













# TOWARDS A QUALITY CHARTER FOR GROWTH IN THE CAMBRIDGE AREA

# FREIBURG STUDY TOUR REPORT

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# LESSONS FROM FREIBURG FOR THE CAMBRIDGE GROWTH AREA

This paper starts to deduce the underlying principles behind the development of Vauban and Rieselfeld, based on group discussions during the Quality Charter for Growth in the Cambridge Area study tour, and background papers and presentations from officers involved in their development. The four sets of principles are structured around the themes of good governance, environmental sustainability, design quality, and social well-being. These formed the basis of the Urban Task Force's report Towards an Urban Renaissance, and as wealth creation was not considered an issue in Cambridge, it has not been addressed.

The principles tie up with the characteristics of a sustainable community endorsed in the Bristol Accord, which are put in brackets, and with concepts that all begin with C, so that the charter is relatively easy to remember. To make the process as manageable as possible we have limited each set to ten (the Ten Commandments!) but they could, of course, be expanded or modified, and be supported by examples of good practice, and in some cases specific performance targets. While some of the principles are already being applied, or can be easily

implemented, others are more difficult and may require changes of policy at sub-regional as well as neighbourhood/ block level.

#### **SIMILARITIES**

While the German political and institutional system is significantly different, for example in terms of local autonomy and the federal system, the members of the group recognised some real similarities between the challenges facing Freiburg and Cambridge areas:

- Located in a prosperous region near the Swiss/French borders
- Ancient fortified trading point (though the Rhine is rather more important than the Cam!)
- Population of 200,000 (similar to Cambridge plus part of South Cambs)
- Popular university town (30k vs 20k students)
- Similar GDP/capita to Cambridge and East Anglia
- Similar pressures for housing growth
- Surrounded by extensive green belt
- Clean, green and orderly city (though with some graffiti)
- Helpful and friendly people who are proud of living in a Green City.

Freiburg with its 900 year history is known for its university, magnificent cathedral and medieval treasures



Freiburg's cobbled street incorporates an open rainwater drainage channel















While all towns are unique, and the scale of Vauban and Rieselfeld is impressive, we were told it is in no way unique. High density sustainable urban neighbourhoods are being developed in other historic German cities like Tubingen, Hanover and Munich. Similar projects can also be seen in other successful Continental cities, like Malmo in Sweden, Amsterdam and Amersfort in the Netherlands, and Montpelier in France.

#### **DESIGN CHARACTERISTICS**

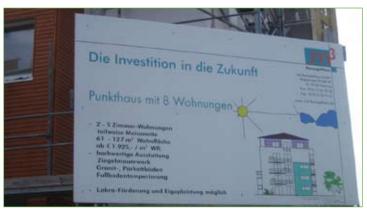
The study tour focused on lessons from two planned urban extensions in locations with similarities to some of those in the Cambridge area, particularly Northstowe, but also possibly Cambridge East and the University's sites. Both quarters are very popular, especially with young families, and have received a lot of publicity, with recent articles, for example, in Building, Planning and Regeneration and Renewal magazines, as well as case studies on the Building for Life website. They are undoubtedly at the leading edge of thinking, and so are highly relevant to designing new housing in the Cambridge Growth Area. Indeed Freiburg is being held up as a model for the urban extension at Harlow North, but the similarities with Cambridge are much stronger, including the number of high-tech companies, and also the popularity of cycling, which is even more extensive.

While complex the approach essentially boils down to taking a Balanced Incremental Development (BID) approach, applying organic principles, perhaps best described as the Natural Step process (a concept that Forum for the Future has promoted). There has also been a concern since 1969 to reduce car traffic by providing more attractive alternatives, and there are 8,000 cycle parking spaces, and a policy of 'bundling cars' into blue routes, which are designed as play streets, where pedestrians have priority, and red routes.

**Rieselfeld** started in 1992, and is promoted as 'A huge space for innovative ideas'. It is developed on a former sewage works, near some of the least popular social housing in Freiburg. It is planned for 10-12,000 residents, and has already reached 7,000 and is growing by 350 units at a time. The original target of 50% social housing has been reduced to 25%. There are also planned to be 1000 jobs (though these are proving hard to attract). The masterplan is based on a number of principles:

- Using a public trust company set up by the municipality and regional authority to 'turn a brownfield site into a prime address' and make a surplus
- Family oriented and intended for a social mix
- Undertaken in four stages over a ten year period
- Built around a new tram line extension 'city of short distances'
- · Battered grid with loops off a central spine
- Primacy of public transport, cyclists and pedestrians
- High density with 3-5 storey buildings (c.50 units to the hectare)
- Shops and services near tram stops with housing above
- Environmentally oriented e.g. open rainwater ditches
- Development largely around courtyards with central play areas
- Curving 'arch' of development
- · Green wedge and nature reserves
- · High leisure provision





A natural environment adds value



Vauban's solar capital

**Vauban** started in 1994 and is promoted as 'solar capital', because it has the most solar panels in Europe. The 41 hectare site is on a former French barracks. It is planned for 5,000 residents and 400 jobs, and is nearly complete. 70% of the units have been developed by small builders and self-build cooperatives, with land costs at market value representing about a fifth of the value of a completed unit. One third of the population is under 18. The masterplan is based on principles such as:

- Exploiting a good location on the edge of the hills, with cooling breezes
- Led by environmental activists, with initial reuse of the barracks for student flats
- Developed through community engagement from the start
- Minimum use of cars e.g. parking on the periphery, charge for parking spaces of £10-14,000 plus use of a car club
- · Individual and wildly differing housing designs
- Maximum energy saving e.g. three levels of standard: holistic, passive (zero energy) and Energy Plus with wood burning CHP plant with focus on continuing innovation e.g. Sunships
- Informal layout with frequent variations in height and materials
- 3-5 storey housing, maximum 13 metres, mainly maisonettes and town houses
- · Predominance of greenery and play streets



Above: Recycling is encouraged
Right: The experience of cycling
is introduced at an early age



#### **CHARTER ELEMENTS**

### **A. Good governance – Collaboration** (Well-run)

A major concern of the group was how to manage the development process in ways that were both economically viable and also won community support. These were the principles used in both schemes in Freiburg:

- 1. Provide leadership from local government with the Mayor promoting the benefits from planned development
- 2. Plan urban extensions for successful cities on the most appropriate sites
- 3. Transfer land at existing use value to a public development agency or dedicated local authority Trust company
- 4. Draw up a robust masterplan with clear objectives following a competition
- 5. Remediate land and install basic infrastructure before selling sites using low interest public trust funds plus start up finance from the city and regional authorities
- 6. Develop in stages over at least a decade to match transport capacity
- 7. Involve a multiplicity of builders on the basis of the quality of their bids for plots
- 8. Engage the community who is going to live there in selecting architects for both blocks and shared open space, and in managing common parts e.g. 'adopt a tree'
- 9. Set clear targets and incentives e.g. plot ratios, building heights, charges for parking spaces, but allow much more local freedom
- 10. Encourage schemes that experiment and that respond to different housing market segments e.g. single women with children.











# B. Environmental sustainability Connectivity (well-connected) plus Conservation (environmentally sensitive)

While there are general concerns to reduce carbon emissions and also congestion, the group recognised the English preference for private gardens and using their cars whenever possible. The lessons from Freiburg include:

- 1. Concentrate development around a first class public transport system
- 2. Secure highest densities along public transport corridors with shops and services adjoining stops
- 3. Invest in communication, and in supporting innovation e.g. Forum Vauban
- 4. Promote innovation through attracting pioneers initially and specialist investors, with three classes of housing based on energy consumption
- 5. Design cost-effective infrastructure to reduce waste, save energy, and encourage walking and cycling e.g. CHP, waste sorting, narrower cheaper streets and lanes, and service and rainwater ducts
- 6. Install primary mains from the start with connection charges linked to expected consumption and space for CHP
- 7. Design buildings that can change function over time e.g. reuse of initial schools as offices, reuse of ground level parking spaces as shops
- 8. Provide informal green spaces that encourages wildlife and children to play with each other, and makes walking and cycling a pleasure

- 9. Generate energy and process waste as locally as possible, and use passive energy/cooling as much as possible
- 10. Use modern construction methods e.g. prefabrication, simple building forms, but promote variety in terms of materials, colours, balconies, and landscaping.

### C. Design quality – Character (Well-designed and built)

Unlike the motor industry where new cars are popular, a relatively small part of the housing market wishes to buy a new house, and there are concerns over the quality of new housing. It is therefore going to be important to find ways of making new schemes look more attractive both when they are built, and as they mature.

- 1. Set a strong overall framework (or codes), but avoid interfering in the details e.g. 3-5 storeys, 13 metres maximum height
- 2. Provide public infrastructure before people move in, such as schools
- 3. Rely on a large number of individual builders to respond to user demands
- 4. Encourage co-operative associations to set a standard
- 5. Ensure that social housing is indistinguishable in appearance from owner occupied housing

Right: Ground floor space is used flexibly



Balconies provide private outdoor space



In Vauban parking is separated from the housing





- 6. Give primacy to walkers and cyclists, and keep car speeds low with most parking underground or on the edge
- 7. Use underground and communal (multi-storey) garaging to avoid car dominance
- 8. Provide informal open spaces which needs less maintenance and are more exciting
- 9. Enable residents of a block to design and run communal spaces e.g. play areas
- 10. Use shared front gardens, but with individual balconies and patios and extensive use of coloured render to provide a sense of identity.
- D. Social well-being -Community (active, inclusive and safe) Choice (fair for everyone)

A major issue for new communities is how to make housing more affordable and secure a mix or balance of residents without causing tensions. There are particular concerns with how to cater for large numbers of young families who may lack support networks in the early days. Possible lessons from Freiburg include:

1. Engage people in the process at all stages, and encourage them to take on responsibilities e.g. development trust for Vauban, block associations

- 2. Provide an environment that is safe, green, and well-cared for, and that reinforces personal development and social collaboration
- 3. Develop co-operative housing associations or co-housing as a third form of tenure
- 4. Pepperpot social housing to encourage social mixing and integration across class and racial lines
- 5. Appeal to distinct market segments such as 'green pioneers', parents with very young children, and those on fixed incomes, such as the elderly
- 6. Use local associations to cut maintenance costs, and help build community pride
- 7. Develop multi-use facilities such as schools and cultural centres as community hubs
- 8. Use the environment as a 'gym' to encourage healthy living with space for local initiatives e.g. farmers' market, natural food store
- 9. Rely on local responsibility and neighbourliness to ensure personal security backed up by efficient local government
- 10. Ensure a variety of home types, tenures and sizes to allow people to pursue housing 'careers' without having to move far.





Top: Central public space provides sitting and play areas

Above: Informal landscaping provides memorable green areas





Above: Former barracks buildings have been reused Left: Quiet roads enable children to meet and play











# SUMMARY OF QUESTIONNAIRE RESPONSES

The following participants completed the feedback questionnaire for the Freiburg Study tour:

Cllr David Bard Leader, South Cambridgeshire District Council

Cllr Ian Bates Huntingdonshire District Council

David Birkbeck
Tom Dutton
Sarah Greenwood
Nigel Howlett
Gwyneth Jones
Alan Joyner

Design for Homes
Health Forum
Cambridge Housing
Inspire East
Gallagher Estates

Cllr Valerie Leake East Cambridgeshire District Council
Simon McIntosh South Cambridgeshire District Council

John Oldham Countryside Properties
Cllr Sian Reid Cambridge City Council
Glen Richardson Cambridge City Council

Malcolm Sharp Huntingdonshire District Council

Steve Sillery Bidwells

Peter Studdert Cambridgeshire Horizons
Sir David Trippier Cambridgeshire Horizons
Joseph Whelan Cambridgeshire County Council

Plus telephone comments from Helen Walker IDeA





Top: Car ports provide flexible space Above: A green, clean environment

#### **OVERVIEW AND CONCLUSIONS**

As with the East of England study tour, the feedback regarding the organisation of the study tour was extremely positive and complimentary, and there is no doubt that it was an enjoyable, informative and inspiring experience. Comments were thoughtful, well expressed and covered many learning points, both where transferability to the Cambridge situation might be appropriate and desirable, and also where, because systems, institutions and funding regimes are different, there may be barriers to application in the UK.

The following conclusions have been drawn using the same structure as the feedback questionnaire, although there has been some transposition of answers to better fit the framework.

#### 1. TOWARDS A QUALITY CHARTER

#### The main obstacles

- The economy is not regarded as a problem; it is thriving. However does this mean that there are jobs for all, or is it just that higher professional/technical staff are catered for?
- The two greatest barriers are considered to be adequate transport and connectivity, and governance. How can we be sure that adequate transport is provided ahead of development and will be integrated? How can communities be engaged represented and responsibilities allocated?
- Most responses came within the 'may be a problem' category, highest scorers being environmentally sensitive, services and social and cultural factors.

 Well designed and built housing is split almost equally between possibly being a problem and not being considered a problem

# The most important lessons from Freiburg for growth in the Cambridge area

These responses have been placed within five categories and most have fallen within the areas of planning process, buildings, and market and community involvement, the others being transport and parking, and public realm and land-scaping.

• **Planning process:** the most frequently mentioned aspect was that of having a macro/micro approach. An over-



Tour participants enjoy the sunshine for which Freiburg is renowned

all macro framework was set for the developments, which had to be strictly adhered to, but there was enormous freedom for individuality and personalising house design and materials within a micro design code. At the macro level, for example, the place of the car within the development was planned e.g. at Vauban limited to one per household and the purchase of a parking space within a peripheral car park. There was also a greater variety of land ownership and development including not only many co-operatives, but also individual plot development.

- **Buildings:** higher densities can work, as can a greater variety of architectural styles. Further the idea of flexibility was evident both in a willingness to change usage over time e.g. school, and having shared parking ports that could be used for other purposes e.g. events
- Market and community involvement: a mixed community had been achieved (especially in Rieselfeld), but appealing particularly to younger people with families, although a block had been built which focussed on the needs of the disabled and wheel chair users. There was a social mix with rented houses

being indistinguishable from those that were privately owned, and this had been achieved with no apparent socially disruptive behaviour. Further the community had participated actively at all planning levels, taking responsibility for the upkeep of parts of the public realm as well as design and management of buildings and amenities.

- Transport and parking: all were agreed that public transport was excellent and that reduced car ownership and usage can be achieved.
- Public realm and landscaping: there is a 'strong and lasting commitment' to sustainability. Communal space works and is well maintained. Informality of landscaping provides a different approach that needs less maintenance and provides both the opportunity for bio-diversity and a certain charm.

#### 2. LEARNING METHOD

## Could the study tour have been improved?

Apart from having more time, and flying from Stansted, no improvements for organising the trip were put forward.

# 3.NEXT STEPS (CHARTER SYMPOSIUM)

- Two people believed that a more holistic approach was needed rather than splitting into physical, economic and social groups.
- A good mix of people should be recruited for the symposium, and the media might be invited.
- It would be good to have high level input from EP at the symposium.
- When considering the contents of the charter we need to consider carefully what is feasible and practical within a UK context, while providing some aspirational goals.

#### 4. REFLECTIONS

- This was an open question and individual responses varied widely from reinforcing how well the study tour had been organised and how thought provoking it had been to asking further questions and suggesting what might be transferable to Cambridgeshire.
- Questions and requests for further information:
  - How much is transferable given the different patterns of social housing provision, funding and land acquisition together with lower property/land prices and a large private rented sector?
  - It would be helpful to know more about the German system e.g. affordable housing and development funding
  - How can developments be made to feel as safe, secure and relaxed as those visited?
  - How representative was the community engagement?
  - Further information on land











transfer arrangements at Freiburg between the German Central Government and the City of Freiburg would be useful. (Was the land transferred at subsidised value?)

- What further funding has been made available from Central Government to fund the development (in addition to land subsidy)?
- How was infrastructure funded early in the process?

#### • Potentially transferable:

- 'Adopt a tree'
- Underground and communal garaging
- Multi-storey schools
- Future proofing e.g. flexible building use (primary school)
- Communal and underground parking
- Less formal open space which is better for biodiversity, needs less maintenance and is more exciting!
- The use of CHP (but how would we finance up front?)
- Allowing greater flexibility and individuality through design at a unit level (but within an agreed frame work and design code)
- Enabling residents to design aspects of communal space e.g. play areas

and finally some thoughts raised for

#### • Further actions:

- Production of a brochure on the trip
- A further study tour
- Incorporate some of the adventurous and challenging thinking into developing new communities in Cambridgeshire
- Study tours provide excellent net working opportunities (what else can be put in place to replicate the study tour in bringing together people from different backgrounds?)









Above: An imaginative play area overlooked by housing Left: Riesefeld backs on to a nature reserve

### PARTICIPANT FEEDBACK\*

#### 1. TOWARDS A QUALITY CHARTER

## The most important lessons from Freiburg

#### **Transport and parking**

- Transport and environment
- Excellent transport
- Need for high quality, frequent public transport
- Good transport
- · Parking separate from development

#### Public realm and landscaping

- Ensuring strong/lasting commitment to
- a 'sustainable' agenda
- Public realm/landscaping agenda
- · Green spaces
- Communal gardens
- · Extent and type of open space

#### Planning process

- Greater public control of the planning/ financing process
- Setting wider boundaries and then letting the development mature naturally
- Control the right things, the strategic aspects of the development, and leave the detailed design free
- Design codes then considerable freedom – but would it work in an English Planning system?
- Masterplan within which individual blocks/plots are marketed
- Importance of public ownership of land
- Using land ownership to set clear 'macro' design constraints, while allowing much greater freedom at the 'micro' level (the complete reverse of the UK planning system!)
- Freedom of design within simple design code, i.e. plot ratio, height, depth
- Public infrastructure is in place from the beginning (before people move in) and helps with reduced car use etc.

#### **Buildings**

• High density can equal high quality (housing)



The tram is routed on grass except at junctions

- A variety of architecture in developments, 'personalisable' works
- Architecture of public buildings
- · Flexible use of public buildings
- Flexibility in the use of buildings e.g. school need adaptive space
- Flexibility/adaptability of building uses over time
- Not to provide waste bin and cycle areas as an after thought
- Informality of the spaces

#### Market and community involvement

- Very appealing to young 'marrieds' or young couples with children
- Achieving socially mixed communities without causing unacceptable physical/ behavioural problems
- Self build (one of the options available for development)
- Active citizen participation, and joint responsibility – individual and local authority
- Community buying in to the approach
- Community participation and involvement essential to success
- Need to involve the public who will actually occupy the new development
- Involving people in housing co-ops can produce both physical variety in house

types and also active involvement right through to management (and design of open spaces)

 Need to critically assess physical and social characteristics of the developments visited against the political, social, cultural and financial differences of the two locations at Freiburg and Cambridge i.e. it if works in Germany will it work in the UK

#### 2. LEARNING METHOD

#### Any improvements to the study tour?

- More time 0.5-1 day
- Not enough time to learn about process – how are residents involved – how are conflicts handled – how is social mix ensured
- The original plan for a two day visit would have been less rushed
- Difficult a short visit if we had longer we could have had more formal discussion sessions – perhaps, with some of the 'experts' from Freiburg
- Extra day to view schemes in other cities/countries e.g. Holland
- No it was well organised and covered a number of issues



<sup>\*</sup> As far as possible we have reproduced the feedback as given on the forms, using the same words.









- No it was well run and organised. If there had been more time available it would have been good to meet different members of the project teams to get a different perspective on things
- No it's been a worthwhile experience and very interesting
- It was excellent but I would have like to walk into a few of the homes
- Excellent study tour no suggestions for improvement
- Very good indeed well done
- Very good but a pre-prepared sheet dealing with a bit more detail e.g. financing, densities would have been useful and perhaps seeing the CHP plant
- A very good tour well organised but we could have benefited from more time to fully understand the case studies
- The tour has been very well structured to use the available time only improvement would have been flying from Stanstead if that had been possible, would have cut out 2 hours travel time
- Very packed did as much as we could very well planned with good facilities, guides, restaurants, hotel.
- Well run but not sure about the choice of 'model'. Even the people we met from Vauban said it was 'atypical'. Rieselfeld probably the more useful to see for its 'normalness'.
- Learned much more than I had expected from this visit
- · Travel from Stansted
- Visit Nordham
- No significant issues; however the availability of data (e.g. car ownership) would have been helpful

#### 3. NEXT STEPS

#### **Topic Group Numbers**

Physical 6 Economic 6 Social 4 Not specified 2

· Not sure we should divide into the



A popular secondary school attracting pupils from outside the area

3 categories – we need to the thinking more holistically

• It's quite difficult to draw boundaries between these three areas, so we shouldn't be too restrictive in the scope of the groups

#### Any other thoughts

- Try to get a good mix of people including the media. It is important to work towards a positive image of the community vision for Northstowe
- The contents of the charter needs to steer a course between what is feasible/ practical in the UK, and aspiring to some of the inspirational developments in the rest of Europe, which benefit from a very different system what current constraints can we hope and strive to change?
- Whether the landowning/development issues militate against any application to the Cambridge area
- Very interesting and thought provoking
- There has been a lot of learning during the study visits, which it would be really good to capture in its own right, so that participants can look back on it in years to come. Maybe the production of a study trip brochure would help capture some of the lessons and could also be used to give to people who didn't attend.

#### 4. REFLECTIONS

• **Lessons:** Freiburg developments allowed for real 'personalisation' of space e.g. gardens = variety & interest of

character.

- We should question if the densities achieved in Freiburg can work in small/mid-size cities in the UK (home with garden is a sacred cow for many ...)
- Be creative/playful in design and don't rigidly control every detail
- Landscape makes the difference (personalised = well cared for)
- Hiding/minimising car usage and parking = room for people, landscape, play, greater sense of pedestrian priority
- Please can we have another visit somewhere else which may be relevant to the future development in Cambridge
- Wonderfully organised! Many, many thanks
- Informative and thought provoking especially
  - multi-storey schools
  - impressive public transport
  - communal garaging
  - underground parking
- Thank you all at URBED
- We need to welcome adventurous approaches and identify barriers to this
- Perhaps we didn't cover the public sights, and the core civic space as well as we might have done
- Well organised, congrats to URBED, good speakers, good hosts.





Left: "The 'study tour' format encourages networking opportunities, especially as the participants come from such different backgrounds."

Right: An unexpected amount of graffiti in the older parts of Freiburg

- This was an excellent tour, well organised and well briefed. I was amazed how much we managed to fit in. I think that in the feedback sessions we were realistic about how far one could naturally transfer the 'Freiburg approach' to Cambridge. There was more enthusiasm coming from the public sector participants than the private sector which was significant. It would be good to have a high level input from EP at the conference as their role in Northstowe is absolutely crucial
- Highlights advantages of good landscaping – possibility of 'adopt a tree' approach might be one way to deal with the resistance to being responsible
- Useful, interesting and provided some challenges to thinking for delivery of new communities in Cambridgeshire
- Different patterns of social housing provision make comparison difficult. Also lower property/land prices and large private rented sector. Very different patterns of funding and land acquisition use of co-operatives difficult to translate to UK
- Different cultural context but nevertheless some transferable lessons
  - Future proofing flexible buildings use e.g. primary school
  - Less formal open space better for biodiversity, less maintenance and more exciting! But would our H & S experts agree!
  - Car free areas very interesting but would probably only transfer for central areas with good public

- transport
- Energy efficiency for combined heat/power impressive but how would we finance up front?
- Would be helpful to know more about German system e.g. affordable housing and how applicable/transferable it is. Helpful to know more about development funding aspects.
- Not many older people visible preponderance of young families apparently. Key issue overall is the Freiburg macro prescription/micro freedom distinction which is the opposite of the UK. The micro freedom works because of the small plots and large number of house builders. The same would not be achieved in the UK if land is sold to large builders as usual. If we can't change the way the land is disposed of for development we need to think about how we can achieve the same individuality within our existing development framework (currently we get told what colour to paint our houses etc.) It would also be great if we could let residents design their play areas, but we have to get things agreed by the planners - not sure they would wait till after everyone has moved in.
- Rieselfeld appeared to be more established and felt more secure as a development. I'll take all this back to our Northstowe Health & Social Care Topic Group to play the key lessons into our health & social care plan
- · Vauban was more inspiring, but had

very limited social mix. Rieselfeld perhaps a more realistic example to try and follow. However, the way Rieselfeld had left a considerable number of blocks to be developed late in the process felt problematic to me. While leaving some sites empty until late in the development is important to allow flexibility, too much detracts from creating a 'heart'. Vauban had small sites empty, but was developing most of one sector before moving to the next: this feels like a better example for Northstowe, with community facilities developed in parts of the centre adjacent to the housing as it opens up.

- Further information on land transfer arrangements at Freiburg between the German Central Government and the City of Freiburg would be useful. Was the land transferred at subsidised value?
- What further funding has been made available from Central Government to fund the development (in addition to land subsidy)?
- Need to know more about funding e.g. infrastructure early in the process
- Methods of community engagement
- how representative was it?

