# Interview schedule

**Gaining consent**, getting form (signed).

**Introduction** to research and purpose of interview

“So the purpose of these interviews is to talk to people who are involved in designing the sorts of buildings that we are interested in – speculatively built office spaces in urban areas that are designed for a variety of occupants.”

“What we are particularly interested in is the detail of how and why the building is designed as it is, what implications there are for the services in the building, and what the implications are for energy demand. We are assuming that buildings are never designed/engineered/fitted out completely “from scratch”, “out of nowhere” – there are certain ideas, rules, standards, guides and so forth that shape the finished building. We want to ask you about these factors and find out where they come from, how important they are, and what their consequences are.”

**First open question**

“So first of all as a completely open question – is this right? And if so, briefly what are the main factors that guided the form if this building AS a speculatively developed office building/how this building ended up functioning?”

Arch: “In terms of designing space:

* What kinds of functional *spaces* do you have to provide in an office building?” *Prompts atriums, kitchens, breakout spaces, hang-outs, circulation/collision spaces*
* Why are these functional spaces important in a modern office?
* Where does that come from – who is demanding these spaces? *Prompts developer, imagined clients, other standards (e.g. RICS), regulations?*

[Fit-out interviewees will have the 4 models discussed separately – but their schedule is so different, not included here – for future development]

Arch and Eng?: Because we are looking at speculatively developed buildings [not for owner-occupied, obviously], we know that there are different floor plans and layouts that the building could end up with (e.g. Corporate, legal, finance, TMT/media [can take from building brochure if appropriate]):

* Which of these, if any, was uppermost when designing/engineering this building?
* What is the reason for that? Is this regular practice, to assume that this will be the use and work to it?
* If you are designing/engineering for the most densely occupied or busy layout or work type, what are the implications of that for what you do and for energy use?

**Topic area questions**

So to begin with our specific questions, we have a sense that when you were involved in designing/engineering a building like this [and/or its infrastructures and services] one of the key factors that you bear in mind is the **density** it will be occupied at.

* Can you tell me about density and what you assumed or designed to with this building? [Find number from building spec/brochure in advance and have on schedule]
* Why that level of density? Where does that figure come from? *If not BCO or RICS ask why not and why the other?*
* What other aspects of the building/services does that assumption of density affect? *Prompts heat gain, cooling needs, ventilation etc?*
* Does density capture what people are actually doing or likely to be doing in the finished office? If so, how? If not, why not? In other words, what were the ideas of ‘the modern office’ and what people need in it that were in mind? *Possible prompts about hot-desking or agile spaces? The four space configurations (legal, financial, corporate and open)?*
* Is it based on assumptions of what people are doing in the building? In what way? *Prompt is the highest density assumed again?*
* Diversity: What about the *times* people are using the building – do you or does ‘density’ take into account different days, times of day, or other periods?
* What about the differences between floors?
* How often will the building actually be occupied to this level?
* Have the densities you have designed/engineered to, changed over time? *For example the BCO uses 10m2 but they admit that densities have been increasing, particularly in some sectors.*
* *But they also admit ‘effective’ densities are lower…*What do you think about the guidance still being based on ‘ideal’ workplace densities rather than ‘real-world’ effective densities?
* Why has it changed? Who or what drives change? *Prompt* *is it the developer, imagined clients, other standards (e.g. RICS), regulations or what?*
* In what direction might densities and therefore offices change in future? Again, who or what is driving those changes? Is this something that is important? – *flexibility or future-proofing*?
* So, thinking about we have just discussed, what was the density that was used in designing/engineering this building, and why? [ask twice!]

[Following sections could be rearranged in order depending on which factors are mentioned first or stressed as most important by the interviewee]

You have mentioned [if they have] Heat or rather **cooling** *and therefore temperature and comfort* as being something that has to be taken into consideration because of occupation density. This seems to be another major factor in how the building/services get(s) designed/engineered. So again,

* Can you tell me what levels of cooling and comfort were designed into this building/services? [have the figures from spec/brochure to hand]
* Why that level *and range*? Where did that specification come from? *If not BCO or RICS ask why not and why the other?*
* How flexible is that range of temperatures in the spec or in reality?
* What models were used to work out heat gain or loss? What are main heat gain/loss considerations?
* Where do **those** figures come from and which of the other factors have an influence there? *Small power use, densities, glazing and building form, lighting?*
* Is it based on assumptions of what people are doing in the building? In what way? In other words what are people assumed to be doing, in what people understand as ‘the modern office’, that affects temperature or comfort? *Prompt the four space configurations again?*
* Does ensuring this level of thermal comfort have effects on other aspects of the building/services? Which one(s)? *Small power use, densities, glazing, lighting?*
* Again – is this need for cooling and for comfort assumed to apply all the time? Or is it designed to cope with ‘peaks’ of use?
* If variations are allowed and assumed, how and when and why are they imagined to happen? *How do night and day and the seasons play a role here?*
* Has the level of cooling or range of acceptable temperatures changed over time?
* Why? *Are there changes in technologies and kit that are responsible? Changes in the expectations of the market? The developer/clients? The (imagined or real) occupiers?*
* Thinking again about the future, what are the implications of the issues we have discussed – how might the needs of the *future* office be different? *Prompt relating to changing densities etc*
* Do you think future cooling needs or demands in these sorts of offices will be different? *Greater? More precise and unchanging? More flexible? What could affect which way it goes?*
* Going back to our first question again – how did the figure of X get settled on?

Related to cooling and comfort, of course, is **ventilation** specifically:

* What levels of air quality and air exchange were designed/engineered to be provided in this building? [have the exact figures from the spec/brochure] *Architect questions need to be slightly different again about this – mainly it will be the natural/mixed/air-tight distinction from the start. So why was this mode specified? Whose needs were being met? Imagined users? The market?*
* Why that/those level(s)? Where did that specification come from? *If not BCO or RICS ask why not and why the other?*
* What models were used to work it out? And what fed into them? *Mainly density levels and therefore CO2 etc?*
* Again, is it based on assumptions of what people are doing in the building? *Or how many people there are? Do the earlier assumptions about density apply here, then? Does this link to the space configurations?*
* Again – does this assumed need for ventilation apply all the time? Or is it designed to cope with ‘peaks’ of use? What are the implications of thinking about peaks?
* Has all of this changed over time? And if so – why? *Air flow levels have gone up from 6L to 12L over time – why? What’s behind this? Fresh air, alertness, productivity? Who or what is driving the changes?*
* Is it likely to change in the future? What will a future ‘good office’ need in this area?
* Are there **other sides to comfort** apart from temperature and air flow or quality? How did they figure in the case of this building?
* And going back to the first question – what are the main influences on settling on the figure X (for architects – mode) for/of ventilation/air exchange etc?

You have mentioned [if they have]/We are also interested [if not] in **Small Power provision** as being something that has to be taken into consideration in design/engineering because of how offices are used. So again,

* Can you tell me what level of small power provision was designed into this building/services? [have the figures available]
* Taking that apart, what does it include*? Expect or prompt lifts, computers and equipment, also kitchens and vending – some models include lighting?*
* Which of these are the most important in terms of thinking about energy demand?
* Can we take those in turn? [then use the relevant ones from the following]

a) Lifts

* So how is the level of provision of lifts determined?
  + *From expected densities?*
  + *Expected maximum potential densities?*
  + *Maximum peak levels of effective density?*
* Which specific guidance or standards or regulations apply? *BCO? RICS? H&S? Building regs?*
* What models were used to work it out?
* What implications if any do the lifts (and stairs) have for designing space (architects)/other services (engineers)? [DO WE WANT TO KNOW THIS?]
* Does the assumed end use of the building have an influence here? *E.g. the different space configurations [and therefore densities] of the users? The potential mix of different occupation types in the letted building?*
* Where else does this perceived ‘need’ for lifts come from? *From the letting agents and therefore the market? From the perceived needs of potential occupiers and users? From imagined clients visiting the building?*
* How does the modelled or assumed (*peak?*) need match up with reality?
* What are the implications for energy demand of this level of provision, or the speed etc of the lifts used?
* How is this likely to change in the future? In which direction? Why? *What will a future ‘good office’ need in this area?*

b) MEL (miscellaneous and electronic loads i.e. equipment plugged in)

* Why was that level of equipment assumed to be needed in this building?
* Did that have effects on other aspects of the building/services? Which one(s)? *Prompt heat gain models and therefore cooling requirements.*
* Where did that specification come from? *BCO? RICS? Where else?*
* What models were used to work it out? *Densities again?*
* Again – does this apply all the time? Or is it designed to cope with ‘peaks’ of use? *Prompt stand-by and actual usage.*
* Was it based on assumptions of what people are doing in the building? In what way? What are people are assumed to be doing that requires these levels of small power provision? *Prompt about tablets and lower power needs, thinner screens, agile/flexible working, hot-desking trends.*
* Has that changed over time? *Does what you do (or the guidance and spec) take into consideration changes that you* ***know*** *are taking place? See above prompts too.*
* If this has changed over time – who is driving those changes in assumptions/models/standards/how things are done? *Changes in technologies and kit? Changes in the expectations of the market? The developer/clients? The occupiers?*
* What will a future ‘good office’ need in this area?

c) Catering, kitchens and vending

* Were these requested in the specification for the building (or are they part of fit out)?
* Did the design/provision of a certain level of small power provision have to take into account the potential for these food-related technologies and spaces to be a part of the final use of the building?
* How is this worked out?
* Is this based on any specific guidance or rather on the initial specification? The client?
* Is this part of a trend?
* Where is it coming from? Who or what is driving it?
* What is the model of what people are doing in offices behind all this?
* What will a future ‘good office’ need in this area?

Thinking of other aspects of building/services design, what about the **glazing** in this building?

* Arch: How did this amount of glazing end up being put in place? [check the amount of glazing from brochure]
* Were you following any specific guidance, or was it due to the original design spec?
* If guidance, which specifically?
* How did it interact with the building form? *Deep/shallow [– think which before interview.]*
* (Eng only?) Which other aspects of the building or service did this affect? *Heat gain and cooling? Lighting requirements?*
* Was this level of glazing related at all to what people were imagined to be doing in the building? In which ways? *Working arrangements? Screens? Space configurations?*
* If you accept that ‘the modern office’ is generally seen to be a glass building – where has that come from? Why? Who demands it? *Market? Letting Agents?*
* Does this fit with imagined users and their needs?

That discussion raised the issue of **lighting** [if it did – almost certainly].

* (Eng only?) What levels of lighting were assumed in this building? [Get from the specification/brochure]
* Why? Which guidance or specification or regulation is that based on?
* Where has that come from – or rather whose demands does it answer? *Imagined occupiers? Client?*
* What other aspects of the building/service provision does it affect? *Heat gain?*
* How else could it have been done? [this question hasn’t been asked elsewhere!] *Prompt task lighting.*
* Would this be any different if what people do in offices was imagined to be different? Or if it changes? *Prompt different levels of occupancy, densities? Space configurations/sectoral uses?*
* Has it changed over time? Do you think it will?
* Why and in which directions? *What will a future ‘good office’ need in this area?*

**Final open questions**

Finally in terms of the building, its form, services, and how it is imagined to be used, is there anything else that you think is relevant to how and why energy demand is what it is, that we haven’t yet covered? *Lobbies? Terraces and roof gardens? Toilets?*

* Thinking back on the questions we have been asking can you explore those factors?
* Why are they provided like they are?
* What needs are they satisfying?
* Has this changed?
* Is it likely to?
* How else might it be done?

Finally,[if we haven’t questioned in each section – DO WE WANT TO REPEAT AGAIN?] we have been mentioning and want to think through how all of these factors might change in the **future**, particularly thinking of the context of reducing energy use, carbon emissions etc.

* Do you have a sense of how changes in what people do in offices might affect office building design and infrastructures in the future?
* How do you try and cater for this in designs?
* What did you do in this building that was designed to reflect future trends?
* To what extent is redundancy necessary to ensure can cater for uncertain future?
* Is there a better way to make buildings adaptable? Or responsive?
* We are looking at refurbishment as well – [how can you/is it possible to] make sure that an office building of today is also suitable to be an office building of tomorrow without needing to be demolished?

And to return very specifically to the focus on **guidance, standa**rds and so on:

* So why are standards used if they are problematic?
* What are implications of not following standards?
* How might standards get better?

Thanks and tie up with asking for final sum up quote – what would your message to us and to “the authorities” on this be? What do you think is the most important factor that drives the design of these buildings in a certain direction?