

09: Density, housing mix and space standards of new housing development in London

Duncan Bowie

London Metropolitan University

I am coming from a somewhat different perspective than some colleagues here. I am a planner, currently teaching in the architecture school at London Metropolitan University. Up until the summer I was the strategic planner for housing for Ken Livingstone, the Mayor of London, but I have also got a background in housing investment management having run the housing investment programme for the Corporation for most of the 1990s in London.

What I am going to take you through is what has actually happened in terms of London residential development, looking at the inter-relationships between density, housing mix, affordable housing and standards. The purpose of the London plan policy from 2004 was to maximise the effective use of land while still being compatible with sustainable residential policy principles set out in the London plan. The second part of the plan policy, which is often ignored is “housing outputs have to be appropriate to housing requirements”. That is the starting position of planning policy in London as far as housing density is concerned.

The 2004 London plan density policy was based on work undertaken by Llewellyn Davies for the London Planning Advisory Committee (LPAC) in the 1990s. It sets out a range of different densities relating to a number of factors, and you can see this from the matrix in illustration 1. The town centre location or the location of a site in relation to a town centre is a factor along with the public transport accessibility index. Another factor is the neighbourhood characteristics in terms of the built form of the neighbourhood in which the development is proposed, ranging between flatted development and detached houses, but also assumptions about car parking provision and the predominant housing type of the specific development proposal. I should draw your attention to the assumption made that you only build a small unit in terms of household size in central London and only build family housing in the suburbs. That raised a number of difficulties with what has happened in practice.

Density location and parking matrix (habitable rooms and dwellings per hectare)

| | | Car parking provision | High 2 – 1.5 spaces per unit | Moderate 1.5 – 1 space per unit | Low Less than 1 space per unit | |
|---|----------------------------|---------------------------------|--|---|--------------------------------------|--|
| | | Predominant housing type | Detached and linked houses | Terraced houses & flats | Mostly flats | |
| Location | Accessibility Index | Setting | | | | |
| Sites within 10 mins walking distance of a town centre | 6 to 4 | Central | 650 – 1100 hr/ha 240 – 435 u/ha Ave. 2.7hr/u | | | |
| | | Urban | 200 – 450 hr/ha 55 – 175 u/ha Ave. 3.1hr/u | 450 – 700 hr/h 165 – 275 u/ha Ave. 3.0hr/u | | |
| | | Suburban | 200 – 300 hr/ha 50 – 110 u/ha Ave. 3.7hr/u | 250 – 350 hr/ha 80 – 120 u/ha Ave. 3.0hr/u | | |
| Sites along transport corridors & sites close to a town centre | 3 to 2 | Urban | 200 – 300 hr/ha 50 – 110 u/ha Ave. 3.7hr/u | 300 – 450 hr/ha 100 – 150 u/ha Ave. 3.0hr/u | | |
| | | Suburban | 150 – 200 hr/ha 30 – 65 u/ha Ave. 4.4hr/u | 200 – 250hr/ha 50 – 80 u/ha Ave. 3.8hr/u | | |
| Currently remote sites | 2 to 1 | Suburban | 150 – 200 hr/ha 30 – 50 u/ha Ave. 4.6hr/u | | | |

source GLA

Illustration 1: Original London Plan matrix

Illustration 2 is the public transport access level – any of you working in London are probably familiar with this – there is good public transport access in the centre and some radial routes but not so good in other areas including large chunks of Thames Gateway

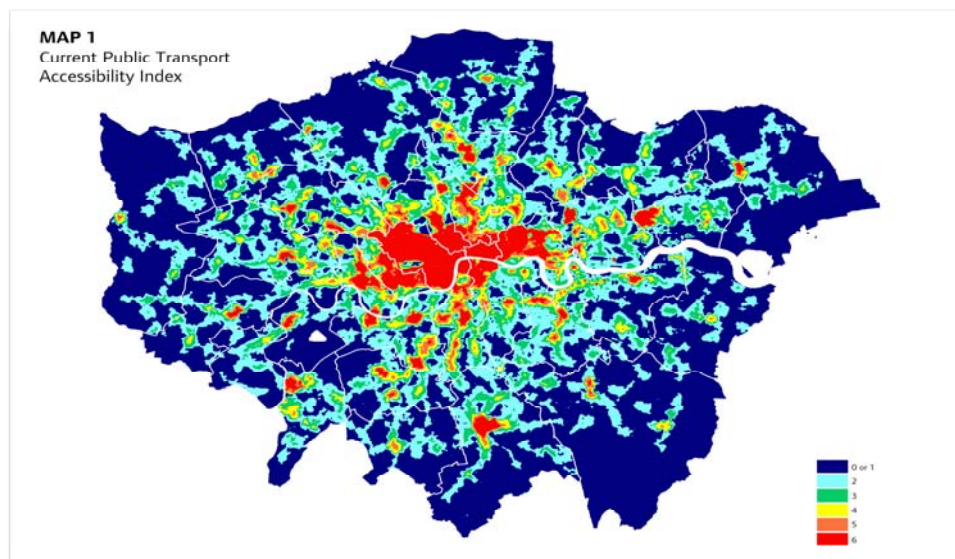


Illustration 2: Public transport access level

Illustration 3 is the neighbourhood character map, which is used for research analysis purposes - the Mayor changed his mind and did not publish this as policy guidance because it was regarded as too prescriptive. It maps the built form of the existing

housing in London but also the relationships with town centres as I said earlier. The map in illustration 4 is putting those two maps together, again used for research purposes, which is basically the kind of ranges of housing density in each location reflecting a combination of those factors I have referred to.

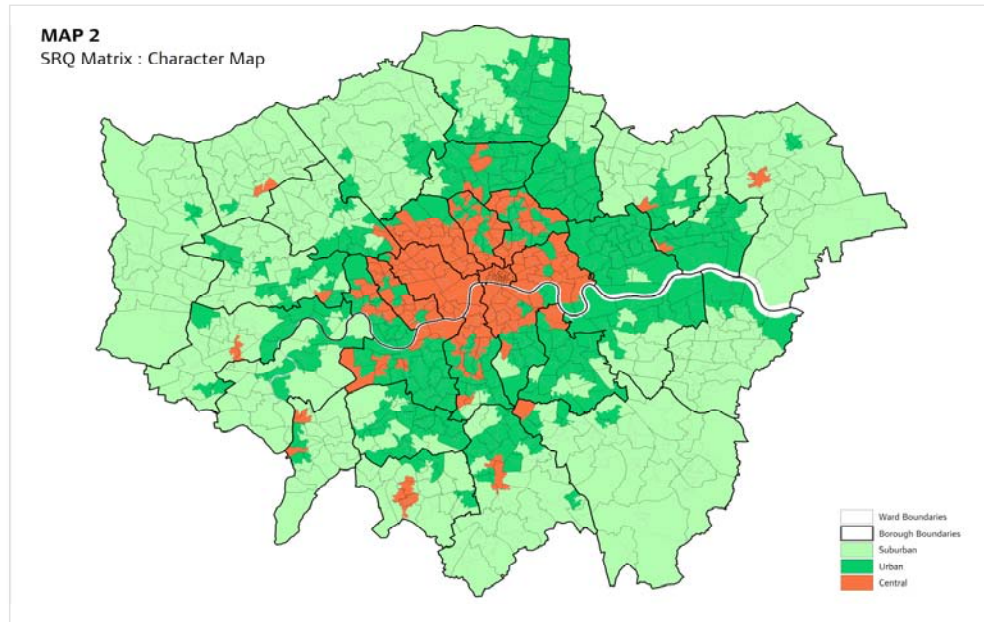


Illustration 3: Neighbourhood Character map

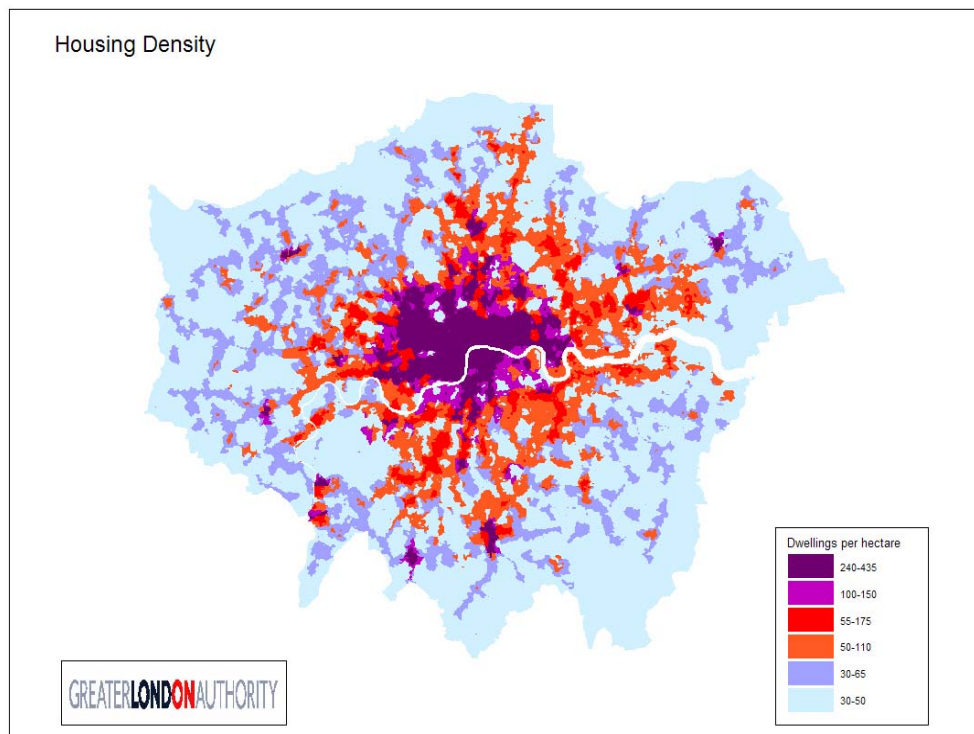


Illustration 4: Housing Density Guidance map

What has been actually happening with development densities in practice? The first few columns in the chart in illustration 5 are completions from CLG-published data. The Mayor monitors all planning consents across London through the London development database, so several years ahead of central government data. Therefore you will actually see the densities in London in terms of what is in the development pipeline climbing up to a current average of 137 dwellings per hectare – that is 2006/07. We have not got the 2007/08 data yet.

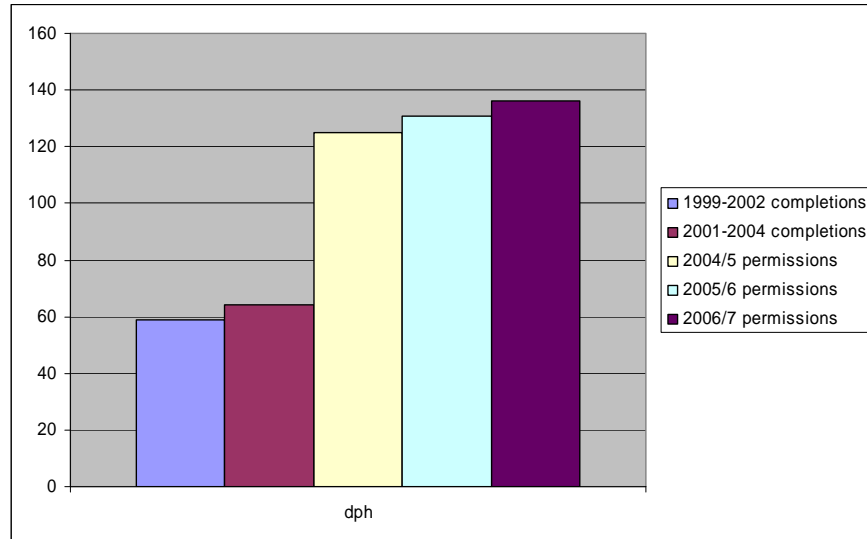


Illustration 5: London development density over time

Things get rather more interesting when we look at the relationship between densities in practice in London and sustainable residential quality. Through GIS mapping at City Hall – and this data is published in the London plan annual monitoring reports on the Mayor’s website – we are able to track all planning consents, not just those referred to the Mayor, against the policies from the maps I have just shown you. In the first two years of the London plan in fact two-thirds of developments in London were above the appropriate range in the sustainable residential quality matrix and seven per cent were below the range. A relatively small proportion – only a third – were within the range. The latest data set is showing that the extent of over-development seems to have dropped off a bit but is still showing as 32 per cent relative to the policy.

Densities and family sized homes

| Density Range | % 3B+ |
|---------------|-------|
| Over 435 dph | 8% |
| 240-434 | 13% |
| 65-239 | 21% |
| 30-64 | 40% |
| Under 30 | 78% |

(source: 2005/6 completions)

Illustration 6: Density map with schemes

Illustration 7 is a chart showing the mapping behind these data sets – the black spots are any scheme in London which is over-developed, the few white ones are under-

developments and a spot with the right colour is actually in the appropriate range for the location.

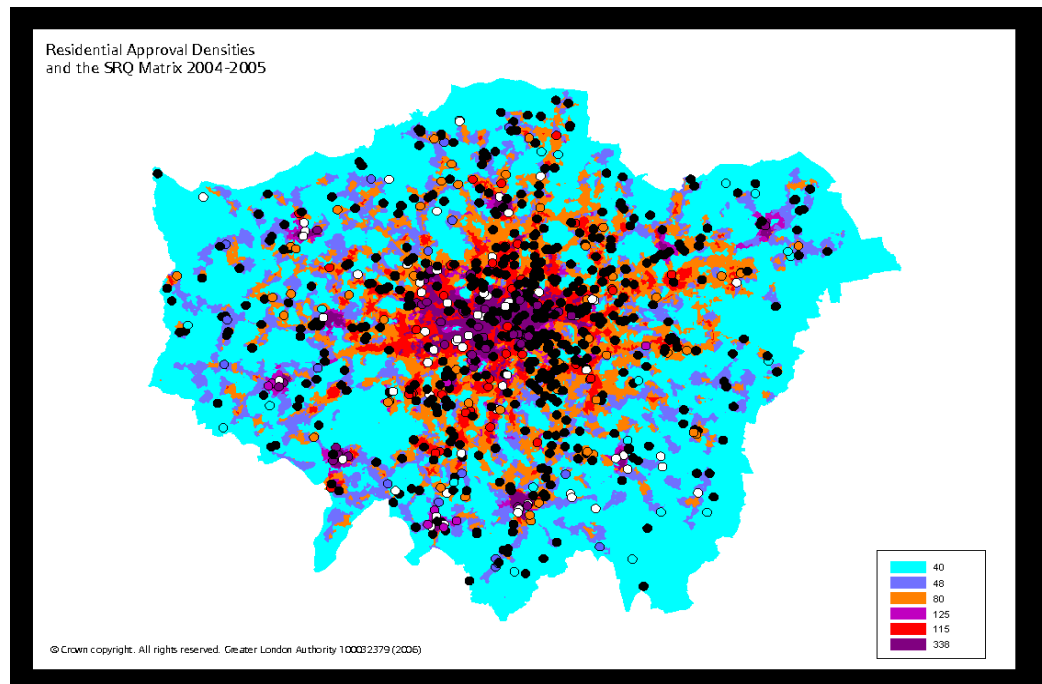


Illustration 7: Planning consents 2004/05 density

Just to show that was not a one-off, this further chart in illustration 8 is the map for 2005/06. I am still waiting to see the map for 2006/07 where there should be less black spots than here, but that just shows the extent of over-development relative to the principles of sustainable residential quality right across London as a whole, a lot in the centre but also a lot in lower density areas elsewhere.

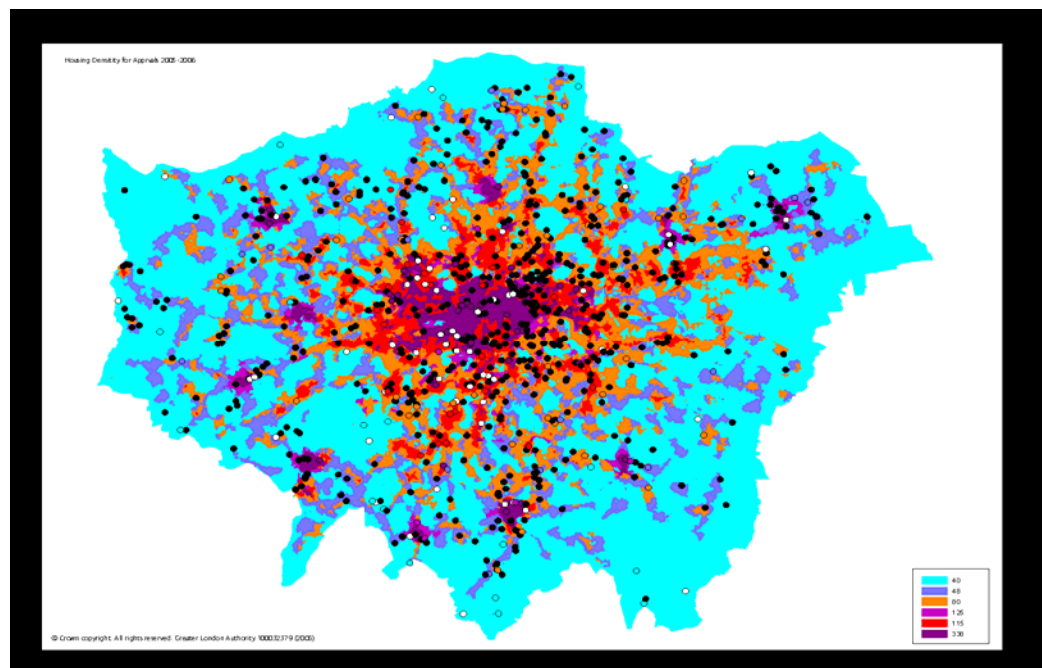


Illustration 8: Planning consents 2005/06 density

Comments were made earlier in response to questions to the Symposium panel about who has done hyper-density schemes. Illustration 9 was my list when I was at City Hall of the top half dozen or so schemes, going up to 2,500 dwellings per hectare. In some cases these schemes do include something other than a studio flat. There is one scheme in at the moment which I know is over 3,000 habitable rooms per hectare as a current planning application on the Isle of Dogs.

| | |
|--|----------|
| • Woburn Place, Camden | 2462 dph |
| • Pentonville Road, Islington | 2052 dph |
| • Whitechapel High Street, Tower Hamlets | 1955 dph |
| • Pioneer Market, Ilford, Redbridge | 1681 dph |
| • Talbot Square, Westminster | 1583 dph |
| • 513 schemes at densities over 435 dph | |

Illustration 9: Highest density schemes in April 2005 to December 2006

The significant thing, I suppose, is not so much the top few – and I still have not seen the full data set since December 2006 – but the fact that 530 schemes were approved at densities over 435 dwellings per hectare – that is the top of the top range in the London plan. Illustration 10 shows what has been happening on built form: tower blocks are back – all schemes over ten storeys come to the Mayor – so you have one scheme in 2003/04, but in the last financial year this has gone right up to 39 schemes involving 13,000 units in total

| Schemes over 10 stories referred to Mayor | | |
|--|------------|--------------|
| 2003/4 | 1 scheme | 45 units |
| 2004/5 | 7 schemes | 833 units |
| 2005/6 | 23 schemes | 6,122 units |
| 2006/7 | 14 schemes | 3,275 units |
| 2007/8 | 39 schemes | 13,331 units |

Illustration 10: Tower block schemes

How does this compare with what is actually needed? The last published study is the housing requirements study from 2004. There was an update in 2006 which was never published and there is a housing market assessment under the new guidance from central government being undertaken at the moment. The critical figure is for the social rented sector, 42 per cent of requirements at that stage for social housing were actually four-bed plus units, not just three-bed plus, and at that time most of the market demand as you can see was for smaller units.

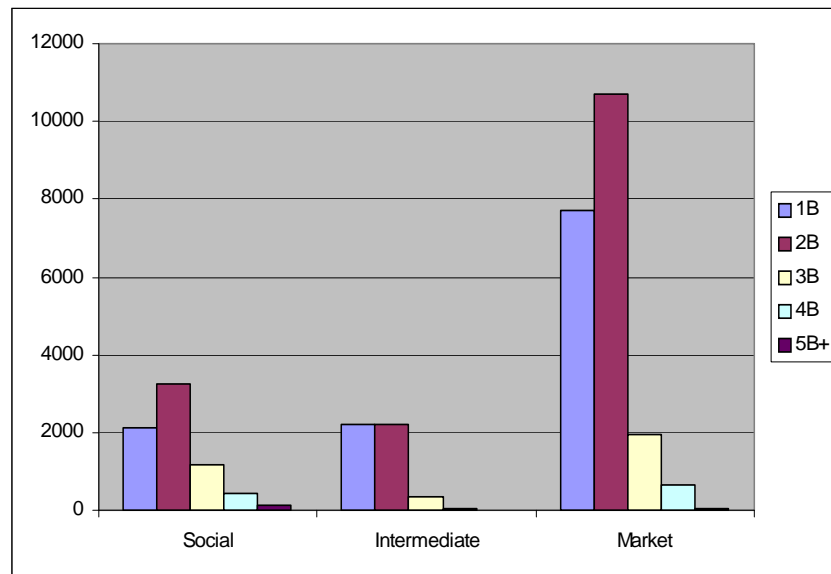


Illustration 11: Development completions 2006/07

What are we getting? Rather different. Illustration 11 shows the 2006/07 completions in London – what is quite interesting is that even on the social rent side they were predominantly one and two beds. What is in the pipeline is not actually that much better – illustration 12 is permissions in 2006. Some of these will of course take many, many years to be completed because it involves some major sites. There are a few more three-beds and four-beds in the social rent sector but still predominantly ones and twos, a few three-beds and larger units creeping in on the market sector as well.

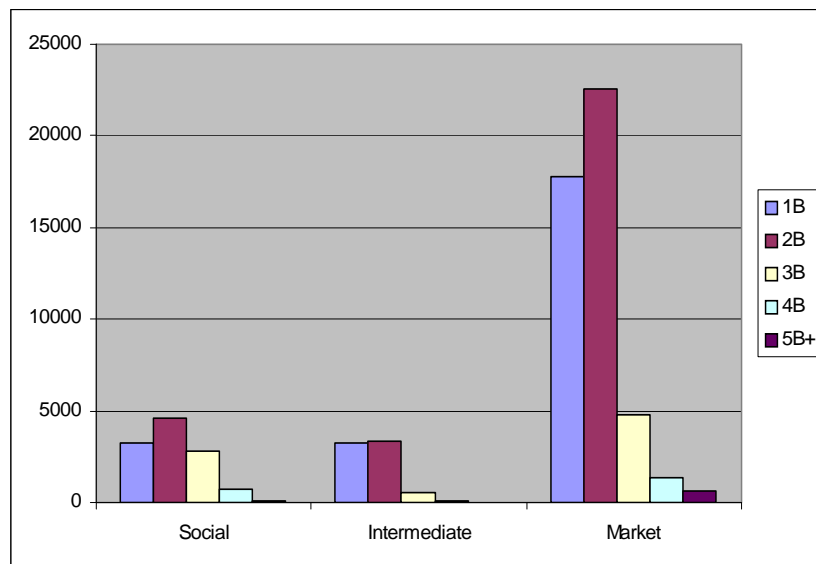


Illustration 12: Permissions in 2006/07

Illustration 13 is actually going back to CLG data and is comparing the London position with other regions, and what I have done here is looked at the proportion of houses being built, which is part of the CLG data set, and the figure in London is now down to 12 per cent houses. It was 50 per cent as recently as 1996/97, so that is a dramatic shift to flats. The second set of figures is the three-bed plus units, basically family houses, where the London proportion fell from 35 per cent in 1996/97 to 14 per cent in 2007/08.

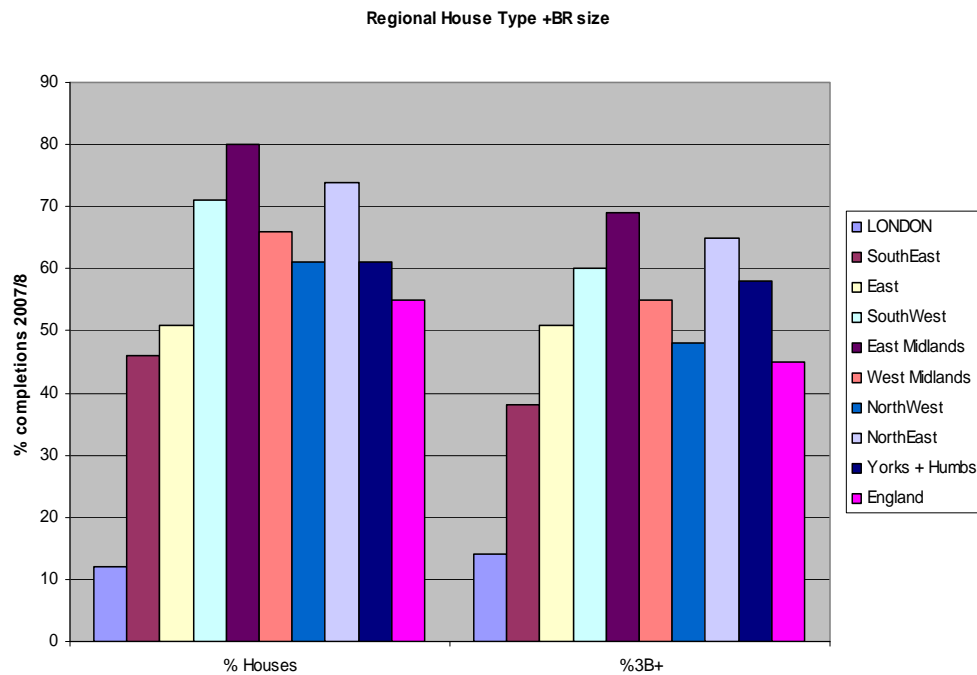


Illustration 13: Type and size by region

The contrast with the regions in the greater south-east is possibly more significant than with the rest of the UK, but you will see that family housing provision has been running at three or four times the proportion in the eastern region, the south-east region, south-west region and the Midlands than it is in London. It is not surprising that middle class families who can afford to are moving out of London and that most families who cannot afford to move outside London are overcrowded in the private rental sector and, to a certain extent, in the social housing sector.

Lots of people say why does density matter? There is a very close correlation between the density of development and what proportion of family size homes are provided, and you can see in illustration 14 that of the hyper-density schemes only eight per cent is family provision. When you get down to schemes below the government guidance, a minimum of 30 dwellings per hectare, you get 78 per cent family homes:

| Density Range | % 3B+ |
|---------------|-------|
| Over 435 dph | 8% |
| 240-434 | 13% |
| 65-239 | 21% |
| 30-64 | 40% |
| Under 30 | 78% |

(source: 2005/6 completions)

Illustration 14: Density and family sized homes

I have moved on from the London-wide analysis to look at a sample of schemes that have been through a detailed appraisal process. This is information that you do not normally get on planning applications, but as part of the Mayor's planning powers all major schemes considered by the Mayor are subject to a financial appraisal process. I have done an aggregated analysis on 40 major development schemes using what is called the 'Three Dragons' financial appraisal model, which some of you or your

housing consultants will be familiar with, especially any of you that negotiated with me at City Hall.

I have done some very quick correlations on these 40 schemes. This is about 25,000 units and it includes some very large schemes indeed. There are always schemes which are somewhat exceptional, including no doubt some of the ones that were presented earlier by architects who have actually tried to get some family housing into medium density schemes, but there are some fairly clear correlations in some of this analysis. The first one in illustration 15 links height to density – everybody says density does not relate to height, well it does. You will also note here that the maximum floor height goes up to 50 storeys. For people not working in London, except if you are working in Dubai or Shanghai, this may be somewhat unfamiliar.

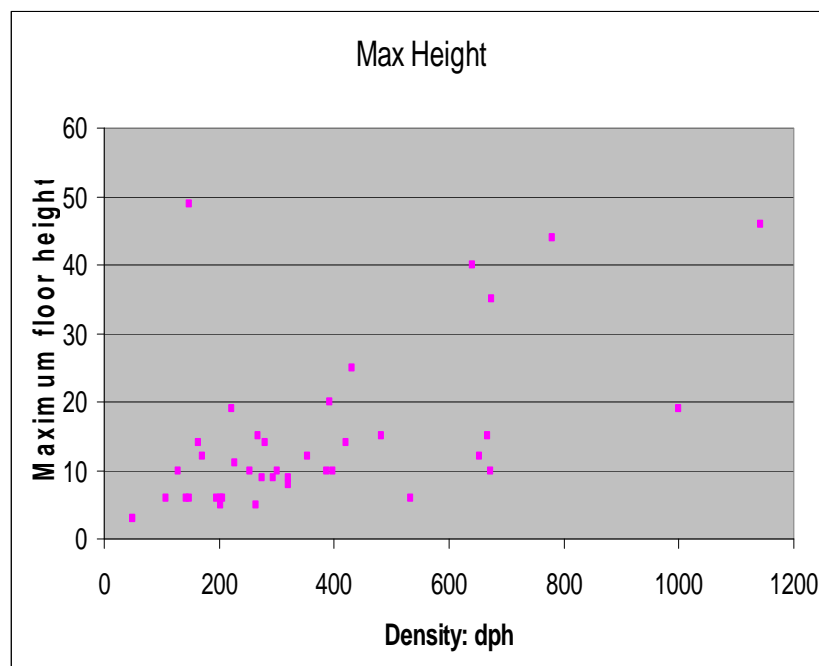


Illustration 15: Density and floor height

Generally schemes with high maximum floor heights have relatively low social rent proportions, certainly well below the 35 per cent target in the London Plan. Again, the higher the density, the lower the social rent proportion. There is a fairly clear trend concerning the relationship between density and family-sized homes. On the 40 schemes in the sample I appraised, a number of schemes are showing no family-sized homes at all even though the density may be quite low. The higher the development generally the lower the proportion of family homes, though some of you will know there are some very high rise schemes which increasingly have proportions of family-sized homes actually in the middle and higher floors now, not just on lower floors. Another correlation again is that the higher the scheme is the higher the proportion of one-bed units and studio flats.

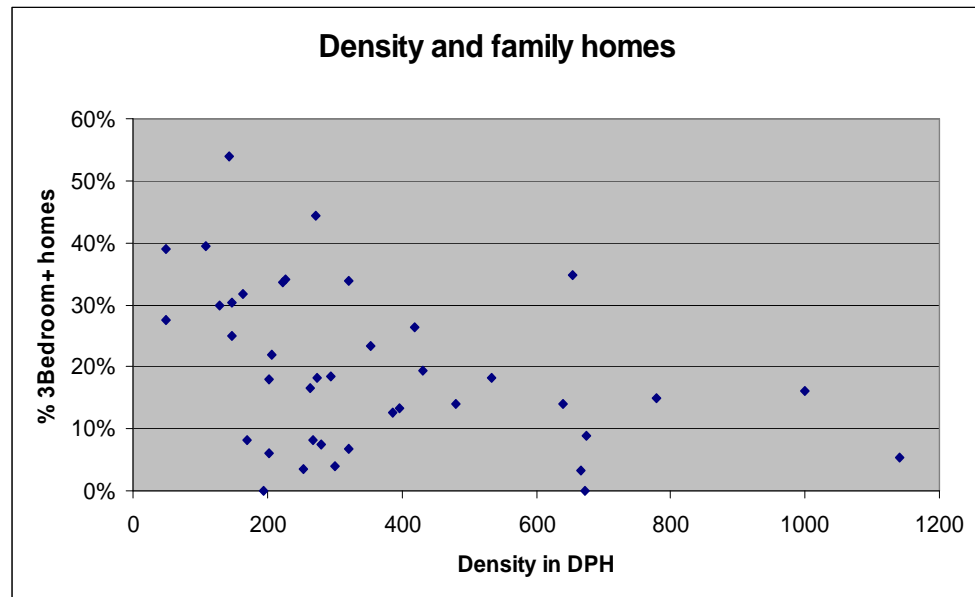


Illustration 16: Density and family sized homes

What has been happening in terms of policy review? Because of this analysis and the deficiency that was identified, we have the Mayor's draft housing strategy which guides the housing investment programme in London through the Housing Corporation, but in due course it will go through the Homes and Communities Agency. The London region board of that will be chaired by the new Mayor – whether he does it personally or not will be interesting. The targets that were set, which were partly constrained by resources available from central government, were 42 per cent three-bed or larger on social rent and 16 per cent three-bed or larger on intermediate. You will remember I said earlier that actually the social rent should be 42 per cent four-bed plus but as a transitional stage the policy is to get 42 per cent three-bed plus.

Because of this analysis we commissioned a report at City Hall from URS Consultants and Patel Taylor Architects which was published in June 2006. The report concluded that while the London Plan ranges were appropriate there was a need for consistent application which was clearly missing. We should shift the emphasis of the London Plan policy which was in both units and habitable rooms, to focus on habitable rooms because that was closer to the number of people who were likely to occupy the development. We should also move away from these prior assumptions about average household sizes being smaller in central London than in outer London and should allow for appropriate development to allow some family housing to be provided in London and, where appropriate, smaller units in the suburbs.

We took car parking standards out of the matrix altogether. We took the view that car parking should not actually be driving housing output - the housing requirement should be driving housing output, which is a rather fundamental shift in approach for planners, I think. As you probably saw earlier there were missing cells in the first matrix (illustration 1) so in the new one (illustration 17) we did actually fill in the cells so you could allow for ranges for family housing provision in central London. What was absolutely critical was that when this went through the examination in public a year or so ago there was no opposition to these changes at all. In fact the panel inspector strengthened the draft to include a formal policy position that the built form of the development should be a response to housing requirements, not based on any prior assumption about the built form, whether that came from the architect or the

client. The housing requirement should actually come from a planning brief prepared by the local authority in the context of a housing requirements analysis – much of that work at local level has been sadly lacking.

We took the revised density matrix through the examination in public and the changes have actually been included in the revised London plan adopted in February 2008 and are now policy. Every London borough should be proceeding on this revised basis because that is a requirement of strategic planning. Any borough that has not amended its density policy in line with this is actually not in conformity with regional planning policy supported by central government.

Illustration 17: Revised density matrix

Space standards have been the focus of much of the discussion today. The intention within GLA was to introduce both internal and external space standards at the same time as the density revision I have just shown you, because of concerns about quality of life and internal and external play space. We therefore commissioned Andrew Drury and colleagues to do a research report comparing space standard trends in London and the rest of the country and with international comparisons. They were asked to put forward recommendations for a basic safety net position so we could ensure that private sector provision was also meeting a basic standard. The Mayor chose not to proceed with that proposal, mainly because of concerns from the house building industry that this would be further centralised state control over their market position. I am quite pleased, clearly, that a number of organisations such as Building for Life, RIBA as a whole, and now English Partnerships have actually come forward with proposed standards and it will be interesting to see to what extent that is taken on board by the new Mayor.

What was agreed however was a new external play space standard which was incorporated in the London Plan revision published in February. This is 10 square

metres per child, so in terms of the overall three dimensions of the package, we got the density review, we got the external play space standard, but we lost the internal standard. For information, illustration 18 is the safety net standard proposed by HATC at the time, two years ago, compared with the English Partnership policy. It is going to be very interesting as the Homes and Communities Agency works up its overall strategy which space standard it goes for and whether the space standard applies to all development, as in the EP case, or just to social housing.

| | HATC proposal | EP policy |
|-----------|---------------|-----------|
| 1 person | 37 sq m | 51 sq m |
| 2 persons | 44 sq m | |
| 3 persons | 57 sq m | 66 sq m |
| 4 persons | 67 sq m | 77 sq m |
| 5 persons | 81 sq m | 93 sq m |
| 6 persons | 92 sq m | 106 sq m |
| 7 persons | 105 sq m | |

Illustration 18: Internal space standards

Some of you will have picked up on the proposal from Boris Johnson which was referred to as “Parker Boris” standards, but statements published by GLA officials since then have stated, not just implied, that it would only apply to social housing funded schemes. This would not be that much different from the housing quality indicator system at the moment that protects social housing and public investment.

Without a minimum space standard the increasing push to higher density that we have witnessed, and of course the increased push from the Housing Corporation and from HCA for more three-bedroom plus homes – may lead to a further fall in internal space standards if there is not a space standard introduced across the board. Without a minimum internal space standard there is actually a risk that the external play space standard may only be achieved at the expense of internal space. You can argue that there is not much point in children having access to a park if they are on the 30th floor and have got nowhere in the home to play or do their homework.

There are issues about London’s land capacity as the driver of high density schemes although it has largely been the economics rather than land supply per se that has been the fundamental driver – the economics of build cost and land cost rather than land supply in a crude sense. The original housing capacity study in which I was involved at City Hall did look at a range of scenarios when the 30,500 per annum target was actually set, looking at if densities were increased, if more employment sites were used, how much capacity could increase, and the figures are shown here:

- 2004 target of 30,500 based on compliance with London Plan density matrix
- Study alternative scenarios
 - a) If density at top of range rather than midpoint, capacity increased to 34,500 a year
 - b) Add in protected employment sites increases capacity to 41,300 a year

If you abandon the metropolitan open land and green belt protection policy – not that I would suggest that of course – you could actually increase capacity very substantially while getting decent housing and lowering densities, with very significant negative effects on a range of other factors.

The key question of course is how do we ensure density policy is applied appropriately to provide the right housing mix to meet housing needs while maintaining adequate external space and external amenity space in the broader sense? I want to conclude on the comment – because many of you will not necessarily realise this – that overcrowding in London increased dramatically between the 1991 census and the 2001 census. Given the kind of development that we have been seeing in London over the last ten years it is highly likely, given demographic changes, that when we get round to the 2011 census – assuming we actually find everybody – we will demonstrate that overcrowding has increased dramatically. If that is the case then that, bluntly, is shame on the government and shame on all of us.