Recommendations for building regulations

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Building is a troublesome business, and for as long as we have had urban life, we have had restrictions on what and how people can build.[1] The oldest extant British regulation dates from 1189, but building restrictions undoubtedly existed a millennium earlier under the Roman Empire. Unlike the planning system, which dates only to the middle of the twentieth century, building regulations played an indispensable role in all the great ages of British urbanism.

Regulations on building are a form of legal coercion, and as with all coercion, we need to think carefully about their justification. In general, building regulations can be justified in two ways. First, they are justified on the basis of the externalities that building in a certain way has on third parties. If I build a thatched house in London, the risk of its catching fire affects not only me, but also everyone else who could be harmed by it. This is why thatched roofs have been banned in London since 1212. Second, they are justified on the basis of information asymmetries. I may not know I am buying a badly constructed house until it collapses. These justifications are applications of JS Mill's celebrated Harm Principle, often seen as a fundamental principle of the liberal state, that individual actions should be coercively limited only to prevent unconsented harms to others.

It is beyond doubt that justifications like these are often successful, and hence that, so far from stifling enterprise or infringing personal liberty, good building regulations make a society *more* free and *more* prosperous. But we must be vigilant to ensure that our regulations are in fact good ones. They must satisfy Millian principles, being justified by the role they play in the prevention of unconsented harms. They must be proportionate, and they must not ban more than necessary.

On the whole, our building regulations do in fact achieve this. They prevent an enormous amount of bad buildings, and they are consistent with nearly all good buildings. Some areas of British development control are in need of fundamental reform, but building regulations are not. They are a basically good system.

However, there are points where our building regulations could be improved. Recent regulations have done some strange things. They have incentivised the building of extremely small windows with extremely high sills, such that people will not be able to look out of their windows if they are sitting down. They have made it difficult to build sash windows, and they threaten to ban dormers. The majority of England's most beloved buildings would violate these regulations. Some of these

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regulations do not seem to prevent any unconsented harms, thereby violating Millian principles of liberal government. Others seem to overlook alternative ways of preventing those harms that would be equally effective without being so constrictive.

Many of the troublesome rules are in a new chapter of building regulations called Approved Document O, which seems to be in need of further refinement. Others are in an existing chapter called Approved Document L. This document outlines a number of these regulations and makes suggestions for how they could be improved, ensuring that England's building regulations remain within the best tradition of liberal governance.

This house in York would probably be inconsistent with Part O rules on overheating (clauses 1.7 and 1.10) and certainly on window guarding (clause 3.9). But should the Government really stop British people from building houses like this if they want to?

Detailed recommendations

Part O (overheating)

- Guard height:
    - ‘Guards’ are window sills, or, alternatively, metal bars or other barriers.
    - Until 2022, guards of openable windows were required to be 800mm above floor level (per Part K).
    - Although there is **no published evidence** that this had caused significant problems, this was raised to 1100mm in 2022 for windows more than 60cm above ground level (in Part O).
    - This would ban most pre-1950 buildings in Britain and make design in many vernacular architectural styles difficult. If builders respond by raising sill heights rather than adding bars, as some already have done, it will generate small and squat windows.
    - Skilled architects have developed workarounds in some contexts (e.g. making lower sashes unopenable so that they count as a guard). But it is not clear that builders at the lower end of the market will invest in them, and early reports suggest that they will not.
    - Sills of 1100mm mean that people will not be able to look out into the street if they are sitting down. Retirement housing specialists say this is a particular problem for many of their buyers.
    - Low sills do not cause significant harms to third parties, nor do they seem to have any features of which homebuyers are unaware. So it is unclear how this can be justified except by appeal to the unappealing claim that the state knows better than the British people what sort of houses they should want to live in.
    - <u>Recommendation:</u> the 1100mm rule should be revoked immediately, with regulations returning to the 800mm rule. Government should consider abolishing this rule altogether as an encroachment beyond the proper remit of the liberal state.
- Minimum free areas
    - ‘Free areas’ are openable areas of windows or similar voids. They help to ventilate buildings.
    - Part O §1 currently sets minima for how much free area there needs to be, which can be circumvented only through doing complicated and expensive dynamic thermal modelling (§2). These minima are for both (a) a share of overall floor area and (b) a share of glazing area. The latter are set at either 55% or 70%, depending on location.
    - This is inconsistent with the use of sash windows, which can never have more than 50% free area. Sash windows have been the most popular window type in Britain for over three hundred years.
    - The fact that sash windows can only be half opened has no significant effects on anyone except the inhabitants of the house, and those effects are known to everyone. It is thus unclear why the Government should partly ban Britain’s most popular window type on account of this characteristic. Again, it seems that any

justification would have to rest on the illiberal claim that the state knows better than the British people what sort of house is good for them.
    - Recommendation: abolish minima for free area as a share of glazing area.
    - Back-up recommendation: failing this, minima for free area as a share of glazing should be reduced from their current levels of either 70% or 55% to 45% or less.
- Glazing maxima
    - Part O §1 specifies various maximum ratios of glazing to floor area. As with rules on free areas, these can be circumvented only by doing dynamic thermal modelling (§2). It is unclear whether this will be financially viable for smaller developers or at the more budget end of the market.
    - Many popular houses have glazing ratios far in excess of DLUHC's maxima. We estimate the overall glazing ratio of the detached Georgian house pictured below at 33%. This is between **two and three times greater** than DLUHC permits, depending on the location and orientation of the building. Do the British people really need to be protected from such buildings by their government? Would it really be a net improvement if this building's windows were shrunk by two thirds? Might the British people be allowed to answer this question for themselves?
    - It is extremely unclear that the state should be regulating glazing maxima to prevent overheating at all. Everyone knows that rooms with larger windows become warmer, and the downsides of this are incurred only by the building's inhabitants. Britain is a free country, and its government should trust people to make their own choices about this: they might well make them better than the government does.
    - Recommendation: abolish glazing maxima. They are illiberal and value-destroying.
    - Back-up recommendation: failing this, raise glazing maxima to be consistent with Britain's popular historic house types. These should never specify whole-house glazing maxima of below 35% or most-glazed-room maxima of below 40%.

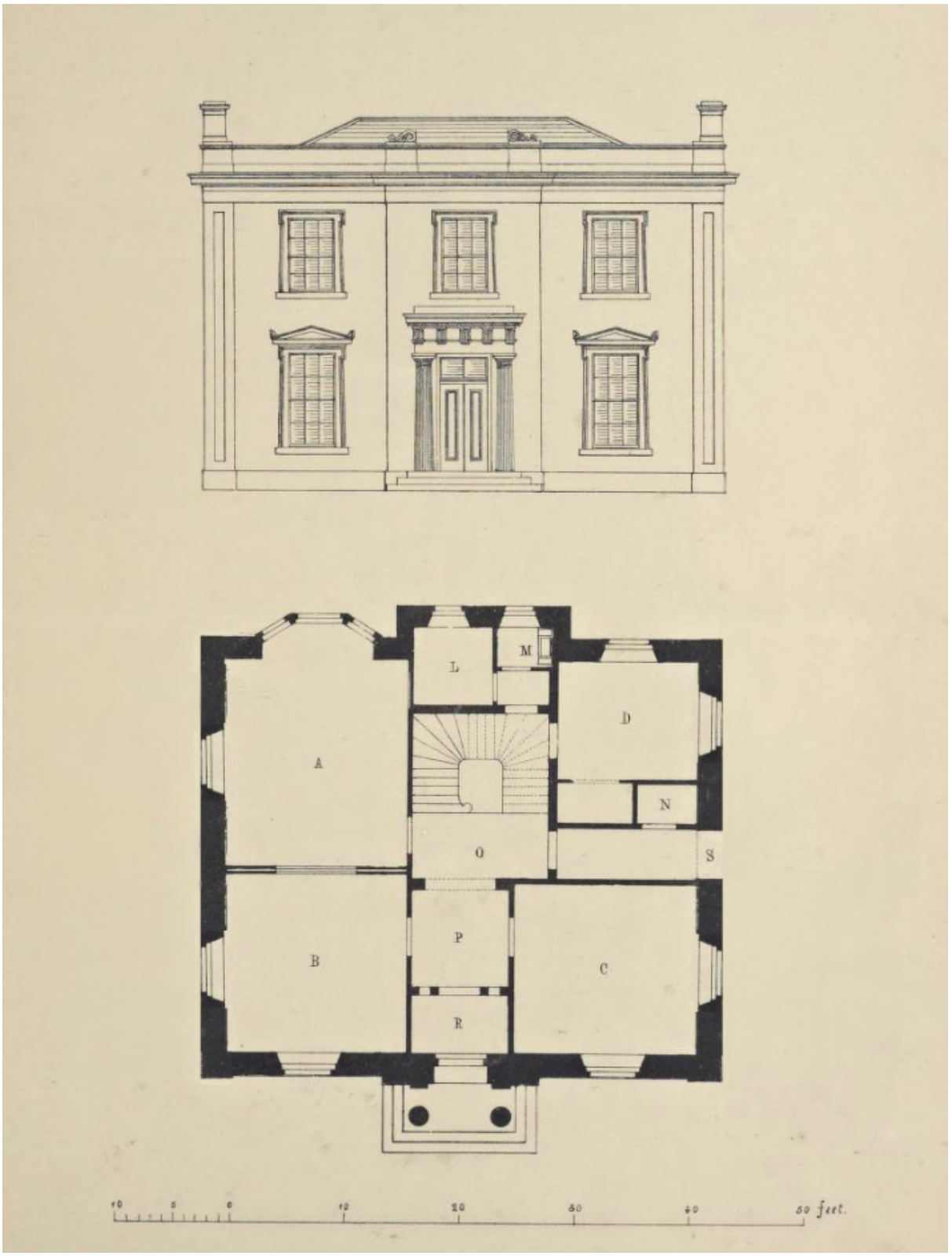
Part L (heat retention)

- Part L specifies various minimum heat retention standards for different parts of buildings. Unlike rules to prevent overheating, heat retention standards are easy to justify in liberal terms, because buildings with poor heat retention consume more energy, leading to more greenhouse gas emissions and hence ultimately to harms to third parties. However, we must still be careful that heat retention rules do not ban more than they need to. Unfortunately, it seems that this may currently be the case.
- Heat retention standards are given in figures called 'U-values', where a lower U-value means a higher standard. If the required U-value for windows is lowered below 1.1, the current best standard of sash windows on the market, sash windows would be prohibited. Such higher standards are the direction of travel in this area, and it is not unlikely that they will be introduced in time. Regulations apparently already threaten dormer windows by counting the sides of dormers as walls rather than windows, making them subject to much higher specifications. Higher standards will probably ban them altogether.

- Current heat retention standards, or even higher ones, may be appropriate: it is certainly no part of this briefing's argument that they are not. However, the way in which they are currently implemented is gratuitously rigid. Allowing offsetting is a principle of good regulation: if people are prepared to offset the heat loss of dormer windows with thicker walls, there is no cost to society or the environment in letting them do so. What is important is how good the building is at retaining heat: we should be as flexible as possible concerning how people meet this standard.
- Recommendation: introduce the option of meeting an overall heat retention threshold for the whole building rather than meeting heat retention thresholds for individual elements of the building. This has literally no downsides and it should clearly be done.

Next steps

- Since we raised the issue of sill height regulations, the Government has announced a review of those sections of Part O. This is extremely welcome.
- The Government should announce similar reviews of the sections concerning glazing maxima and free areas, and it should instruct officials to develop a whole-building heat retention standard.



A detached Georgian house. Estimated ratio of glazing area to floor area: 33%. Part O §1 permitted glazing ratios vary from 11% to 18%.