House of Commons
Transport, Local Government and the Regions Committee

TALL BUILDINGS

Sixteenth Report of Session 2001–02

Volume I

HC 482–1
Sixteenth Report of Session 2001–02
Report and Proceedings of the Committee
together with Minutes of Evidence
and Appendices taken before the
Urban Affairs Sub-Committee

Ordered by The House of Commons to be printed 17th July 2002

HC 482–I
Published on 4th September 2002 by authority of the House of Commons
London: The Stationery Office Limited
£16.50
TRANSPORT, LOCAL GOVERNMENT AND THE REGIONS COMMITTEE

The Transport, Local Government and the Regions Committee is appointed by the House of Commons to examine the expenditure, administration and policy of the Department for Transport, Local Government and the Regions and its associated public bodies.

Current Membership
Mr Andrew F Bennett MP (Labour, Denton and Reddish) (Chairman) ††
Mrs Gwyneth Dunwoody MP (Labour, Crewe & Nantwich) (Chairman) ††
Sir Paul Beresford MP (Conservative, Mole Valley) ‡
Mr Clive Betts MP (Labour, Sheffield Attercliffe) †
Mr Gregory Campbell MP (Democratic Unionist, East Londonderry) †
Mr John Cummings MP (Labour, Easington) ‡
Mr Brian H Donohoe MP (Labour, Cunninghame South) †
Mrs Louise Ellman MP (Labour/Co-operative, Liverpool Riverside) ‡‡
Mr Chris Grayling MP (Conservative, Epsom and Ewell) †‡
Helen Jackson MP (Labour, Sheffield Hillsborough) †
Ms Oona King MP (Labour, Bethnal Green and Bow) †
Miss Anne McIntosh MP (Conservative, Vale of York) †‡
Mr Bill O’Brien MP (Labour, Normanton) †
Dr John Pugh MP (Liberal Democrat, Southport) †‡
Christine Russell MP (Labour, City of Chester) †
Mr George Stevenson MP (Labour, Stoke-on-Trent South) †
Mr Bill Wiggin MP (Conservative, Leominster)

† Member of the Transport Sub-Committee
‡ Member of the Urban Affairs Sub-Committee

Powers
The Committee is one of the departmental select committees, the powers of which are set out in House of Commons Standing Orders, principally in SO No.152. These are available on the Internet via www.parliament.uk.

Publications
The Reports and evidence of the Committee are published by The Stationery Office by Order of the House. All publications of the Committee (including press notices) are on the Internet at www.parliament.uk/commons/selcom/trlhome.htm. A list of Reports of the Committee in the present Parliament is at the back of this volume.

Contacts
All correspondence should be addressed to The Clerk of the Committee, Committee Office, 7 Millbank, London SW1P 3JA. The telephone number for general inquiries is: 020 7219 4972; the Committee’s e-mail address is: trlcom@parliament.uk.

Footnotes
In the footnotes of this Report, references to oral evidence are indicated by ‘Q’ followed by the question number. References to written evidence are indicated by the memorandum number, eg TAB 01.
# TABLE OF CONTENTS

**REPORT**

Conclusions and Recommendations ........................................... 5  
Introduction ............................................................................. 7  
Background ............................................................................... 9  
   History ................................................................................ 9  
   The history of development control ..................................... 10  
      London ............................................................................ 10  
   The existing planning system ............................................ 12  
      The national situation ..................................................... 12  
      London ............................................................................ 13  
      Future change .................................................................. 13  
Contribution to the Urban Renaissance .................................... 14  
   Density .............................................................................. 14  
   Sustainability and Mixed Use ........................................... 15  
      Sustainability ................................................................... 15  
      Mixed Use ....................................................................... 16  
Transport ............................................................................... 18  
   Capacity ............................................................................. 18  
   Transport Planning ............................................................. 19  
   Developer contributions to transport .................................. 20  
The Economic Case .................................................................. 21  
   Demand for tall buildings .................................................. 21  
      London ............................................................................ 21  
   The need to concentrate office space in single buildings .... 22  
   The prestige of tall buildings ............................................ 22  
   Regeneration ....................................................................... 23  
Image, Design and Environment ............................................. 25  
   Image ................................................................................. 25  
   Design ................................................................................. 25  
   Environment ......................................................................... 26  
   Location: context and the historic environment ................. 26  
      Historic towns ................................................................... 26  
      Clustering or pepper-potting .......................................... 27  
Planning .................................................................................. 28  
   General .............................................................................. 28  
   Local authorities and tall building applications ................. 28  
   Guidance from English Heritage and CABE ..................... 29  
   Additional Guidance ......................................................... 30  
   London ............................................................................... 30  
CABE and English Heritage .................................................... 31  
   English Heritage ............................................................... 32  
   CABE ................................................................................. 32
Safety ........................................................................................................ 34
The existing regulations ........................................................................... 34
Building collapse ...................................................................................... 34
Evacuation .................................................................................................. 35
Ongoing building management ................................................................. 36
Construction materials ............................................................................ 36

Conclusions and Recommendations ...................................................... 38

List of Recommendations ........................................................................ 40

Annex A ..................................................................................................... 42
Annex B ..................................................................................................... 43

PROCEEDINGS OF THE URBAN AFFAIRS SUB-COMMITTEE
RELATING TO THE REPORT ................................................................. 44

PROCEEDINGS OF THE COMMITTEE RELATING TO THE REPORT ................................................................ 45

LIST OF WITNESSES .............................................................................. 46

APPENDICES TO THE MINUTES OF EVIDENCE .................................... 48

LIST OF MEMORANDA (HC 482-II) ......................................................... 48

UNPUBLISHED MEMORANDA ................................................................. 49

LIST OF COMMITTEE REPORTS IN THE CURRENT PARLIAMENT .......... 50
SIXTEENTH REPORT

The Transport, Local Government and the Regions Committee has agreed to the following Report:

TALL BUILDINGS

Conclusions and Recommendations

The main reason that the Committee held an inquiry into tall buildings was to identify the contribution which they can make to the urban renaissance. We found that contribution to be very limited. The proposition that tall buildings are necessary to prevent suburban sprawl is impossible to sustain. They do not necessarily achieve higher densities than mid- or low rise development and in some cases are a less efficient use of space than alternatives. They have, for the most part, the advantages and disadvantages of other high density buildings. They can be energy efficient, they can be part of mixed use schemes and they can encourage the use of public transport where there is spare capacity, but so can other types of high density developments. Tall buildings are more often about power, prestige, status and aesthetics than efficient development.

Similarly, we were not convinced that tall buildings are essential for the future of London as a global financial centre. There appears to be considerable room for additional office space in central London, in the City, and certainly at King's Cross, Paddington and elsewhere. Some big companies want to concentrate all their staff in one office complex: King's Cross and other sites will be able to provide the necessary space in mid-rise developments. Some companies want tall buildings as prestige locations; to date they have been housed at Canary Wharf. We received no evidence that any company had left London or refused to come to London because of a shortage of tall buildings.

Far more important for London's future as a financial centre are the inadequacies of the public transport system. The London Underground PPP will not provide an adequate growth in capacity to bring large numbers of extra people into central London: it is planned to increase the system's capacity by 15% over the next 30 years; passengers numbers are expected to rise by 20% over 20 years, and presumably 30% over 30 years. Cross Rail and other improvements are many years away. Increasing building densities in parts of Central London could have a severe impact on an already overcrowded tube, particularly near stations on the Central Line.

Although tall buildings do not bring all the benefits their supporters claim for them, this does not mean that they should not be built. Furthermore, tall buildings are not inherently unsafe. There is room for improvement to ensure that evacuation times are as speedy as possible, to improve fire resistance and to ensure that changes to buildings do not have an adverse effect on their safety. Such measures would increase costs, but not prevent the construction of high rise.

There is also one powerful and irrefutable argument in favour of tall building: some people find them very beautiful. The Mayor of London is delighted by the Manhattan skyline. His love of tall buildings is shared by many architects and others. However, if they are to enhance the skyline it is important that they are well-designed. Moreover, if they are to enhance the city it is important that they improve the streetscape. Few skyscrapers in England do: many older tall buildings are an eyesore; they are insensitive to their location, 'hit the ground' badly, have large service bays, are windswept at their base. These problems must be overcome if new tall buildings are to be acceptable. There is some evidence that they can be; most witnesses thought that Canary Wharf was relatively successful. However, there are some important historic areas, as Westminster and Bath City Councils told us, where no tall buildings would be acceptable. It is vital that our historic cities are not forced to undergo another wave of high rise buildings. We must never repeat the mistakes of the 1960s vividly illustrated by Bath where a single tall building insensitively sited and feebly designed has harmed the setting of a great historic city.
During the inquiry it was argued that too many tall buildings constructed in the 1960s were built in the wrong place because of the inadequacies of the planning system. There was no uniformity in the way applications were handled by authorities. Tall building applications were judged on a case by case basis. There are concerns that the planning system is still not adequate to deal with the recent rise in applications.

There must therefore be a suitable planning framework for tall buildings if we are to avoid past mistakes. Local authorities and some developers want to be able to identify areas where tall buildings could be built and those where they should not be constructed. This would give everyone greater certainty. Local authorities do not want to be told where tall buildings should or should not be built, but there is a demand for guidance about how to assess tall building applications. They also think that Government guidance would help to ensure that policies in local plans or UDPs would be strengthened and not overturned by an Inspector at a Public Inquiry. The guidance proposed by CABE and English Heritage is helpful, and would be more helpful if it were endorsed by Government. In addition, we recommend that PPG1, which is to be revised soon, be amended to include a section on the assessment of tall buildings. Decisions should be made at a local level, but it is vital that local decision makers have an adequate framework within which to make their decisions and to give them greater confidence that their policies and decisions will not be overturned.

In London, very major changes to the skyline are proposed. The Mayor has issued his interim strategic statement on tall buildings and his London Plan/Spatial Development Strategy (SDS), which is out to consultation. Neither yet have any legal status, but once accepted by the Secretary of State, the Plan could have a huge effect on London. London boroughs will have to bring their UDPs into general conformity with the Plan; several boroughs could have to change their policies on tall buildings against the wishes of their residents. The Mayor told us that the people of London would have a chance to vote against his proposals at the next mayoral election.

Finally, the inquiry brought to light concerns about English Heritage and CABE which need to be addressed. English Heritage is seen as inconsistent: it has one arm which lists tall buildings while another arm opposes their construction. Because of its attitude to tall buildings, CABE is in danger of being seen as the representative of the modernist architectural establishment and of losing the support of amenity groups and the trust of local authorities. It should take steps to ensure that this does not happen.

---

1 Interim strategic planning guidance on tall buildings, strategic views and the skyline in London, October 2001
Introduction

1. In recent years there has been an increase in the number of applications to construct tall buildings, both in London and other cities. High rise is once again popular - with young professionals and with companies seeking a prestigious location. Tall buildings have powerful supporters, including many distinguished architects and developers as well as the Mayor of London, who issued his *Interim strategic planning guidance on tall buildings, strategic views and the skyline in London* in October 2001 (and his Spatial Development Strategy in June 2002 after we had finished taking oral evidence). The proponents of tall buildings put forward not only subjective arguments in favour of them - that they are beautiful and enhance the image of cities - but also make a number of claims which can be assessed objectively:

— That they are an essential part of the Urban Renaissance and the restriction of urban sprawl;

— That they encourage more sustainable modes of transport;

— That they are essential in London if it is to maintain its position as a global financial centre;

— That they have a major role to play in regeneration and improving the economic vitality of cities outside London.

2. All this is disputed. There are as many critics as there are supporters. The critics fear that we are about to repeat the mistakes of the 1960s. They point not just to the poor design of tall buildings of that period, but to other failings: the way tall buildings "hit the ground" and their large and unsightly service bays. Most of all they are concerned about the context and the damage done in the past to even our most impressive historic cities: Bath is disfigured by a 1960s tower block, and on the skyline of Lincoln a block completes with the majestic medieval cathedral. The case against tall buildings appeared to be given added weight by the events of September 11th and the resulting worries about their construction and speed of evacuation.

3. Although there are tall buildings here, in comparison to the cities of Asia or North America, English cities are relatively low rise and most buildings do not rise above 5 or 6 stories. On the other hand English cities are pepper-potted with high rise structures in a way that many European cities and towns have avoided. The centres of cities such as Rome and Paris are largely unaffected by tower blocks. In the evidence submitted to this inquiry it was argued that this state of affairs was in part due to the planning system: that we have a development system which is too easily overridden by developers and the whims of Ministers; and that we have been too ready to judge each building on its merits. There is a demand for better forward planning which indicates areas where tall buildings would be desirable and where - most obviously in sensitive historical locations - where they would be inappropriate. In recognition of this need the Commission for Architecture and the Built Environment (CABE) and English Heritage published joint guidance in June 2001.  

4. Because of the factors described above, this Committee decided to undertake an inquiry into tall buildings. Our terms of reference were as follows:

---

2 *Guidance on Tall Buildings - Consultation Paper, June 2001*
—the role of tall buildings in achieving high densities in residential areas; the
provision of offices for certain types of global companies; and as a means of
enhancing the beauty of our cities;

— the sustainability of tall buildings, in particular in terms of construction,
transport and long term flexibility of use;

— where tall buildings should be located, including:

— what restrictions, if any, should be placed on the location of tall buildings, and
how far they should be allowed to block existing views; and whether they should
be clustered or dotted;

— whether in the present movement to erect new tall buildings we are in danger
of repeating the mistakes of the 1960s;

— whether those making decisions are sufficiently accountable to the public;

— whether the Government should have a more explicit policy on the subject.

5. We considered the evidence which we received under the following main headings:

— The extent to which tall buildings make a contribution to the urban
renaissance;

— The implication of tall buildings for transport;

— The economic case for tall buildings, and, in particular, the need for them in
central London;

— The importance of image, design; impact on the environment and context;

— The extent to which the existing planning regime successfully handles
applications to build tall buildings;

— The role of the Commission for Architecture and the Built Environment and
English Heritage;

— The extent to which tall buildings are safe.

6. The Committee would like to thank all those who submitted evidence to the
Committee. We also express our appreciation of the work of David Lunts, our specialist
adviser, until his move to the Office of the Deputy Prime Minister.
History

7. In England churches, cathedrals, palaces, castles and public buildings have historically been the tallest buildings on the skyline. They rose above their surroundings providing:

“Fortified defence against invaders... Prestigious, elevated design of outstanding quality which instilled awe and respect for church and rulers...”

Tall buildings were rare in England until comparatively recently. As the Department of Transport, Local Government and the Regions (DTLR) noted:

“Tall buildings are a relatively recent addition to urban skylines. The pre-war trend towards tall buildings in major cities in the United States did not take root in England until the 1960s. With the exception of industrial structures, the tallest building in most English cities had been its cathedral. Taste, locally applied height restrictions and lack of demand had contributed to a stable skyline”.

8. The construction of tall buildings in the 1960s went hand in hand with the demolition of much Georgian and Victorian housing. The Royal Town Planning Institute identified some of the reasons for the trend towards high rise housing:

“Such development was a panic ‘solution’ to meeting the demand for social housing arising from widespread clearance of high density Victorian terraces and tenements, and the perceived shortage of land for the replacement housing”.

Tall office blocks were also built during this era. DTLR noted:

“Sites shortages and difficulties in assembling large sites for big, low rise developments prompted tall buildings in central areas, mostly for offices”.

9. Unfortunately the use of tower blocks both for housing and offices created problems and the badly sited and designed buildings of this era still influence opinion of tall buildings today. The buildings were built with little sensitivity to their location, their design and the materials used to build them were often of poor quality and the funding regimes which should have provided for their maintenance frequently failed. The often disastrous effects of high rise housing are well documented: social ghettos were created in badly designed blocks lacking quality public space with shared lifts, stairwells, walkways and access corridors which soon became hot spots for crime and vandalism. Office blocks were often built with little regard to the surrounding environment and areas around them were deserted outside office hours. As a result these towers became increasingly unpopular. For example, Bath and North East Somerset Council told us:

“The city has one high-rise building, a block of flats built in the 1960s. It is the most disliked building in the city and has had an adverse effect on a wide part of the conservation area”.

---

3 TAB17. TAB21 states that the tall buildings of previous centuries were “intended to dominate the urban scene, to raise the spirits and awe of the spectator”.
4 TAB16
5 TAB45
6 TAB16
7 TAB55
8 TAB45
9 TAB17
10 TAB26
10. As a result of their unpopularity few high rise towers were erected during the 1970s and 1980s, and it was not until the early 1990s that high rise fashion really made a comeback.\textsuperscript{11} There is a growing demand from young professionals for high rise apartments in blocks such as the once-despised Trellick Towers in London.\textsuperscript{12} The Royal Town Planning Institute argued:

"Achieving high residential densities in tall buildings was not a solution for social housing, or for housing families. More recently, there have been indications that it may work better for young professionals, or single people. Where incomes are relatively higher, management and maintenance costs can be more readily taken on board, and a sense of ownership fostered".\textsuperscript{13}

Another witness expressed the concept in a different way:

"Towers are unsuitable for residences except for the transient rich".\textsuperscript{14}

There has also been an increasing demand for tall buildings providing office accommodation.

**The history of development control**

11. The character of most British cities today remains low to medium rise but commonly "punctuated by occasional tall buildings".\textsuperscript{15} This random pepper-potting can largely be attributed to the ad hoc development of planning policy and what has been described as "gap-toothed planning".\textsuperscript{16} The planning system has been reactive rather than pro-active in allowing random, unstructured development of tall buildings. English Heritage argued this strongly, remarking that:

"policies to protect... have arisen in response to specific threats and only after the damage has been done".\textsuperscript{17}

The development control system that emerged was one in which each case or application was judged on its merits. While policies were put in place to control development they were often overridden by central government.\textsuperscript{18}

**London**

12. There has been more policy on tall buildings in London than in the rest of the country. The re-modelling of London following the Great Fire in the 17th Century was associated with increasing concern about the need to control the structure and height of buildings.\textsuperscript{19} The London Building Act 1667 stated that buildings over four storeys were not permitted. Throughout the 19th Century, metropolitan sanction was required for any building over 30 metres (100feet). The controls were not adequate in the 20th century as new development began to threaten St Paul’s Cathedral. The submission to the Committee from St Paul’s notes:

\textsuperscript{11} Annex B of TAB16 lists tall buildings in England and the dates that they were built.
\textsuperscript{12} For example TAB08, TAB16, TAB22, TAB39 which all agree about the unsuitability of tall buildings for social or family housing
\textsuperscript{13} TAB45
\textsuperscript{14} TAB04
\textsuperscript{15} TAB21
\textsuperscript{16} TAB45
\textsuperscript{17} TAB18
\textsuperscript{18} TAB04
\textsuperscript{19} *High buildings and strategic views in London* London Planning Advisory Committee, April 1998
“It was the construction of Faraday House, which to this day masks much of the Cathedral from historic views from the Thames Bridges, which galvanised Godfrey Allen, the then Surveyor to the Fabric of St Paul’s, to initiate action to protect these views from damaging development. His efforts resulted in the St Paul’s Height Code, introduced in 1937 and still enforced by the City authorities today.”

The St Paul’s Height Code limited the height of development around St Paul’s Cathedral in an attempt to preserve the building’s sense of scale and views of the Cathedral from certain places were protected, limiting the height of development within specified sight lines. The diagram at Annex A traces developments following the St Paul’s Height code.

13. After the Second World War, the London County Council (LCC) had a firm policy on tall buildings and established criteria relating to the consideration of proposals to build tall buildings throughout the capital. These were: visual intrusion, location, site size, overshadowing, local character, effects on the Thames and open space, architectural quality and night scene. These criteria were amended and reduced to five principles by the Government of the day. Then, in 1957 the Secretary of State, under commercial and political pressure overruled them and approved the contentious Hilton Tower. Simon Jenkins summed up the situation:

“In the years after the war, the LCC had a firm high buildings policy that was enforced. It was overridden by central government allowing breaches either to cross-subsidise road schemes (Centre Point, Stag Place) or through ministerial whim (Hilton and the other hotels around Hyde Park).”

14. The LCC was replaced by the Greater London Council (GLC). As part of the change, decision making was devolved to local authorities. Under the 1976 Greater London Development plan, proposals for certain tall buildings were submitted to the GLC for direction on whether they should be accepted or refused, whilst boroughs were expected to use the high buildings criteria in the greater London Development Plan in considering other schemes. However, in 1986 the GLC was abolished. This happened at the same time as pressure to build tall buildings was increasing in central London as financial markets were deregulated. High-rise buildings were constructed in Docklands; Canary Wharf was built in 1991. Regional planning guidance for London was amended to give guidance on tall buildings: in 1991 an annex was included in Regional Planning Guidance Note 3 (Strategic Planning in London) protecting 10 strategic views in London. In 1998 the London Planning Advisory Committee (LPAC) published its advice on High buildings and strategic views which said that tall buildings were not necessary to meet the need for office space in London. In 1999, the then Planning Minister at the Department of Environment, Transport and the Regions (DTLR) pledged his support for this advice, increasing its usefulness to local authorities who often used it as a basis for policy.

---

20 TAB46
21 See chronology at Annex A of this report
22 High buildings and strategic views in London, London Planning Advisory Committee, April 1998, 2.3
23 TAB04
24 According to High buildings and strategic views in London, London Planning Advisory Committee, April 1998, proposals for buildings higher that 150ft in central London and 125ft in the rest of London, were passed to the GLC.
27 TAB19
The existing planning system

The national situation

15. All planning applications, for tall buildings, as for other building, have to be considered with regard to a local authority’s Unitary Development Plan (UDP) or Local Plan\textsuperscript{29} and other material considerations such as Planning Policy Guidance (PPG) and Regional Planning Guidance (RPG).\textsuperscript{30} UDPs have to be consistent with national PPGs and with the relevant RPGs. There is no PPG which relates specifically to high buildings, but the Department of Transport, Local Government and the Regions (DTLR) highlighted the following as relevant:

—PPG 1 General Policy and Principles;

—PPG 3 Housing;

—PPG 8 Telecommunications;

—PPG 13 Transport; and

—PPG 15 Historic Environment.\textsuperscript{30}

RPGs should provide further advice on strategic planning even if they do not directly refer to tall buildings. Development plans are produced, incorporating planning policy, and are also subject to public consultation.

16. In addition, under planning law local authorities are obliged to consult English Heritage, as a statutory consultee,\textsuperscript{31} in respect of applications for the development of land in Greater London involving the demolition or material alteration of a listed building. Local authorities nationally are also required to notify English Heritage of applications for development likely to affect the setting of certain categories of listed building and of larger development likely to affect the character or appearance of a conservation area. The Commission for Architecture and the Built Environment (CABE) is a non-statutory consultee\textsuperscript{32} but DTLR issued a statement in May 2001 advising that CABE be consulted in applications for all large scale buildings.\textsuperscript{33} English Heritage and CABE have recently produced a joint consultation paper entitled ‘Guidance on tall buildings’.\textsuperscript{34} The Minister indicated during oral evidence that in principle he supported this document.\textsuperscript{35}

\textsuperscript{29} Local Plans are, for the most part, drawn up and adopted by district councils and National Park Authorities and Unitary Development Plans by unitary authorities, each being adopted following a public inquiry. The plan identifies particular areas for housing, industry, retail or other uses and sets out the policies which the authority applies in deciding whether or not development will be permitted. In unitary authority areas, the UDP combines the function of the structure plan and also includes a broader set of strategic objectives.

\textsuperscript{30} Section 54 of the Town and Country Planning Act 1990

\textsuperscript{31} Where local authorities consult English Heritage, they are obliged to take into account any representations made. Where local authorities notify English Heritage, there is no requirement for them to take into account any representations made, but they must take into account all material considerations, which can include representations. There are separate requirements for notifying English Heritage over listed building consent applications.

\textsuperscript{32} CABE is a non-statutory consultee which means that local authorities are advised but not obliged to take advice from CABE concerning planning applications for large scale developments. TAB10 sets out when CABE should be consulted.

\textsuperscript{33} TAB10

\textsuperscript{34} June 2001

\textsuperscript{35} QQ594-600
17. An Environmental Statement or Impact Assessment is also likely to be required because of the inevitable impact on the surrounding environment. This Environmental Impact Assessment would involve a consultation with the local authority after which the matter would be:

“referred to the wider consultees, including interested/affected members of the public, adjoining boroughs, relevant heritage groups etc”\(^{36}\)

18. Finally the Secretary of State has the power to call in any application for review at public inquiry. The Heron Tower is a recent example: in this instance, the application was called in on the advice of English Heritage.

**London**

19. In London policies about tall buildings in UDPs take account of the 1998 LPAC Report. Subsequently, in 2001, the Mayor of London published his Interim strategic planning guidance, *Strategic Views and the Skyline in London*. There are considerable differences between the LPAC study which reaches a ‘nice but not necessary’ verdict on tall buildings and the Mayor’s interim guidance which has a positive attitude to tall buildings and seeks to increase their numbers in London. The Mayor’s interim guidance currently has no legal status although it was intended to provide guidance to local authorities dealing with tall building applications before the publication of the Mayor’s London Plan (Spatial Development Strategy).\(^{37}\) The Plan was published in June 2002 and is out to consultation. The Secretary of State has powers, in certain limited circumstances, to direct changes to the plan, as well as to direct that the Spatial Development Strategy be reviewed, altered or replaced. Once published the Plan will have legal authority. The Mayor has the power to direct refusal of planning applications of potential strategic importance; in view of his support for tall buildings this may not be very relevant. In addition, responsibility for the protection of views in London will be transferred from the Secretary of State to the Mayor. Perhaps the most significant change is that once the Spatial Development Strategy is in place, borough’s UDPs will have to be “in general conformity with” the Plan.\(^{38}\)

**Future change**

20. It is possible that changes to the planning system following suggestions in the Planning Green Paper will effect the way in which tall buildings are handled. The Committee held an inquiry to examine in detail the content of the Planning Green Paper. Our report was published on 3 July.\(^{39}\)

---

\(^{36}\) TAB19
\(^{37}\) Q632-3
\(^{38}\) Q635
Contribution to the Urban Renaissance

21. A major argument in support of tall buildings is that they will make a significant contribution to the urban renaissance by increasing the density of development. The British Property Federation informed us that:

"With ever-increasing pressure for space within town centres, tall buildings provide an excellent means of accommodating necessary commercial and residential development without encroaching into the greenbelt. In the right circumstances, tall buildings can support current national imperatives on issues from sustainable development to integrated transport."\(^{40}\)

The Sellar Property Group stated:

"The current promotion of tall buildings is simply part of an overall drive towards achieving higher urban densities."\(^{41}\)

Density

22. However, while there is little doubt that tall buildings can be a method of achieving high densities, it is equally clear that tall buildings are not necessary to provide high density accommodation. In fact, there is a broad degree of consensus amongst the witnesses that high rise is not the only or most efficient way to provide high densities.\(^{42}\) As the National Housing Federation pointed out, the Urban Task Force Report, *Towards an Urban Renaissance*, found that the same density could be provided by high, medium and low rise developments in different configurations (see Annex B).\(^{43}\) As the Civic Trust informed us:

"Increasing density does not necessarily entail an increase in height."\(^{44}\)

23. The submissions to the Committee from both the Department of Transport Local Government and the Regions (DTLR), and the Mayoral office of the Greater London Assembly acknowledge that tall buildings are not the only, or necessarily the best means of achieving high density development, as do English Heritage and the Commission for Architecture and the Built Environment (CABE).\(^{45}\) The Department’s submission states:

"The Government is not advocating a ‘back to a 1960s future’ of high rise developments... One of the most interesting observations about well designed higher density development is how varied they are. They do not have to be tall buildings."\(^{46}\)

24. Several local authorities, including Oxford City Council, Bath and North East Somerset Council, Liverpool City Council and the London Borough of Southwark informed us of their success in generating high density without high rise.\(^{47}\) We were told:

"Notwithstanding the lack of new high buildings, Westminster achieves high density housing provision. Through appropriate urban design policies there has been a significant

---

\(^{40}\) TAB34, see also TAB14 and see also TAB19, TAB34
\(^{41}\) TAB14
\(^{42}\) TAB02, TAB03, TAB9, TAB10, TAB15, TAB16, TAB17, TAB18, TAB36, TAB39, TAB45, TAB51, TAB55, TAB60, TAB61
\(^{43}\) TAB22, see also *Towards and Urban Renaissance*, Lord Rogers, Urban Task Force, DTLR, 1999
\(^{44}\) TAB11
\(^{45}\) TAB10, TAB16, TAB18 TAB55
\(^{46}\) TAB16
\(^{47}\) TAB26, TAB36, TAB39, TAB50, TAB61.
residential population increase. The population has risen from about 175,000 in 1976 to 244,000 in 2001, a rise of 69,000 in 25 years. 48

25. Many types of mid and low rise buildings provide high densities, including both Georgian terraces, which are traditionally between 4 and 6 storeys high, and more recent buildings. The Georgian Group told the Committee:

"Lillington Gardens Estate in Pimlico by Darbourn and Drake (1961-1971) showed that high density and low rise were compatible. To some extent, Lillington Gardens was simply relearning the lessons of the Georgian era, where the typical urban terrace achieves a density of around 340 habitable rooms per hectare, compared with an average of around two thirds that figure for a conventional post-war housing development and well above the standard set by the Government in Planning Policy Guidance Note 3. Achieving high residential density through tall buildings is again a matter of choice rather than necessity".

Mid-rise buildings, such as Broadgate in London, have provided high density for non-residential use.

26. A number of buildings have been re-planned to a lower height but a higher density. The design for the new development at Draper’s Gardens within the City of London has been reduced in height, which has preserved views of St Paul’s Cathedral and has also provided more space. 50 Westminster Council cited an example in London’s Paddington Basin:

"In the Paddington context we were not getting a higher density by going to 45 storeys by comparison with going with 25 storeys". 51

Sustainability and Mixed Use

Sustainability

27. Some have argued that tall buildings are very sustainable. The Corporation of London has recently published a report entitled Tall Buildings and Sustainability which documents new design techniques for creating energy efficient, environmentally friendly buildings. 52 The Corporation has advocated clusters of buildings and businesses as this allows sharing of resources, skills and services. 53 London First stated:

"Architects now routinely follow the basic principles of energy conservation — using high tech ventilation systems to heat and move the air around. Power generation from solar panels, such as on the proposed Heron Tower at Bishopsgate also show how tall buildings have become environmentally viable. Tall buildings can often leave a smaller ‘ecological footprint’ than conventional housing or office space and residents and businesses can share facilities, using less energy and producing less waste". 54

Liverpool, Manchester and also Southwark Councils highlighted the possible energy saving and environmental benefits. 55

48 TAB39
49 TAB60
50 Q213
51 Q103
52 March 2002
53 Q3
54 TAB07
55 TAB36, TAB41, TAB61
28. However, tall buildings have not always been sustainable and can often be inefficient in their use of space. This problem would be compounded if greater safety requirements for stairwells and fire compartments are brought in following September 11 2001. It can be difficult to change the use of tall buildings and they are generally difficult and expensive to demolish. London First stated that:

“The high cost of demolishing tall buildings is one means of guaranteeing their long term survival”.  

Simon Jenkins highlighted other problems associated with the life cycle of tall buildings noting that towers such as those at Stag Place, Tolworth and Euston stood empty until rented to the Government. Other research has shown tall buildings need big servicing bays and access routes which can increase the amount of space they need and have a negative effect on the surrounding environment. Consultants DEGW have pointed out:

“High buildings can equally be disruptive to build, inflexible to adapt, impossible to phase, inefficient in space utilisation, and costly to construct or replace; a closed system that separates inhabitants from the city below, and a source of congestion. The challenge is to find design solutions and appropriate locations that reflect the opportunities and respond to the shortcomings”.

**Mixed Use**

29. Mixing uses can be an effective method of enhancing sustainability and can often help to integrate a tower with its surrounding environment. Canary Wharf was referred to by several witnesses: it combines retail at the base, office space at the top and residential development nearby. Including retail space can help to overcome the problems of barren tower bases such as that at Centrepoint and the combination of commercial with residential can reduce the strain on transport by providing accommodation for those who work in tall buildings, reducing the need for transport use. DTLR’s memorandum states that:

“A mix of uses rather than a single use has the greatest potential for interacting successfully with the surrounding smaller buildings and of creating a place, not just a location”.

The Civic Trust have further identified the benefits and possibilities of mixed use:

“Tall buildings should have active, publicly accessible ground floor uses to enliven the street frontage. Shops are ideal. In addition to ground floor retail, a tall building can also contain homes and offices, with a café or restaurant at the top providing a public vantage point. The space beneath tall buildings can be used for parking, trains and facilities for residents”.

Use can be mixed within one building or within a group of buildings and the arguments for the benefits of mixed use development equally apply to building types other than tall buildings.

---

56 TAB21, TAB32  
57 TAB07  
58 TAB04  
59 London Planning Advisory Committee, 1998  
60 TAB52  
61 TAB16  
62 TAB11
30. Despite these benefits most proposals for tall buildings are for single use and there has been a lack of enthusiasm in some quarters for mixed use. Mixing uses within a building is especially undesirable for developers if they want to let the building as a single unit to a single occupier. The Deputy Chairman of CABE told us:

"I think there has been a reluctance, for reasons of institutional funding, for having more than one use in a building".  

Some occupiers also saw disadvantages.  

31. Tall buildings are not essential to the urban renaissance. They are only one of several ways of increasing building densities. They can be energy efficient and can be part of mixed use schemes; however, other high density building types have similar advantages. In several respects high rise buildings are less sustainable than high or low rise buildings: the inflexibility of space and difficulties of change of use have been a problem.

63 Q55
64 Q560
65 Q55
Transport

32. Proponents of tall buildings also claim that they can not only reduce the need to travel (where residential and commercial development is mixed), but can also encourage the greater use of public transport (by concentrating large groups of people at transport nodes). London First emphasised:

"City-centre living can play a huge part in alleviating the strain on London’s transport infrastructure". 66

The Institute of Structural Engineers highlighted the fact that:

"Tall buildings also allow public transport systems and public utility systems to be more focussed and efficient. High-rise Manhattan is more efficient, and arguably more sustainable, than the urban sprawl of Los Angeles". 67

However, once again, the arguments about the transport benefits of tall buildings also apply to other high density developments such as Broadgate in London.

Capacity

33. Although there are potential benefits of concentrating development around transport nodes, they cannot always be realised because of the often inadequate state of our public transport infrastructure. The situation in London, in particular, presents problems: several underground lines including the Central Line are very overcrowded during peak periods. According to London Underground the Central Line is currently running at its full capacity. We were told:

"This level of demand creates a significant overcrowding problem for London Underground and its customers". 68

The task of getting what may in some cases be (for example with a building with 10,000 occupants) a 25% increase in passengers travelling to and from a location during rush hour would be difficult if not impossible. London Underground, when asked what the cost would be of increasing the Central Line’s capacity by 5%, said:

"Technically it could not be done, it is not a matter of money". 69

This is likely to cause major problems in the future as demand increases. The Corporation of London stated:

"If we are going to have eight million people in London by 2015 we do need more public transport to transport those people". 70

The Corporation of London’s answer to the problem was to run fewer trains on the Central Line which would prevent the current “bunching up” of trains which causes delays and is the result of running more trains that the system can manage. 71 Others are sceptical about this argument.

66 TAB07
67 TAB35
68 TAB38
69 Q468
70 Q47, see also QQ 20 & 48
71 Q48
34. The Planned PPP for London Underground will increase capacity through more efficient maintenance of the infrastructure and trains and the use of new technology. However, it will not provide sufficient extra capacity to meet the current forecast growth in passenger numbers. Passenger numbers are forecast to grow by 20 per cent over the next 20 years and possibly 30 per cent over the next 30 years, the duration of the PPP.\textsuperscript{72} The Government expects that the PPP will achieve a 12.5 per cent increase in capacity over the next 10 years and a further 2.5 per cent increase shortly thereafter.\textsuperscript{73} Moreover, the ability of the underground system in Central London to absorb any further increases in passenger numbers is particularly limited. The Underground will, therefore, be unable to meet added demand brought about by new high density office buildings, either high rise or mid-rise in Central London.

35. Future transport developments such as Thameslink 2000 and East/West Crossrail which would help to get people in and out of the areas currently serviced by the Central Line are essential for the service of any high density development in that area. The Mayor of London emphasised the importance of Crossrail:

"This office development planning policy only works - and forget about height; it is just the extra half a million jobs - if we get the transport infrastructure to go with it. In the short term, the expansion of the bus system will take the strain but, unless we get the completion of Thameslink 2000, Crossrail 1, the East London line and, hopefully, Crossrail 2.... but without these three developments it would be a nightmare.\textsuperscript{74}"

However these projects have not yet been given the final go ahead, will be costly and will not be built for many years. Derek Palmer of Steer Davies Gleave stated:

"They would be the biggest step changes in capacity we could provide, but they are probably the most expensive changes as well".\textsuperscript{75}

Transport Planning

36. Transport therefore must be a major factor in the consideration of applications for tall buildings. London Underground stated:

"A new line or line upgrade typically takes 10 years from the start of planning to running the services... Early indications from planning authorities or developers about intentions are therefore vital".\textsuperscript{76}

We were informed that:

"Each proposal must be subject to a detailed transport assessment. The transport assessment must be undertaken in accordance with PPG13 and based on the forthcoming guidance, Transport Assessments: A Good Practice Guide, being published by the DTLR".\textsuperscript{77}

Because of the length of time needed to undertake major transport improvements, it is essential that proposals for new developments are co-ordinated with transport improvements as early in the process as possible.

\textsuperscript{72} Second Report, 2001-2, London Underground, (HC387-I)
\textsuperscript{73} The Government's response on Two Reports on London Underground of the Transport, Local Government and Regional Affairs Committee, CM5486
\textsuperscript{74} Q315
\textsuperscript{75} Q453
\textsuperscript{76} TAB38
\textsuperscript{77} TAB05
Developer contributions to transport

37. Developers usually make financial contributions towards the cost of transport improvements under Section 106 of the Town and Country Planning Act 1990. For example, the developers of Canary Wharf made a contribution towards the cost of extending the Jubilee Line. However, such contributions are not always made: for example, the developers of the Heron Tower currently propose to make no similar contribution because there is no scope for increasing capacity. 78

38. While developers are often willing to contribute to increases in capacity, they are rarely prepared to contribute to on-going, long term running costs:

"The principle that developers contribute to things, improvements in roundabouts or highway widening has long been enshrined in planning approaches. The difficulty with public transport, of course, is the on-going support of public transport services. Most developers are quite prepared and willing to accept the fact that they have to pay money towards providing new infrastructure, it is the ongoing commitment where they start to have concerns". 79

39. One significant improvement would be to regularly pool the contributions of different developers so that a larger fund can be created to be used for large scale transport improvements.

40. Transport capacity must be a major consideration in deciding whether a proposal for a tall building, or for any high density development, is given planning permission. In London the lack of capacity poses a serious problem, which will not be solved by the PPP for London Underground. New schemes such as Crossrail are vital to London's ability to accommodate growth, but they will not be implemented for many years. Developer contributions should be used much more than at present to enhance the transport system, particularly where large buildings have a significant impact on the transport system. They should be pooled so that they are used most effectively.

78 Q462, 468
79 Q463
The Economic Case

Demand for tall buildings

London

41. Many of the submissions to the Committee's inquiry argued that tall buildings were essential for London's future as a global financial centre. Three main reasons were given for more tall buildings in central London in general and in the City in particular:

— The need for more office space in general;
— The demand for buildings providing a very large amount of floor space in single buildings;
— The demand for a tall building because it is a prestigious location.

We consider whether these requirements can be met in the City or more widely in Central London.

42. The London Planning Advisory Committee (LPAC) concluded in 1998 that tall buildings:

"are not absolutely necessary to meet the need for office supply in central London". ⁸⁰

Several witnesses questioned this research. Insignia Richard Ellis stated in oral evidence:

"The report in general was insufficiently forward-looking: it did not anticipate what we have seen in the past four years in terms of a whole series of major acquisitions of office space in tower buildings which have occurred in London. Basically the evidence in that report and the evidence behind that report could have been used to reach a different conclusion".⁸¹

The Corporation of London told the Committee that there is no room left in the City for large scale mid-rise development, making tall buildings essential:

"the City is, effectively, full, and if you cannot go outwards you have to go up".⁸²

43. However, some witnesses disputed the argument that the City of London is running out of space.⁸³ Research recently commissioned by the Greater London Assembly argues that the conclusions of LPAC in 1998 were correct.⁸⁴ Professor Marsh argued that:

"the true potential gain to stock (that is allowing for demolitions) in the City by 2010 is at least 15 million sq ft, enough to support an additional 85,000 office jobs at a generous 175 sq ft per head. This is in line with the most optimistic employment growth forecasts, which have a 2015 end date".⁸⁵

⁸⁰ London Planning Advisory Committee, 1998, 3.61/2
⁸¹ Q356
⁸² Q4
⁸³ TAB04, Q69
⁸⁵ TAB63
The need to concentrate office space in single buildings

44. Big companies want to concentrate their staff in a single building or complex of buildings. London First told us:

"The recent rapid growth caused by globalisation, merger and acquisition and shifts in the market place has had a marked effect on demand. In particular, there is a trend towards consolidation of financial and business services and professional firms in order to create big enough units to compete internationally. As a result, there is a demand for large buildings to enable staff in a number of locations to be brought together." 86

The Mayor of London stated in oral evidence:

"There are a lot of firms who want something in the order of a million square feet and as I'm sure the City Corporation have told you, there is a limited amount of places in London where you can still do that in ground-hugging buildings". 87

The Corporation of London argued that the City of London could not meet the demand from companies for very large offices without high buildings. However, research indicates that most of these requirements can be met without tall buildings. 88 Professor Geoff Marsh stated:

"The City Corporation can deliver buildings of a million square feet and more without going over 20 storeys". 89

45. There is also considerable potential for development within Central London but outside of the City of London, as Professor Marsh highlighted:

"...capacity, by and large, does exist in the system at the moment. King's Cross can certainly provide million square foot buildings, or configurations of million square foot buildings, without going high, and as I understand it the plans that are going to be published for King's Cross do not envisage going higher. They are more Broadgate - mid-rise, in fact - buildings". 90

The prestige of tall buildings

46. Although tall buildings may not be absolutely necessary to provide office space or even to meet demands for 1 million square foot offices, many companies prefer them because there is:

"Demand from commercial organisations for large prestigious headquarter buildings". 91

Insignia Richard Ellis stated:

"For some occupiers the image and prestige of their office address serve an important business purpose, alongside, for example, their spending on advertising, PR and marketing". 92

---

86 TAB07  
87 Q249  
88 London Planning Advisory Committee, 1998 - See also the Draft London Office Policy Review 2001 (Forthcoming from the GLA)  
89 Q374 see also TAB63  
90 Q381  
91 TAB40  
92 TAB37
47. Witnesses argued that London in particular needs to have tall buildings in order to maintain its World City status and attract big international companies to base their operations in the UK. A recent report published by the British Council for Offices states:

"Failure to include towers within a range of choice for Central London occupiers will make it more difficult for both very large and many smaller businesses to find their optimal office space. This is likely, at the margin, to impair their efficiency and competitiveness, with adverse effects on London’s economic success as a world city." 94

As one witnesses put it:

"In order to prosper as a 'World City' and global financial centre, London must offer businesses an adequate choice of appropriate office space. The economic arguments therefore relate to the need to accommodate the requirements of these occupiers and the disadvantages of inadequate provision of the type of office buildings required." 95

48. Some witnesses went so far as to argue that if a choice of accommodation that included tall buildings is not offered in England, global companies will re-locate elsewhere. The DTLR memorandum noted:

"Proponents say there is a risk that major companies unable to establish or expand in the City, and unable or unwilling to find alternative premises in Canary Wharf or the West End, may go to Frankfurt or Paris instead." 96

49. However, while companies, such as Clifford Chance, Lehman Brothers, HSBC and Barclays, have located out of the City of London to tall buildings in Canary Wharf, we were not given a single example of a firm which had moved or had threatened to move its operations overseas.

Regeneration

50. It is also argued that tall buildings can help regenerate an area. A number of local authorities emphasised that a tall building can attract investment. Manchester City Council stated:

"Their role is much more one of regeneration benefit, with positive connections to the social, economic, environmental, functional, and investment circumstances that provide the context." 98

The British Property Federation informed us:

"It is important for Government to develop more explicit policy on tall buildings as the economic, environmental and social benefits of their development should extend to the regions and not be confined to London." 99

51. There is some evidence that tall buildings have assisted regeneration. Canary Wharf is an oft-cited example. However, even here critics pointed to its shortcomings: for instance, only a tiny fraction of employees are from the surrounding areas, and little of the
money generated by the scheme goes to the local community, although contributions to the area through planning obligations can bring improvements.¹⁰⁰

52. In many cities there is not the demand for office space to justify many tall buildings. Birmingham City Council told us:

“To concentrate that activity into numerous tall buildings would be counter productive when we wish to spread the activity over a broad ‘canvas’ and to use that activity to stimulate future development”¹⁰¹

53. The 1998 London Planning Advisory Committee report stated:

“High buildings can also have a role in promoting regeneration of lesser known areas by giving focus and identity. However, image alone does not stimulate regeneration”.¹⁰²

54. It is far from clear that tall buildings are necessary to meet the demand for additional office space in either central London or the City. Nor are they needed to meet the requirements of large international companies for large offices, (of the order of one million square foot). The most powerful economic case for tall buildings, especially in London, is based more on the desire of global companies to be housed in prestigious accommodation than on a lack of alternative solutions to the need for high density accommodation. However, we heard no evidence that global companies would leave London if they could not be located in tall buildings. It is not an important factor compared with the others which affect competitiveness, like the state of public transport.

55. Tall buildings can contribute to the status of cities outside London too, but again it is not a very important factor. Tall buildings could potentially play a role in regeneration outside London, but there are few examples of where they have done so.

¹⁰⁰ Q290
¹⁰¹ TAB54
¹⁰² London Planning Advisory Committee, 1998
Image, Design and Environment

Image

56. Perhaps the strongest argument in favour of tall buildings is an aesthetic one: many people find them beautiful and think they improve the image of a city. Liverpool City Council stated that tall buildings provide:

"the potential to embrace attractive contemporary architectural forms and modern landmarks. The City Council is committed to presenting a progressive forward looking image for the City, embracing the new while being proud and protective of its heritage."

57. If tall buildings are to make cities more attractive they need to take account of a number of important factors. In the words of the Royal Town Planning Institute (RTPI):

"‘Beauty’ and ‘enhancement’ rely very much on the quality of the buildings and their relationship on the ground. The acceptability of a tall building will always depend on the character of its surroundings, and whether this can be altered without sacrificing valued attributes or local distinctiveness. The answer depends as much on location as on the skills and innovation of the urban designer and architect - or on they eye of the beholder!"

As the RTPI indicated there are three key criteria relevant to the assessment of whether a particular tall building enhances rather than desecrates a city: design, environment and context.

Design

58. Many witnesses argued that design today has far surpassed the standards of the 1960s when ill-planned and ugly buildings were strewn across the nation’s skylines. Minerva plc stated that:

"Technical advancements in design and engineering, construction techniques and building regulation controls since the 1960s have extended the economic life of tall buildings and offer greater scope for imaginative development solutions."

Moreover, there is now a great deal of emphasis on good design and its importance is stressed in official publications including the joint DTLR and Commission for Architecture and the Built Environment (CABE) best practice document entitled ‘By Design’. Moreover, there is now a great deal of emphasis on good design and its importance is stressed in official publications including the joint DTLR and Commission for Architecture and the Built Environment (CABE) best practice document entitled ‘By Design’. 107

59. However, despite widespread awareness of the importance of design and the existence of a custodian of design principles, there is always the risk that what is considered good design or architectural quality today, may not be in the future. Indeed, many tall buildings which are unpopular today were given planning permission because they were seen to represent architectural excellence. Among the buildings criticised were Knightsbridge Barracks and the Hilton Tower, which were acclaimed at the time. 108 A number of witnesses

---

103 TAB11, TAB13, TAB34, TAB36, TAB40
104 TAB36
105 TAB45
106 TAB40 see also TAB07
107 By Design: Urban design in the planning system: towards better practice. May 2000
108 TAB39
pointed out that architects were often willing to claim a building was well designed, regardless of its location, context or integration with the surrounding environment. There is concern that there is a powerful architectural establishment which would claim that any building by a famous architect was a great design.

60. A further problem is the possibility that a building deviates from its original design when built.\textsuperscript{109} The CABE/English Heritage guidance states:

"CABE and English Heritage will not support proposals for tall buildings unless they are satisfied through the submission of fully worked up proposals that they are of the highest architectural quality. For this reason, outline-planning applications will not be appropriate. Where planning permission is granted, it is essential that there should be guarantees that architectural quality is maintained throughout the implementation of the entire project and in particular, that inferior detailing or materials are not substituted at a later date".\textsuperscript{110}

Environment

61. The negative impact of tall buildings on the surrounding environment remains a serious concern. The towers built in the 1960s and 1970s generally connected badly with the surrounding environment at street level. As Simon Jenkins said in evidence:

"Almost none of them are street-friendly, they are surrounded by a blighted area caused by their servicing ducts and bays, they are not nice places to be around or to live next to, they are difficult parts of the City, and people, on the whole, do not like congregating to them, and you do not see people casually strolling round the outskirts of the Barbican, or Centrepoint, or Stag Place".\textsuperscript{111}

Others warned of other problems, drawing attention to specific issues such as:

"Overshadowing, loss of open sky, air turbulence and visual contrast/incongruities".\textsuperscript{112}

62. Windiness at the base of tall buildings is a well known problem.\textsuperscript{113} Ove, Arup and Partners told us that techniques have been developed for evaluating wind providing tools to manage this problem.\textsuperscript{114} Nevertheless greater understanding and research is needed, for instance in planning to minimise air turbulence. Ove Arup stated:

"The current way of handling environmental wind issues on a project by project basis is not entirely satisfactory and is open to abuse largely through neglect".\textsuperscript{115}

Location: context and the historic environment

Historic towns

63. The worry that stood out above all others in the evidence was the impact of tall buildings on the surrounding area. Many witnesses focussed on the negative effects, particularly on historic areas.\textsuperscript{116} English Heritage has set down its approach:

\textsuperscript{109} TAB06
\textsuperscript{110} Guidance on Tall Buildings: Consultation Paper, English Heritage and CABE, June 2001
\textsuperscript{111} Q62
\textsuperscript{112} TAB21
\textsuperscript{113} QQ423/4
\textsuperscript{114} Q425
\textsuperscript{115} TAB28
\textsuperscript{116} For example TAB02, TAB15, TAB21, TAB43, TAB51, TAB56
“For English Heritage the overriding consideration will be whether the location is suitable for a tall buildings in terms of its effect on the historic environment at a city-wide as well as local level. If not, then no tall building will be acceptable, however good the design”.117

Not all witnesses agreed. A few argued that the juxtaposition of modern tall buildings and historic buildings enhanced the beauty of both.118 The Deputy Chairman of CABE thought location was over-emphasised:

“One of the things about cities is that, by taking a few steps or looking in a different direction, you do not have to look at anything you don’t like... I think it is a myth that tall buildings have more impact on somebody walking along the street. Most people walking along the street are not looking upwards, or not for very long because they bump into things”.119

64. However, most witnesses agreed with English Heritage that tall buildings should not be located where they impinge on historic contexts.120 Councils such as those in Bath, Oxford, Westminster and Bristol were concerned about the need to protect the historic contexts of their cities from in-appropriate development, including tall buildings.121 Witnesses warned of the dangers of giving approval merely on the basis of design:

“You should not say, ‘in abstract I am a marvellous piece of design, therefore I can automatically be approved’”.122

Clustering or pepper-potting

65. During the inquiry we received a considerable amount of evidence on whether or not tall buildings should be clustered or pepper potted. The policy in the 1960s was one of general dispersal of tall buildings across the skyline and this has contributed to the widespread negative opinion of solitary tall buildings. Hence, the majority of witnesses argued that clusters were preferable visually, in respect of their impact on the skyline, and economically, because they allow businesses to work together and share resources. As the Corporation of London have stated:

“High buildings should be clustered in order to maximise their visual economic and sustainable advantages centred on the greatest concentration of public transport nodes”.123

66. High quality design is essential if tall buildings are to play a role in enhancing the beauty of our cities and continued vigilance is needed to ensure that buildings do not deviate from approved designs during the construction process. In the past tall buildings have often had a negative effect on the surrounding environment, particularly at street level. Greater understanding of this environmental impact is needed to ensure that future developments do not suffer these problems. The location of tall buildings is of paramount importance and special attention should be paid to historic context. Modern tall buildings are not appropriate in historic towns like Bath. It was clear from the evidence which we received that this local authority, in line with its residents, did not want them.

67. Tall buildings should be clustered rather than pepper-potted across a city.

117 TAB18
118 Q349
119 Q0516/7
120 For example TAB07, TAB09. See also supplementary memorandum from English Heritage TAB18a which emphasises that tall buildings are not appropriate in conservation areas
121 TAB24, TAB26, TAB39, TAB50
122 Q246
123 TAB42 - see also TAB02, TAB18, TAB27, TAB33, TAB34, TAB35, TAB45, TAB52, TAB55
Planning

General

Local authorities and tall building applications

68. DTLR pointed out in its written evidence to the Committee that local authorities should identify in their development plans (or supplementary planning guidance) areas where tall buildings are and are not appropriate. This can help both local authorities to prevent ‘speculative’ planning applications in the wrong place and developers because they will not waste money preparing proposals for areas that will be deemed inappropriate by local authorities. However, not all local authorities identify appropriate sites. The British Property Federation stated:

“The act of positively indicating preferred locations for tall building development would greatly reduce both the prospect of the property industry submitting applications for development in other areas and, if it were to do so, the prospect of those proposals being approved. The Government expects local planning authorities to identify areas appropriate, (and inappropriate), for tall buildings, and we are concerned that this has not been properly carried out by many local authorities.”

Other developers confirmed that the identification of appropriate areas would help them.

69. While local authorities can identify areas where tall buildings would be appropriate and inappropriate they were concerned that they would have difficulty under the current planning system in reaching decisions that could be defended before the Planning Inspectorate. Bristol provides an excellent example of the problems now being experienced: proposals to build a 43 storey building near to the Temple Meads station in Bristol are opposed by the City Council which has spent time trying to open up the view of this historic area. The City Council is, however, concerned that its refusal to grant permission might not be supported by the Planning Inspectorate given the absence of any specific national policy:

“Our concern really is, will that be backed up by the Inspectorate and are the Planning Acts sufficiently tough enough to give weight to the views and impacts of these buildings? Because traditionally PPG1 does not express those forms of reasons for refusals very strongly.”

70. Because of these concerns Bristol City Council argued that it needed:

“A framework in which we can very clearly assess whether something is acceptable or whether it is not acceptable. Even if we come to a decision which may be right or wrong, it is quite likely to be challenged at some stage along the line and it is very important that your Inspectorate knows as much as we do about the way in which Government is thinking on tall buildings.”

124 TAB16
125 TAB34
126 TAB11, TAB13, TAB15, TAB18, TAB34, TAB41, TAB44, TAB45, TAB52, TAB56, TAB60, Q352
127 Q158-161
128 Q163
129 Q170
71. While local planning authorities highlighted the inadequacy of existing Government guidance, some developers argued that the current framework was satisfactory:

“The matrix of policies contained within regional planning guidance, planning policy guidance, LPAC advice and emerging unitary development plans and ultimately the Spatial Development Strategy for London sets detailed criteria against which any planning application will need to be considered”. ¹³₀

72. Witnesses stressed that they did not want a prescriptive policy and that the local situation is too varied for a detailed overarching policy to be appropriate. ¹³¹ Nevertheless many wanted a framework within which local decisions could be made. The London Borough of Tower Hamlets summarised its position:

“We do not propose that the Government direct local authorities in the matter of location of tall buildings as every site and every building proposal presents different opportunities and constraints. Consistent and refined assessment skills in local planning authorities are therefore critical, but for those boroughs which lack resources, Government guidance would at least ensure that all local authorities are assessing the same types of things at the same level of detail when considering proposals for tall buildings”. ¹³²

Local authorities do not want to be told where tall buildings should be built but they do want the tools to be able to make informed decisions. ¹³³ They also want to know that when they have made decisions about where tall buildings cannot or cannot be built, they will not be overturned.

**Guidance from English Heritage and CABE**

73. Local authorities lack experience in defining appropriate and inappropriate areas for tall buildings and in judging individual planning applications. The Deputy Director of CABE stated:

“I think what we have found and why we get so many references from local authorities is that the experience of dealing with tall buildings simply does not exist”. ¹³⁴

The joint guidance issued by English Heritage and CABE has gone some way to filling the gap in guidance as it suggests criteria that local authorities can use when assessing applications for tall buildings. The response to this guidance has been positive and Westminster City Council stated that it:

“has the potential to be an extremely useful tool in the development control process for the country as a whole”. ¹³⁵

74. The draft guidance is out for consultation and is expected to be confirmed more or less in its outline form. However it is not clear whether the Government will give its endorsement to the document, thus giving it weight and legitimacy within the planning system. Westminster City Council and several other witnesses suggested it should. ¹³⁶ The Minister indicated to the Committee that this would be considered by the Department. ¹³⁷

¹³⁰ TAB19
¹³¹ For example Liverpool City Council stated that: “It is difficult to foresee a workable document that responds to the diversity in demand and local characteristics between the capital and other metropolitan areas”. TAB36
¹³² TAB44
¹³³ TAB44
¹³⁴ Q514
¹³⁵ TAB39
¹³⁶ TAB39
¹³⁷ Q612
Additional Guidance

75. Several witnesses wanted additional guidance. This could take several forms including a specific PPG or a revision of PPG1. Some witnesses wanted direction from Government within a specific PPG. A suggestion, which was supported by both CABE and English Heritage, was that guidance on tall buildings should be incorporated into an existing PPG as part of the forthcoming revision of Planning Policy Guidance Notes. The revision of PPG1 would provide an opportunity to do this. CABE said:

“We think that there may be a case for embedding some basic criteria, some of the basic principles within an existing PPG. That could be done in the context of the Revision of PPG1”.  

This should allow local authorities to defend their policies at development plan and planning application inquiries. The Regional Director for London from English Heritage said that:

“I think there is a clear methodology that could be developed and set out in a PPG which would allow for a clear and rational plan-led approach to the process of identifying areas which are appropriate for tall buildings and those that are inappropriate. If that were set out in national policy guidance, then I think local authorities would adopt that as part of their plan making process”.  

London

76. Policy on tall buildings in London is currently governed by Regional Planning Guidance. However, in October 2001 the London Mayor published Interim Strategic Planning Guidance on Tall Buildings, Strategic Views and the Skyline in London. This document, although it currently has no legal status, sets down the Mayor’s views about tall buildings before the London Plan/Spatial Development Strategy comes into force. The implications of the London Plan as a regional policy document are far reaching as all local authority Unitary Development Plans will have to be in general conformity with it.

77. Currently many local authorities have specific policies about tall buildings. Westminster and the City of London have restrictive policies in certain areas and Islington’s unitary development plan contains a blanket ban on buildings higher than 30metres (100 feet). It would appear that a number of the current policies of London boroughs will conflict with the Mayor’s Plan and, as a result, local councils and local people may have to accept tall buildings against their wishes.

78. When questioned the London Mayor did not see the clash as a problem and commented:

“I have to say I do not understand the planning logic that says, within artificially drawn political boundaries based on the medieval church boundaries, that is the best way of determining height in a particular part of London”.

79. On the other hand some witnesses have been very critical of the Mayor:

\[138\] TAB18, TAB24, TAB33, TAB60
\[139\] Q513
\[140\] Q519
\[141\] QQ635, 636 - S344 GLA Act 1999, amended the Town and Country Planning Act 1990 to this effect
\[142\] Q298
“The Mayor, the Corporation of London, big business and architects have a relationship which can only be described as cosy. The Mayor’s advisor on urban issues, Lord Rogers, has tall buildings in the pipeline for London, while the Mayor’s decisions are not accountable to any committee scrutiny. There is potentially a conflict of interests in this situation which would work to the benefit of business and to the detriment of the environment in which we live”.  

The London Plan will be subjected to consultation and the Secretary of State will have the opportunity to direct any changes in certain limited circumstances before it comes into effect, but witnesses are still concerned about the lack of accountability. The Mayor said in oral evidence that the public will have their chance to decide at the next Mayoral election:

“If Londoners do not want tall buildings, they will get themselves another Mayor, therefore I think the Mayoral system does mean the way in which the City is developing becomes part of the active popular debate and will feature at the next election”.

80. We recommend that local authorities identify areas which are and are not appropriate for tall buildings in their development plans.

The English Heritage and CABE ‘Guidance on Tall Buildings’ should receive Government endorsement. However, in view of the great increase in applications to construct tall buildings we are not convinced that this will be sufficient. The current system does not provide local authorities with the tools they need to do their jobs effectively and local authorities do not seem to be convinced that it does.

A general national framework is required, setting down criteria on which tall building applications should be judged. It should:

— emphasise in particular that local authorities should identify areas that are and are not appropriate for tall buildings;

— advise local authorities that, in assessing where tall building are appropriate, they should pay particular attention to the context of the building and public transport capacity.

A national framework would be very helpful to all those involved and could easily be incorporated into an existing Planning Policy Guidance document. This should be done when PPG1 is revised. The framework should not be overly prescriptive but should provide local authorities with the flexibility and freedom to make decisions which reflect their own specific circumstances.

CABE and English Heritage

81. During the course of the inquiry the Committee became concerned about the role of the principal quangos, English Heritage and the Commission for Architecture and the Built Environment (CABE). Recent differences of opinion between the two organisations have lead some to comment:

---

143 TAB02
144 For example TAB09, TAB18, TAB51, TAB56
145 Q276
146 TAB61
“Relations between these authorities and interested parities are often too adversarial, and when discussion breaks down, the expensive, time-consuming Public Inquiries that result only serve to polarise opinion which is often undermining for negotiation in the future”.  

English Heritage

82. English Heritage has come under criticism because of what some see as its inconsistent approach to tall buildings. It has listed a number of buildings which are often cited as examples of bad planning or bad design, including Centrepoint which impacts very badly on the surrounding environment. The public have difficulty in understanding why English Heritage has listed some of these eyesores, especially when it objects to new towers on grounds of design or impact on the surrounding environment. English Heritage explained its position to the Committee. We were told that these buildings have been listed for their architectural interest and historic importance rather that their beauty. Even ugly buildings, it argues, can be historic and English Heritage sees value in listing buildings that are representative of an architectural era, despite their often low status in the eye of the public. Moreover, listing does not prevent demolition, although it does make it more difficult.

83. Recent decisions made by English Heritage have attracted criticism and even led some to question the role of its Commissioners. English Heritage did not oppose the plans for the Baltic Exchange (Swiss Re) tower in the City and there have been accusations that an architecturally interested “faction”, “high-jacked” English Heritage’s London Advisory Committee. Allegations about the decision making process have also been made about the decision to oppose the Heron Tower proposal. The opening up of agendas, reports and minutes of English Heritage’s London Advisory Committee to the public and a declaration of the interests of its members may help ensure public confidence is maintained. English Heritage stated that it had no objection to greater openness, but that the Department of Culture, Media and Sport had opposed this. During oral evidence the Minister promised to provide the Committee with a note on this following consultation with the Department of Culture, Media and Sport. We have been assured by the Office of the Deputy Prime Minister that it has consulted the Department of Culture, Media and Sport, but the note has not yet been sent to us.

CABE

84. CABE also came in for criticism: the architectural and property interests of its Chairman and members of the Design Review Committee were causes for concern. Some saw the problem as a more general one of:

“architect led drive to have far more high rise office buildings”.

147 TAB27
148 Q565
149 TAB56
150 Q498
151 TAB15, TAB56
152 Q598-510
153 Q613
154 A note from the Office of the Deputy Prime Minister was received after this report had been agreed by the Committee. The note stated that the Department of Culture Media and Sport “would have no objection to the publication of agendas, reports and the minutes of London Advisory Committee nor to a declaration of the interests of its members”. The note is published in this volume as TAB16c.
155 TAB13, TAB56
156 TAB43
The Chelsea Society stated:

"CABE, which rightly represents architectural interests, is bound to be influenced by architectural fashion and to give architectural values higher priority that the amenity of those living and walking in the vicinity of proposed towers".\(^{157}\)

85. CABE has done much good work on important issues relating to the built environment but the evidence to us indicates that it is in danger of losing its credibility with some sections of the population. Some councils are concerned that if they objected to a tall building they would not receive a fair hearing from CABE who can be seen as over-enthusiastic advocates of modernism. Westminster City Council told us:

"we do tend to lean more towards the English Heritage emphasis on context, as opposed to the trophy architecture emphasis, perhaps, that CABE might put".\(^{158}\)

86. Aspects of their procedures were praised: the minutes of CABE’s Design Review Committee (DRC) are published on the Internet in an attempt to ensure transparency. However, witnesses argued that it should go further:

"As the architects on the DRC are also active in property development, they should be required to declare interests in the same way as Members of Parliament are required to do and these should be available for public inspection".\(^{159}\)

A re-assessment of the membership of its Commission and Design Review Committee would also ensure that it is not seen as a modernist fan club for architects and property developers. One witness suggested:

"Organisations like CABE and English Heritage need a good influx of what I would call ordinary people who are well informed".\(^{160}\)

87. **English Heritage’s position is ambiguous. The Committee recommends that:**

— it should be more cautious in its listing of twentieth century buildings since its willingness to list eyesores from this period, whatever their effect on the local environment, undermines its opposition to new tall buildings in inappropriate locations;

— English Heritage should also make sure that its decisions are more transparent and should publish minutes of all meetings.

It is essential that:

— CABE Commissioners represent a wide section of interests;

— steps are taken to ensure that CABE’s work is supported by a wide cross section of the population, including amenity groups; the organisation must ensure that the local authorities trust it; and

— CABE is not too closely identified with the modernist architectural establishment.

\(^{157}\) TAB15  
\(^{158}\) Q117  
\(^{159}\) TAB56  
\(^{160}\) Q244
Safety

The existing regulations

88. The images of the attack on New York’s World Trade Centre on 11 September 2001 and the subsequent collapse of the twin towers has imprinted itself on minds of millions and has understandably lead to a reassessment of tall buildings safety. We do not attempt a technical assessment but some key issues were raised by witnesses following the September 11 2001 incident. The evidence heard by the Committee suggested that the following areas need greater emphasis:

—timed evacuation;
—ongoing building management and regulation;
—construction materials.

89. The Office of the Deputy Prime Minister is currently in the process of reviewing the Building Regulations, an exercise that started pre-September 11 2001. The Department has pledged to consider the events of September 11 2001 within this review and has also established a Building Disaster Assessment Group. Part A (Structure) of the current regulations state:

“The building shall be constructed so that in the event of an accident the building will not collapse to the extent disproportionate to the cause”.

This requirement applies to buildings that have five or more storeys. Part B (Fire Safety) of the regulations give requirements on means of warning and escape, internal and external spread of fire, and access and facilities for firefighting. Requirement B1 states:

“The building shall be designed and constructed so that there are appropriate provisions for the early warning of fire, and appropriate means of escape in case of fire from the building to a place of safety outside the building capable of being safely and effectively used at all material times”.

Building collapse

90. The Committee took evidence on the subject of building collapse from Dr Roberts, chair of the Committee on ‘Safety in Tall Buildings’ facilitated by the Institution of Structural Engineers. Some have argued that English regulations about building collapse are significantly tougher than in the USA:

“What is true is that, post the collapse of Ronan Point in 1968 - which, as I am sure people will remember, was triggered by a gas explosion in a very particular type of building, and that was a system-built block of flats which had on the evidence afterwards quite weak connections between all the pieces and which progressively collapsed down through about 22 storeys from an explosion quite near the top - that triggered a change in the UK building regulations which came in the early 70s”.

161 TAB16
162 TAB16
163 Building Regulations 2000 (SI 2000 No. 2531)
164 Building Regulations 2000 (SI 2000 No. 2531)
165 TAB12
166 Q395
91. However, the fact that we have tougher regulation in this country does not mean that building collapse is not a problem and it can be difficult to predict the type of accident that may cause a building to collapse:

"You have to guess what the accident might be. It is not just to protect against a gas explosion or a fire; it aims at producing robust buildings that will tolerate some quite unusual accident happening in them. Those regulations are in place for all buildings in Britain and have been since that time but I think it is a huge step to jump from that and say, "Oh, had this building been in Britain it would not have collapsed". I do not think that is a step you can take at all."\(^{167}\)

Regulations in England, we were told, should protect buildings from collapse due to "normal occupational hazards which are essentially burning paper and wood and other cellulose materials".\(^{168}\) It is difficult to protect buildings from all other extreme possibilities but focussing on factors such as quick evacuation could enhance safety even in the face of extreme circumstances.

**Evacuation**

92. Since September 11 there has been increasing awareness of the need to be able to evacuate of tall buildings quickly. Dr Roberts highlighted:

"There is not any requirement in the UK to ensure that you can get everybody out in two hours from a building with a two-hour fire resistance, and that missing link is rather worrying when you think about it".\(^{169}\)

The events of September 11 tragically emphasised the need to look at simultaneous as well as the phased evacuation that is commonly practised.\(^{170}\) Greater provision of safety lifts for use by evacuees and fire fighters may be helpful.\(^{171}\)

93. Enforcing a requirement that tall buildings must be evacuable in a set time would inevitably have an effect on costs, but this has not prevented such requirements for other building types:

"Every week there are 80,000 people sitting in Old Trafford, usually, it is a very easy target. The regulations for Old Trafford require that every single one of those people have to be able to be evacuated to a place of safety in eight minutes, otherwise it does not get a licence. There is no such requirement for buildings which have maybe not 85,000 people in them but a few tens of thousands of people".\(^{172}\)

Evidence from Canary Wharf Group demonstrates that tall buildings can be evacuated relatively quickly:

"When we carried out a practice evacuation the 5,469 occupants were out of the building within 20 minutes".\(^{173}\)

\(^{167}\) Q395
\(^{168}\) Q394
\(^{169}\) Q397
\(^{170}\) Q402
\(^{171}\) QQ403/4
\(^{172}\) Q401
\(^{173}\) TAB57
Ongoing building management

94. Witnesses largely agreed that safety regulations in the UK were good. However, continuing compliance with the regulations following adaption and change of a building can be a problem. As the Association for Specialist Fire Protection have noted:

"The retrospective fitting of additional services within a building often breaches compartment walls and damages structural protection. Such breaches will increase the risk of fire spread or serious damage and should be picked up by the occupiers risk assessment".

The ongoing management of large scale buildings clearly needs better regulation to avoid breaches of the regulations.

95. Possible solutions to this problem were discussed by Peter Bressingdon, Director of Arup Fire within the Ove, Arup and Partners consultancy firm:

"I think the whole issue about the lifetime of a building and the way that it is used and whether there should be an operator’s licence so that you can make sure that all of these things are in place, so they can be picked up, perhaps it can be part of the fire certificate or whatever, it is the on-going management of these buildings".

Tall buildings are of the type that would usually require a fire certificate under the Fire Precautions Act. This will be prepared by the local fire authority with consideration to means of escape, means of warning and means for fighting fire. Although re-inspection of buildings is normal practice, the DTLR supplementary memorandum on this subject states that:

"There are no fixed rules as to how often brigades should re-inspect different types of building".

Regulation of the on-going management of a building could be further provided by licencing occupiers. As Dr Roberts stated in oral evidence:

"The question of licencing people to occupy tall buildings generally is a vexed question because you do not have to do anything on an annual basis to continue to occupy major office buildings. This is in contrast to things like sports grounds, where you have an annual safety certificate".

DTLR has told the Committee that they will be consulting on the reform of Fire Safety regulation in Summer 2002 and hope to provide a new regime based on risk assessments.

Construction materials

96. A further matter of concern was the materials used to construct tall buildings. Some materials are themselves combustible or produce large quantities of smoke. In some cases buildings themselves burn. One of the problems affecting tall buildings of the 1960s was the

174 For example TAB06
175 TAB06
176 Q417
177 TAB16a
178 Q417
179 TAB16a
poor quality of the materials and construction techniques used.\textsuperscript{180} The Association for Specialist Fire Protection highlighted some potential problems:

"Evidence from other fires, for example the channel tunnel fire and experimental work in the American Standards and Test Authority suggest that high strength concrete and other dense concretes can be subject to extensive explosive spalling. Such spalling not only weakens the structure but can be very dangerous to the fire fighter".\textsuperscript{181}

There is already some regulation in this area. For example the EC Construction Products Directive containing requirements about construction materials and the amount of smoke they produce. EC Member States are free to set their own requirements in this area. Greater use is likely to be made of European test standards as attempts are made to ensure that construction products are classified using a consistent method. The DTLR informed the Committee that it had no plans to enforce these requirements in the UK, but has recently consulted on proposals to amend the technical provisions supporting Part B of the Regulations. The final amendments are expected to be published near the end of 2002.\textsuperscript{182}

97. Tall buildings are not inherently unsafe as places to live or work but there are areas in which further regulation could further promote safety in tall buildings. The Committee recommends that:-

— a requirement for tall and large buildings to be fully evacuated within a set time period should be included in the Building Regulations;

— as part of the reform of Fire Safety legislation, occupiers of tall buildings should be required to consider changes to the building as part of their risk assessment;

— time periods for the validity of Fire Certificates should be set so as to ensure regular re-inspection.

Safety in tall buildings could be enhanced by licencing occupiers and requiring annual safety certificates, and by the use of better construction material. These should be examined by DTLR as part of the current safety reviews.

\textsuperscript{180} TAB13, TAB15
\textsuperscript{181} TAB06
\textsuperscript{182} TAB16b
Conclusions and Recommendations

98. The main reason that the Committee held an inquiry into tall buildings was to identify the contribution which they can make to the urban renaissance. We found that contribution to be very limited. The proposition that tall buildings are necessary to prevent suburban sprawl is impossible to sustain. They do not necessarily achieve higher densities than mid- or low rise development and in some cases are a less efficient use of space than alternatives. They have, for the most part, the advantages and disadvantages of other high density buildings. They can be energy efficient, they can be part of mixed use schemes and they can encourage the use of public transport where there is spare capacity, but so can other types of high density developments. Tall buildings are more often about power, prestige, status and aesthetics than efficient development.

99. Similarly, we were not convinced that tall buildings are essential for the future of London as a global financial centre. There appears to be considerable room for additional office space in central London, in the City, and certainly at King’s Cross, Paddington and elsewhere. Some big companies want to concentrate all their staff in one office complex: King’s Cross and other sites will be able to provide the necessary space in mid-rise developments. Some companies want tall buildings as prestige locations; to date they have been housed at Canary Wharf. We received no evidence that any company had left London or refused to come to London because of a shortage of tall buildings.

100. Far more important for London’s future as a financial centre are the inadequacies of the public transport system. The London Underground PPP will not provide an adequate growth in capacity to bring large numbers of extra people into central London: it is planned to increase the system’s capacity by 15% over the next 30 years; passengers numbers are expected to rise by 20% over 20 years, and presumably 30% over 30 years. Cross Rail and other improvements are many years away. Increasing building densities in parts of Central London could have a severe impact on an already overcrowded tube, particularly near stations on the Central Line.

101. Although tall buildings do not bring all the benefits their supporters claim for them, this does not mean that they should not be built. Furthermore, tall buildings are not inherently unsafe. There is room for improvement to ensure that evacuation times are as speedy as possible, to improve fire resistance and to ensure that changes to buildings do not have an adverse effect on their safety. Such measures would increase costs, but not prevent the construction of high rise.

102. There is also one powerful and irrefutable argument in favour of tall buildings: some people find them very beautiful. The Mayor of London is delighted by the Manhattan skyline. His love of tall buildings is shared by many architects and others. However, if they are to enhance the skyline it is important that they are well-designed. Moreover, if they are to enhance the city it is important that they improve the streetscape. Few skyscrapers in England do: many older tall buildings are an eyesore; they are insensitive to their location, ‘hit the ground’ badly, have large service bays, are windswept at their base. These problems must be overcome if new tall buildings are to be acceptable. There is some evidence that they can be; most witnesses thought that Canary Wharf was relatively successful. However, there are some important historic areas, as Westminster and Bath City Councils told us, where no tall buildings would be acceptable. It is vital that our historic cities are not forced to undergo another wave of high rise buildings. We must never repeat the mistakes of the 1960s vividly illustrated by Bath where a single tall building insensitively sited and feebly designed has harmed the setting of a great historic city.
103. During the inquiry it was argued that too many tall buildings constructed in the 1960s were built in the wrong place because of the inadequacies of the planning system. There was no uniformity in the way applications were handled by authorities. Tall building applications were judged on a case by case basis. There are concerns that the planning system is still not adequate to deal with the recent rise in applications.

104. There must therefore be a suitable planning framework for tall buildings if we are to avoid past mistakes. Local authorities and some developers want to be able to identify areas where tall buildings could be built and those where they should not be constructed. This would give everyone greater certainty. Local authorities do not want to be told where tall buildings should or should not be built, but there is a demand for guidance about how to assess tall building applications. They also think that Government guidance would help to ensure that policies in local plans or UDPs would be strengthened and not overturned by an Inspector at a Public Inquiry. The guidance proposed by CABE and English Heritage is helpful, and would be more helpful if it were endorsed by Government. In addition, we recommend that PPG1, which is to be revised soon, be amended to include a section on the assessment of tall buildings. Decisions should be made at a local level, but it is vital that local decision makers have an adequate framework within which to make their decisions and to give them greater confidence that their policies and decisions will not be overturned.

105. In London, very major changes to the skyline are proposed. The Mayor has issued his interim strategic statement on tall buildings and his London Plan/Spatial Development Strategy (SDS), which is out to consultation. Neither yet have any legal status, but once accepted by the Secretary of State, the Plan could have a huge effect on London. London boroughs will have to bring their UDPs into general conformity with the Plan; several boroughs could have to change their policies on tall buildings against the wishes of their residents. The Mayor told us that the people of London would have a chance to vote against his proposals at the next mayoral election.

106. Finally, the inquiry brought to light concerns about English Heritage and CABE which need to be addressed. English Heritage is seen as inconsistent: it has one arm which lists tall buildings while another arm opposes their construction. Because of its attitude to tall buildings, CABE is in danger of being seen as the representative of the modernist architectural establishment and of losing the support of amenity groups and the trust of local authorities. It should take steps to ensure that this does not happen.

183 Interim strategic planning guidance on tall buildings: strategic views and the skyline in London, October 2001
List of Recommendations

(a) Tall buildings are not essential to the urban renaissance. They are only one of several ways of increasing building densities. They can be energy efficient and can be part of mixed use schemes; however, other high density building types have similar advantages. In several respects high rise buildings are less sustainable than high or low rise buildings: the inflexibility of space and difficulties of change of use have been a problem (paragraph 31).

(b) Transport capacity must be a major consideration in deciding whether a proposal for a tall buildings, or for any high density development, is given planning permission. In London the lack of capacity poses a serious problem, which will not be solved by the PPP for London Underground. New schemes such as Crossrail are vital to London’s ability to accommodate growth, but they will not be implemented for many years. Developer contributions should be used much more than at present to enhance the transport system, particularly where large buildings have a significant impact on the transport system. They should be pooled so that they are used most effectively (paragraph 40).

(c) High quality design is essential if tall buildings are to play a role in enhancing the beauty of our cities and continued vigilance is needed to ensure that buildings do not deviate from approved designs during the construction process. In the past tall buildings have often had a negative effect on the surrounding environment, particularly at street level. Greater understanding of this environmental impact is needed to ensure that future developments do not suffer these problems. The location of tall buildings is of paramount importance and special attention should be paid to historic context. Modern tall buildings are not appropriate in historic towns like Bath, and it is clear from the evidence which we received that the local authority in line with its residents did not want them (paragraph 66).

(d) Tall buildings should be clustered together rather than pepper-potted across a city (paragraph 67).

(e) We recommend that local authorities identify areas which are and are not appropriate for tall buildings in their development plans.

The English Heritage and CABE ‘Guidance on Tall Buildings’ should receive Government endorsement. However, in view of the great increase in applications to construct tall buildings we are not convinced that this will be sufficient. The current system does not provide local authorities with the tools they need to do their jobs effectively and local authorities do not seem to be convinced that it does.

A general national framework is required, setting down criteria on which tall building applications should be judged. It should:

—emphasise in particular that local authorities should identify areas that are and are not appropriate for tall buildings;

—advise local authorities that, in assessing where tall building are appropriate, they should pay particular attention to the context of the building and public transport capacity.
A national framework would be very helpful to all those involved and could easily be incorporated into an existing Planning Policy Guidance document. This should be done when PPG1 is revised. The framework should not be overly prescriptive but should provide local authorities with the flexibility and freedom to make decisions which reflect their own specific circumstances (paragraph 80).

(f) English Heritage's position is ambiguous. The Committee recommends that:

— it should be more cautious in its listing of twentieth century buildings since its willingness to list eyesores from this period, whatever their effect on the local environment, undermines its opposition to new tall buildings in inappropriate locations;

— English Heritage should also make sure that its decisions are more transparent and should publish minutes of all meetings.

It is essential that:

— CABE Commissioners represent a wide section of interests;

— steps are taken to ensure that CABE's work is supported by a wide cross section of the population, including amenity groups; the organisation must ensure that the local authorities trust it; and

— CABE is not too closely identified with the modernist architectural establishment (paragraph 87).

(g) Tall buildings are not inherently unsafe as places to live or work but there are areas in which further regulation could further promote safety in tall buildings. The Committee recommends that:-

— a requirement for tall and large buildings to be fully evacuated within a set time period should be included in the Building Regulations;

— as part of the reform of Fire Safety legislation, occupiers of tall buildings should be required to consider changes to the building as part of their risk assessment;

— time periods for the validity of Fire Certificates should be set so as to ensure regular re-inspection.

Safety in tall buildings could be enhanced by licencing occupiers and requiring annual safety certificates, and by the use of better construction material. These should be examined by DTLR as part of the current safety reviews (paragraph 97).
1967 London Building Act
Post Great Fire of London
"Buildings above 4 stories would not be permitted".

19th Century
Buildings over 30m (100ft) in height required Metropolitan Sanction prior to construction.

1937 St Paul’s Heights
Introduced the protection of views of St Paul’s Cathedral.

1938 London Building (Amendment) Act
Formal recognition of high buildings by LCC’s ‘Floorspace Index’ and ‘Rights to Light’.

1947 Town & Country Planning Act
Replace floorspace index with a system of plot ratios.

1954 London Building Act
Permitted fire fighting through lift shaft access. Buildings occupied above the heights of turntable ladders for the first time.

1956 London County Council
Proposed plan to access high buildings on their merits and against eight key principles.

1960 County of London Development Plan
Eight principles were endorsed with the pre-requisite that high buildings must ensure a positive, visual and civic significance.

1962 London County Council
Modifications considered to the high buildings policy, the eight principles were streamlined to five, with the support of the Royal Fine Art Commission.

1965 GLC
High buildings control switched from GLC to the 33 boroughs. GLC could only comment on buildings over 48m (150ft) in the central area and 38m (125ft) everywhere else. GLC were restricted to impacts on skylines. Boroughs dealt with detailed appearance.

1969 GLDP
Identified areas of special character and high buildings sensitivity maps as part of the overall development plan, introduced protection of visual cones, corridors and panoramas.

1973 Secretary of State
Requested that sensitivity maps for high buildings should not be adopted and instead shown on the Urban Landscape Diagram with other features.

1987-89 LPAC Studies
Recommend the protection of 34 Strategic View points of major importance, added consultation thresholds and other criteria.

1991 RPG 3
Introduction of 10 Strategic Views given special protection.

LPAC 1994 Advice on Strategic Guidance
Recommend two further strategic views. UDPs to protect: features, skyline and important local views. UDPs should include policies on Strategic Views, showing where high buildings are appropriate, functional aspects, and the consultation thresholds.

Unitary Development Plans

LPAC 1998
BDP and LPR undertake a strategic review of policy.

Source: BDP, 1998
Annex B

Relationship between density and urban form

High rise - low coverage
75 units/ha

Low rise - high coverage
75 units/ha

Medium rise - medium coverage
75 units/ha

Key
Target a mix of activities
Include a variety of house types
- Community facilities
- Shops and workspaces
- Maisons
- Houses
- Apartments

Source: Andrew Wright Associates
PROCEEDINGS OF THE URBAN AFFAIRS SUB-COMMITTEE RELATING TO THE REPORT

TUESDAY 9 JULY 2002

Members Present:

Andrew Bennett, in the Chair

Sir Paul Beresford                   Chris Grayling
Clive Betts                        Dr John Pugh
John Cummings                      Christine Russell
Gwyneth Dunwoody
Louise Ellman

The Sub-Committee deliberated.

Draft Report [Tall Buildings], proposed by the Chairman, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 106 read and agreed to.

Annexes read and agreed to.

Resolved, That the Report be the Sixth Report of the Sub-Committee to the Committee.

Ordered, That the Chairman do make the Report to the Committee.

[Adjourned till Tuesday 9 July at a quarter to Four o'clock.]
PROCEEDINGS OF THE COMMITTEE RELATING TO THE REPORT

WEDNESDAY 17 JULY 2002

Members present:

Andrew Bennett, in the Chair

Sir Paul Beresford  Helen Jackson
Clive Betts  Miss Anne McIntosh
Mr Brian H Donohoe  Mr Bill O'Brien
Gwyneth Dunwoody  Dr John Pugh
Louise Ellman  Christine Russell
Chris Grayling  Mr Bill Wiggin

The Committee deliberated.

Report from the Urban Affairs Sub-Committee [Tall Buildings], brought up and read.

*Ordered*, That the Report be read a second time paragraph by paragraph.

Paragraphs 1 to 106 read and agreed to.

Annexes agreed to.

*Resolved*, That the Report be the Sixteenth Report of the Committee to the House—*(The Chairman.)*

*Ordered*, That the Chairman do make the Report to the House.

*Ordered*, That the provisions of Standing Order No. 134 (Select committee (reports)) be applied to the Report.

*Ordered*, That the Appendices to the Minutes of Evidence taken before the Urban Affairs Sub-committee be reported to the House.

*[The Committee adjourned.]*
LIST OF WITNESSES

Tuesday 22 January 2002
HC 482-i

CORPORATION OF LONDON

Ms Judith Mayhew, Mr Peter Rees and Mr Peter Bennett .......................... 1

COLUMNIST

Mr Simon Jenkins ................................................................................. 10

WESTMINSTER CITY COUNCIL

Mr Carl Powell and Ms Rosemarie MacQueen ................................. 15

BATH AND NORTH EAST SOMERSET COUNCIL

Ms Jacky Wilkinson ............................................................................. 15

Tuesday 29 January 2002
HC 482-ii

BRISTOL CITY COUNCIL

Mr Alastair Brook and Mr Rohan Torkildsen ................................. 21

BIRMINGHAM CITY COUNCIL

Mr Martin Brown ................................................................................. 21

THE CHELSEA SOCIETY

Mr David Le Lay ................................................................................ 28

BLOOMSBURY CONSERVATION AREA ADVISORY COMMITTEE

Mr Tony Tugnett and Ms Hazel McKay ................................. 28

Mr Ken Livingstone and Mr Giles Dolphin ................................. 33

Tuesday 5 February 2002
HC 482-iii

INSIGNIA RICHARD ELLIS

Dr Peter Damesick ............................................................................. 44
### APPENDICES TO THE MINUTES OF EVIDENCE

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Canary Wharf Group (TAB 57)</td>
<td>83</td>
</tr>
<tr>
<td>2.</td>
<td>Babtie (TAB 58)</td>
<td>86</td>
</tr>
<tr>
<td>3.</td>
<td>Leeds City Council (TAB 59)</td>
<td>87</td>
</tr>
<tr>
<td>4.</td>
<td>Georgian Group (TAB 60)</td>
<td>87</td>
</tr>
<tr>
<td>5.</td>
<td>Southwark Regeneration (TAB 61)</td>
<td>88</td>
</tr>
<tr>
<td>6.</td>
<td>Richard Coleman (TAB 62)</td>
<td>90</td>
</tr>
<tr>
<td>7.</td>
<td>Geoff Marsh, London Property Research (LPR) (TAB 63)</td>
<td>92</td>
</tr>
<tr>
<td>8.</td>
<td>Brighton and Hove Council Leaseholders Independent Forum (TAB 64)</td>
<td>93</td>
</tr>
<tr>
<td>10.</td>
<td>Supplementary memorandum by Department for Transport, Local Government and the Regions (TAB 16(b))</td>
<td>97</td>
</tr>
<tr>
<td>11.</td>
<td>Supplementary memorandum by Department for Transport, Local Government and the Regions (TAB 16(a))</td>
<td>98</td>
</tr>
<tr>
<td>12.</td>
<td>Supplementary memorandum by Office of the Deputy Prime Minister (TAB 16(c))</td>
<td>100</td>
</tr>
</tbody>
</table>

### LIST OF MEMORANDA

**HC 482-II**

(Published on 22 January 2002)

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Regeneration Practice (TAB 01)</td>
<td>7</td>
</tr>
<tr>
<td>2.</td>
<td>SAVE Britain’s Heritage (SAVE) (TAB 02)</td>
<td>8</td>
</tr>
<tr>
<td>3.</td>
<td>SAVE Britain’s Heritage (SAVE) (TAB 02 (a))</td>
<td>10</td>
</tr>
<tr>
<td>4.</td>
<td>J R Buckler (TAB 03)</td>
<td>11</td>
</tr>
<tr>
<td>5.</td>
<td>Simon Jenkins (TAB 04)</td>
<td>11</td>
</tr>
<tr>
<td>6.</td>
<td>Derek Palmer, Steer Davies Gleave (TAB 05)</td>
<td>12</td>
</tr>
<tr>
<td>7.</td>
<td>Association for Specialist Fire Protection (TAB 06)</td>
<td>13</td>
</tr>
<tr>
<td>8.</td>
<td>London First (TAB 07)</td>
<td>15</td>
</tr>
<tr>
<td>9.</td>
<td>Michael R Jackson (TAB 08)</td>
<td>17</td>
</tr>
<tr>
<td>10.</td>
<td>Conservative Group of the Greater London Authority (TAB 09)</td>
<td>19</td>
</tr>
<tr>
<td>11.</td>
<td>Commission for Architecture and the Built Environment (CABE) (TAB 10)</td>
<td>21</td>
</tr>
<tr>
<td>12.</td>
<td>The Civic Trust (TAB 11)</td>
<td>29</td>
</tr>
<tr>
<td>13.</td>
<td>Legal and General Property Ltd (TAB 13)</td>
<td>31</td>
</tr>
<tr>
<td>14.</td>
<td>Sellar Property Group (TAB 14)</td>
<td>32</td>
</tr>
<tr>
<td>15.</td>
<td>The Chelsea Society (TAB 15)</td>
<td>34</td>
</tr>
<tr>
<td>16.</td>
<td>Department for Transport, Local Government and the Regions (TAB 16)</td>
<td>40</td>
</tr>
<tr>
<td>17.</td>
<td>Jerry Hicks, Goldrush (TAB 17)</td>
<td>50</td>
</tr>
<tr>
<td>18.</td>
<td>English Heritage (TAB 18)</td>
<td>52</td>
</tr>
<tr>
<td>19.</td>
<td>Montagu Evans (TAB 19)</td>
<td>56</td>
</tr>
<tr>
<td>20.</td>
<td>Land Value Taxation Campaign (TAB 20)</td>
<td>63</td>
</tr>
<tr>
<td>21.</td>
<td>Freeman Historic Properties (TAB 21)</td>
<td>66</td>
</tr>
<tr>
<td>22.</td>
<td>National Housing Federation (TAB 22)</td>
<td>67</td>
</tr>
<tr>
<td>23.</td>
<td>Fire Safety Development Group (TAB 23)</td>
<td>70</td>
</tr>
<tr>
<td>24.</td>
<td>Bristol City Council (TAB 24)</td>
<td>72</td>
</tr>
<tr>
<td>25.</td>
<td>Royal Borough of Kensington and Chelsea (TAB 25)</td>
<td>74</td>
</tr>
<tr>
<td>26.</td>
<td>Bath and North East Somerset Council (TAB 26)</td>
<td>74</td>
</tr>
<tr>
<td>27.</td>
<td>Professor Robert Tavernor, University of Bath (TAB 27)</td>
<td>76</td>
</tr>
<tr>
<td>28.</td>
<td>Lorna Walker, Ove Arup and Partners (TAB 28)</td>
<td>78</td>
</tr>
<tr>
<td>No.</td>
<td>Name and Organization (TAB)</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>-----------------------------</td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Max Fordham (TAB 29)</td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>Insulated Render &amp; Cladding Association Ltd (INCA) (TAB 30)</td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>Health and Safety Executive (TAB 31)</td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>City Heritage Society (TAB 32)</td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>The British Land Company plc (TAB 33)</td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>British Property Federation (TAB 34)</td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>Gordon Masterton, Chairman of Structural and Building Board, Institution of Civil Engineers, and Director, Babtie Group Ltd (TAB 35)</td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>Liverpool City Council (TAB 36)</td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>Insignia Richard Ellis (TAB 37)</td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td>London Underground Limited (TAB 38)</td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td>Westminster City Council (TAB 39)</td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>Minerva plc (TAB 40)</td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>Manchester City Council (TAB 41)</td>
<td></td>
</tr>
<tr>
<td>42.</td>
<td>Corporation of London (TAB 42)</td>
<td></td>
</tr>
<tr>
<td>43.</td>
<td>Bristol Visual &amp; Environmental Group (TAB 43)</td>
<td></td>
</tr>
<tr>
<td>44.</td>
<td>London Borough of Tower Hamlets (TAB 44)</td>
<td></td>
</tr>
<tr>
<td>45.</td>
<td>The Royal Town Planning Institute (TAB 45)</td>
<td></td>
</tr>
<tr>
<td>46.</td>
<td>Martin Stancliffe, Surveyor to the Fabric of St Paul’s Cathedral (TAB 46)</td>
<td></td>
</tr>
<tr>
<td>47.</td>
<td>Institution of Highways and Transportation (TAB 48)</td>
<td></td>
</tr>
<tr>
<td>48.</td>
<td>London Assembly Spatial Development Strategy Investigative Committee, Greater London Authority (TAB 49)</td>
<td></td>
</tr>
<tr>
<td>49.</td>
<td>Oxford City Council (TAB 50)</td>
<td></td>
</tr>
<tr>
<td>50.</td>
<td>London Forum of Amenity and Civic Societies (TAB 51)</td>
<td></td>
</tr>
<tr>
<td>51.</td>
<td>John Worthington, Founder, DEGW plc (TAB 52)</td>
<td></td>
</tr>
<tr>
<td>52.</td>
<td>Peabody Trust (TAB 53)</td>
<td></td>
</tr>
<tr>
<td>53.</td>
<td>Birmingham City Council (TAB 54)</td>
<td></td>
</tr>
<tr>
<td>54.</td>
<td>Office of the Mayor of London, Greater London Authority (TAB 55)</td>
<td></td>
</tr>
<tr>
<td>55.</td>
<td>Tony Tugnutt, Bloomsbury Conservation Area Advisory Committee (TAB 56)</td>
<td></td>
</tr>
</tbody>
</table>

**UNPUBLISHED MEMORANDA**

The following memoranda have been reported to the House, but to save printing costs have not been printed and copies have been placed in the House of Commons Library, where they may be inspected by Members. Other copies are in the Record Office, House of Lords, and are available to the public for inspection. Requests for inspection should be addressed to the Record Office, House of Lords, London SW1 (telephone 020 7219 3074). Hours of inspection are from 9.30 a.m. to 5.00 p.m. on Monday to Fridays:

The Institution of Structural Engineers (TAB 12)
The Royal Academy of Engineering (TAB 47)
T Appleyard (TAB B/p 01)
Sheffield City Council (TAB B/p 02)
Heron Property Corporation Limited(TAB B/p 03)
LIST OF REPORTS
TRANSPORT, LOCAL GOVERNMENT AND THE REGIONS COMMITTEE
REPORTS IN THE CURRENT PARLIAMENT

Session 2001-02

First Report: Passenger Rail Franchising and the Future of Railway Infrastructure (HC 239-I)

Second Report: London Underground (HC 387)

Third Report: Public Spaces: The Role of PPG 17 in the Urban Renaissance (HC 238-I)

Fourth Report: The Attendance of Lord Birt at the Transport, Local Government and Regions Committee (HC 655)

Fifth Report: European Transport White Paper (HC 556)

Sixth Report: Empty Homes (HC 240-I)

Seventh Report: London Underground - The Public Private Partnership (HC 656)

Eighth Report: 10 Year Plan for Transport (HC 558-I)

Ninth Report: Road Traffic Speed (HC 557-I)

Tenth Report: Ordnance Survey (HC 481)

Eleventh Report: Air Transport Industry (HC 484-I)

Twelfth Report: The Need for a New European Regeneration Framework (HC 483-I)

Thirteenth Report: Planning Green Paper (HC 476-I)


Fifteenth Report: Draft Local Government Bill (HC 981-I)

Sixteenth Report: Tall Buildings (HC 482-I)

Seventeenth Report: The Bus Industry (HC 828-I)

Eighteenth Report: NATS Finances (HC 789)

Nineteenth Report: The New Towns: their problems and future (HC 603-I)