ are often not related to street alignments and vary from one adjacent output area map to another. Considerable under-counting was reported in the City of Westminster and this is certain to have been so in Soho with its high transient and 24 hour working life style.

Appendix 5: The London Energy and ${\rm CO}_2$ Emissions Inventory 2003 LECI grid of London



(Source: Greater London Authority. 2006. London's Carbon Emissions Inventory 2003 (LECI), Methodology Manual, London: Greater London Authority)

Appendix 6: Time scales and decision-making cycles

Item	Duration	Responsible body
' <u>Hardware'</u> :		
Buried utilities and street infrastructure	30-150 years	Utility companies/local authority
Soho buildings and plots	30-300 years	Owners
Replaceable building elements	20-50 years	Owners
Major building refurbishments	20-30 years	Owners
Boilers, plant, appliance replacement	10-20 years	Owners/occupiers
Internal fittings replacement	1-20 years	Occupiers
<u>'Software'</u> :		
International/cross-party agreements	5-25 years	Governments/political parties/civil society
Governmental plans	1-10 years	Government/civil service
Municipal, public agency and NGO organisation plans	1-10 years	Local authority/public agency/NGOs
Commercial leases	Up to 25 years	Owners/occupiers
Residential leases	Up to 100 years	Owners/occupiers
Commercial lease breaks/reviews	5 years	Owners/occupiers
Owner occupier dwelling occupancy	10-20 years (15 years median)	Owners/occupiers
Tenant occupier dwelling occupancy	<1-10+ years (5 years median)	Owners/occupiers
Business occupancy turnover	1-10+ years	Owners/occupiers
Household plans	1-20 years	Occupiers
Business organisation plans	1-10 years	Occupiers

(Source: Max Lock Centre)

Appendix 7: LECI data on energy consumption

The LECI data on energy consumption and related carbon emissions gives cumulative figures by land use in London. They give no breakdown between Industrial and Commercial uses or how energy is consumed within these sectors. Jane Carlsen, Principal Planner of the Greater London Authority (GLA)'s London Plan Team suggests the breakdown of 44 million tons of emission from London is as follows:¹

Domestic sector 38%
Commercial and public sector 33%
Industrial sector 7%
Ground-based transport 22%

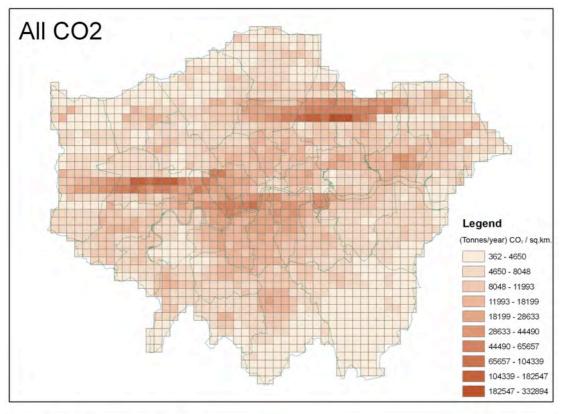
However in the central area, there is relatively little remaining industry, and nearly all emissions for the non-domestic sector is from commercial and public buildings. A growing proportion of the energy used will be in computer-related technology and, while reducing the energy impacts of this are beyond the scope of this study, the impact in terms of cooling and ventilation requirements are of central importance.

Emissions from non-domestic land uses in the Central Core area, according to LECI data, accounts for 20.6% of London's emissions and electricity use alone for 19.2%. With the increasing temperatures, this proportion is set to increase. This would suggest that there needs to be tightly focused area-based policies, both for London and core areas of other UK cities, that are currently lacking.

The spatial distribution of London's CO₂ emissions from all activities and the CO₂ resulted from commercial activities is illustrated in Figure below.

¹ Carlsen, J. 2008. *Sustainable design and construction UK city update – London.* 29 April. Presentation.

1



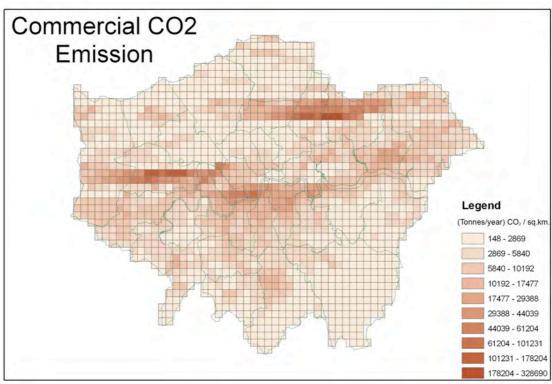


Figure All CO₂ and Commercial CO₂ Emission map of London (Source: Greater London Authority. 2006. London's Carbon Emissions Inventory 2003 (LECI), Methodology Manual, London: Greater London Authority)

Appendix 8: Checklist of approaches to retrofitting sustainability

A wide range of approaches to achieving the desired outcomes of retrofitting sustainability are grouped together under the following headings:

- 'Reduce': Measures to reduce environmental impact and resource depletion by reducing energy and materials consumption directly and through improving efficiency, in production as well as use (whole-life costs).
- 'Recycle, Renew': Measures to reduce environmental impact and resource depletion through the use of renewable energy and materials; recycling and re-use of existing materials, plant and buildings or their renewal; in general looking beyond improving efficiency, through changing operational or consumption practices and piecemeal and ad hoc upgrading, to holistic and cyclic solutions. As in the case of renewable energy initial investment costs may be greater and payback longer but benefits in terms of long-term reduction in carbon emissions are far higher. If all our energy was renewable, there might be less need to reduce our consumption
- 'Adapt': Measures to adapt buildings, spaces and human activity to adapt to the expected impacts of climate change – e.g. increased temperatures, 'heat island' effects; increased risk of bio-climatic hazards – storms, flash and tidal floods
- Revitalise: Measures that are aimed at improving local quality of life and health of the local population, its environment, and the long-term viability and adaptability of the local economy.

This can be represented schematically, as follows:

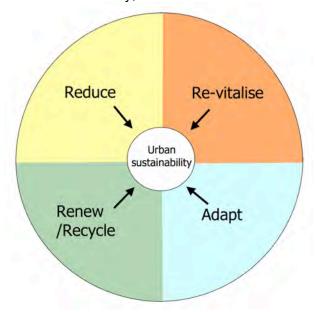


Figure AP 5.1.1: Approaches to Retrofitting

(Source: Max Lock Centre adapted from a suggestion of Jo Hammond)

This list is very wide ranging and it is not possible to address all the items listed within the agreed focus of this study.

In the area of Revitalisation, for example, we have chosen to focus on the environment (biodiversity), rather than the larger quality of life issues relating to economic and social sustainability.

Evaluation criteria

A preliminary survey suggests that there are a range of approaches that could be applied in the Soho context, although innovations may be necessary to fill the gaps in existing practice and to adapt existing models to the particularities of Soho and other similar historic central core areas.

In identifying good practices and determining its relevance to the Soho area in this study, we have employed a set of general evaluation criteria. These are based on the issues and outcomes described in Chapter 3 and include:

- a) Improvements in energy, water and resource efficiency: reducing the size of an ecological footprint (EF);
- b) Climate change: reduction in carbon emissions and carbon footprints;
- c) Adaptation to expected climate change (effectiveness of measures compared with estimated likelihood of risk);
- d) Reduction in air and noise pollution and other environmental impacts;
- e) Visual impacts and heritage issues;
- f) Biodiversity impacts;
- g) Quality of life measures;
- h) Measurable impacts on the local economy.

Other factors that have a strong bearing on overall financial sustainability and social and cultural sustainability have also been taken into account. These include:

- a) Cost (capital and running costs);
- b) Life cycle cost of new measures as opposed to doing nothing;
- Replicability and scaling up how far is it possible to replicate measures in Soho and beyond; potential economies of scale;
- d) Ease of implementation: scale and nature of capital works and level of disruption;
- e) Ease of implementation: changes to management and everyday practices (operation and maintenance requirements) and their long-term sustainability;
- f) Ease of implementation: support from relevant stakeholders.

Checklist of approaches

Reduce

- Energy inefficiency of buildings and streetscape:
 - Lighting
 - Building heating & cooling, combined heat and power, building adaptations to moderate indoor and outdoor temperatures, natural ventilation vs air conditioning

			Reducing urban heat-island effects (deflecting radiant heat; shading; retarding water run-off; permeable ground-level surfaces; living roofs; soft landscape; managing humidity effects; etc)
			Improving insulation
			Use of plant, office and commercial equipment
			Use of domestic appliances
•	Ve	hicu	lar transport movement energy use, emissions and noise pollution:
			Accessibility to and use of public transport
			Cleaner transport technology e.g. electric and hydrogen cell powered
			Green travel plans & flexiworking
			Walking – improved pedestrian routes and 'walkability' (see: TfL's Improving walkability best practice guide www.tfl.gov.uk/streets/downloads/pdf/improving-walkability2005.pdf)
			Measures to discourage private car ownership and usage
			Cycling: improved cycle routes & priority zones; pedicabs, bicycle couriers and deliveries; bike pools; cycle-to-work schemes
			Logistics – efficiency in movement of goods/rationalisation in organisation of deliveries/pick-ups; use of hand/bicycle/horse cart (including recycling)
			Screening of traffic noise, use of street trees for reducing noise and air pollution
•	Wa	ste	
	0	Offi	ce/Commercial/Domestic non-organic waste
			Paperless office technology and paper use reduction
			Reducing packaging
			Extending the life of domestic appliances, vehicles and office/commercial equipment
Re	nev	v/rec	cycle
•	Su	nlig	ht and daylight
			Solar water heating
			Photovoltaic energy generation
			Passive solar heating
			Maximise use of daylight to reduce artificial lighting load
•	Wi	nd	
			On-site wind generators
			Micro-climate modification

Heat / Cooling Biomas

Biomass heating and heat/power

Ground source heating/cooling

Water

- Sustainable Urban Drainage
- Rainwater harvesting
- Grey water recycling
- □ Cooling effect of falling/moving water
- □ Flash flood proof drainage

Waste (separation, storage, removal relating to transport logistics)

- o Office/Commercial/Domestic non-organic waste
 - □ Recycling 'consumables' glass, paper, plastic
 - □ Recycling durables and office/commercial equipment
- o Organic waste
 - Restaurant and café food waste collection and composting
 - Street market collection and composting

Buildings/materials

- Recycling buildings efficiently adapting buildings to meet changing requirements and new industries
- □ Protecting historical and cultural heritage examining the effectiveness of conservation area status and impact on sustainability
- Recycling and conserving building materials/installations vis a vis retrofitting new, more environmentally-friendly items and sustainablysourced building materials
- Green roofs identifying flat roofs suitable for living/green roofs or roof gardens
- Trees, landscaping and open space opportunities to increase/improve

Adapt

- Wind
 - □ Storm and tornado damage risk assessment and mitigation measures

Heat / Cooling

Cooling through natural ventilation and air movement

Water

- □ Flood risk assessment, preparedness and mitigation measures
- □ Flash flood proof drainage
- Cooling effect of falling/moving water

Revitalise

Improving the local economy

- Building footfall by prioritising walking
- □ Investigate developing a Business Improvement District to provide an effective voice for the business community
- □ Supporting and developing the street market, encouraging deliveries to local businesses, extended hours mini markets around stations
- □ Localising supply of food and other products

Increasing social cohesion

- Bring together business and residential community
- Overcoming conflicts of building use

Reducing crime and antisocial behaviour

- Encouraging active street frontages
- Designing out crime as part of walkability retrofit
- Web based low level crime and antisocial behaviour reporting system to provide place and time specific recording

· Improving health

- Benefits in encouraging walking and cycling
- □ Reducing air pollution
- □ Healthy eating through support for the street market

Appendix 9: List of Streets in Soho

1. Air Street 2. **Archer Street**

3. **Archer Street Chambers**

4. Argyll Street 5. **Bateman Street** 6. Bateman's Buildings

Beak Street 7. 8. **Berwick Street** 9. **Blore Court** 10. **Bourchier Street**

11. Brewer Street 12. Bridle Lane

13. **Broadwick Street** 14. Cambridge Circus Caring Cross Road 15.

16. Carlisle Street 17. Carnaby Street Chapone Mews 18. 19. **Coventry Street** 20. Cranbourn Street 21. D'Arblay Street

22. Dansey Place 23. Dean Street 24. Denman Place 25. Denman Street 26. Diadem Court

27. Duck Lane 28. **Dufour's Place** 29. Falconberg Court 30. Falconberg Mews Fareham Street 31. 32. Flaxman Court 33. Foubert's Place 34. Frith Street

35. **Ganton Street** 36. Gerrard Place 37. **Gerrard Street** 38. Glasshouse Street 39. Golden Square **Goslett Yard**

40.

41. **Great Chapel Street** 42. **Great Marlborough Street Great Pulteney Street** 43. 44.

Great Windmill Street 45. **Greek Court** 46. Greek Street 47. Green's Court 48. Ham Yard 49. Hills Place 50. Hollen Street

51. **Hopkins Street** Ingestre Place 52.

53. Kemp's Court 54. Kingly Court

55. Kingly Street

56. **Lancer Court** 57. Leicester Court

58. Leicester Place 59. Leicester Square

60. Leicester Street 61. Lexington Street

62. Lisle Street

63. Little Argyll Street

Little Marlborough Street 64.

Livonia Street 65.

66. Lower James Street 67. Lower John Street **Lowndes Court**

68. 69. Macclesfield 70. Manette Street 71. Marlborough Court 72. Marshall Street 73. Meard Street 74. Moor Street

75. **Newburgh Street** 76. **Newport Court** 77. **Newport Place** 78. **Noel Street**

79. **Old Compton Street**

Orange Yard 80. 81. Oxford Circus Oxford Street 82. 83. Peter Street 84. **Piccadilly Circus** Poland Street 85. 86. Portland Mews 87. Ramillies Place

88. Ramillies Street 89. Regent Place 90. Regent Street 91. Richmond Buildings Richmond Mews 92.

93. Romilly Street 94. Royalty Mews 95. Rupert Court Rupert Street 96.

97. Shaftesbury Avenue **Sheraton Street** 98. 99. **Sherwood Street** 100. Silver Place 101. Smith's Court 102. Smith's Mews

103. Soho Square 104. Soho Street 105. St Anne's Court

106. St James's Residences

- 107. Sutton Row
- 108. Swiss Court
- 109. Tenison Court
- 110. Tisbury Court
- 111. Tyler's Court
- 112. Upper James Street
- 113. Upper John Street
- 114. Walker's Court
- 115. Wardour Mews
- 116. Wardour Street
- 117. Warwick Street
- 118. Wedgewood Mews
- 119. Winnett Street