

An aerial architectural rendering of a proposed garden city. The city is built on a peninsula or along a river, featuring a mix of residential housing, commercial buildings, and green spaces. A river winds through the city, and there are several bridges. The surrounding landscape is a mix of fields and some existing infrastructure. The sky is hazy, suggesting a dawn or dusk setting.

Wolfson
Economics Prize
MMXIV

How would you deliver
a new garden city which is
visionary, economically viable,
and popular?

Shelter



Our Team

Shelter

Shelter's submission for the Wolfson Economics Prize MMXIV has been prepared in collaboration with PRP and during the preparation Shelter worked with KPMG LLP, Laing O'Rourke Plc and Legal and General.



PRP has worked in partnership with Shelter throughout the process, providing expertise in site analysis, master-planning, urbanism, social and environmental sustainability and transport planning, as well as image and document production. Their support has been invaluable and without it a Shelter submission would not have been possible.



KPMG LLP provided financial and major projects advice in the areas of housing, construction, investment and transport infrastructure and provided a secondeé to Shelter to assist with the initial and final submissions.



Laing O'Rourke Plc has shared their vision and information in respect of their future offsite construction plans and what this could mean for Stoke Harbour in terms of build out rates/delivery and also in respect of long term local employment in this industry.



Legal & General has provided investment expertise from its Legal & General Capital and Legal & General Property businesses including the role that long term institutional investors could play in the project and the structures, tenure models and approach to risk that would facilitate this. They have also provided direct financial support to allow Shelter to carry out a community consultation on the project including polling, focus groups and a citizens' jury. Legal & General is looking to understand whether organisations like Shelter get more engagement and ideas from communities than property developers themselves when regenerating communities.

Project Lead Toby Lloyd

Main Contributors

Arthur Hook, Pete Jefferys, Rachel Lund, Adam Terry, Chris Wilford, Andy von Bradsky, Luan Deda, Elizabeth Vourdas, Zorana Halpin, Rachel Day, John Bibby, Najim Marufi and Debbie Willetts.

The authors would also like to thank all those who were kind enough to share their insight and expertise in discussing our proposal, including the Orbit Group, the Federation of Small Businesses, the Good Homes Alliance, the CBI, Heather Kerswell, Leonard Cheshire Disability, the Bishop of Rochester, the Church Commissioners, House Builders Association, David King of PricedOut, RSPB, the Wildfowl and Wetlands Trust, Cheyne Capital, The Campaign for the Preservation of Rural England (CPRE), Philip Ross former Mayor of Letchworth Garden City, BritainThinks and YouGov.

Please note that Shelter, as author and entrant, is solely responsible for the proposals and opinions contained within this document.

Introduction: Our Approach

The Wolfson Economics Prize 2014 has offered a fantastic opportunity to demonstrate how the new homes we desperately need can be built. The Prize question cuts to the heart of why we've failed to build enough new homes, and it rightly demands of entrants:

- An ambitious vision for a garden city that is modern, environmentally sustainable and which provides homes affordable to those on a range of incomes.
- A robust and credible private financing model, which would be a serious proposition to real investors.
- Proof that local popular support can be achieved and an intelligent strategy to realise it.

To respond, we have taken a bold and robust approach: selecting a real site and therefore being in a position to show that our model is deliverable in practice, not just in theory.

Our proposal is for Stoke Harbour Garden City on the Hoo Peninsula in Kent: a city of 30,000 to 40,000 people, which can be built in 15 years and could grow beyond then to a city of 100,000 or more. What makes our proposition unique is that it has been rigorously strengthened by the views of those who matter most: the people who would actually live there.

To rise to the challenge of this Prize, no single organisation can bring all the expertise needed. So we have drawn on the practical experience and knowledge of a market-leading team:

- Our model for housebuilding and infrastructure has been developed with advice from experts at KPMG and Laing O'Rourke.
- Our masterplan and design has been led by visionary architects at PRP.
- Our investment proposition has been developed with practical expertise from large scale investors Legal & General.
- Our approach to securing local popular support is evidenced by new primary research led by independent research agency BritainThinks and polling by YouGov. Their research informs our strategy to translate support in principle to support in practice, by offering the right sorts of incentives, based on robust insight into what local people want.

Our plan is not just theoretical: it is a model that is ready to go. Our new model for a garden city combines an ambitious vision, a credible investment model and an intelligent, insight-based strategy to gain local popular support. We hope that the Wolfson Economics Prize 2014 is the catalyst that sees new garden cities move from concept to reality.

Executive Summary

After decades of under-supply, we urgently need to build more homes. Shelter and KPMG recently set out a comprehensive plan to get us building the homes we need.¹ A new generation of garden cities is a key part of that programme - so we are delighted to enter the Wolfson Economics Prize 2014. Our proposal has been developed by Shelter and PRP with advice from KPMG, Legal & General and Laing O'Rourke.

At the heart of our proposal is the simple concept of 'the city that built itself'. By structuring incentives correctly we show how we can mobilise resources from investors, land-owners, advanced construction firms, self-builders, small businesses, local authorities and local residents themselves – without the need for public subsidy, and without stinting on infrastructure, affordability or quality.

By identifying a genuine site in Medway for our garden city, called Stoke Harbour, we have put our ideas to the test, and addressed the challenges any theoretical proposal must face. We have spoken in depth to the people of Medway, and adapted our proposals to reflect what they told us.

PART I : FOUNDATIONS

Before setting out our vision for Stoke Harbour itself we explore the core economic and delivery principles behind our proposal.

Any new garden city must be founded on economic demand and local consent, and moderated by environmental constraints. The chosen location must reflect a balance of these three factors:

- There must be effective demand for new homes in the functional economic area, which is closely linked to jobs. The proposed garden city must generate a critical mass of employment opportunities itself, but also connect to existing centres of employment via transport links.
- While responding to regional and national demand, a new garden city must also be wanted by local people and consented to by the local authority. It must include real benefits for local people, over and above compensation, such as additional infrastructure up-front or financial incentives, and must be sufficiently popular to win a local referendum.
- Any new garden city must respect environmental constraints. Much of England's land is rightly protected and cannot be developed, and minimising energy use and flood risk should be key considerations in designing a new garden city.

To be self-financing, the development model must capture some of the increase in land value created by the new city.

- The original garden cities of Letchworth and Welwyn achieved this through philanthropic donation of the land, while the post-war new towns did so via compulsory purchase at agricultural prices. Today we need an approach that incentivises land owners to participate voluntarily.
- We advocate a development model in which major landowners co-invest their land into a development partnership, yielding attractive medium to long term returns. The real value of a new garden city will be realised over time and at scale, making co-investment a rational business strategy for large landowners seeking to maximise their asset value.

To deliver a new garden city without public subsidy, substantial private investment must be secured.

- With advice from Legal & General and KPMG we have developed an 'investment waterfall' model, in which each stage of development and population growth triggers the next round of investment, so that social infrastructure stays a step ahead of demand.

¹ KPMG and Shelter, *Building the homes we need*, 2014

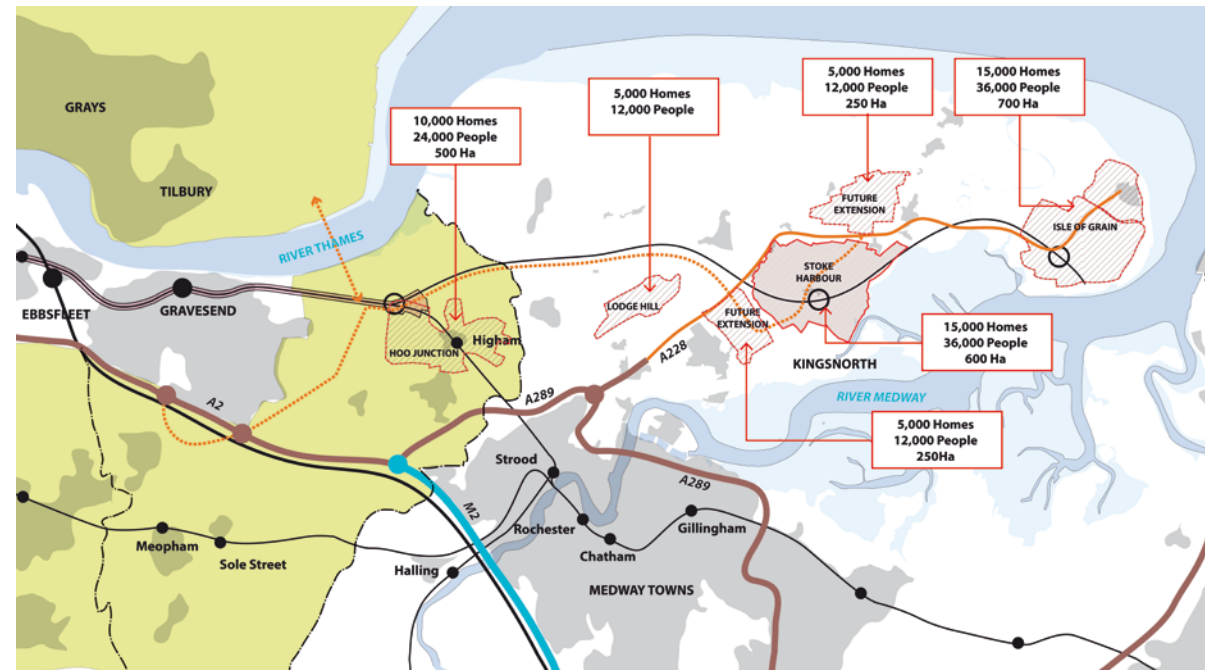
PART II : VISION

Based on these foundations, we set out our proposal for Stoke Harbour, a polycentric garden city for which we have modelled the main city in detail.

Location

Applying our location criteria led us to the Hoo Peninsula in Medway. Part of the Thames Gateway regeneration area in the wider South East, the Hoo is currently poorly served by transport, but is ear-marked for improvements and is close to well-connected zones. Relatively easy upgrading would place it 45 minutes from King's Cross and link it naturally to Ebbsfleet Garden City, creating a new regional centre of employment and growth.

While there are environmental constraints on developing the Hoo, our proposed sites avoid protected areas and maximise use of brownfield land around existing power stations and industrial estates. Existing land values are low relative to the South East, and there is a high level of local and regional demand for homes, jobs and infrastructure.



Design

Designed on a human scale, Stoke Harbour will be built to the density of a typical mixed-use European city centre or Victorian English town, with 15,000 homes built over 15 years. With future urban extensions and orbital settlements it will grow to a polycentric garden city of some 60,000 homes.

Key features such as valley water-courses, hedgerows and shelterbelts will be used to create linear parks that link public green spaces: 40% of the total area will be green space.

A tidal harbour will be built out of low-lying brownfield land at the south of the site - avoiding the ecologically sensitive and protected wetlands entirely. Vibrant local neighbourhoods will be built around shops, services and open spaces, clustered in local centres within a short distance of people's homes.

Transport

Our comprehensive transport strategy will produce a step-change in connectivity quickly:

- A shuttle train to Gravesend on the existing freight line.
- A subsidised bus link to Medway.
- Upfront upgrades to Four Elms roundabout that is currently a rushhour bottleneck.

As Stoke Harbour grows, the rail line will be twin-tracked and a new relief road built in the same corridor, linking to the proposed new Lower Thames Crossing.





Homes

The people of Medway told us that they want new homes to be affordable to local people on normal wages. So 37.5% of the homes will be in affordable tenures including shared ownership, and the homes for sale will be priced competitively for Medway. To encourage early movers and foster character, self-build will be a real option for people from across the income spectrum. Specially designed homes for older people will be linked to local services.

Economy

Stoke Harbour will support a thriving new local economy, during construction and beyond. Housing and infrastructure will employ upwards of 1,000 in construction, 150 apprentices and 1,500 in the supply chain. Laing O'Rourke will set up an off-site manufacturing factory employing 350 people and 50 apprentices.

We estimate that Stoke Harbour will generate at least 2,000 permanent jobs in retail, hospitality, communications, real estate and financial services, and an additional 1,000 jobs in public services and related sectors.

Environment

Our proposals seek to reduce the impact of human populations on sensitive areas by incorporating environmental enhancements recommended by the RSPB. Stoke Harbour will minimise flood risk and energy efficiency, making best use of waterways and the existing power stations. A new community energy cooperative will use bulk purchasing power to reduce energy bills for new and existing residents.

PART III : VIABILITY

We achieve economic viability through a partnership model, and the careful phasing of investment and delivery under a detailed business plan.

Development partnership

A partnership structure aligns multiple stakeholders' interests and capabilities:

- Shelter will be the initial promoter of the partnership, identifying and negotiating with potential partners, appointing advisers and raising initial funding.
- We will approach potential co-promoters willing to invest in our vision and provide expertise in the early stages. Reflecting the development cycle, risk preferences and time horizons, the co-promoter's interest will be sold to a core development investor for the construction phase, and then to a long term investor for the post-construction estate management phase.

- We will approach the Church Commissioners (the major land owner on the site) giving them the opportunity to co-invest their land in the partnership, with a call option ensuring they take no planning risk.
- We will engage with Medway Council from the outset. Our proposals create significant benefits to Medway's people and economy including delivering much of the Council's existing capital investment programme for social infrastructure.

Business plan

Rapid build out is central to the growth plans for Stoke Harbour, which averages 1,250 homes per year (4-5 times the current UK average). Balanced phasing is vital to securing investment, while growing a sense of place quickly and avoiding outpacing demand:

- Construction will be in three phases of four years, with regular milestone reviews and constant market absorption monitoring. We will achieve these accelerated build-out rates through careful market segmentation, improved connectivity, place-making and a model for offsite manufacture developed with Laing O'Rourke.
- Social infrastructure and homes will be delivered under a detailed year-by-year growth plan, supported by an 'investment waterfall' that releases investment as it is needed.
- Transport infrastructure is funded upfront by a hybrid debt solution and repaid by commercial rents, business rates from a new Enterprise Zone, some rail-user tolling, and carparking income.



PART IV : POPULARITY

With the agreement of the local authority we will hold a local referendum on our proposal, as the true test of its popularity. Understanding local people's hopes and concerns is vital to winning a referendum, so with kind sponsorship from Legal & General we conducted new primary research with YouGov and BritainThinks:

- Polling, focus groups and a full day 'Citizens Jury' with people in Medway confirmed that there is already majority backing for a garden city on the Hoo Peninsula (54% support/33% oppose).²
- Local people feel that the Hoo is under-utilised and under-served, and would benefit from new homes, jobs and services.
- People in Medway have concerns about flood risk and the direct benefits to them and their family.

Using Shelter's unique insight tool,³ we identify distinct demographic groups and their attitudes, to tailor our communications. This yields a triage strategy:

- Compensate generously the 35 homeowners on the site, paying 150% of the value of their home for people who want to leave, or £100,000 plus expenses for those that want to stay.

- Contain die-hard opponents by addressing legitimate concerns.
- Channel the existing support of the majority and motivate them to vote.
- Convince waverers, by appealing to their aspirations.

Focusing on the tactics best suited to convincing waverers and win a referendum, we tested financial and non-financial incentives on local people in Medway:

- Cash incentives were very unpopular, being perceived as bribes. Even £5,000 per household had a strong negative effect on support. Investment opportunities were not well received either.
- Reductions in energy bills or council tax rebates were popular if perceived as compensation, not bribes. We therefore offer council tax rebates to nearby residents and an energy bill discount scheme throughout Medway.
- The most popular incentives were non-financial, particularly local jobs and locally affordable homes.

To secure long term support, we will work with local people to masterplan Stoke Harbour, and give them a stake in a Community Trust with its own income and assets.

- We will engage with existing residents in the surrounding area via focus groups, social media, events and ongoing working groups, to ensure genuine local input to the design of Stoke Harbour.
- An asset-owning Community Trust will be created, run by Stoke Harbour's residents themselves, with annual income growing into the millions as the city develops. This will support the community's own priorities, such as additional services or educational grants.

Engaging positively with local people has confirmed aspects of our original proposition, and transformed others. We believe the resulting plan offers an exciting and credible vision that can take a new generation of garden cities from concept to reality.

² YouGov for Shelter, 2014

³ Shelter Housing Insights for Communities, 2011

Medway residents vote overwhelmingly for our proposals at a full day 'Citizens Jury' event, run by an independent research agency



'We are delighted to have had the opportunity to work with Shelter on this submission for three reasons.

First, because housing provision is one of the most pressing issues the UK faces: we need 200,000 homes annually. The homes we need should be across all forms of tenure, for purchase, for rent, and for the affordable sector. They should be environmentally efficient, varied and specialised to suit different types of occupier, from students and single professionals, to key workers, families, and elderly 'last time buyers' who are crucial to freeing up scarce housing.

Second, the Garden City route is likely to be a big part of the solution – what has been modelled here is a version that could work in real life, with an economic model capable of attracting real investment. This goes way beyond just being an answer to an 'exam question'.

And third, because we know from experience and working with them that Shelter have the deep specialist knowledge and the practical experience to help bring a project to life. During this project I think we have learned at least as much from them about community engagement around developments as they have from us about the economic modelling – a terrific partnership exercise to deliver a great finished product.'

Nigel Wilson

Chief Executive, Legal & General