



the Edge-MHCLG Roundtable

Planning for the Future 30/9/20

Papers & Presentations

Papers were presented by members of the Edge and the Cambridgeshire Quality Panel (CQP).

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1. The Climate Emergency
 - Lynne Sullivan, LSA Studio, Green Construction Board, Adviser to Scottish Government, CQP and Edge
 - Chris Twinn, Principal Twinn Sustainability Innovation and Edge
 - Julie Godefroy, Julie Godefroy Sustainability, CIBSE Technical Manager and Edge
2. Setting the Scene
 - Dr Richard Simmons, UCL and University of Greenwich, Chair of CPRE Policy Committee, Edge
3. Land-Use framework
 - Sue James, Trees and Design Action Group, Coordinator of Futurebuild Knowledge programme and Edge
 - Oliver Smith, Co-founder 5th Studio, Edge and CQP
 - Amy Burbidge, Senior Master Development and Design Manager, Homes England and CQP
4. Coding
 - Prof. Matthew Carmona, UCL and Chair of Place Alliance, author of Design Coding in Practice (2006)
 - Teresa Borsuk, formerly Senior Partner PTE Architects
 - Phil Jones, Chair Phil Jones Associates, member of Design Midlands and CQP
 - Meredith Bowles, Principal Mole Architects and CQP
5. Responses
 - David Birkbeck, CE Design for Homes, Housing Design Awards, Building for a Healthy Life and CQP
 - Simon Foxell, The Architects Practice, Policy Lead for Edge

Climate Emergency Response: the Planning process is key

• STREAMLINING THE PLANNING PROCESS (1)

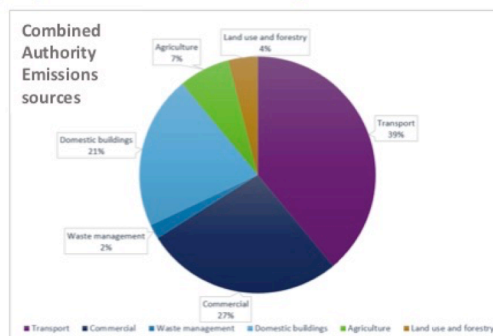
GROWTH AREAS CLASSIFICATION:

Outline consent is a powerful incentive point – must insist on appraisal of AND targets for the SUSTAINABLE DEVELOPMENT TEST

- CONNECTIVITY; AVAILABILITY OF PUBLIC TRANSPORT; DECARBONISATION
- RESOURCE INFRASTRUCTURE: WATER, ENERGY
- ECOLOGY/LAND QUALITY PRIORITY ASSESSMENT

Who bestows the classification on whom? Promoters/Developers? Local Authorities

Are local people involved in the setting of these standards and criteria?



Climate Emergency Response: the Planning process is key

• ENSURING A REFORMED PLANNING PROCESS SUPPORTS MITIGATION + ADAPTATIO

SETTING CLEAR TARGETS AND EMBEDDING THEM IN CODES:

- EXPECTING NEW HOMES TO PRODUCE 75-80% REDUCTION IN CO2 over current practice: The Future Homes Standard urgently needs definition (link with MHCLG buildings regulation) – to be clearly embedded AND support Early Adopters to help cost reduction at scale
- OUTLAW 'GAMING' OF TRANSITIONAL ARRANGEMENTS: Be clear this applies to all new Homes from 2025 onwards – no buts
- DELIVER ACTUAL OUT-TURN PERFORMANCE ON EMISSIONS REDUCTION
Strengthening compliance (cf 'The Golden Thread' from the Building Safety Review)
Aligning with revised SECR requirements (disclosure of actual energy + carbon in use)
'Be Seen' requirements (cf GLA energy reduction targets and monitoring of outcomes)
- BIODIVERSITY NET GAIN: needs clarity on targets, assessment and verification
- OVERHEATING MITIGATION: success or failure can be determined at Planning stage: buildings siting, glazing, appearance; provision of microclimatic mitigation; etc

NB To deliver on 75-80% reduction in CO2 energy demand needs to reduce through efficient fabric and systems (cf Buildings Mission report from GCB) and be expressed as kWh/m2 to compare with big data checking of actual energy in use.

Then local access to decarbonised grid, local energy storage and management, decarbonised heat networks etc need to be set out



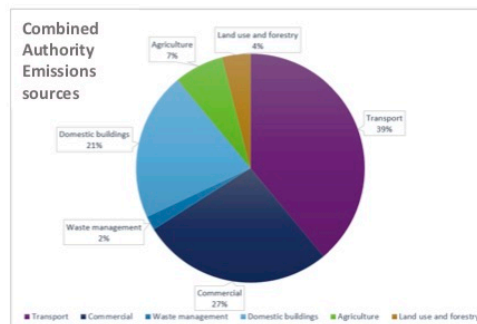
Climate Emergency Response: the Planning process is key

- REFORM OF DEVELOPER CONTRIBUTIONS TO IMPROVE INFRASTRUCTURE DELIVERY (4)

EMISSIONS IMPACTS OF INFRASTRUCTURE MUST INFORM CRITERIA FOR PROVISION:

- DECARBONISED TRANSPORT: ELECTRIC VEHICLE CHARGING INFRASTRUCTURE
- PUBLIC TRANSPORT, ACCESS TO AMENITIES
- POTABLE WATER MANAGEMENT:
- RENEWABLE ENERGY INFRASTRUCTURE

A macro assessment, not a site-by-site response; support streamlined levy possibly based on development land levy.



Climate Emergency Response: the Planning process is key

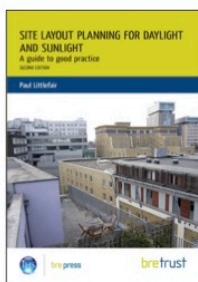
VIEW FROM BOTTOM UP

1. MANY TECHNICAL ISSUES IN PLANNING APPLICATIONS CAN BE PRE-CODIFIED

- Currently too many project specific overblown technical reports
- Planners supposed to make judgement on acceptable failure rates, this has been lost in a hollowed out planning system.
- Instead, daylight, overheating avoidance, energy, wind, light pollution, acoustics, etc., ALL dwellings to achieve default pass - not current woolly undefined levels

Hence fenestration should vary – as Victorians realised – larger on lower floors if less daylight + smaller at higher floors with solar overheating

- BUT current codes are well out of date



Eg: Daylight - 1970's expectation of daylight into kitchen table in centre of room based on a semi – but now cupboards over worksurfaces deep into an apartment makes this a nonsense.

Beware, aspects like road design are already highly codified, but are having to be gradually eroded as the planning system tries to humanise streets

Needs investment in getting the codes right.



Climate Emergency Response: the Planning process is key

VIEW FROM BOTTOM UP

2. OUR CODES PREPARATION IS DOMINATED BY THE KIT SUPPLY CHAIN - INSTEAD OF DRIVEN BY HOLISTIC DESIGN THINKING

- How do we fund coding Holistic Thinking, instead for relying on suppliers' marketing budgets

As illustrated by Part L: Why add shower WWHR at £1200 in new Part L instead of £50 for EU rated high performance shower heads!

Why add shading kit for new Overheating code – instead of getting window sizing right for daylight – and also lowers the costs!

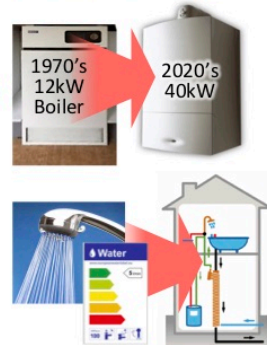
Why are we installing 30kW domestic boiler kit when 25 years ago they were 12kW?

Invest more fabric-first for new-build - so internal heat gains match fabric loss (Heat Autonomy). And capture cost savings of smaller heating system costs, less energy losses and reduces bills.

Buildings to focus on reducing energy demand - not carbon, which is dictated by the energy supply industry

Why focus on over-hyped district heating for new-build – when this capital gets higher carbon benefit when used on our difficult to upgrade existing stock!

How can the planning system help out existing stock when planning is about land use and change of use?



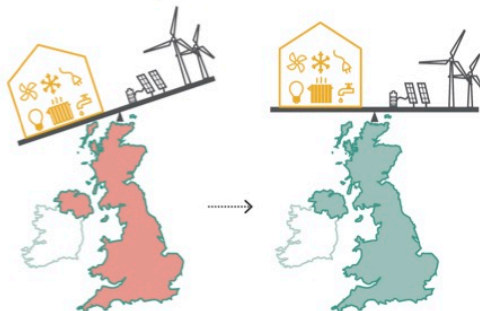
Climate Emergency Response: the Planning process is key

VIEW FROM BOTTOM UP

3. LOCALLY APPROPRIATE CODE TRAJECTORIES ARE KEY TO PUSH INDUSTRY'S CLIMATE CHANGE RESPONSE

- Given speed of change needed, we need every tool possible to help supply chain
- National lowest common denominator codes are driven by the least prosperous areas
- Loses benefit of trickle-down from pathfinders driving industry to develop technology and bring costs down

Now seeing 85% better than Part L (as well as bills down by 40%) at zero extra capital cost in leading regions. Meanwhile draft Part L is only 21/31%.



Balancing energy demand against future energy production

We must capture this locally driven process of continuous improvement

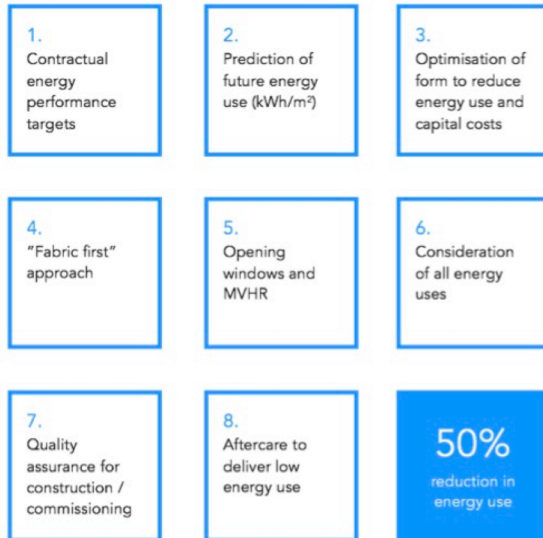
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Climate needs it



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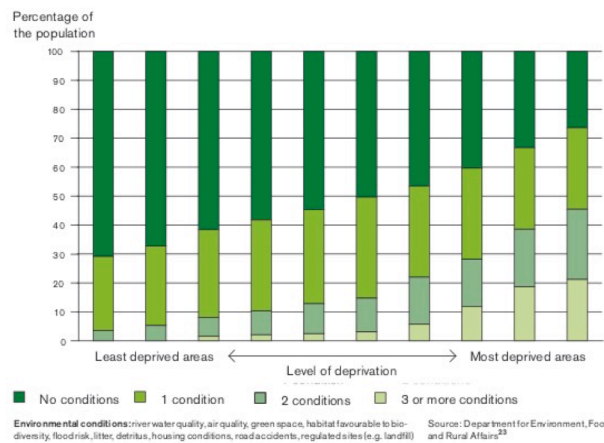
WE KNOW WHAT WORKS (FOR NEW BUILD AT LEAST)



Climate Emergency Response: the Planning process is key

LINKS BETWEEN ENVIRONMENTAL AND HEALTH & WELLBEING STRATEGIES

HEALTH INEQUALITIES



Ref: Marmot, 2010



➤ Key role of planning in both environmental and health outcomes



Climate Emergency Response: the Planning process is key

- **IMPORTANCE OF EARLY DECISIONS**

Local plan level: Site location, mix of uses

Scheme level: site layout, building layout etc ..

- Improve outcomes
- Improve resilience
- Reduce complexity, and possibly capital costs



- Need for resources at strategic and early design stages
- Need for cross-disciplinary outlook at local plan & scheme level



Climate Emergency Response: the Planning process is key

- a clear framework towards Net Zero carbon

Currently: reliance on Part L

- ✗ Not a real-life prediction
- ✗ Not directly verifiable in-use
- ✗ Relative target, moving in time and across buildings: trajectory and comparisons are unclear / impossible

What we need towards Net Zero carbon

- 1 – Enforceable and verifiable
- 2 – Clear end goal, dual objectives:
 - Reduce energy use (annual & peak)
 - Be consistent with transition from fossil fuels
- 3 – Clear trajectory, allowing steps & leadership within consistent framework

- Allow leadership from local authorities, where viable
- Cut carbon sooner and help the rest of the market
- Resources in enforcement, monitoring, and improvement loops
- Planning & Building Regulations departments to work together



SETTING THE SCENE**A planning system for the climate and biodiversity emergency****Dr Richard Simmons****Planning for the Future**

This paper asks how we would know if we had a planning system fit for purpose to help tackle the climate and biodiversity emergency.

The Planning for the Future White Paper (PWP) offers a much-needed opportunity to rethink English planning. The system is not fit for purpose. That isn't just the conclusion of this Conservative government. Former Labour planning minister Nick Raynsford's 2020 review for the TCPA reached the same conclusion, with different recommendations for action.¹

The PWP says the new planning system will 'address the challenges of climate change' and 'improve biodiversity'² as two of its numerous goals. It goes on to propose significant deregulation of planning. Deregulation is usually intended to wrest the dead hand of the state from the market's throat. Once liberated, the market will innovate, respond naturally to demand and deliver what society needs.

Real estate markets can be an amazingly efficient way to mediate development, but they are a long way from being the 'perfect market' of economic theory:

- They are geographically constrained and local, so consumers and developers have fewer opportunities to substitute products than in, say, markets for mobile phones or cars.
- Land is a scarce commodity, so entry into the market is costly and beyond the reach of many citizens.
- There is considerable inertia in the market because buildings and infrastructure are fixed assets which are expensive and difficult to repurpose or replace.

A common result is that property markets produce undesirable unintended consequences if they are not guided by the community, at least to some extent. This communal guidance is provided through regulation by the planning system and building control, and by public investment and taxation.

Two recent examples where inadequate regulation produced unintended consequences are:

- Enabling the market to decide how to convert offices into homes using permitted development rights led to people living in rabbit hutch homes, sometimes even without windows.³
- Giving housebuilders their head led to swathes of hideous, badly laid out housing estates.⁴

These two examples of market failure illustrate that poorly regulated real estate markets do not protect adequately either private interests (residents of rabbit hutch apartments) or the public interest (ugly housing estates) without community guidance. Compensating for actual and potential market failures is one of the most important functions of any planning system.

¹ <https://www.tcpa.org.uk/Handlers/Download.ashx?IDMF=30864427-d8dc-4b0b-88ed-c6e0f08c0edd>

² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/907956/Planning_for_the_Future_web_accessible_version.pdf

³ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/902220/Research_report_quality_PDR_homes.pdf

⁴ <http://placealliance.org.uk/research/national-housing-audit/>

The climate and biodiversity emergency

The climate and biodiversity emergency is a market failure on a massive, global scale. Like most pollution crises, global heating from human release of greenhouse gases (GHG) results from the facility of markets to charge the consumer less for satisfaction now, while transferring the real costs of consumption to the rest of us: negative externalities in economists' jargon. This is another reason the rest of us need a say in what property markets decide. They don't just have to work for, say, the individual house builder and buyer. We all pay the price if those two agree a price for a product that pollutes – and make no mistake, GHG emissions are pollution. The biodiversity crisis is linked to the climate emergency. It also has roots in the impact of increasing human populations, and the failure of markets to value properly the long-term utility of natural systems over the exploitation of land for primary resource extraction and production of consumer commodities.

So, if the government wants a new planning system that 'addresses the challenges of climate change' (or the 'climate emergency', as Parliament designated it in May 2019) and 'improves biodiversity', how would we know if it would actually achieve those objectives? I propose ten tests, based on four propositions necessary to address these market failures:

1. Bring GHG pollution down urgently.
2. Deal with the fact that the quantities of GHG already in the atmosphere mean we have to adapt to climate change and try to mitigate global heating.
3. Acknowledge that the built environment and its associated transport are significant generators of GHG in construction, use and disposal and can also be deeply damaging to biodiversity and act urgently to change that.
4. Value natural systems for their capacity to sustain ecosystems, including our own.

Ten tests for a climate emergency planning system

1. **Strategic focus:** Does the system mandate a strategic focus on the efficient use of land, buildings and natural resources? Real estate markets alone can't do this because they are inherently local and limited in scope. Resource efficiency is a wider than local issue that goes beyond real estate's field of interest. A strategic focus would consider land uses and their impact on resource efficiency and biodiversity at a larger than local (sometimes even national) scale and in the round, not, for example, make its primary target house building. It would call for reuse of brownfield land (as the PWP does) but then say how that will be given priority over softer targets like greenfield sites. It would designate and develop strategic biodiversity corridors and reservoirs.
2. **Evidence-based decision-making:** The PWP proposes strengthening the role of local people in deciding the content of Local Plans and design codes, then reduces or removes their role in decisions about specific schemes. Local democracy can be challenging, especially when it is oppositional. The climate emergency requires all decision-makers to be well informed about some quite technical issues. Experience with citizens' assemblies, panels, charrettes and the like shows that well-informed citizens can be good decision-makers.⁵ A planning system aimed at the climate emergency would invest in active citizenship by people it had helped to make well versed in the subject matter, giving them appropriate roles throughout the development process.
3. **Integration of infrastructure and land use planning:** Getting infrastructure right is critical to adaptation and mitigation. A system that separates land use and infrastructure increases the risk of getting things wrong. For example, there is an emphasis at the moment on providing large scale renewable electricity generating capacity at the same time that new building and energy technologies are making it possible for homes to be close to self-sufficient in energy generation and consumption. Integrating Green Infrastructure into the infrastructure and land use planning mix would create opportunities for adaptation, mitigation and recovery of biodiversity. The situation is not helped by Whitehall silos but fully integrating land use and infrastructure planning would be a key test of climate emergency fitness for purpose.

⁵ <https://www.climateassembly.uk/news/uk-path-net-zero-must-be-underpinned-education-choice-fairness-and-political-consensus-urges-climate-assembly/>

4. **Town and Country Planning:** Climate emergency planning recognises the countryside as an intrinsically valuable asset because of the powerful potential for natural capital and green infrastructure to support mitigation and adaptation and, of course, to reinstate biodiversity where it has been degraded. The countryside is where our food is grown, the substrate for trees, hedgerows and other ecosystems that sustain our lives and those of other plants and animals, the provider of flood defences, a counter to overheating cities and a source of immense wellbeing. The PWP goes some way towards this but its language of zoning for development is active and assertive – Growth and Renewal. For the countryside it is passive and defensive – Protected. If the countryside is being valued at its true worth it won't just be protected: its value in the climate emergency will be understood and enhanced through explicit policy and practice.
5. **Transparent integration of planning and building control:** The respective roles of planning and building control need to be complementary, and transparently described. Both are important for reducing the impact of the built environment on the climate. They need to be thought through together from a risk management perspective. Then they need to work in an integrated way, each doing appropriate work towards common goals such as a more ambitious target date for zero carbon homes (new and retrofitted) and better ways to deal with the impact of extreme weather events.
6. **Environmental assessments that are as complex as necessary but no more so:** The PWP proposes simplifying environmental assessments. They need to be sufficiently sophisticated to establish the impact development will have on the climate and on ecosystems and biodiversity. Echoing point 5 above, they need to state the environmental risks imposed by a development, and any compensating benefits. The goal must be a positive effect on the climate and on natural environments.
7. **Put nature and sustainable design first:** If mandatory design guides and codes become part of the new system they must put nature first and mandate sustainable design. Nature first because sustaining and restoring the natural environment is one of our best hopes for surviving the climate emergency and is also the key to reversing species decline. Sustainable design because we have to turn back the tide of GHG pollution from our built environment.
8. **Integrated movement:** A climate emergency planning system must integrate movement, not assume that transport and travel will be taken care of by largely separate infrastructure planning and operating processes. Planning must enable the movement of goods and people more sustainably. Covid-19 has changed the economics of public transport and the attractiveness of the car for now; but the need to address the climate emergency by getting people out of cars, and building places that are easily accessible by public transport, walking, wheelchair and bike will not go away. The 15-minute city is still going to be a necessity and the planning system needs to facilitate it through movement plans that work in the real world.
9. **Clear GHG and energy use reduction targets, and goals for restoring biodiversity:** The government is committed to achieving net zero carbon by 2050 by reducing or sequestering GHG emissions. At the moment the English planning system is being driven largely by the need to accommodate housebuilding targets. A climate emergency and biodiversity planning system would begin instead by setting targets for reductions in GHG emissions and energy use from the built environment, including travel, then say what tools the system would use to achieve them. It would say what the system's goals were for recovering natural environments and reversing species loss.
10. **Follow-up:** Point 9 is pointless if nobody is checking what gets built and what impact it has on the environment. Planners, architects and engineers don't always get their calculations right. If we don't learn from evaluation in use we can't improve what we do in future. Resources in the planning system for follow-up have always been meagre. A climate and biodiversity emergency system would have them built in from day one.

Conclusions

This starter for 10 could become a starter for many more. It doesn't talk about the Agenda 21 mandates around social and economic equity, which would bring in affordable housing and land ownership. Nor does it say anything about how the system acquires, maintains and updates skills; nor about primary resource extraction and waste reduction.

Still, it offers a starting point for looking at the PWP from a climate and biodiversity emergency perspective. At the moment the PWP doesn't meet all ten tests. Where there is movement in the right direction it doesn't yet meet them sufficiently. Some conflicting objectives are unresolved. But the PWP describes only the skeleton of a system and a few of its major organs. A lot more work is needed to put flesh on the bones, so there should be scope to discuss how best to achieve planning's climate change objectives. Ideally, one would want the government to make ending the climate and biodiversity emergency the first priority for the new planning system. Failing that, the more of these tests that the system can meet, the better for our shared endeavour of overcoming global heating.

The opinions in this paper are the author's own. They do not represent the views of any organisation with which he is associated.

30 September 2020

LAND USE

The case for a Strategic Digitised Land Use Framework for England

Sue James

- All our actions and decision making, including 'where', 'what' and 'if' to build, going forward must be in the context of
 1. Responding to the climate and ecological emergency
 2. Delivering the UN Sustainable Development Goals by 2030 (a UK government commitment)
 3. Meeting the needs of future generations as per the definition of sustainable development in the NPPF.
- We need to be very clear about the above as the key outcomes of a better planning system.
- Future planning decisions must be evidence based. This data-led approach can rescue us from a trend in the past years that has pushed environment (carbon, biodiversity and habitat, water, air quality, sustainable transport, etc.) into second place. If we are smarter about how we do development, technology can help us to make the right decisions.
- Clearly a starting point is to have the evidence on the ground – what have we got?
- The Planning White Paper expresses enthusiasm for digitisation for planning
- Can we be more ambitious? Could we have a National Land Use Framework (or whatever we would like to call it) for England? (These are available in Scotland and Wales)?
- There are many datasets already available, and more in development, so that we can digitise information/mapping across the natural, economic, social and cultural environment so that we know what we have over a range of critical issues and can add layers to identify possible conflicts, greater opportunities and generally support evidence based planning and decision making.
 That way we might at least avoid development in flood plains with no access to public transport or services beyond those that can be sustained in the local area, outside areas of employment, in areas of water shortages and even on prime agricultural land!
- However, this information needs to be open data and not in proprietary formats, so that it is possible to use applications that provide the user with maps and other graphical representations.
- By overlaying different datasets on base maps, by using digital means to model alternative approaches and enabling people to see the consequences, a more cooperative view of planning begins rather than one which is adversarial and too much about local people against developers. Less time is taken by councils have to read long documents produced by developers arguing their case. Maps and open source data properly presented makes all the difference.
- Digital mapping and a commitment to evidence-based planning using data in the public domain, would cut out many long stages in the Local Plan and planning application process. If used at the early stages (site sifting and site selection), working cross-boundary, cross authority, the right locations for development would be assured, and in the process environmental damage and choice of unpopular sites or construction of car-based sprawl far from jobs, would be avoided. Infrastructure would be designed and specified in the context of wide area maps and new development – an integrated approach.
- About 8-10% of land in England is classified as urban. However much of what happens in the other 90% can influence urban environments. Has the time come to regard the entire country as an ecosystem and to support future resilience by taking a 'one plan' strategic approach to our land use?

A Digital Land-Use Framework to address the Wider Climate and Biodiversity Emergency

Oliver Smith

The UK is one of the most nature depleted countries in the world.

While the digital land-use framework may have been conceived as a tool to deliver a better, more informed, and more joined-up planning process, I believe that this can be a vital tool in addressing the wider climate and biodiversity emergency.

It seems to me, as a representative of both 5th Studio and the Edge, that, as a nation, we are going to struggle to deliver zero carbon and the required environmental improvements (let alone protect and restore 30% of the land in the UK – as the Prime Minister recently promised - though this is only 4% more than the 26% already comprising the National parks, areas of outstanding natural beauty and other protected areas) unless we stop addressing the issues in an incremental and piecemeal way and begin to think about and manage our depleted natural environments - our natural capital - as complete ecosystems.

We are going to have to work across administrative and departmental boundaries to do this and we are going to need to know what is happening, where, by who and for what.

We need a complete multi-layered digital, land-use framework.

As the Ministry of Housing, Communities & Local Government, your department, MHCLG is in pole position both to deliver this framework and to coordinate the multi-agency approach required.

As an illustration of how a land-use framework can enable the restoration of our natural environment and biodiversity – and accepting that the ecosystems and economies of the uplands, coastlines, cities and towns, and agriculture all need urgent attention, I want to talk briefly about rivers because these are most easily imagined as ecosystems – they have defined catchments, watersheds, and beginnings and ends.

In September this year, the Environment Agency reported that no river has achieved good chemical status, suggesting pollution from sewage discharge, chemicals and agriculture are having a huge impact on river quality. In 2016, 97% of rivers were judged to have good chemical status, though the standard of tests used this time was tougher and just 14% of English rivers are of good ecological standard

There has been no improvement in the state of English rivers since 2016 when the last data was published, despite government promises that by 2027 75% of English rivers would be rated good. The data shows only 16% of waterways – rivers, lakes and streams – are classed as in ecological good health, the same as 2016.

Despite their obvious singularity, rivers have always formed administrative boundaries – between countries, counties, and boroughs (in our own work on the River Lea – a historic boundary between the Anglo-Saxon world and Danelaw – and now the edge of at least four London boroughs). The activities along rivers from source to mouth have also been siloed between different government departments and agencies responsible in un-joined up ways for different aspects of a single problem. In the case of the Lea this involved the Lea River Park Authority, Natural England, the Environment Agency, and British Waterways.

The inefficiencies inherent in working between different authorities with different mapping standards, policy objectives, databases records of land ownership, use, asset locations, etc not only make holistic policy making difficult but very, very economically inefficient.

MHCLG should take the lead not only on assembly of the evidence base to enable the cross-authority, strategic management of rivers.

At present, the following government departments and agencies are responsible for – and, in places, fund – the following activities with regard to rivers:

MHCLG – planning policy and strategies for development in cities, towns and villages along rivers and, more critically, in flood plains,

DEFRA – farm subsidies and replacement for CAP (ELMS)

Forestry Commission – forestry and woodlands

Environment Agency – flood control (Drainage and dredging),

Regional Water Authorities – water extraction and purification, sewage treatment, and pollution control

Natural England - protecting nature and landscapes for people to enjoy and for the services they provide

Canal and River Trust – look after and bring to life, 2,000 miles of canals and rivers

The piecemeal and siloed nature of this management approach results in these responsibilities being seen only as costs.

- A recent project in Somerset – the Exmoor Mires Project – showed that the conservation and enhancement of the peat bogs at the head of the Exe River generated benefits equivalent to approximately 8x the costs
- The background to the 2014 floods in the Somerset Levels illustrate the kinds of un-joined up thinking that lead to payment of subsidies to farmers from the public purse for practices that lead to silting up of rivers - causing floods, the damage and costs of which had then to be remediated - by a different agency – but again from the public purse.

The restoration of our rivers will require us to:

- Protect and enhance peat bogs and upland catchment areas
- Stop farm pollution and soil wash-off
- Reduce phosphorous run-off and other agro-chemical emissions into watercourses
- Stop storm overflows putting sewage into rivers
- Manage abstractions
- Address leakage
- Stop industrial pollution and remediate river water and beds (from historic heavy metals in base silts to current oestrogen levels in water)
- Limit surface run-off in built up areas (flooding + contamination)
- Control flooding
- Open up access for leisure and recreation to realise the economic, psychological and other benefits of this important natural capital.

Delivery of these objectives requires a ‘systems’ approach with a single body – a System Controller (in the parlance of electricity ecosystem - the National Grid). This body would be responsible for each river from source to mouth, collaborating with all of the central and local government departments and other agencies in consideration of the catchment as a whole with identification of inputs, influences, and outputs, and a rationalisation of the financial costs and benefits of the whole system.

Restoration of our rivers is going to require pro-active strategic planning and this requires, as a starting point, the sort of coherent, consistent, evidence base that the Land Use Framework plan will provide.

I should say that these notes take as their starting point the great work by Dieter Helm in Oxford and as Chair of the Natural Capital Committee.

Oliver Smith, Director, 5th Studio, member of the Cambridgeshire Quality Panel and member of the Edge

How would a Digitised Land-Use Framework benefit local areas?

Amy Burbidge

- **Resources** will be an issue for local authorities. The more that can be done digitally from the centre, the better, as this would free LPAs up to do the necessarily local stuff (community engagement, physical visits etc and application of the knowledge into local coding)
- **Local:** At a finer grain, local level, a combined digital base map containing all natural, ecological, socio-economic, demographical, cultural & heritage, infrastructure, pollution, agricultural, climate change impact, and hazards information would be part of that work to determine the local character and opportunities analysis.
- **Model Design Code** – local authorities should undertake local analysis to build up map layers on the lines we are suggesting – these will be the large scale, fine grained information maps.
- There are also local models to build on – we don't have to reinvent how to do it, just extend it to be congruent and accessible whichever local area you are working in. For example:
 - Space syntax tombolo project which is a digital connector that tries to make all the different mapping systems talk to one another through a map base
 - Essex County Council are doing a walkable neighbourhoods model which is really interesting. They are pulling together all their existing requirements (around schools, playing fields, access to social facilities etc) both in terms of the amount of space, but other spatial requirements. They are then putting them into an imaginary spatial plan to see how they can ensure that new communities are walkable neighbourhoods and using this to interrogate their requirements (so could they require more remote parking to free up public realm, look to stack uses on top of one another, require school sites to be less of a barrier to movement etc). Also to make it easier for developers to have all the requirements in one place as so much time is spent by developers just trying to find out what is the standard, and where are the trade-offs. Key contact is Pete Dawson at ECC.
- **Planning applications:** Finally, this should all be linked to planning applications too – so that they contribute to the emerging digital map.
 - If every time an applicant did a design and access statement, it had a digital map which set out the useful context analysis, you would start to build up really nuanced picture of the places in question – even down to a decent photo record, and ecology surveys, which would be much more fine grained and the cost would be split between applicants (and they could piggy back off previous work so consultants get paid when they add something new, not just to copy and paste what others have done before).
 - It could be a requirement of DAS that they are digital and that opportunities and constraints mapping and evidence behind it is publicly available for others to use. Euan Mills has done a lot of work looking at this, and is now in central Government so that's hopeful.


Amy Burbidge, Senior Design and Master Development Manager, Homes England and member of the Cambridgeshire Quality Panel

In summary – our recommendation


As Oliver has set out, it is clear that we need to tie together government departments in order to deliver pro-active strategic planning and this land use framework proposal provides an evidence base for this.

Codes and climate change


Matthew Carmona
@ProfMCarmona



The power of zoning



The power of coding



No panacea – good and bad codes

- Site-specific Design tool
- Flexible (as site by site)
- Tangible (real places)
- Gradual (as sites come forward)



- Generic Regulatory tool
- Inflexible (as city by city)
- Abstract
- Big bang (when plan adopted)



Both effective, but...



Site-specific codes the most effective tool at delivering good design

5X more likely to be in good/very good than poor/very poor categories

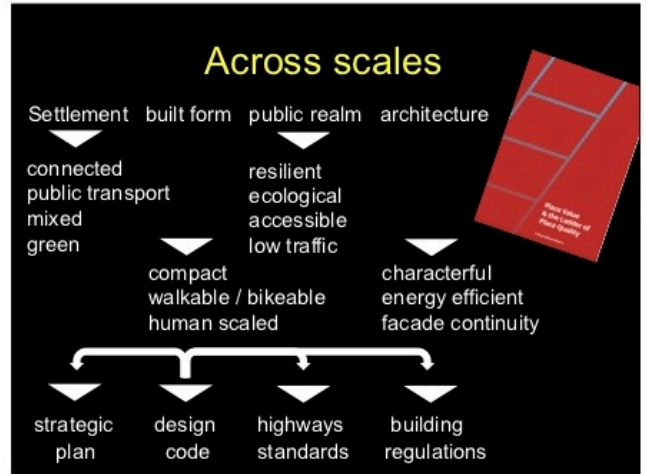
They guarantee a designer's hand

Climate / ecological crisis needs



sustainable urban design

An integrated concern, infusing all other dimensions



- ### Today practice varies hugely
1. Control freakery
 2. Everything but the kitchen sink
 3. Integrated essentials

Control freakery

(obsessed with aesthetics, not climate change)

Everything but the kitchen sink 1.

(sophisticated and detailed climate change provision – area by area)

Code	Area	Code
1
2
3
4
5
6
7

Site-wide codes
Seven character areas
303 pages

Everything but the kitchen sink 2.

(sophisticated and detailed climate change provision – type by type)

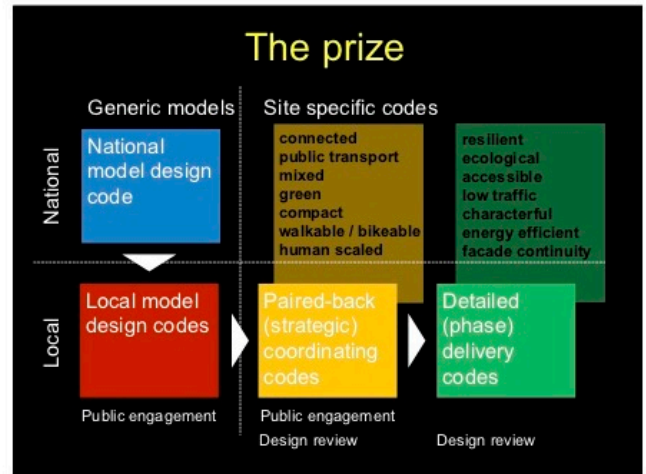
130 pages
Very clear mandatory and advisory elements

Land use
Movement
Street types
Build Form
Public realm and open space

Integrated essentials

(paired-back, with integrated climate provision – area and type)

The image displays a 'Design Code' document with a table of specifications, a site plan showing building footprints and green spaces, and an aerial photograph of a completed residential development with a central green area.



Thank you

@ProfMCarmona

CODING

Teresa Borsuk

Focus from the point of view of having written Design Codes/worked with several Design Codes

Yes, Design Codes can help us to deliver on the climate change agenda.

Codes can demand increased standards generally/up the game/improve on Regulation – speed the process to 2025...and beyond

Best if their aspirations can be embraced holistically into the overall vision/ambition for a development

As they were at Eddington/North West Cambridge – where the codes demanded:

- *All homes to achieve Code 5 standards/BREAAM Excellent*
- *A underground waste and recycling disposal system*
- *A district heating network*
- *A water-recycling system,*
- *Biodiverse green and brown roofs to slow rain run-off,*
- *and swales for storm-water run-off*
- *sustainable habitats for wildlife.*

CHALLENGES/LIMITATIONS

How Design Codes are delivered.

- The Government expects masterplans and Design Codes, Design Guides to be prepared by the Local Authority or site promoter to provide the framework for future RMAs
The aim also is to get much greater input, ie meaningful engagement from local communities
In renewal areas – Codes will only be given weight in the planning process if the Local Authority can demonstrate that they reflect “locally popular” views
- Who will produce Design Codes in practice?
There’s to be a new national agency to support Local Authorities
All Planning Authorities are to appoint a Chief Officer responsible for design/place-making
There’s a question of where and who re appropriate skills and resources
- How will early meaningful community engagement be implemented?
Again what are the skills, time and resources needed?
- There will be National Model Design Codes produced (by this autumn). Local Design Codes and/or Site Specific Codes will be based on these and the National Design Guide and Manual for Streets)
- Local Plans are to be reviewed every 5 years.
What is the life of a Design Code? How and how often are they to be refreshed?

CLIMATE CHANGE SPECIFICALLY

In the PWP, Design and Sustainability are intertwined. The new planning system is expected to effectively address climate change mitigation - and homes to be ultimately Zero Carbon Ready

Also refers to Future Homes Standard (to be introduced by 2025)

- CLIMATE CHANGE. Coding for climate change could require Local Planning Authorities to insist on higher standards of energy efficiency.
How ambitious will they be/can they be in reality?
Consider this in combination with the challenge of delivering quality / beauty/achieving the housing numbers imposed/affordability and viability. Inevitably there’s a fine balance between needs and constraints

Climate change coding won't happen if it restricts the potential or limits development.

Eg on more difficult/lower value sites – where viability is borderline – where development will be too expensive to deliver and so won't attract developers or buyers

(NB Eddington build costs +20%/sales costs and a slow sales' take up– required a specific market)

- **PRESCRIPTION/FLEXIBILITY.** Codes need to provide the right balance between prescription and flexibility –
i.e. prescriptive enough that they are followed and delivered – *Robin wants me to quote my experience in South Cambs where we were encouraging against prescription (mostly because it can end up as a box ticking exercise) – and the Housebuilders architects were demanding it – otherwise only the lowest common denominator will be delivered*
ie codes should be flexible enough to deliver alternative solutions that are equally valid – ie where departure can be justified and represent an improvement – without having to go through the coding process again
- **DELIVERABILITY.** Ensure that there are not competing and conflicting requirements – eg adequate natural ventilation/passive house/noise and air quality
- **CONSISTENCY ACROSS THE COUNTRY.** In the light of the above, it's difficult to see how Climate Change mitigation will be played out consistently across the country. Does that matter?

THE REALITY, eg SPECIFIC ISSUES

- **THE CAR:** promote environmentally friendly and sustainable modes of transport (nb need to address the challenge of accommodating the car – for the now/the future, consider the built-in obsolescence)
Very emotive subject generally – and often conflict between consideration of sustainability, planning policy and the community. – as well as developers and some buyers. How is this resolved?
- **APPEARANCE.** Daylight/sunlight/heat loss/size of windows/appearance
- **MATERIALS** select materials and processes with fewer carbon emissions over their life cycle, ie in their construction, occupation and demolition
Again, **COST/AVAILABILITY/VIABILITY** (are today very real and current issues with specific materials and PI insurance post Grenfell)
- **MMC** – numbers of homes being delivered still exceedingly low. The skills shortage/ the low outturns making this so.

To conclude

MONITORING/POST OCCUPANCY EVALUATION AND REVIEW

To be more meaningful codes need to be monitored during delivery and beyond/post occupation?

Teresa Borsuk

CODING

Phil Jones

Transport

Transport and land use planning are intrinsically linked of course. But more importantly for today - transport is a huge contributor to carbon emissions – largest slice at 39% on Lynne's first slide.

DfT is addressing this through its Transport Decarbonisation Plan which we will see in the run up to COP26 – but astoundingly there's nothing in the current draft about the planning system. It's almost as if PPG13 never existed.

We know the present system fails to deliver development that will help us to meet decarbonisation targets. Much new housing is almost entirely accessed by car, caused by the separation of land uses; the lack of connectivity and provision for active and public transport; and streets and spaces that prioritise car use.

The key question for this part of the discussion is to what extent the greater use of codes will address these issues?

But first - its striking that while the White Paper says a lot about Streets it says nothing about the role of highway authorities - in the crucial step of identifying which areas should be zoned for growth in the first place and the relationship with infrastructure – and then to develop binding design codes that guarantee highway adoption; even though improving the quality of streets is correctly identified as one of the key issues to be tackled in raising quality.

It's great news that Manual for Streets is being revised and is seen as essential to addressing the problem. But I have doubts that will be enough to tackle the underlying problem of the reluctance of highway authorities to do better; to think beyond accepting the car populism and minimising future maintenance liabilities, which are the main reasons we continue to see car-based development.

Perhaps the new Quango Active Travel England - which came from Gear Change, the cycling and walking policy published in July - will help. Gear Change says ATE will use the sanction of highway funding to enforce the use of new Local Transport Note 1/20 – can that approach be extended to Manual for Streets? I also note that ATE will be a statutory consultee on planning but it's not clear how that will work under the new planning system.

Good, site-specific design codes can deliver buildings, streets and public realm that do enable people to make sustainable transport choices but they require considerable investment of time and effort. Even if the political and technical motivation is there, highway authorities must be given more resources to put in the time and effort needed to create distinctive and sustainable places; and to accept the potentially increased maintenance costs associated with (for example) trees in every street. I question Chris' idea that all we need to do is change the road codes to make deliver more human streets. If we don't want all buildings to be the same, we don't want all streets to be the same.

And we also need to recognise that to create places that are sustainable in transport terms needs thinking that goes well beyond the site boundary. Codes can dictate the point at which a new connection is needed, and how it's designed within the site but won't be able to make sure off-site highway improvement properly accommodates cycling. The planning white paper implies that transport impacts can be dealt with as just another form of data but there are real political choices in how transport networks cope with development that go well beyond a simple algorithm.

What Lynne called for are overarching measurable outturn targets that can be built into the sustainable development test – how can that be done for transport? – Could it be through measuring accessibility, mode share? Such an approach would need to be addressed in an improved Transport Assessment process that goes beyond mitigating highway capacity impacts.

So in summary – yes, a greater use of well-constructed codes can and should be a positive step – but delivering new development that helps reduce the transport carbon impact of new development will require much deeper changes to the existing system, and one which in particular recognises the pivotal role of highway authorities.

Phil Jones

CODING

Meredith Bowles

I'd like to address some of the issues that we see as a Quality Panel. We're often assessing schemes that come forward as detailed applications at the end of the process- which I suppose is a witness of the degree to which a Code can control quality.

- 1 Our experience of evaluating individual plot development-mostly by the big national housebuilders- is that schemes are generally designed around pre-existing standard house types, arranged as a kind of jigsaw puzzle to see what fits. By and large affordable housing is relegated to a corner of the site and surrounded by a car park. Design Codes in our experience offer a pretty meagre method of control. Taking a legalistic view, it's often possible to take a poor scheme and show how- arguably- it accords with the Code.
- 2 Frequent issues are: lack of connectivity to surroundings, or much thought about anything other than the particular plot and role the plot plays in the larger picture; preponderance of on-plot or car court parking; a confusion over rear entrances from parking courts and apparent 'frontages',- what we refer to as the Amazon delivery driver test; and ownership and maintenance of street trees and planting

Now, there's cause for some scant optimism in the White paper, in that it dangles the possibility that masterplans and Codes could be delivered by *local authorities* rather than land promoters:

- 3 We rarely see masterplans and Codes that are essentially spacial masterplans; to be cynical, they're currently produced with one main end point in mind, which is to sell on plots in a way that is most appealing to the housebuilders.
- 4 If there was a *requirement* for LPAs to produce masterplans, these would be produced for a different purpose and with a different intended outcome. More consideration could be given to integration of transport planning, of genuine priority given to cycle and walking routes, of wider strategic aims, of the incorporation of non-residential uses; or of wider flood or water measures. All this could have significant implications for wider strategic decisions that Local Authorities should be making in relation the Climate Change Act
- 5 LPAs will be able to zone for other forms of housing development, which could be local authority and affordable housing, self-or custom-build housing, or co-housing developments- it could significantly alter the housing landscape. They'd also be able to have more control over non-residential uses.

So my push would be to recognise the fundamental difference that this opportunity throws up, where Local Authorities, with their new Chief Design Officers, will be engaging in a long-term stewardship and spatial planning.

CLIMATE CHANGE

Currently we feel impotent to assist the planning authority in demanding higher standards and addressing Climate Change; behind a developer's green statements is a simple reliance on legal obligation.

The White paper remains caught between suggesting that this is a building regulation issue- referring to the Future Homes Standard, whilst referring to the LPA's responsibilities (under the Climate Change Act?)

If Local Authorities think that requirements under the Future Homes Standard do not meet their stated targets, are they able to increase them in the Local Plan?

Can they insist on other measures such as

- upgrading electrical supply to all homes to allow for electric cars and ASHP to be fitted;
- requirement for PV;
- biodiversity or ecological requirements
- Measures against overheating

Addressing the performance gap (passivhaus? More stringent Air infiltration tests?)

Presumably so if this is defined in an independent pathway to ZeroCarbon, that requires local measures in addition to the Future Homes Standards to achieve targets.

Planning White Paper: Pillar 2

Planning for beautiful and sustainable places

Planning system that is more visually rooted in local preference and character

Reflect community preference/ provably locally popular

- Legal weight:
- NPPF
- National Design Guide
- National Design Code
- Manual for Streets

But

Local Design Code takes precedence if adopted and based on National Codes

NPPF amended to reflect climate change ambitions in relation to site locations, infrastructure, walking cycling

Expert body to 'help authorities make effective use of design guidance and codes'

Homes England new strategic objectives to give weight to design as well as price

'Significant developments' will require a masterplan, and site-specific code as a condition of a planning-in-principle PIP approval

Masterplans should be prepared by LPA 'as site promoter' at a level of detail commensurate with the size of the site

Fast track to beauty: permitted development approvals for pattern-book houses 'provable and replicable' also to include re-development of existing residential buildings enabling increasing densities in suburban areas

Prior approval will also require other considerations (ie flood risk, materials)

Confusing message on Future Homes Standard/ zero carbon homes and its relation to planning or Building Regulations.

Questions

LDA as site promoter, producing masterplan, and Chief Design Officer. Does this mean a return of a design role in forward planning within local authorities? The suggestion is that planning departments will have free time to concentrate on these new duties.

Design Codes 'provably popular'/ Planning system more visually rooted in local preference and character: Likely clash with aspirations for higher density development. Most towns are 2/3 storey. All peripheral development context is low density and adjacent to open land

Pattern Book houses: Success will be in the layout, car parking, play space provision, connectivity, special relationship to surroundings, privacy, gardens, perimeter treatments etc

DESIGN CODES

Simplicity of Building for Life 12?

Codes supplementary to masterplan

Specific in their parameters

Aspects that we usually come up against at Design Review:

The following can occur even when in the Code:

- Car parking and desire for 'traditional' frontage onto street
- Fronts and backs/ car parking at rear
- Bland repetition, adherence to 'character areas' but no character
- Relegation of affordable flats to a rear car parking court
- Questioning of maintenance of street trees

The following regularly occur and are related to masterplan issues

- Poor permeability
- Lack of connectivity with adjacent development (often planning for future)

National Design Code will be generic rather than specific?

How can a National Design Code hope to be relevant to all situations- the relevance of Codes for the edge of a Somerset market town will be irrelevant to one suitable for Tower Hamlets?

The White Paper implicitly suggests that Codes will be used to define aesthetics, which are locally derived and provably popular. This is the least important part of the Code, no?

Meredith Bowles

RESPONSE**David Birkbeck****Notes**

Despite all the events and discussion in London on PWP, it is in the sticks or shires where it will have most impact. So Newquay, Gateshead, Aylesbury and Cambridge to be cited as references for what to watch for.

Both the Create Streets/BBBBC/Princes Foundation schemes at Tregunnel Hill (west Newquay shown on PWP front cover) and Nansledan (East Newquay where Prince's development code has banned fast food outlets) are not good examples as all about detailing of fenestration. These codes care nothing for how place works, and both are bound by fast moving roads hostile to cyclists and pedestrians (you can glimpse on PWP front cover how scheme is bound by A class road on west and Southern edge).

Matthew Carmona says no to generic authority wide codes, yes to site specific. Gateshead SDP of a local area design code has added nothing, housing invariably awful since its issue in 2014 and the worst scheme to come forward in this years' Housing Design Awards claimed to be designed to it.

Phil Jones urged caution of whether highways would engage at all. We see highways mess up the best codes, again and again, often taking key roads out of code areas and inciting on no frontage access to them. With Highway England funds so tight, they aim to secure distributor roads through planning gain, driving no frontage roads through developments like M1 thought Luton. Linda Bellingham Way in Kingsbrook, Aylesbury classic example (Kingsbrook was coded. Even the best design coded scheme in England, arguably the best new place in Britain at Great Kneighton, has a distributor road linking M11 to Addenbrookes A&E splitting it into two communities.

Local members are typically 10 to 20 years being the awareness of design; impact on climate. They want to maximise parking yet conversely minimise short journeys for air quality. Is there a way to square this? Yes - Filtered permeability to allow only pedestrians and cyclists to make way from new through existing built environment. We need more of this. Some LPAs resist even this but it is a most effective way of getting people to leave car for the 70% of journeys, which are less than 3 miles (and any of those less than 1m). First draft of code talked of Every street must connect. Should read every scheme needs pedestrian and cyclist filtered links through any earlier development (key requirement of Building for a Healthy Life).

Cul-de-sacs, as referenced in National Design Guide, White Paper and first draft of urban design code don't exist anymore in the format imagined. Today's cul-de-sac is a 'private drive' single side street facing out towards next fields or potential next gen or development. These are typically 2 units either side of turning head for RCVs and they don't connect for pedestrians and dog walkers and cyclists. Can we get them connected, like at Trumpington Meadows?

SUDs v ponds. Excess rain water currently planned for with large hole in ground, rarely landscaped and which looks awful for most of year like a meteorite strike. Can we get them turned into ponds? Practice is happening on Urban and Civic schemes such as Alconbury where pond is part of play amenity for primary school. Barratt even now do. Ponds are key choice for biophilic design and ideal for net gain biodiversity target.

David Birkbeck

For Simon Foxell's Summary – see separate document.