

HOW ARE HTA DESIGN APPROACHING THE DIGITISING CUSTOM BUILD PROJECT?



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Rory Bergin, a partner at HTA Design LLP, gives us an insight into HTA's approach to custom build and how they've applied it to the project...

HTA Design LLP is very pleased to be part of this innovative and ground-breaking project which is researching ways of taking custom build processes and making them easier to apply to new projects.

In some cases we are working on existing processes that are time-consuming and difficult and making them quick and easy, and in other cases we are developing new processes that will enable our clients to implement custom build projects more easily.

The case for custom build is clear. Most industries have gone down the path of offering choice to consumers a long time ago and it is really only the housing industry in the UK, in developing countries and countries that form part of the former Soviet bloc that continue to buck the trend. Most developed nations in Europe and North America offer wide choices to house purchasers of new homes and see this as a natural part of their housing 'offer'.

HTA has a long history of working with communities in regeneration projects to offer them choices about what type of development they want to see happen to their often poorly-designed estates.

The idea of offering choice is not new to us. We recognise that it can be a time-consuming and bureaucratic process and we welcomed the opportunity to be part of this project to investigate how to use information technology to remove the friction in many of these processes and to stimulate people who wouldn't have considered buying a new home at all to become participants in a new and more user-friendly part of the housing industry.

We have worked primarily in two areas of the project, both focussed on design and offering design choices.

We have developed the masterplans for a test-bed project in [Heartlands, Pool](#), and we have developed custom build house types with Potton to construct there and on other custom build sites.



Together with [Slider Studio](#) we have developed prototypes of [software and CAD tools](#) to demonstrate how different participants in custom build projects can interact around design choices. With masterplans we are interested in how to give planning permission for a site where the detailed design elements are not fixed, and it was important that we worked with an enthusiastic local authority that wanted to facilitate the project.

We have designed a number of custom build house types for Kingspan Potton which will be offered to purchasers of the Heartlands, together with housetypes designed by a panel of other design/manufacturing teams.

We have researched with Slider Studio how best to enable a [prospective purchaser](#) to see these homes and to investigate the customisation options for themselves before the full sales effort begins.

Part of the use of digital tools will be to 'explain' the process and the options to prospective buyers in a way that is easy to understand and which reduces the sales cost to custom build developers.

We have split the customisation options into three separate areas:

MASTERPLANNING: WHERE THE BUYER CHOOSES A PLOT

For the Masterplanning area we have tested the use of CAD software, such as Revit and SketchUp, to enable designers to illustrate scenarios for planners and landowners thinking about or planning a custom build site.

Using [the tools](#), a custom build masterplan can quickly be populated with housetypes and multiple scenarios can be quickly tested. This use of tools is aimed more at the professional user and helps to remove obstacles to the granting of permissions.

We have also investigated how to work within a design code to deliver custom build and how a software tool could be used that takes design code guidelines into account when placing housetypes on a masterplan subject to particular constraints.

HOUSE CONFIGURATION: WHERE THE BUYER CHOOSES THE HOUSETYPES AND THE OPTIONS THEY WISH TO BUY

Our tools will enable purchasers to select a housetype of their choice from a digital catalogue and to change it on their computer screen to assess for themselves how the different options that are available will work for them.

Although a prototype, this tool illustrates how cutting edge technology can be used to complement an effective sales campaign. The prototype illustrates how such an interface can inform the purchaser of the implications of their choices, by showing them metrics that are relevant to them such as:

- The increased/decreased cost of their choices
- The lifestyle benefits
- The change in potential running costs of the dwelling
- Our intention is not to create the final piece of software, but to demonstrate a working prototype that custom build designers and developers can adapt to their final use on their projects.

DETAILS: WHERE THE BUYER CHOOSES KITCHENS AND BATHROOMS, FINISHES AND PERFORMANCE OPTIONS

Our approach is to enable purchasers to use imagery to make selections at this scale as there has been a lot of work done in this area by others already.

We do not propose to develop new tools for this but we do plan to show customers the impact of performance decisions in the configuration tool for house customisation.