# Bridport Renewal Corridor

**Incorporating Bridport Community Railway** 



### The seed of an idea

The emerging vision for the Bridport Renewal Corridor is for an innovative, sustainable, and high quality "renewal" area that is easily accessible by narrow gauge train, by cycle and on foot.

One in which local communities, landowners and businesses can thrive sustainably, in a zero-carbon way that enhances biodiversity, wellbeing, and reduces our environmental footprint whilst honouring the outstanding natural beauty of the landscape.

#### **Our Area of** Beaminster **Focus** Toller Whelme Mappertan Big Back Garden Maiden Newton A community railway and multi-user corridor acting Floller Fratrum Porcorum Powerstock as **a backbone** across a 7 Big Back Garden Eog mile radius. Watto Compton Valence West Compton Bridport Creating a sphere of Dorchester influence enabling a **West Bay** holistic response to zero KEY: carbon and connected English Biodiversity Renewal Corridor Town Channel communities on old disused railway Station Pedestrian & Cycle routes Town with station. Existing main rail line Existing Village Renewal village & 7 mile radius from Powerstock station station along corridor Village Cluster Coast line (Bridport & Maiden Newton)

# **Sharing Ideas & Forming an Alliance**

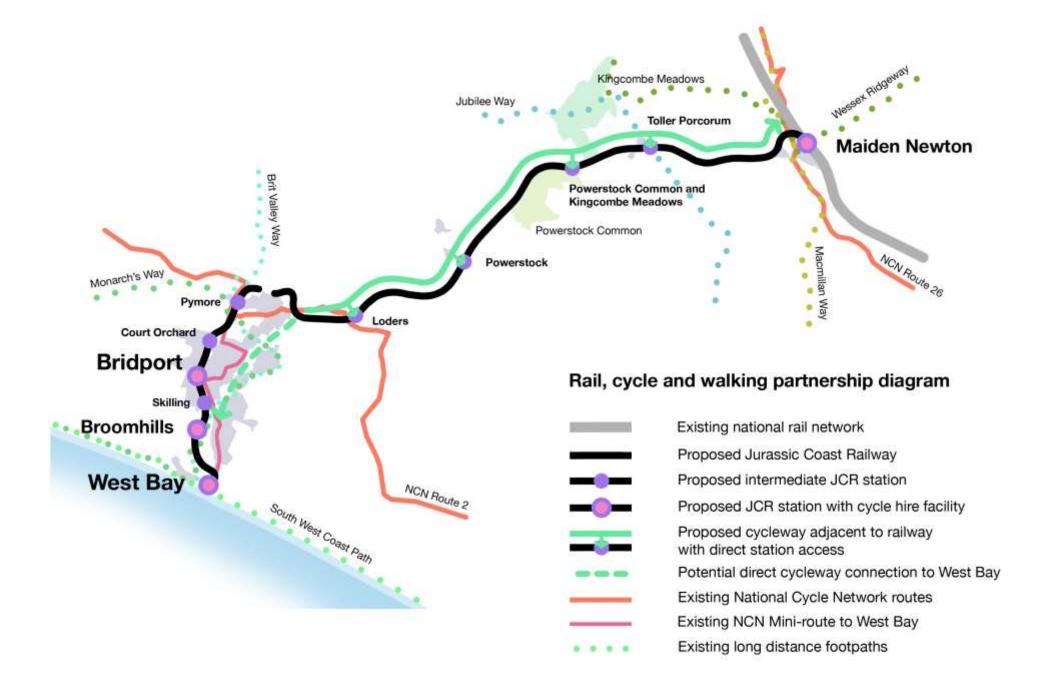
- Today is about sharing some inspiring ideas and starting a conversation and deep listening.
- An invitation to co-create together in order that we can work creatively and move towards a zero carbon future within the sphere of influence

# **Co-founding Ideas Converge**

- Firstly, the idea of a **Bridport Community Railway** that takes its ques from the Ffestiniog and Welsh Highland railways and the new hydrogen powered train units for the Zillertalbahn railway in Austria. A corridor of biodiversity with a multi-user trailway linking West Bay, Bridport, Bradpole, Loders, Powerstock, Toller and Maiden Newton.
- Secondly the award-winning ideas envisioned by the **Velocity** team on the sensitive regeneration and development of new movement networks and clustering of villages for the 21<sup>st</sup> century. Together with the ideas proposed by **Smart Community Projects** for local affordable housing.
- Thirdly the idea of embracing **Community Alliances**, Innovation Partnerships that deliver holistic local solutions to the social, economic, and environmental challenges we face today.

## **Nigel Ewens**

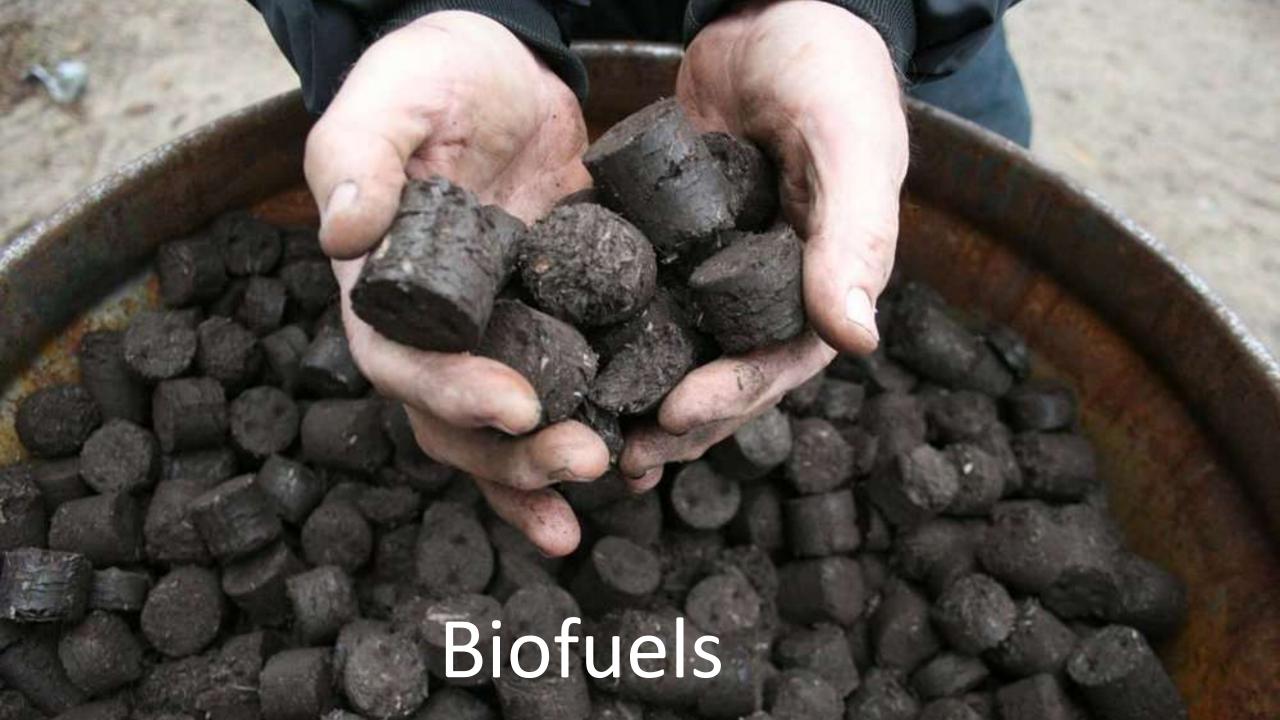
Co-Founder
Bridport Community Railway

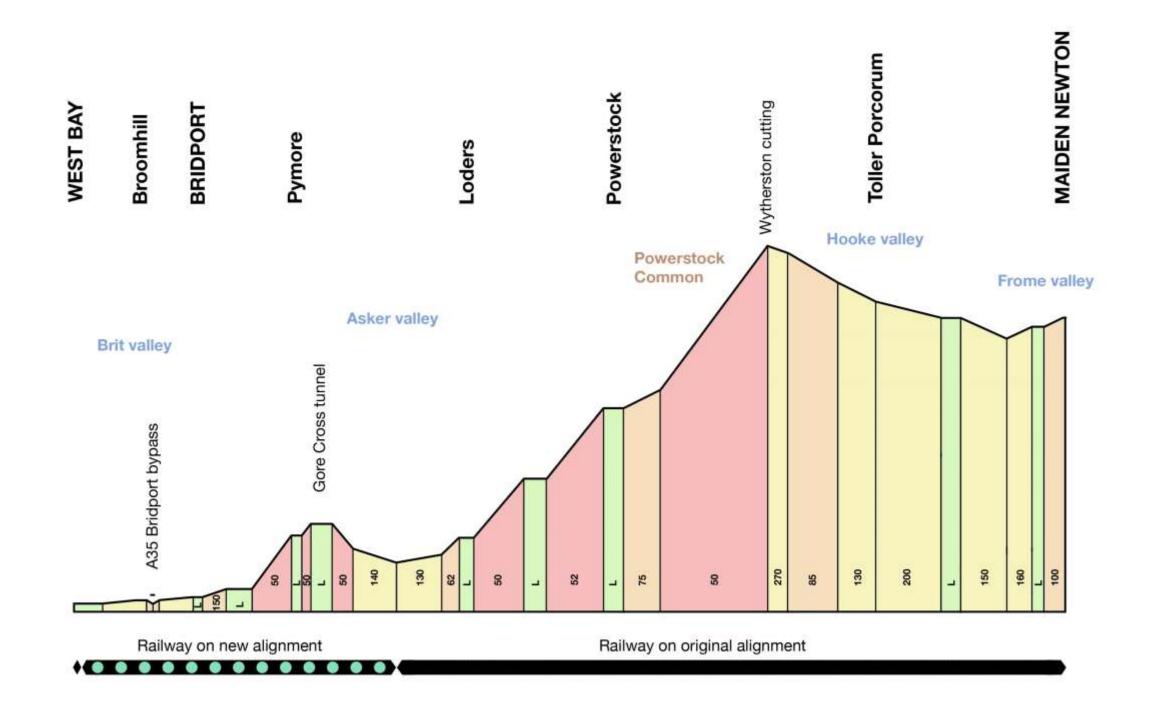


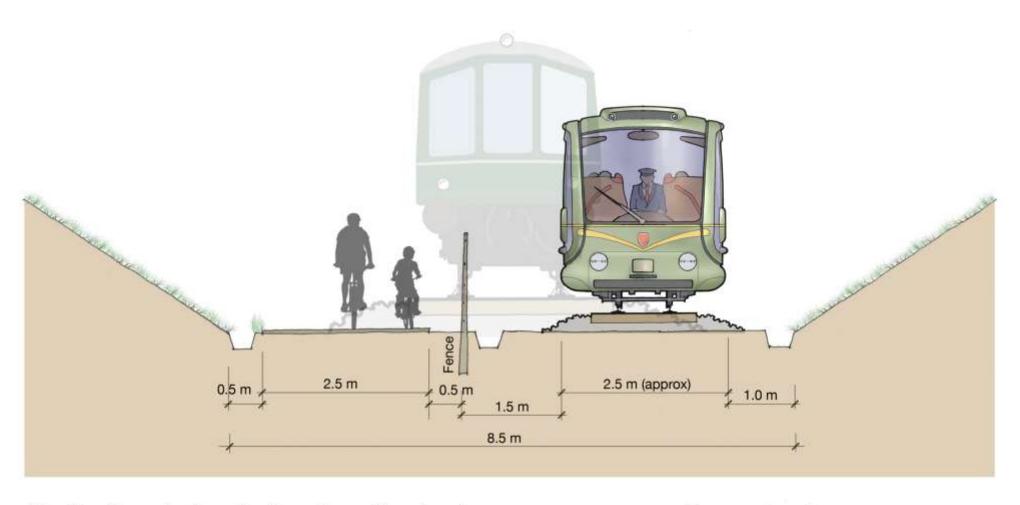








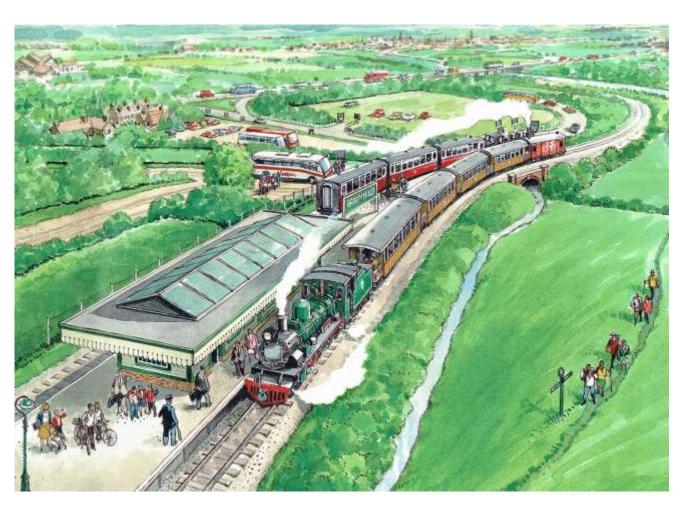




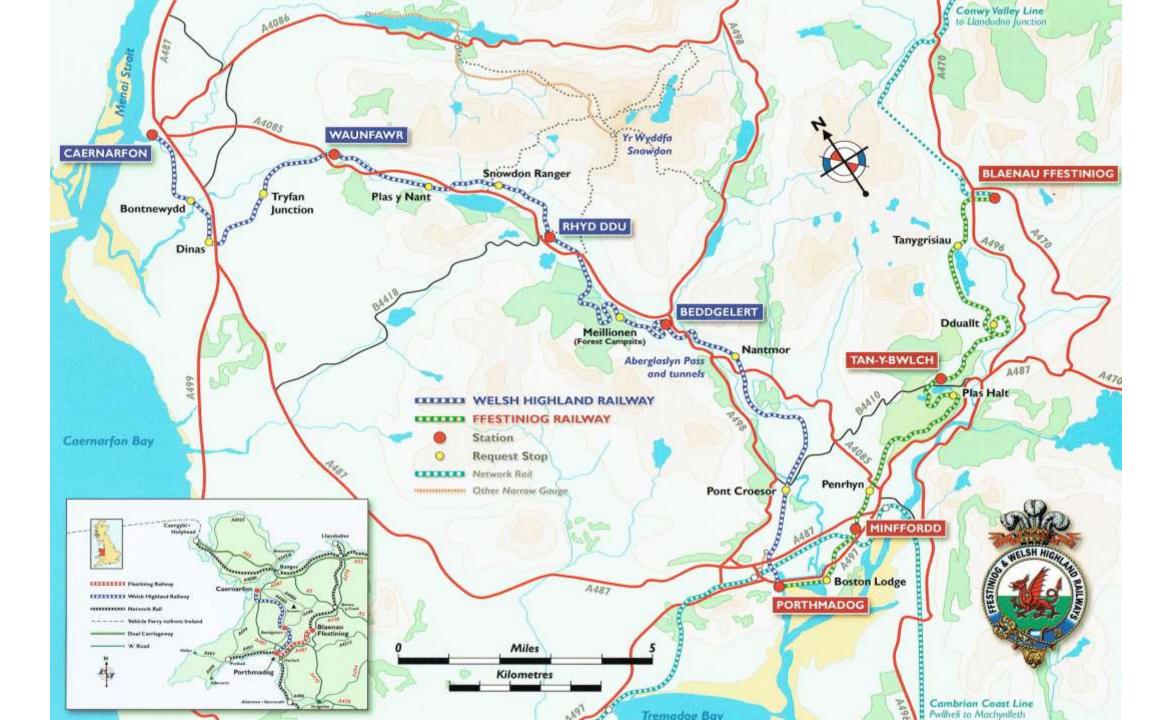
Section through shared railway formation showing new narrow gauge railway and cycleway. (Former standard gauge train shown ghosted behind for comparison)







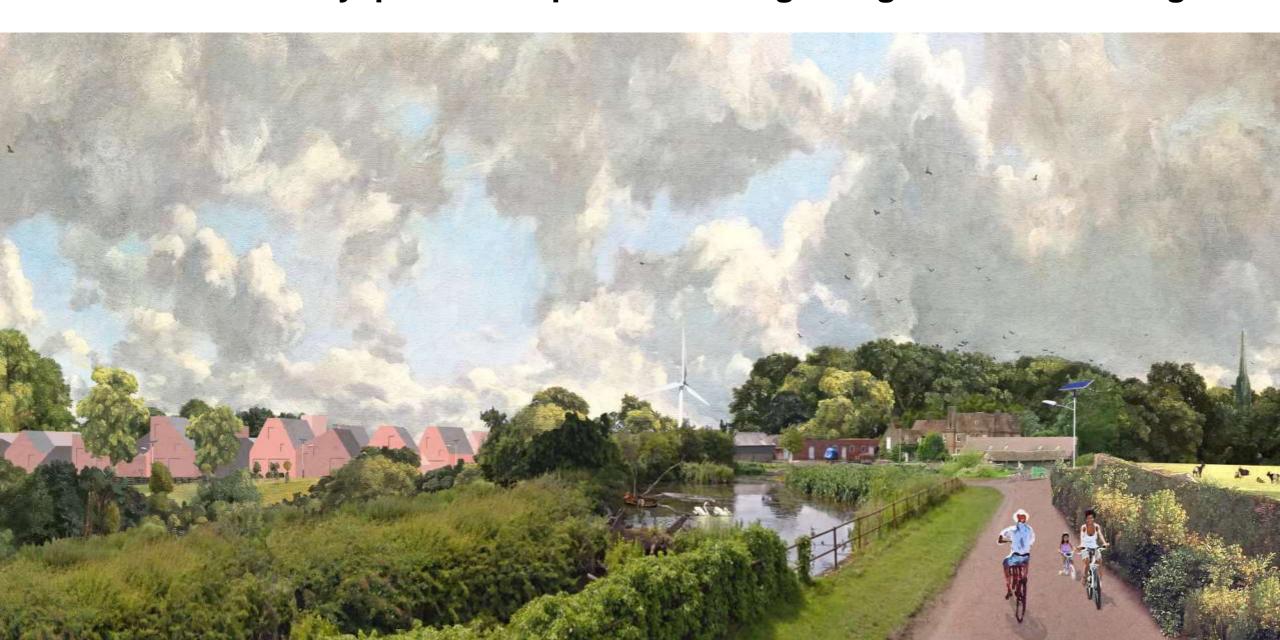




# Sarah Featherstone Co-Founder Velocity



### the modern day picturesque - reimagining the 21C village



VeloCity is a strategic vision that solves some of the most critical issues facing the countryside today, delivered by a team of industry experts

Velo	City	is:
------	------	-----

#### people over cars

creating new movement networks

#### connected not isolated

linking villages with shared resources to benefit everyone

#### compact not sprawl

keeping the special character of our villages

#### resilient not fragile

promoting a sustainable environment, health & wellbeing

#### opportunity over decline

unlocking land for new places to live and work

#### why is our vision needed now?

# housing crisis – where and what type of housing should be built in the countryside



A Housing Design Audit for England





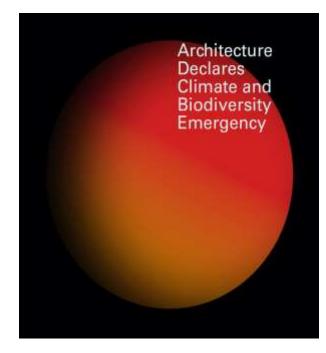
Building Better Building Beautiful Commission Report



# why is our vision needed now? climate emergency

In UK 58% species declined in last 70 years





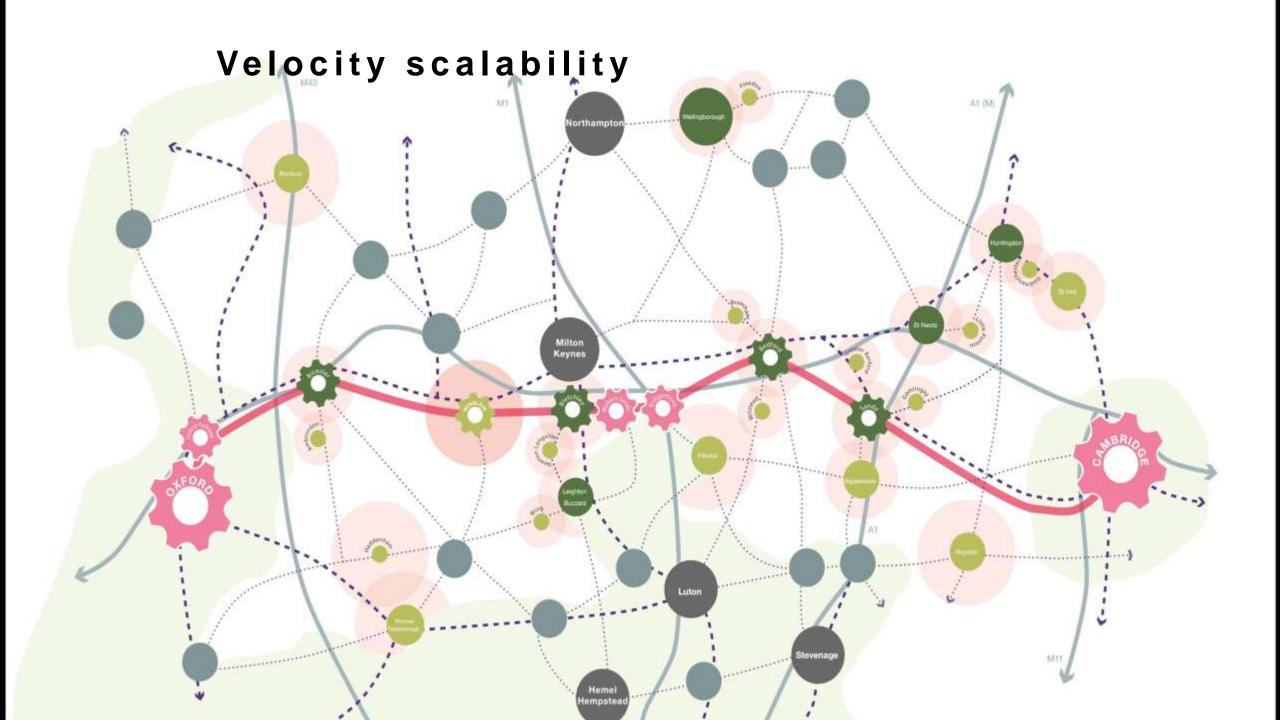




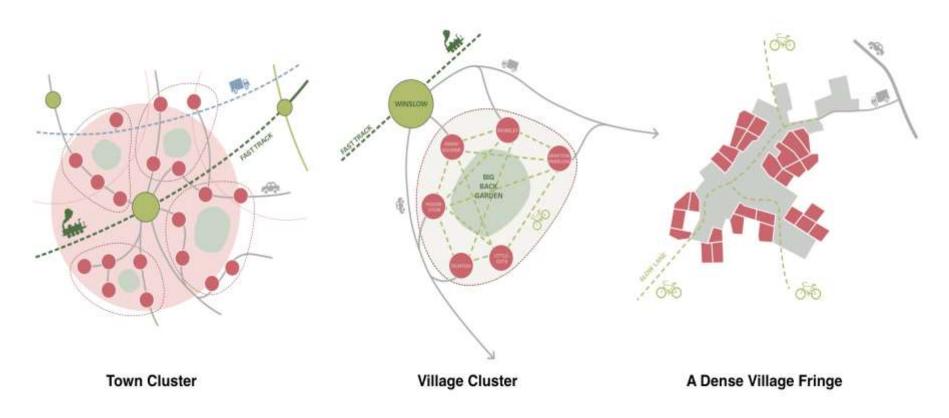


### velocity team





### the spatial proposition



A spatial strategy

#### why focus on villages?

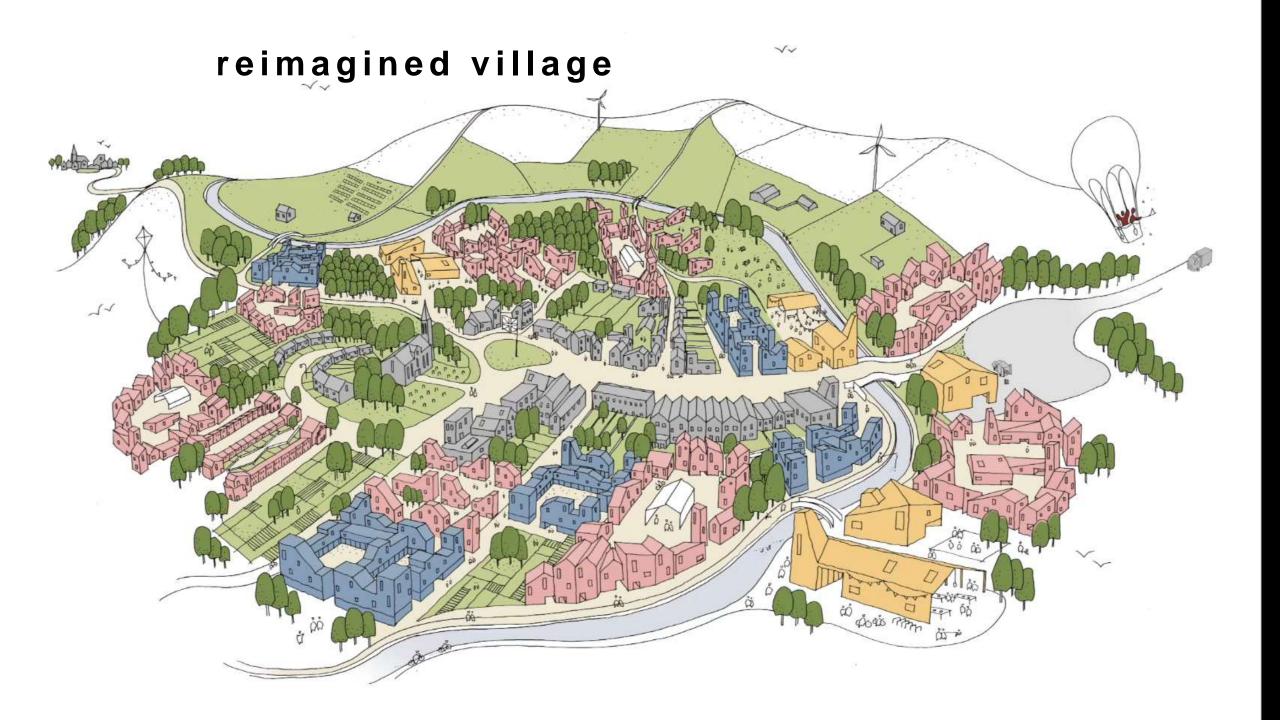
### increasing congestion

ageing population

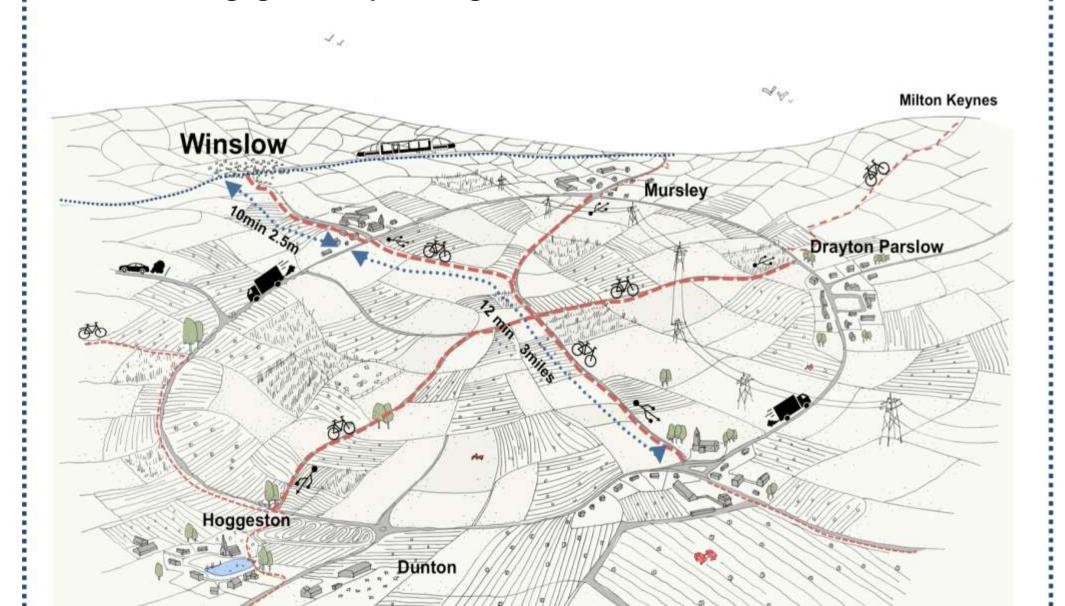
unhealthy living and car dependency

people being priced out

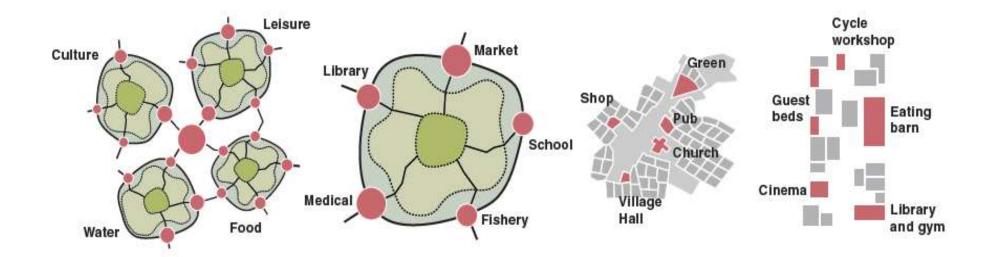
increasing social isolation



# People over cars shifting gear – putting the bike first



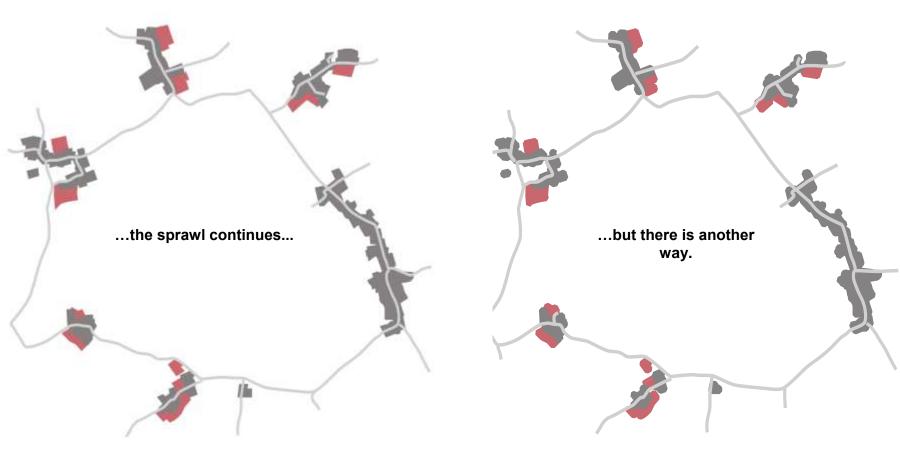
# Connected not isolated growing communities



shared resources & diversification

#### Compact not sprawl

If nothing changes...



3600 new homes at 25 units per hectare

3600 new homes at 100 units per hectare

# Resilient not fragile promoting a sustainable environment



#### Opportunity over decline growing and engaging communities



We developed a clear plan and statutory powers to implement the phased development of the villages. The local community decided which plots should be developed first, which views to protect and which roads to restrict.

The community invited a small group of local building companies to help deliver the plan. ⁴ long-term work stream helped us al supplier relationships. A off site manufacturing wild quickly and

h quality.

Local

I moved into the village cohousing when my wife died, near the health center and GP surgery. I never cycled but my mobility vehicle loves the cycle tracks. No curbs to navigate.











### VeloCity applied to Blenheim

#### Strategic Context

Blenheim

The 10 Strategic Goals

STRATEGIC PURPOSE

To be the lifeblood of the local economy To enhance the lives of local people

To share and protect this place

x3 local

local economic contribution 100+ newly trained apprentices 300+ new homes for families >750K annual paying visitors net generator of green energy

Top 100

UK employers recognition £40M restoration work completed reacquire lost key works for collections

£45M endowment secured for WHS

x2 community charitable donations



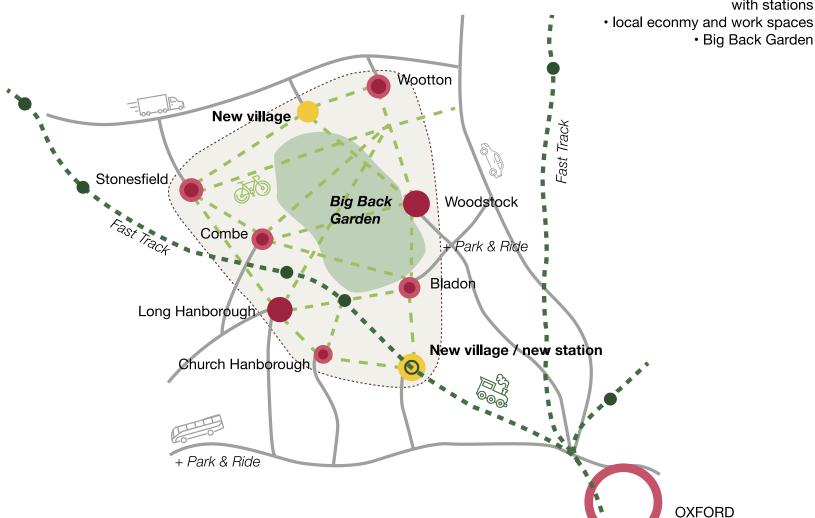
#### a strategy for Blenheim Estate

#### Big Idea - our proposal

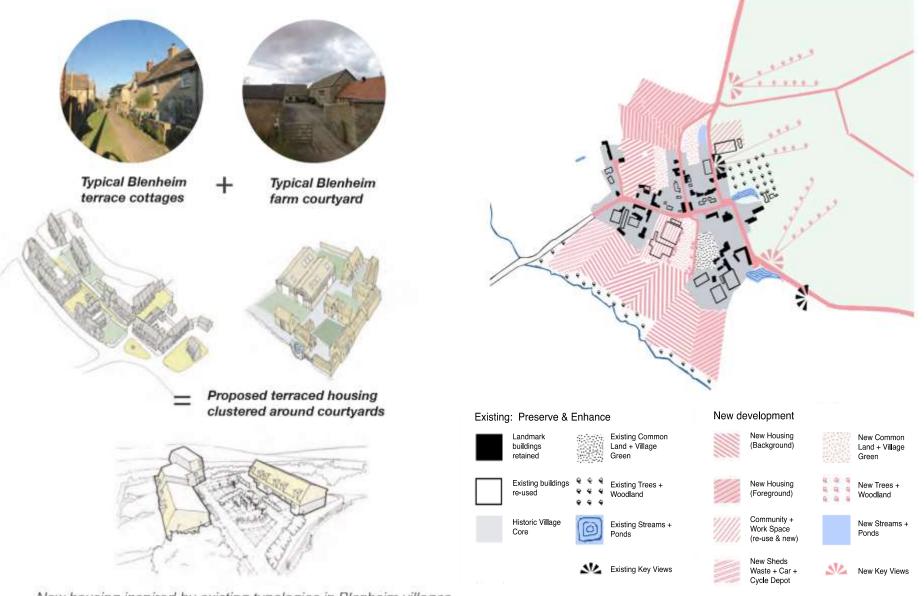
· cluster of villages not stand-alone developments • identifying scope for new connected development in existing and new villages

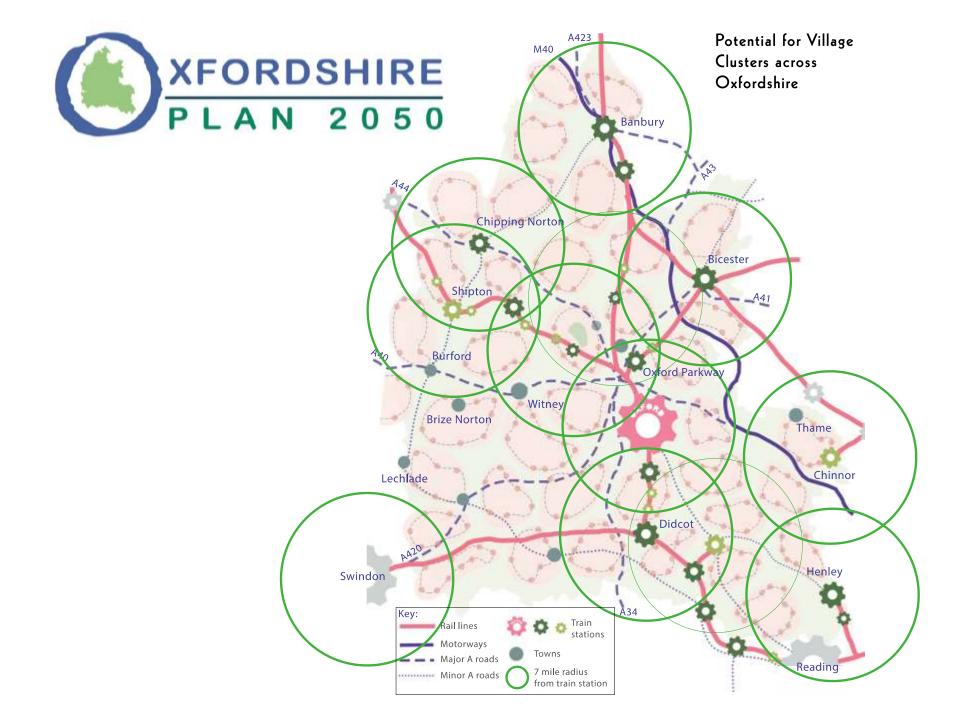
• investment in high quality cycle infrastructure that connects

with stations

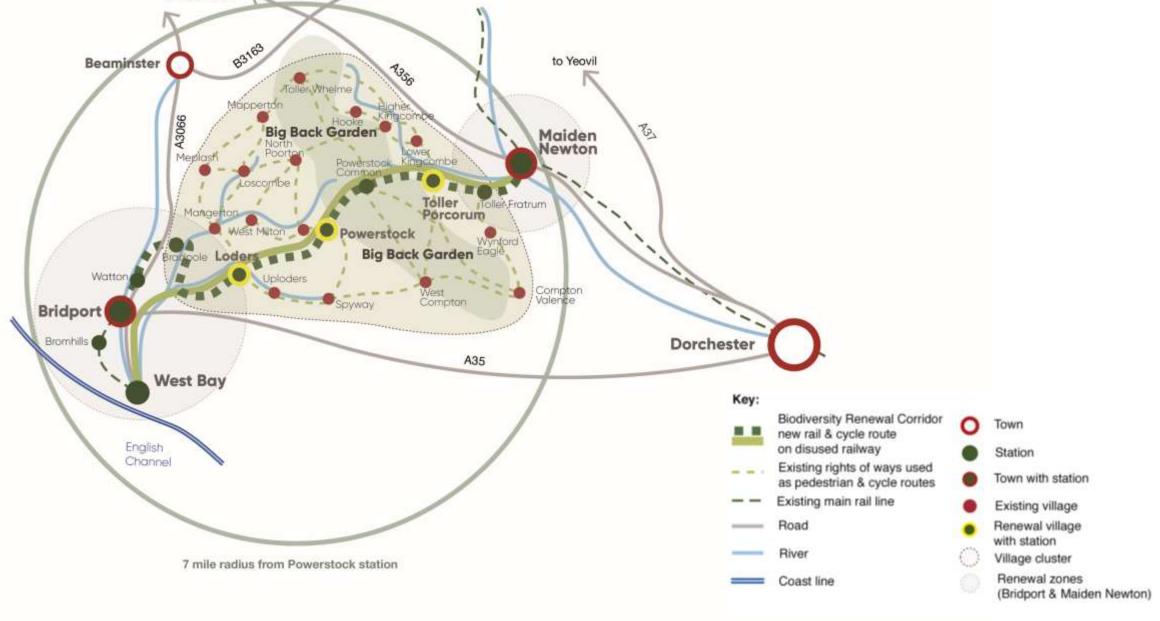


#### village grain & spatial plan - lightfooted

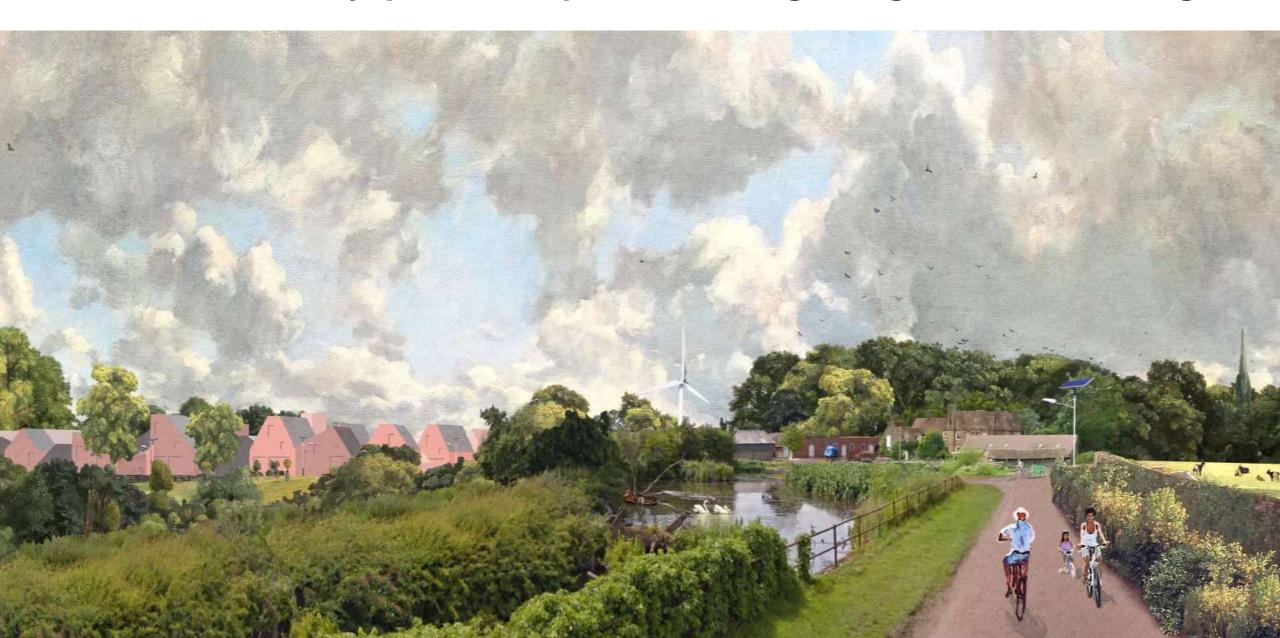




# VeloCity applied to the Bridport Corridor



# the modern day picturesque - reimagining the 21C village



# Julian Mason Engineering Intergration



# **Engineering Integration Ltd**



WebSite:

www.EngineeringIntegration.net

David Davey FICE— Director

David@EngineeringIntegration.net

Julian Mason B Eng Hons – Director Julian@EngineeringIntegration.net

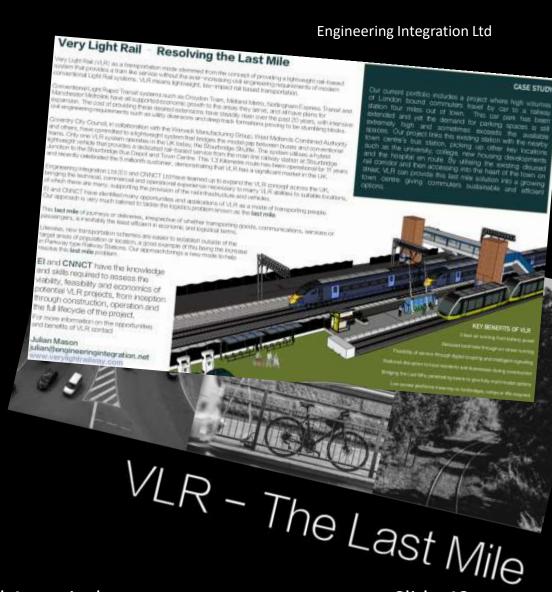
Tim Thorne MICE – Director <u>Tim@EngineeringIntegration.net</u>



# Very Light Rail

#### Key benefits of VLR

- Clean air Running from Battery Power or Hydrogen Fuel
- Reduced land-take through on-street running where appropriate
- Flexibility of service through digital coupling and intelligent signaling
- Reduced disruption to local residents and businesses during construction
- Bridging the Last Mile, penetrating towns to give fully multi-modal options
- Low access platforms meaning no footbridges ramps or lifts required
- Low impact construction including shallow construction depths
- No overhead traction current electrification
- Accommodation of cycle routes and VLR
- Reduced infrastructure costs due to reduced axle loads



#### **Zero Carbon: Bridport Community Railway and Renewal Corridor**



# Very Light Rail

#### The cost benefits of: -

- VLR systems can be constructed for as little as £10 to £12m per km in an urban environment and £5 to £7m per km in rural environment
- In comparison, heavy rail systems cost £20m to £35m per km
- Due to their affordability, private investors are becoming interested supporting VLR projects
- Rail infrastructure demonstrates a level of permanency over the provision of bus routes and services, therefore house buyers and commercial investors are attracted by a sustainable, established public transport systems

#### Projects under development: -

- VLR Innovation Centre Dudley West Midlands
- Coventry VLR Coventry City Centre
- Cirencester VLR Linking Cirencester to Kemble main line railway station
- Bridport Community Railway ......



https://digitalissues.emap.com/NCE/0920/index.html

#### **Zero Carbon: Bridport Community Railway and Renewal Corridor**

### Cirencester VLR

Similarities to Bridport Community Railway: -

- Town and rural setting – utilising both on-street running, crossing agricultural land and original railway alignment

- New significant bridge structures crossing highways and rivers

- Large embankments being utilised carry the new railway formation





Date: - 18<sup>th</sup> December 2020

**Engineering and Commercial Appraisal** 

**Engineering Integration Ltd** 



# **Engineering Integration Ltd**

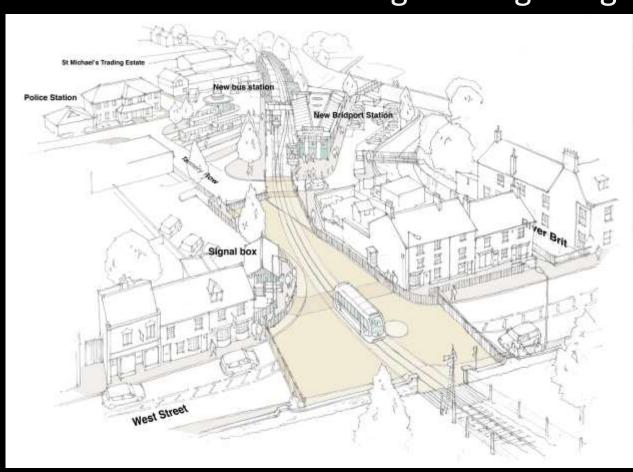


#### Engineering Challenges: -

- River crossings at Broomhills and North of Bridport
- On-street running Bridport
- Road crossing at Gore Cross
- Reinstatement of the original rail route
- Embankment and cutting stabilization along the route, particularly on the approach to Maiden Newton



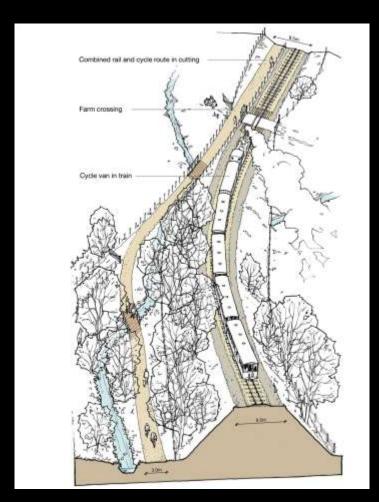
# **Engineering Integration Ltd**



On-street running through Bridport



# **Engineering Integration Ltd**



Utilisation of the original track alignment and integrating a cycle route

#### **Zero Carbon: Bridport Community Railway and Renewal Corridor**



INTERSITY KOSPITAL

**Engineering Integration Ltd** 

Engineering Integration Ltd

- The Coventry VLR vehicle currently in manufacture testing commences February 2021
- VLR Innovation Centre Dudley (currently under construction)





Date: - 18<sup>th</sup> December 2020

**Engineering and Commercial Appraisal** 

Slide 48

# Vince Adams Co-Founder Smart Community Projects



3Bed Houses for families with plenty of space to live and grow



"Ours is the only development that has such a broad range of sustainable credentials."

#### Watton Village: Affordable Housing Need in Bridport

aoi	SMART
-	Committee nametrale

#### **Bridport Housing Register**

This is the latest housing register for Bridport. To be on the housing register you have to be either homeless or inappropriately housed.

Almost one thousand people needing over 400 homes clearly illustrates an acute housing need in Bridport, These people need more affordable homes.

******	The control of the co	Parlamentary Number of Bosses
Person	Number of Households	Estimated Number of People
Single person requiring Studio or 1 Bedroom	200	200
Couple requiring Studio or 1 Bedroom	56	112
Family requiring 2 Bedrooms	111	333
Family requiring 3 Bedrooms	61	244
Family requiring 4 Bedrooms	5	25
Totals	433	914



#### People living in private rented accommodation paying rents they cannot afford?

The local Strategic Housing Market Assessment worked on the basis that a rented property is only affordable if the rent is less than 25% of the gross household income. Rent for a mid-range two bedroom home in Bridport is around £710 per month - £8,520 per year. Median gross household income is around £27,000 so in this example the rent is 31.5% of household income so therefore not affordable.

So how bad is it in Bridport? The median household income of £27,000 means that around half of Bridport households earn less than that. This means half of households cannot afford to rent a two bedroom home. Never mind a three bedroom home.

Of course many of these less well-off households can get help with their rent through Housing Benefit but the cost of this to the nation is terrifying. We spend around £25 BILLION each year on Housing Benefit. Might it be better to spend that money building affordable housing?

#### Millennials who cannot afford to leave the family home

According to the Office of National Statistics 3.5 million 20-34 year olds are still living with their parents.

That data strongly suggests that almost 800 Bridport millennials are living with their parents. This is a stark indicator of the dire shortage of affordable homes in our town.



#### Sofa Surfers

Sofa surfers must be among the most unhappy members of our society. These are people who cannot afford their own home and have fallen out of our welfare system. They are effectively homeless because the only thing they can do is sleep on a friend's sofa. Or floor! How does our system allow this to happen?

#### Creating a communal conscience on how energy is generated and consumed

#### Saving Energy

Using the innovative timber framed Beattie Passive system, the homes will be highly energy efficient and much better than current Building Standards.

The designed annual heating demand of a Passive House is 15kWh/m2 or less. A typical existing Victorian house has, on average, ten times that demand and a conventional modern house four times as much. Annual heating costs can be an exceptional £75 for a Passive House versus £750 for a Victorian dwelling.

#### How It Is done

- √ Very high levels of continuous insulation
- √ High performance triple glazed windows
- √ Airtight building fabric
- √ Mechanical Ventilation with Heat Recovery
- √A Beattie Passive wall is lighter and narrower than the thermally equivalent cavity wall and needs smaller and cheaper foundations
- √ Offsite construction. The aim is to prefabricate locally in a Flying Factory
- √ Wood construction is up to 30% faster in offsite construction than other materials

#### Fire Resistance

The buildings are clad internally and externally with noncombustible materials with 2-hour protection between dwellings compared to the 1-hour under Building Regulations.

Sound reduction is six times better than Building Regulations Standards between floors and party walls.

#### **Energy Generation**

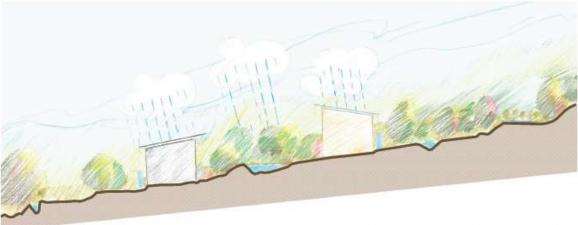
12,000m2 roof area of the houses will be covered with photovoltaic panels that will generate approximately 2,600,000kWh of renewable energy annually. With a site energy demand modelled at 1,600,000kWh annually, 1,000,000kWh can be used for communal services or exported back to the grid.

Batteries will ensure that the Village can take full advantage of the energy generated.

Vehicle charging points will future proof the Village.

#### Water Management

Flood Risk mitigation. The site is in an area with a low probability of flooding and drainage design will ensure there is no additional water runoff 'strain' in the area.



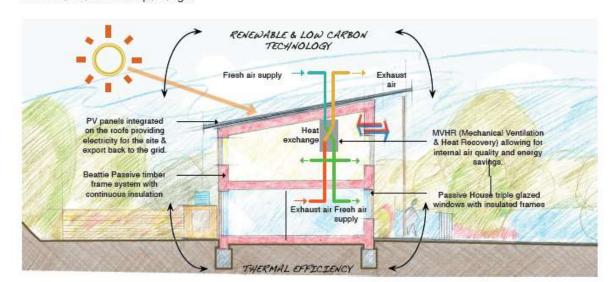
Sustainable Drainage Systems (SuDS): will intercept the water runoff and slowly release it back to the mains sewers or outflow to soil. The design will enhance the existing landscape introducing biodiversity and creating amenity spaces for the community.

5,000 new trees will significantly help to slow the flow of water runoff, reducing the amount of water running into the drains and the amount that needs treatment.

Filter drains and swales designed for water run off attenuation will be introduced along pathways, roads and within the overall landscape design. Ponds and wetlands will create a biological system that is always wet but ready to take more water in heavy rainfall and slowly release it, helping to reduce pollution and increase biodiversity.

Rainwater harvesting is the collection and storage of rainwater that can be used for private and communal landscaping and other outdoor activities. All the buildings will have water butts fed directly from the roofs making a significant contribution to saving mains water.

Additional storage will be designed for communal uses such landscaping and allotments.



#### Watton Village : Bridport & The Colfox Family

# aoi SIART

#### 1600s

Stephen Colfox settled land into trust for municipal almshouses in 1662. These trusts still exist today as part of Bridport municipal charities, owning and running two blocks of almshouses.





#### 1800s

William and Thomas Colfox were founding directors of the Bridport Railway Company and founding Trustees of the Bridport Literary and Scientific Institute.



#### 1700s

Thomas Collins Colfox built the Old Dissenting Meeting House in 1794 (now the Unitarian Chapel). In the 18th and some of the 19th Century, the family ran a small fleet of ships from Bridport Harbour and St John's Wharf in London, in the triangular trade. Exporting wool from the West Country, they picked up wine from Madeira, sold the wool for cod in Newfoundland and back to England. The fortified wine, having been gently shaken up during two Atlantic crossings, achieved a premium price in London and was called Atlantic Port.







# **How to Get Involved**

- Help us form this Collective Alliance NOW!
- Make connections with people of interest who could help
- Become a member of Bridport Community Railway
- Write a letter of support to Chris Loder MP (West Dorset)
- Write a letter of support to Simon Hoare MP (North Dorset)
- Write a letter of support to Richard Drax MP (South Dorset)

"Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it's the only thing that ever has."

- Margate Mead



# www.bridportrenewal.org.uk

# sayhello@bridportrenewal.org.uk

