

Block-based urbanism

A proposal for growth within Galway city's limits

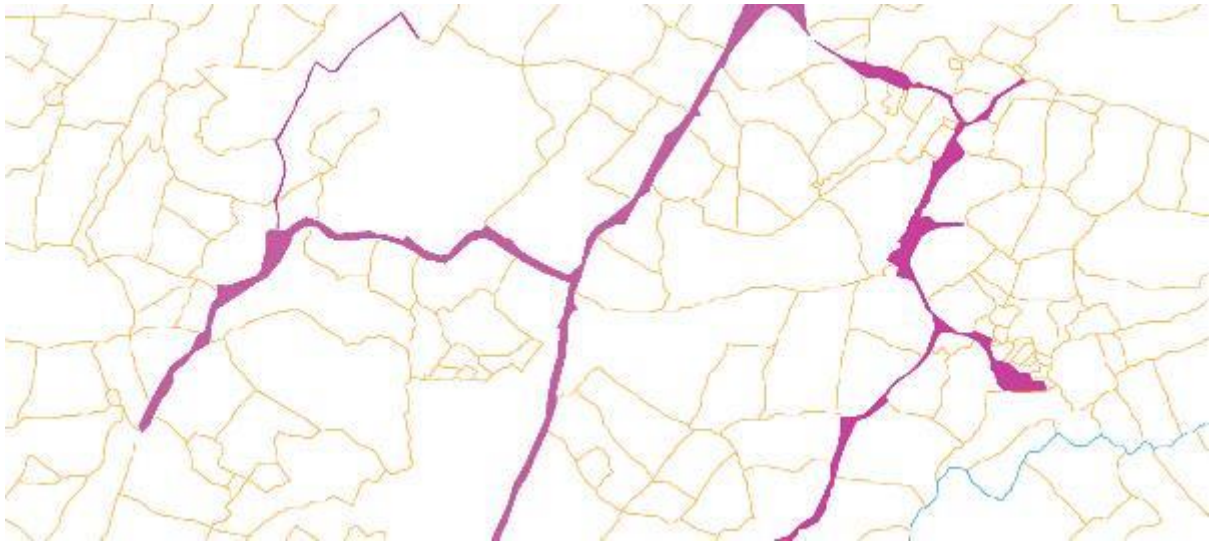
by Emmet Humphreys MRIAI

'I wouldn't start from here if I was you' (Dave Allen's joke about looking for directions in Ireland) could be an apt metaphor for how we are to deliver sustainable and economic brownfield development quickly in Ireland, during a housing crisis.

The underlying structure of land in Ireland is complex. There is texture, history, and meaning. It has a layered inherent logic which is hard to understand. Galway's pattern can be traced to a structure of boreens and stone-walled fields. These physical elements are handmade, fold into the topography, and are formed from found material. The ownership of these plots are historic and precise. Below these small man-made structures is the underlying natural environment, a rich wild biodiversity which is part of a wider connected space. This organic order does not lend itself to the rigid geometry and scale of modern development. If we want to create a modern, efficient pattern of development to compete with other developing cities/regions of the world, you wouldn't start from here.



Ariel view of Galway's underlying land structure



Boreens and field structure of Galway

This dilemma is not a recent occurrence. There have been periods of change (layers of development) that have occurred on these lands over the centuries. As technological, political, and social cultures (to categorise a few) change, so does the way we build and the type of buildings and infrastructure that we construct. This axiom is also true for future development. The constant is change. What we build today should clearly understand that there is a high likelihood that by 2070 it will either be replaced or altered. There is no way of knowing what future needs will be required but we need a built form that is adaptable to make our cities resilient.

The Knocknacarra approach (an inflexible built form)



Knocknacarra block, Galway City

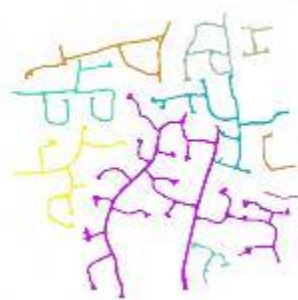
Some of the lowest common denominator development is the developer-led, three-bed semi, cul-de-sac estate. It was the 'perfect storm' of development: very cheap to design, easy to sell, and highly profitable. The only real commodity was the supply of land, something that was considered at the time (1970s-2010s) plentiful. These projects were built on a few 'organic shaped' plots/fields joined together. Making the best of what was possible within existing boundaries. Planning permission was judged on the merits of the lands enclosed by the red line. Collectively, this produced a chaotic order where two worlds collided: historic field structures and individual modern developments. New developments were solely concerned with the internal structure of their plot and not at the overall composition of the entire block.

These unconnected cul-de-sac developments, with terrible geometry, are both wasteful in terms of land-use and are very difficult to change. As streets do not connect, the movement of people is restricted. National policy is difficult to negotiate at the level of individual streets. The collective result is that greenfield development has been 'easier' to achieve than brownfield. This legacy has led to sprawl and all its associated problems.

Study of Knocknacarra Block;



Cul-de-sac & Figure drawing



Cul-de-sac only



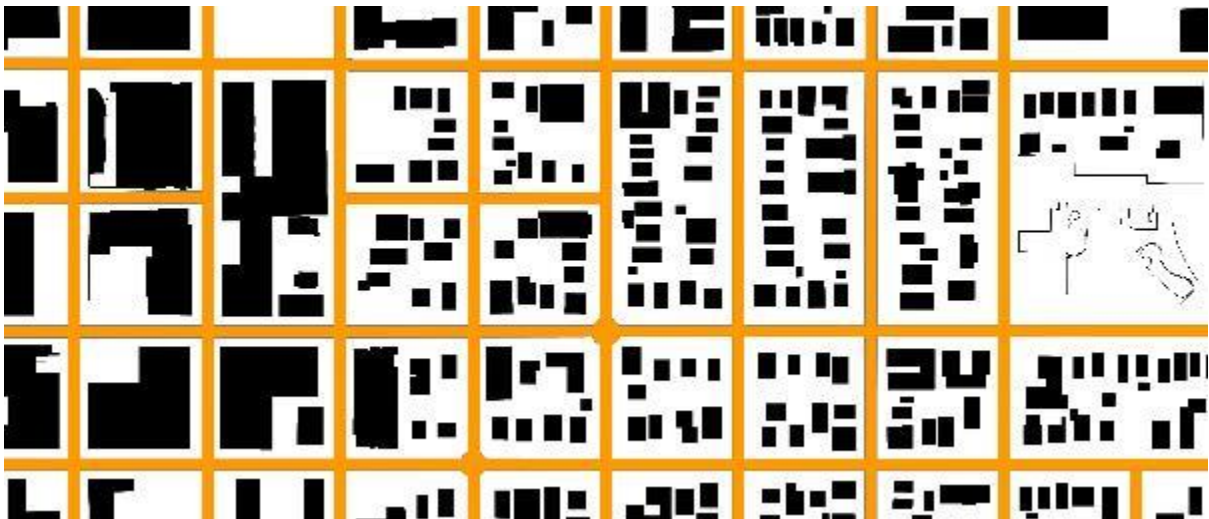
Figure drawing only

The Portland approach (a mathematical built form)

Portland has a very rigid block structure which at first glance would be seem uncompromising to many. From a generational development point of view, it demonstrates quite clearly how individual dwellings plots can be amalgamated into large plots to allow for new buildings of greater size suitable for many needs. This structure would allow for social infrastructure such as new schools, hospitals, offices to be located within the existing fabric. It also allows for very walkable neighbourhoods where you have access to many buildings in a fifteen minute walk. There is excellent connectivity for public transport. As the blocks are all the same size and orientation, it is very easy to create housing models that can be repeated to build at scale and on programme. Having said that, this rigid block will not sit practically on our existing land pattern (unless Haussmann's approach is considered).



Aerial of Portland blocks with different sized buildings within the same sized blocks



Street Pattern and Figure drawing of Portland

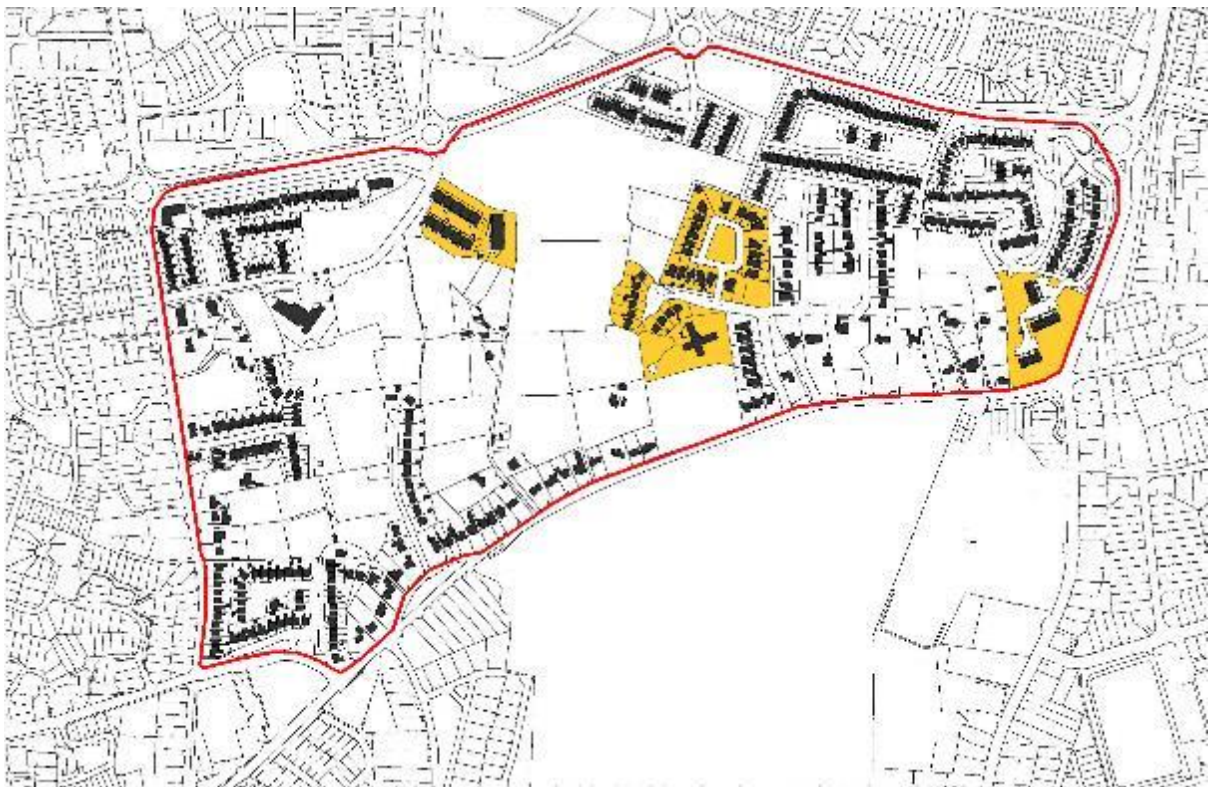
The Kingston approach (a hybrid block proposal)

Our challenge in Galway is to find a blended solution between the Knocknacarra and Portland approaches, one that understands the organic urban geometry and the need for modern development. The Kingston block has the potential for a population of 10,080 people at a density of 35 dph (dwellings per hectare), excluding lands zoned for commercial, education, and open space. This is a sizeable town in Ireland in its own right. If we consider the services and infrastructure that would go along with servicing a population of this size, then 'block design' not only has merit, it is essential.



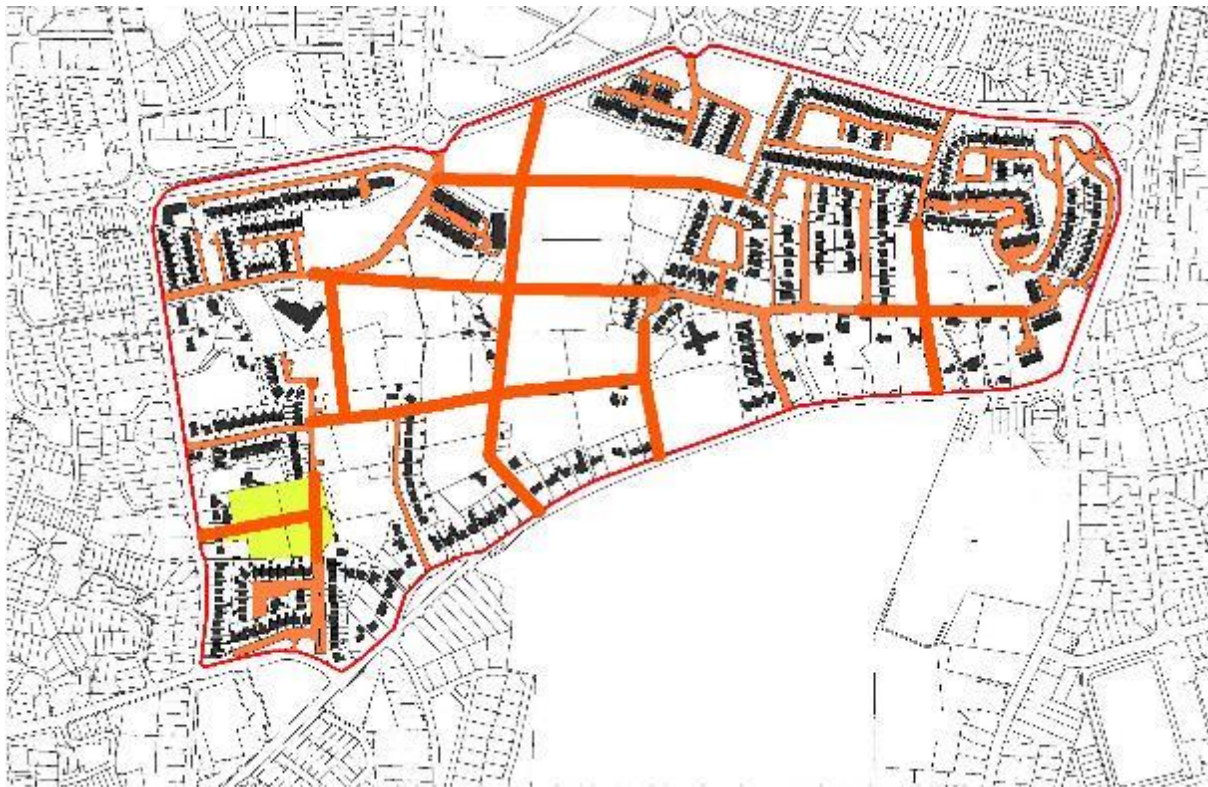
Largely undeveloped Kingston Block has potential for hybrid solution

Unfortunately, new developments appearing in this block are following the formulaic pattern of inflexible forms, ignoring the wider block dynamics. They either turn their back to the boundary and/or have no inherent geometry/order to the whole. They take individualistic approaches to resolve relationships with the topography, biodiversity, water attenuation, active travel, connectivity, etc.



Cul-de-sac Development within Kingston Block

The approach that Galway City Council Architect's Department is adopting is a hybrid block design approach based on very simple intuitive urban design principles. We look to engage early with multiple stakeholders to understand the context of the site. We engage at an early stage with our colleagues in other departments to find synergies (and funding) to unlock the latent potential of the block. This, in turn, informs the development proposal for the design of the entire block strategy, not just the individual plot or brief. The goal is to have detailed masterplans and a plan-led approach to the Kingston block. With up to seventy such blocks in Galway to review, there is definitely potential for compact, brownfield development growth. This would completely mitigate the requirement for expansion of the urban edge.



Hybrid proposal including Galway City Council proposed housing development (in yellow)

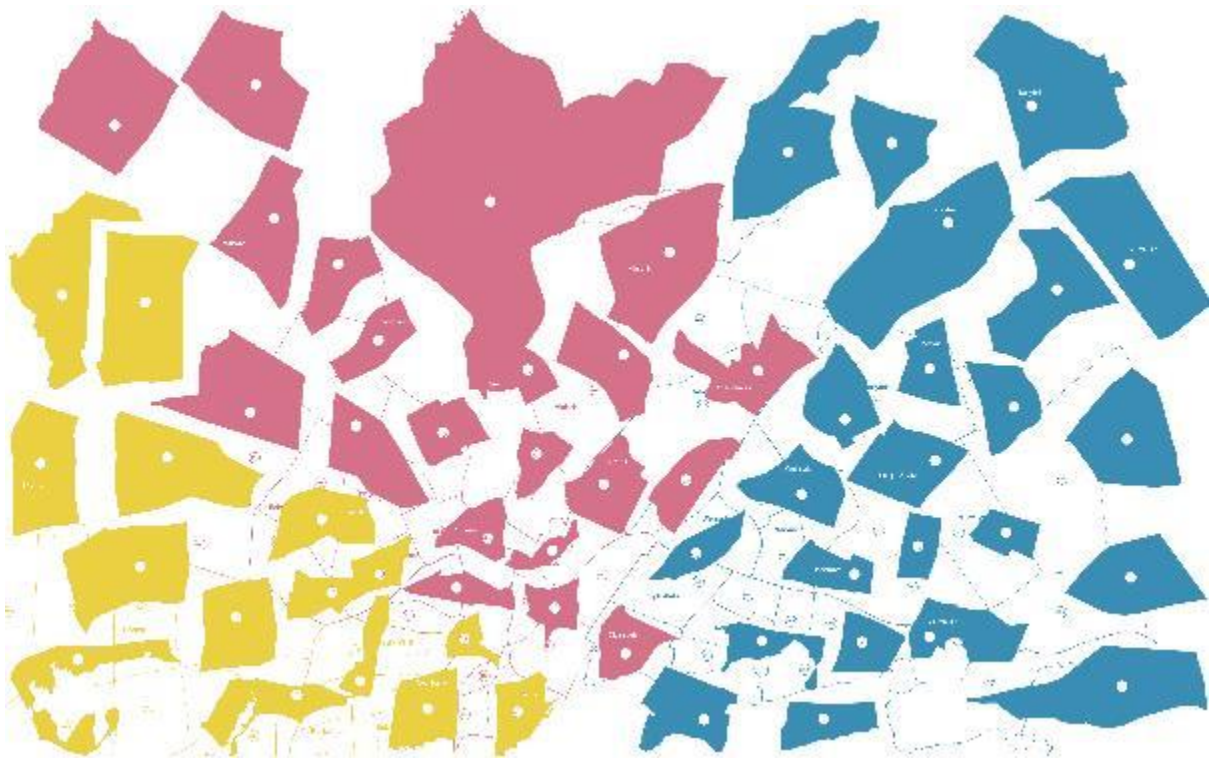
Planning for block-based urbanism

With a tailored urban design approach to each block, it would be feasible to provide 100% of all new city housing within the existing limits of Galway city and suburbs. To achieve this, we need a public mandate to prioritise compact growth over greenfield development. The greatest difficulty we will encounter is local resistance to increasing connectivity within and through existing cul-de-sac estates, where residents typically do not wish to allow the movement of people through 'their' space.

However, the existing population of Galway has local political representation, whereas the city's 'new' future population does not. The existing eighty-thousand people of Galway are being asked to 'make room' for 50% more over the next twenty years. There will be a lot of resistance to this change, therefore it will be easier to locate this population away from the existing dwellings and hence continue the pattern of development that Galway has experienced since the 1950s.

If I was going there, I would start from here

A proposal is to undertake a detailed assessment of each of Galway's seventy blocks to evaluate the potential for population growth. There is huge latent potential in every block that could be unlocked with positive stakeholder energy and good design. This process would identify the actual number of homes that could be delivered and allow a fair distribution of National Development Plan target numbers throughout the city. All existing services could be supported – and strengthened – Instead of new communities having to be provided with new infrastructure. Such a study would also identify the timeframes for change in each block. Some blocks could be well serviced and reach capacity quickly, other blocks might need enabling development.



The urban jigsaw, 70 blocks that all have huge potential to achieve compact growth

The presence of underutilised, available land located in existing communities has the potential to make a significant impact on the accessibility and affordability of housing in Galway. Compact growth and sustainable forms of transport also reduce our need for fuel. It is within our power, as a community, to do this.