



**RTPI**

Royal Town Planning Institute

# **Urban Design Network Conference**

## **Design Solutions to the Housing Crisis**

2 November 2023



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Royal Town Planning Institute

# Building on Britain's “Road Belt”

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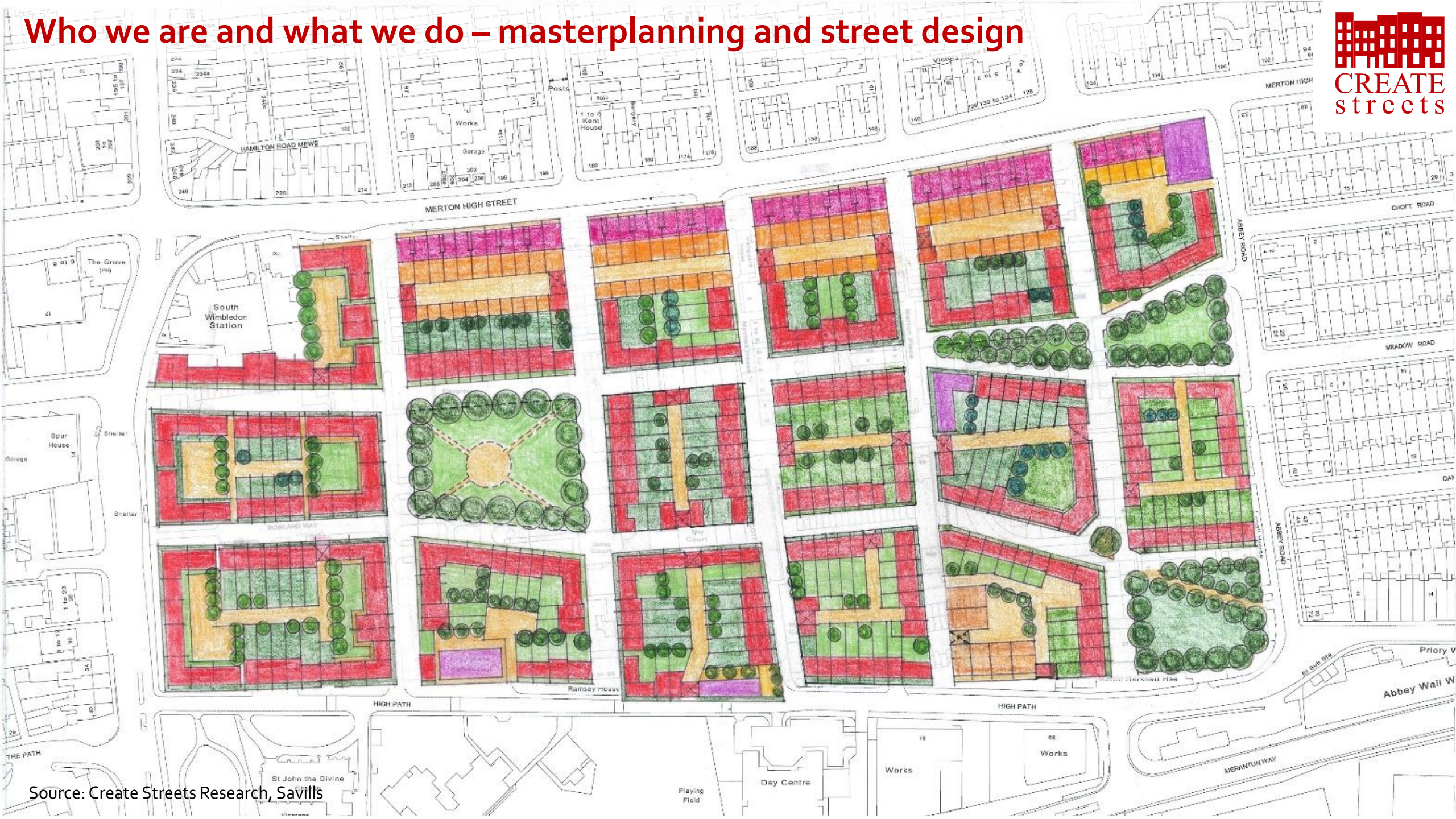
**David Milner** - Deputy Director, Create Streets

**Chair - Colin Bannon** - Vice chair, Urban Design Network

# Moving towards growth and net zero



# Who we are and what we do – masterplanning and street design

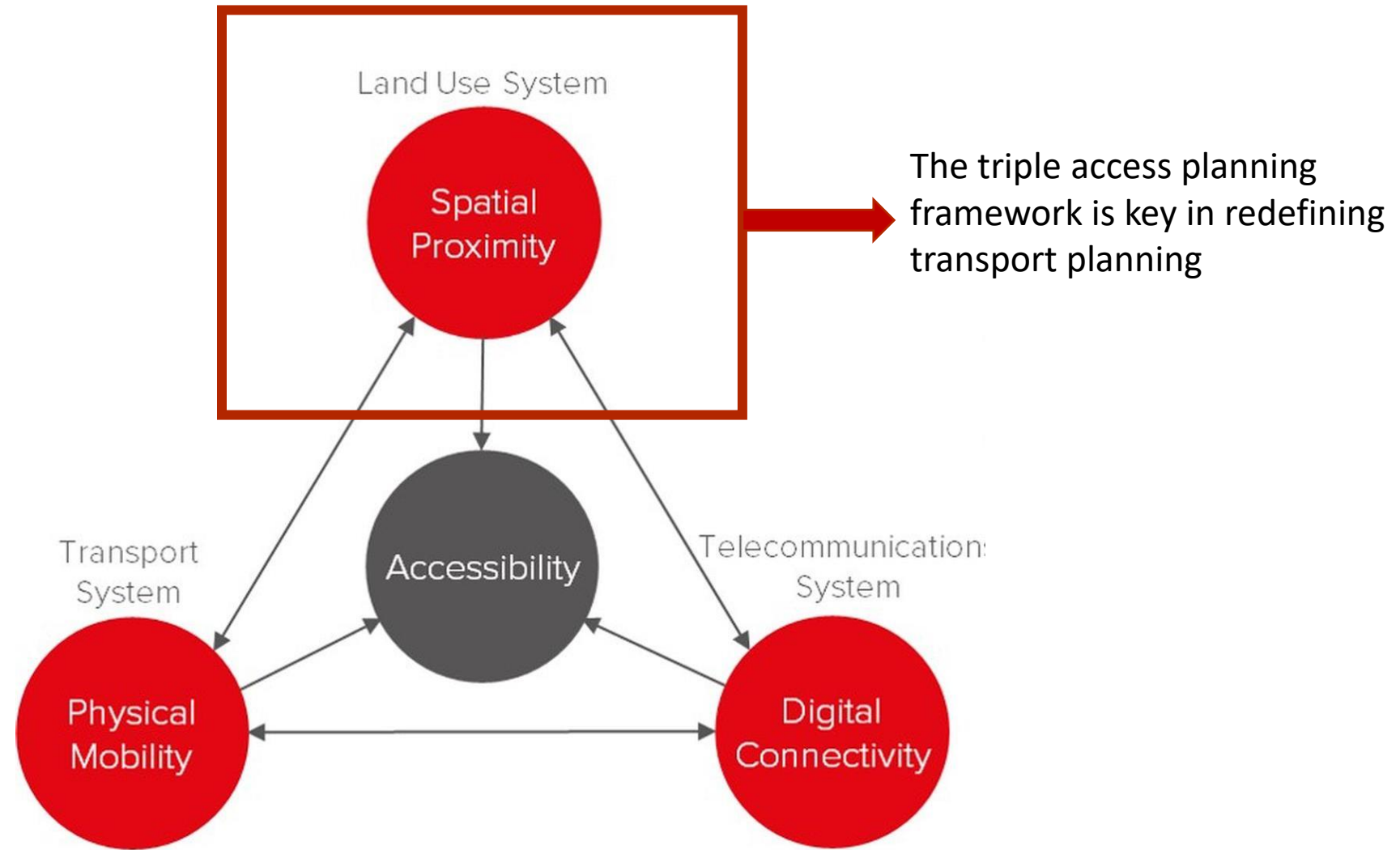


What we do – Use evidence to create new places and change policy

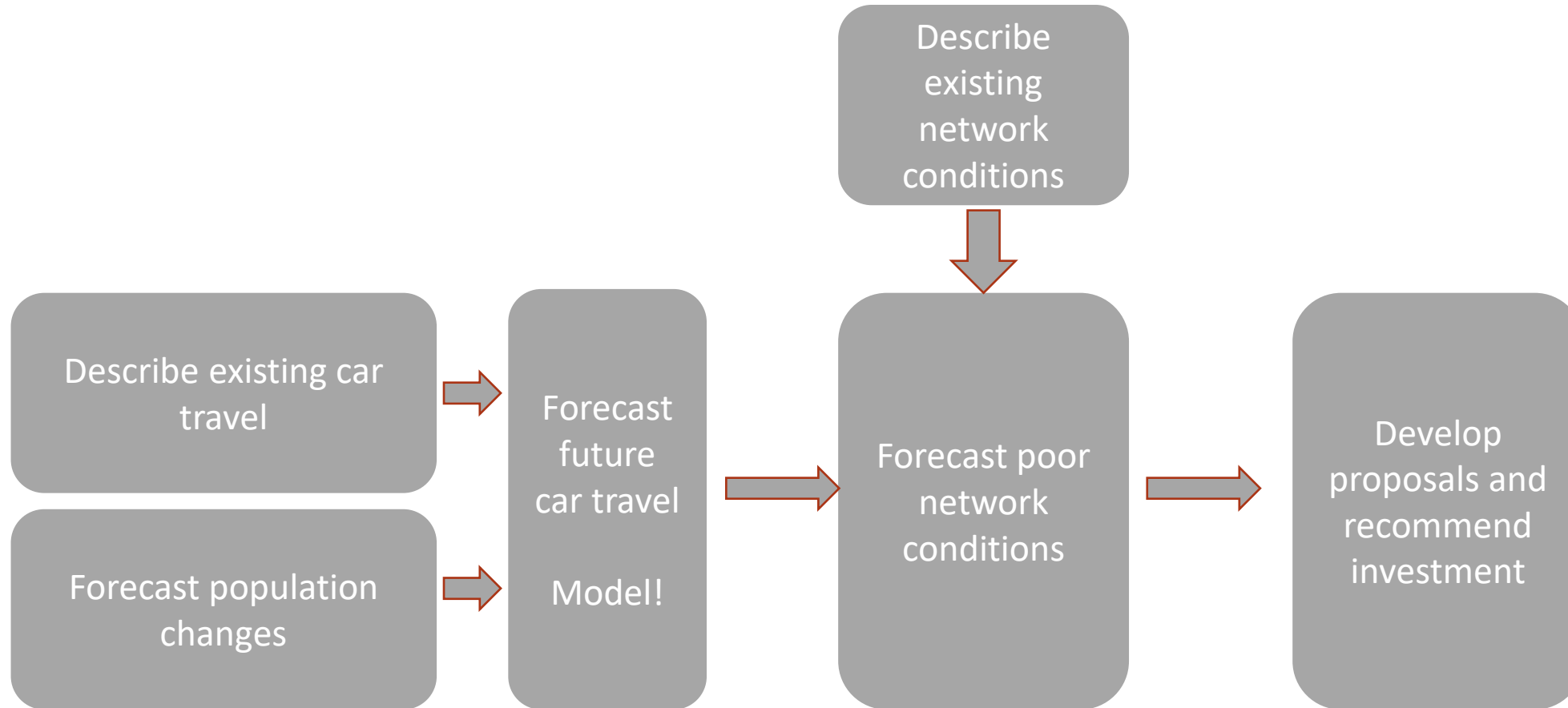


# Movement and Place

# Transport is urban design and urban design is transport

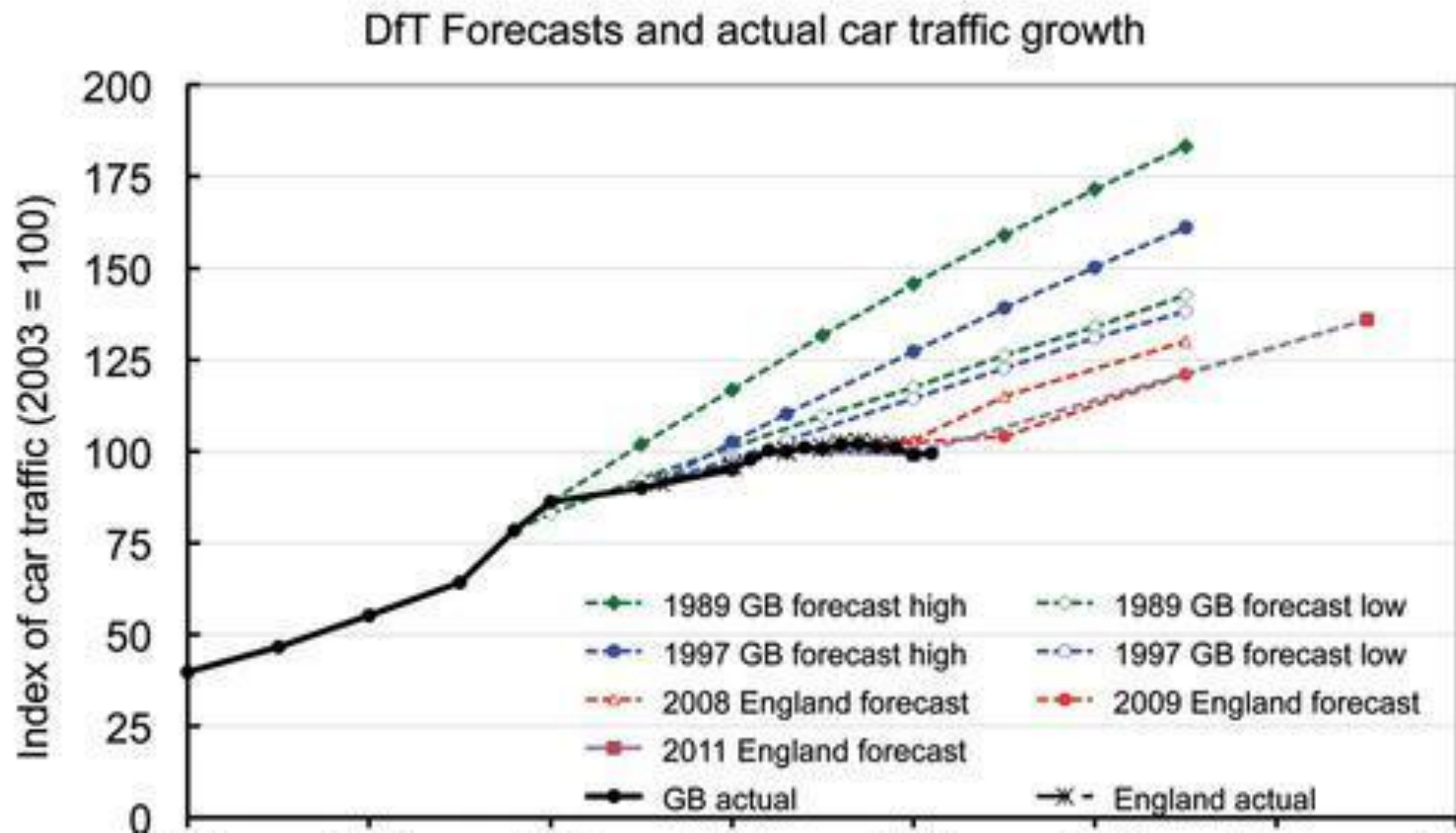


# Predict and Provide compounds assumptions and builds for the worst case

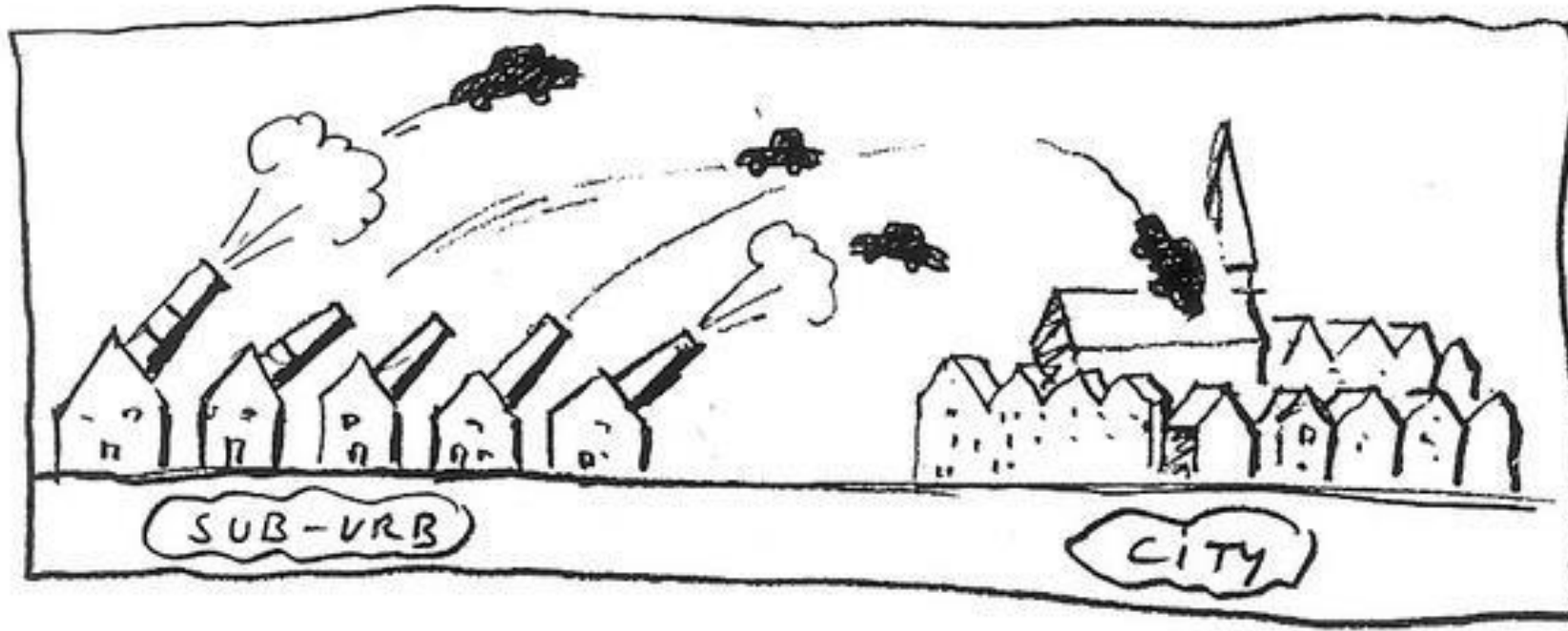




CREATE  
streets



# The hidden appraisal levers – we have an obsession with speed

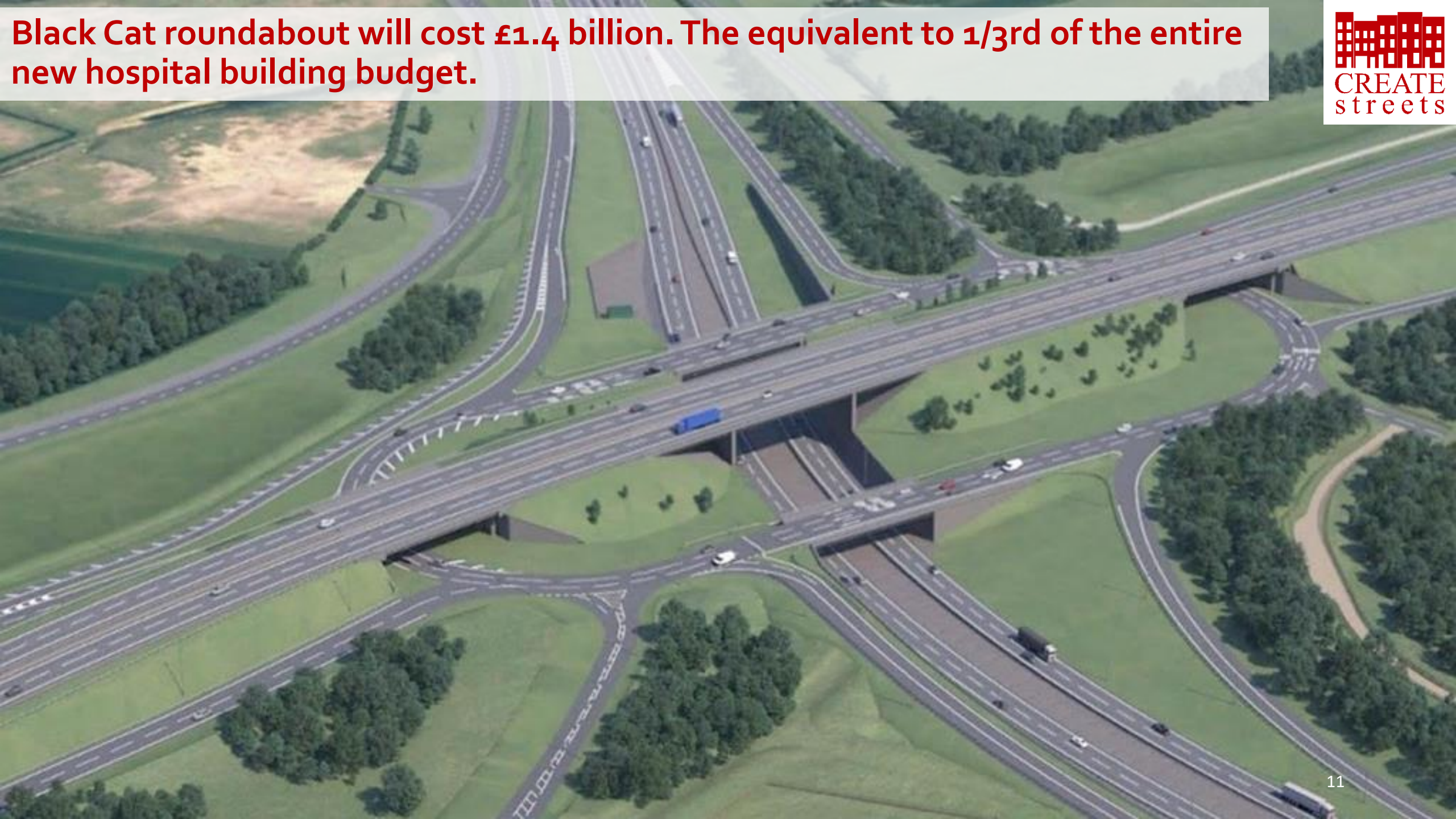


- Commuters time is valued at £9.95 per hour
- Collecting the kids is valued at £4.54

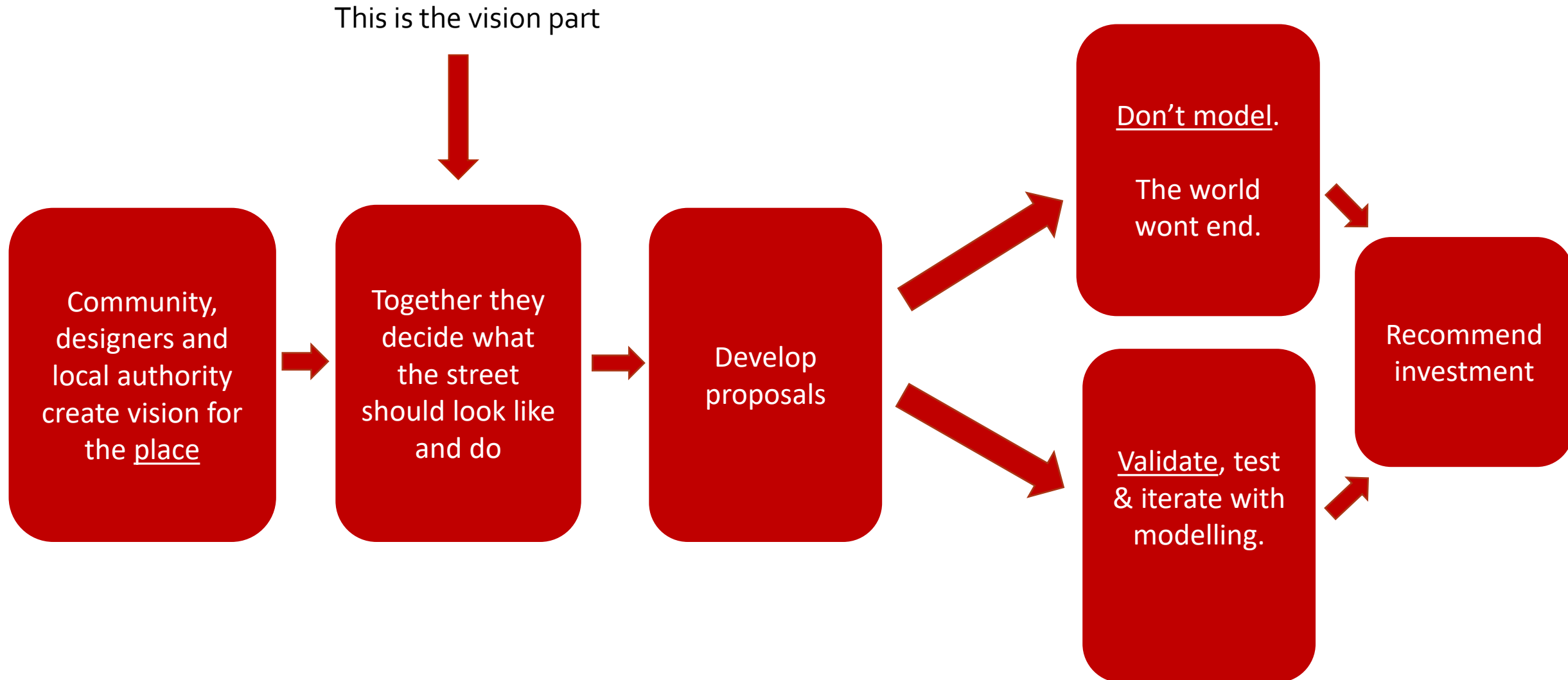
## It values time above all else

- External cost to congestion = 57.2p per km
- External cost for greenhouse gas = 2.8p per km

**Black Cat roundabout will cost £1.4 billion. The equivalent to 1/3rd of the entire new hospital building budget.**



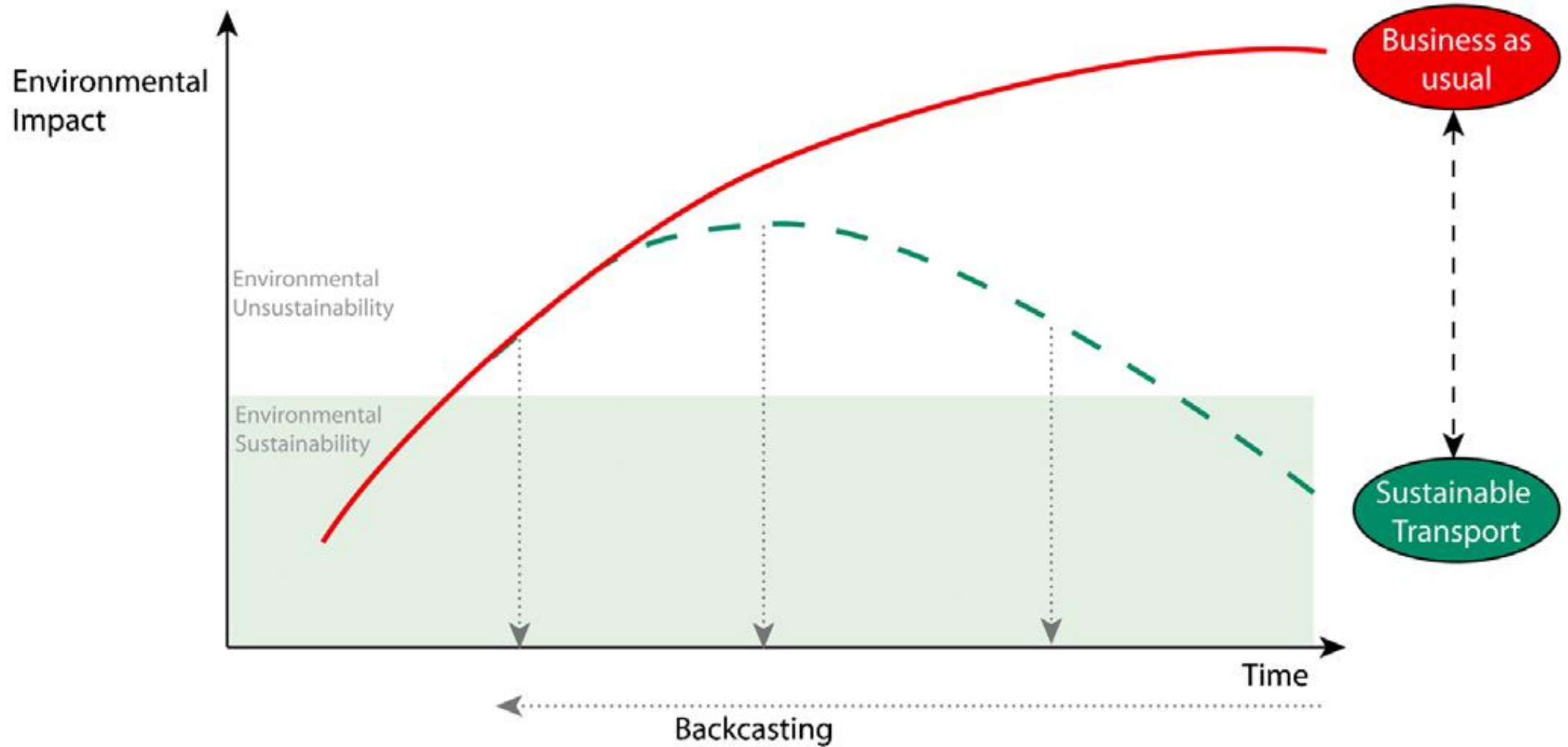
# Vision and validate uses modelling to ask how to achieve the combined vision. Not what the street should look like





But what do we mean by Vision

# Backcasting can give us a transport vision and the metrics we want to achieve



But how places look, feel and function is also the 'Vision' part of Vision and Validate

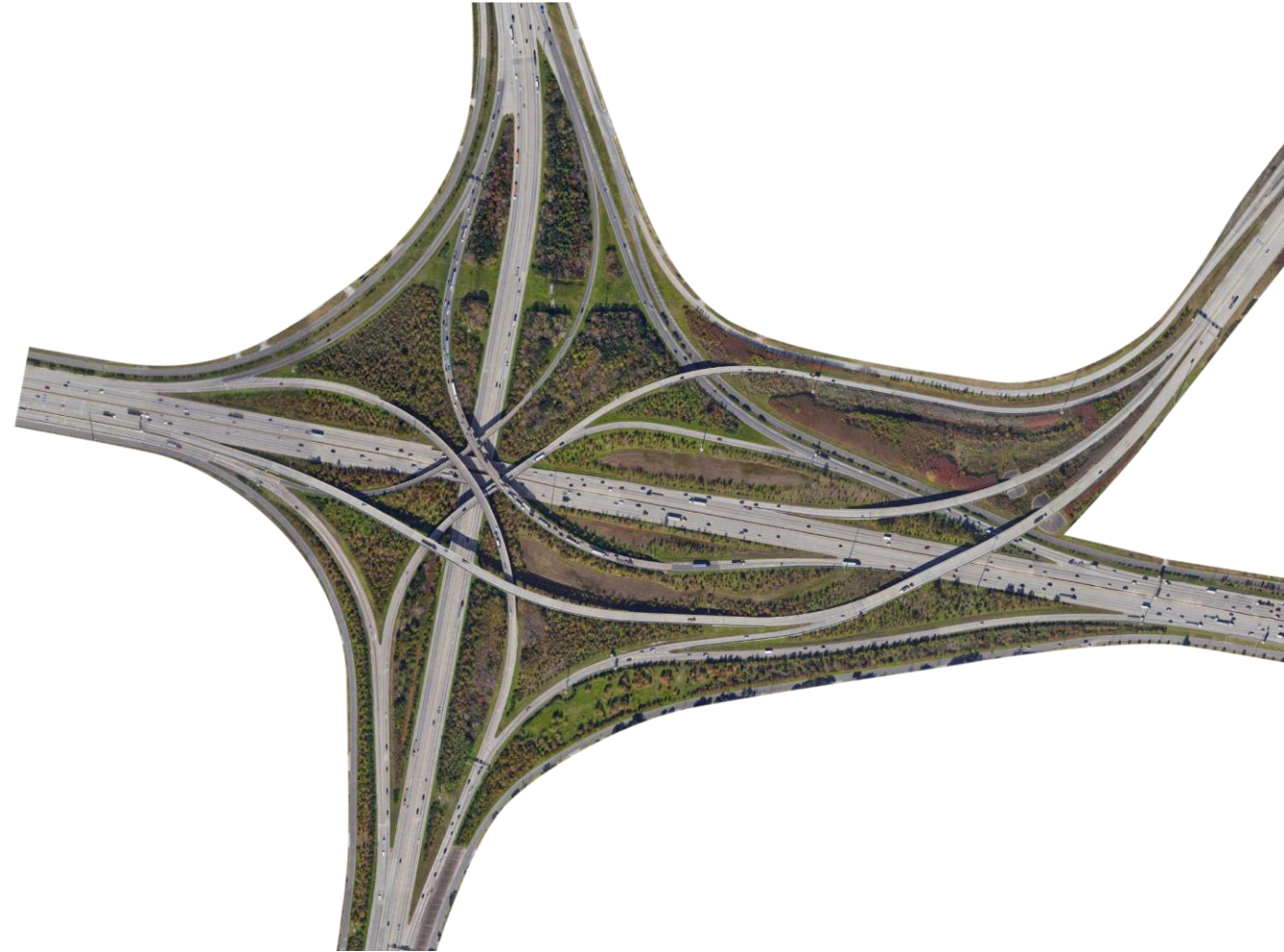




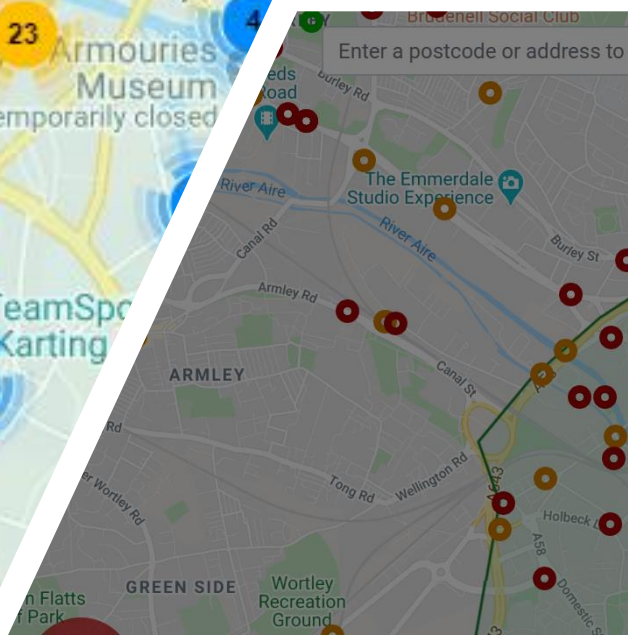
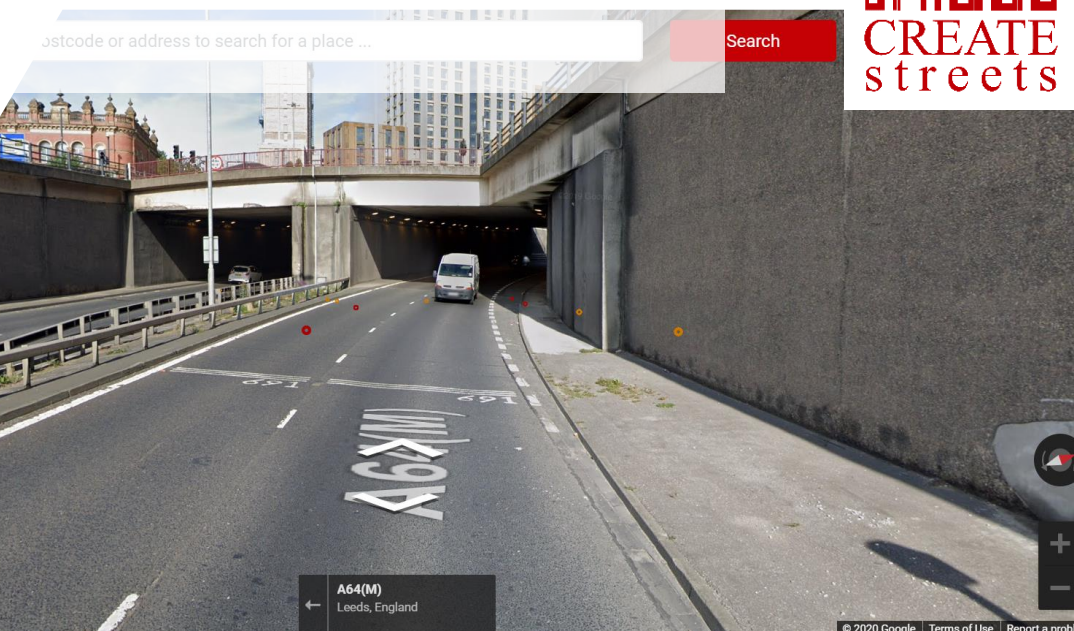
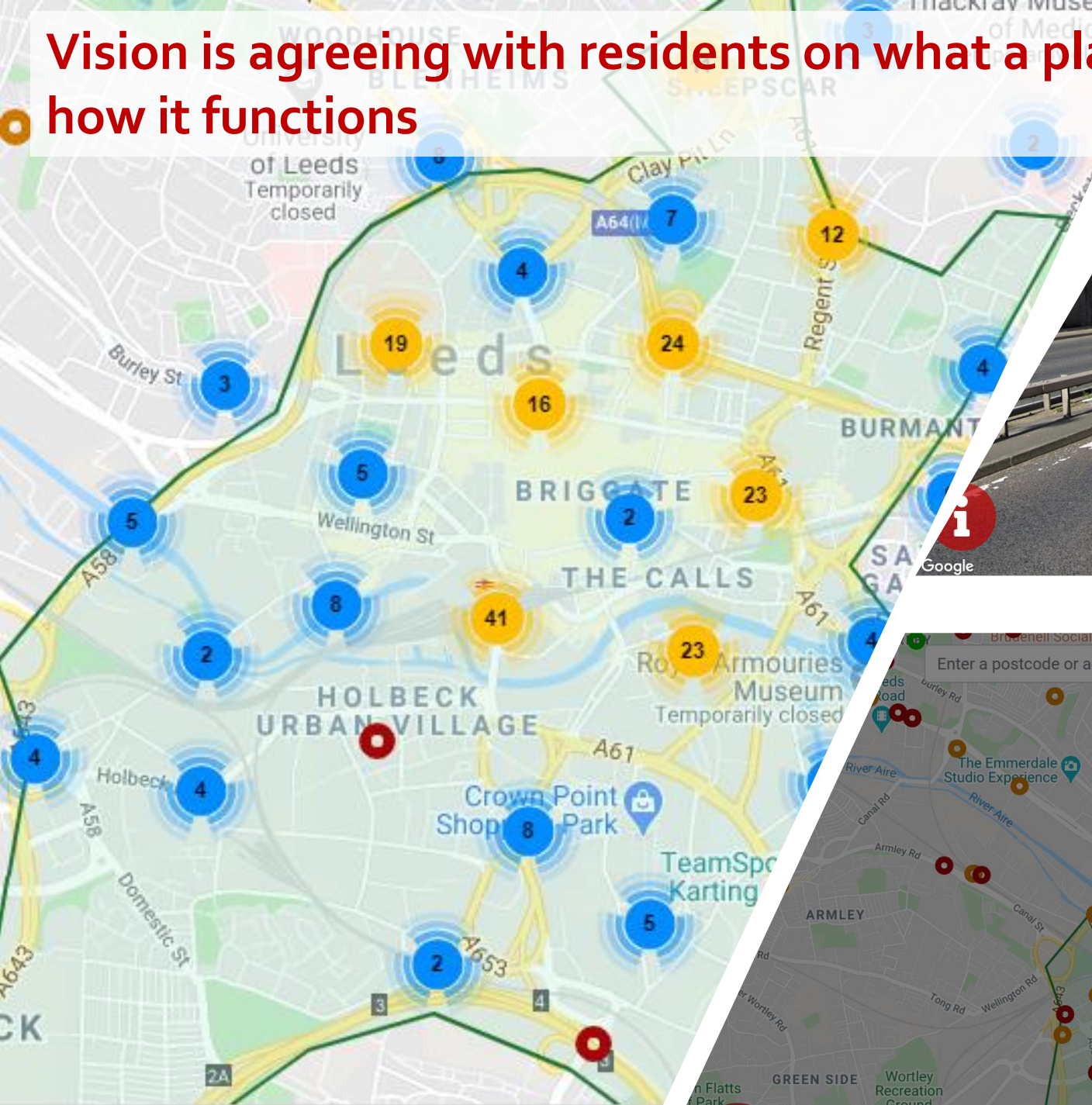
## Shops and businesses mixed with homes




The centre of Siena and a highway interchange in Houston are of similar size. The first is a home to 30,000 people; the second is a home to no one.



# Vision is agreeing with residents on what a place should look like and how it functions



 **What do you think...** ×

Enter a postcode or address to search for a place ... Search

How do you feel about this place? \*

What specifically do you like, dislike or want to improve in this location under lockdown?

If you suggested an improvement, would you keep this after lockdown is lifted?

Doing this can help us go from this

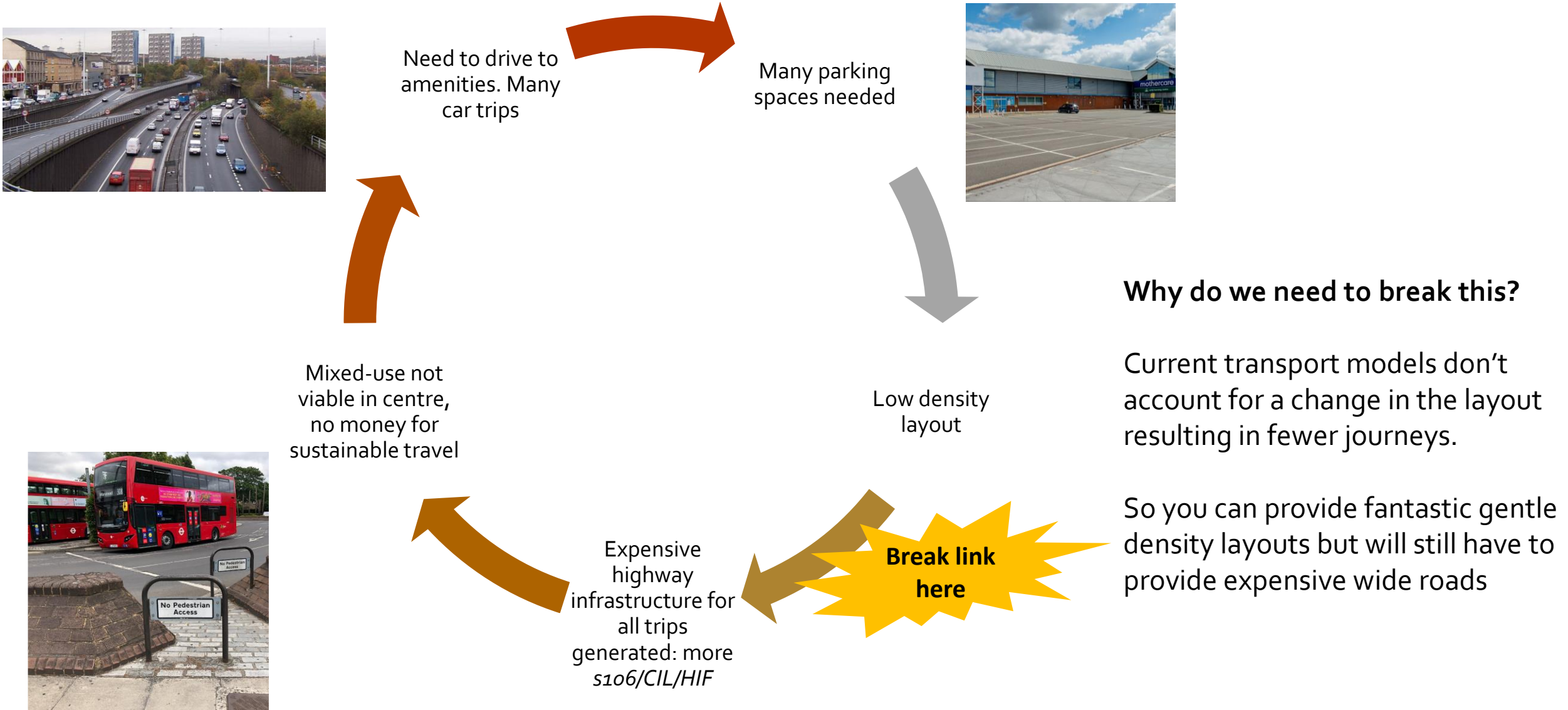


...to this. But it wont be easy



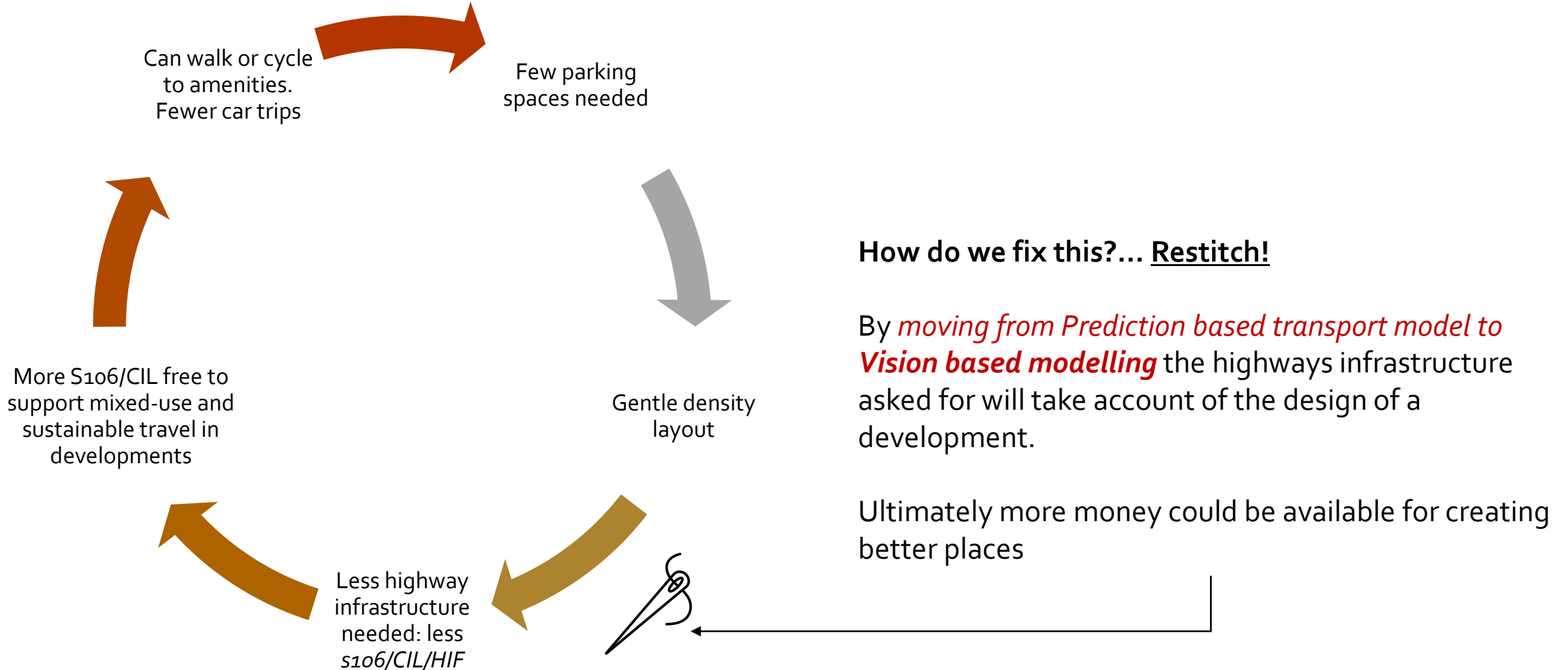
Why streets not  
roads?

# We are caught in a vicious cycle of: Infrastructure-led road making





# By changing transport planning we can move to a cycle of: **People-led place making**





# Poor mass transit reduces Birmingham's effective population in half

- 67% in big European cities can reach their city centre within 30 minutes via public transport, compared to only 40% in the UK
- Decreases the effective size of our cities costing us £23.1bn every year
- Lyon has four tram lines vs Birmingham's one
- If we assume agglomeration benefits the same in the UK as France this would increase GDP per capita by 7%

# The value of streets and benefit of good transport

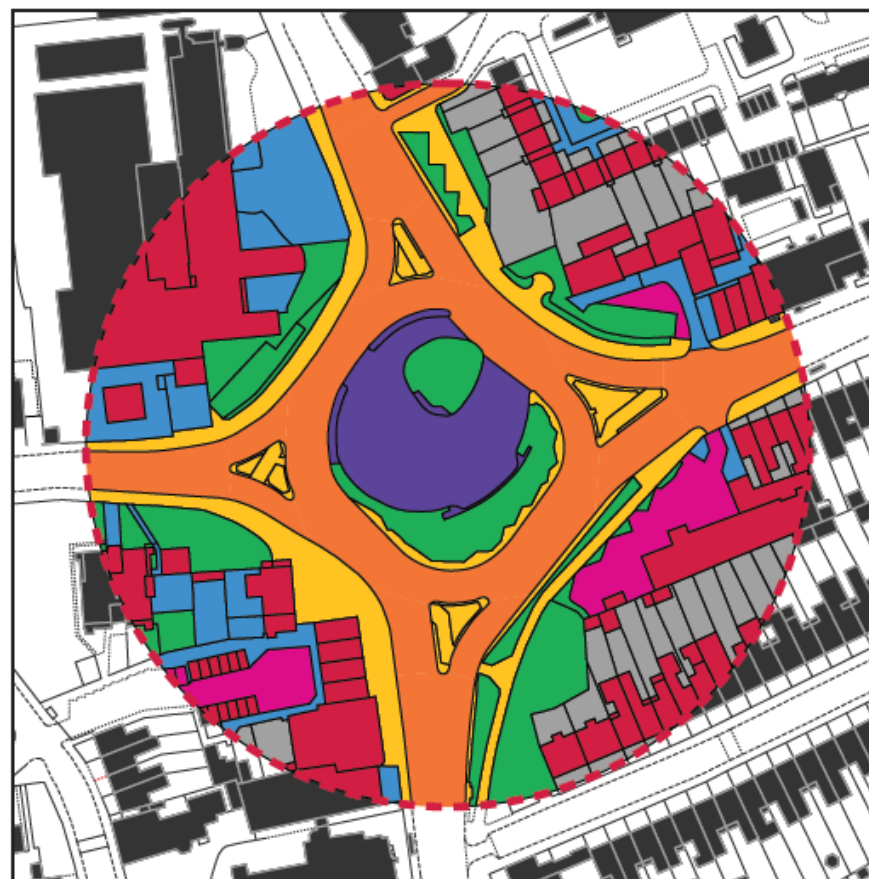
- £226m Nottingham tram extension, is estimated to have generated £169m for the local economy and £217m in the supply chain alone
- 9.8% employment increase within 400m of a tram stop
- Increased development along the tram corridor



# The damage done



1938



2020



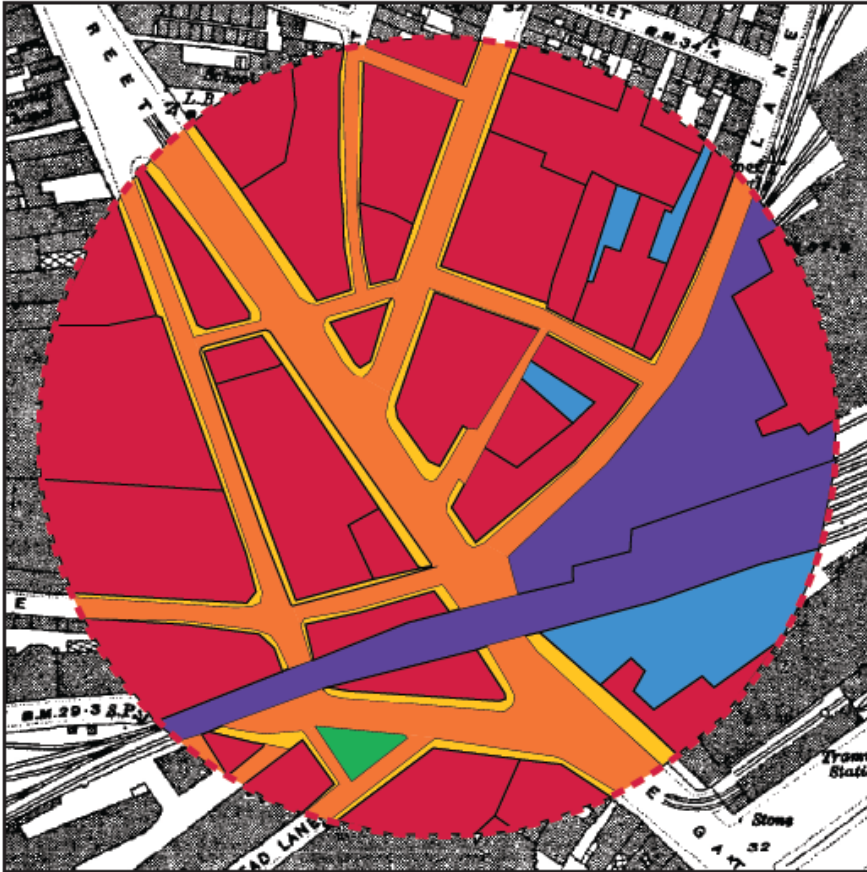
Floor space ↓ 26%

Open space ↑ 16%

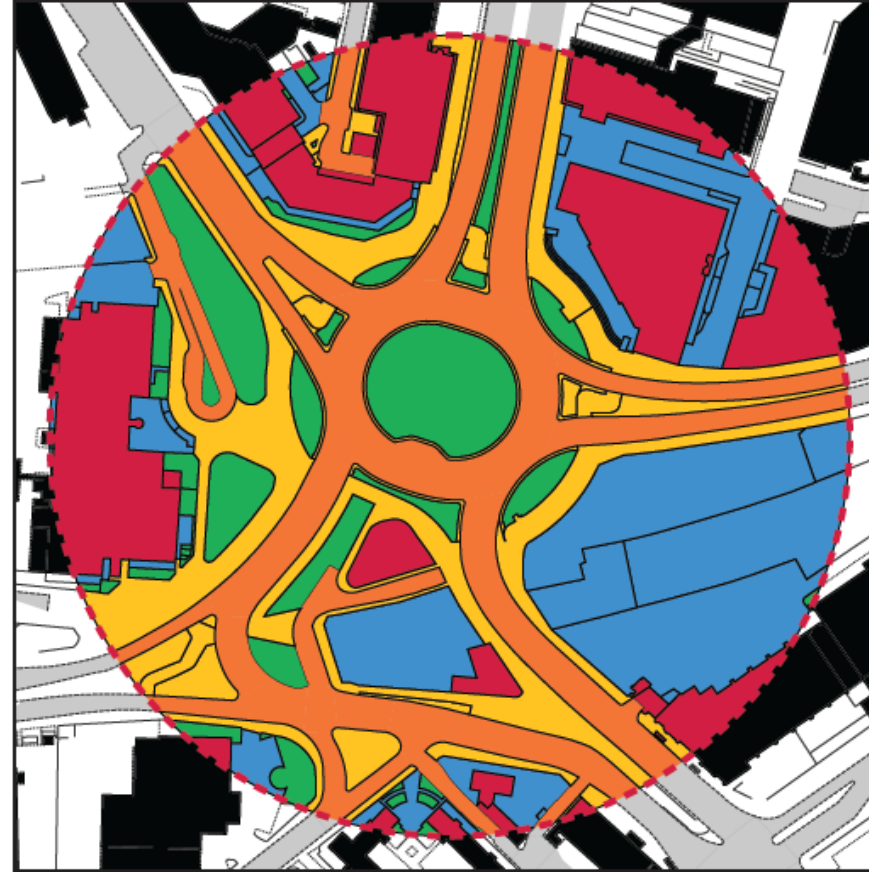
Carriageway ↑ 8%

Land Use - Lea Bridge, Hackney, London

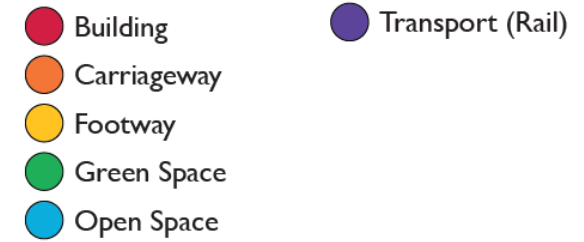
# The damage done



1918



2020



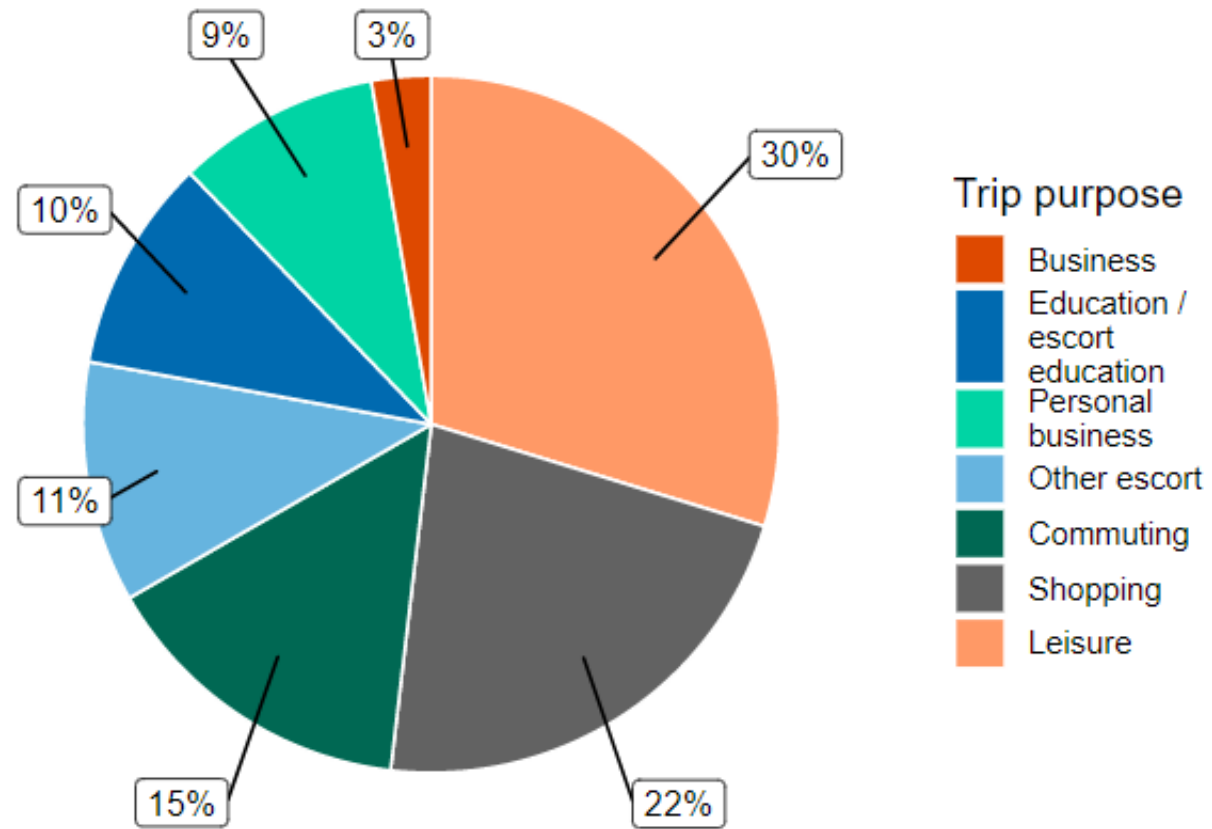
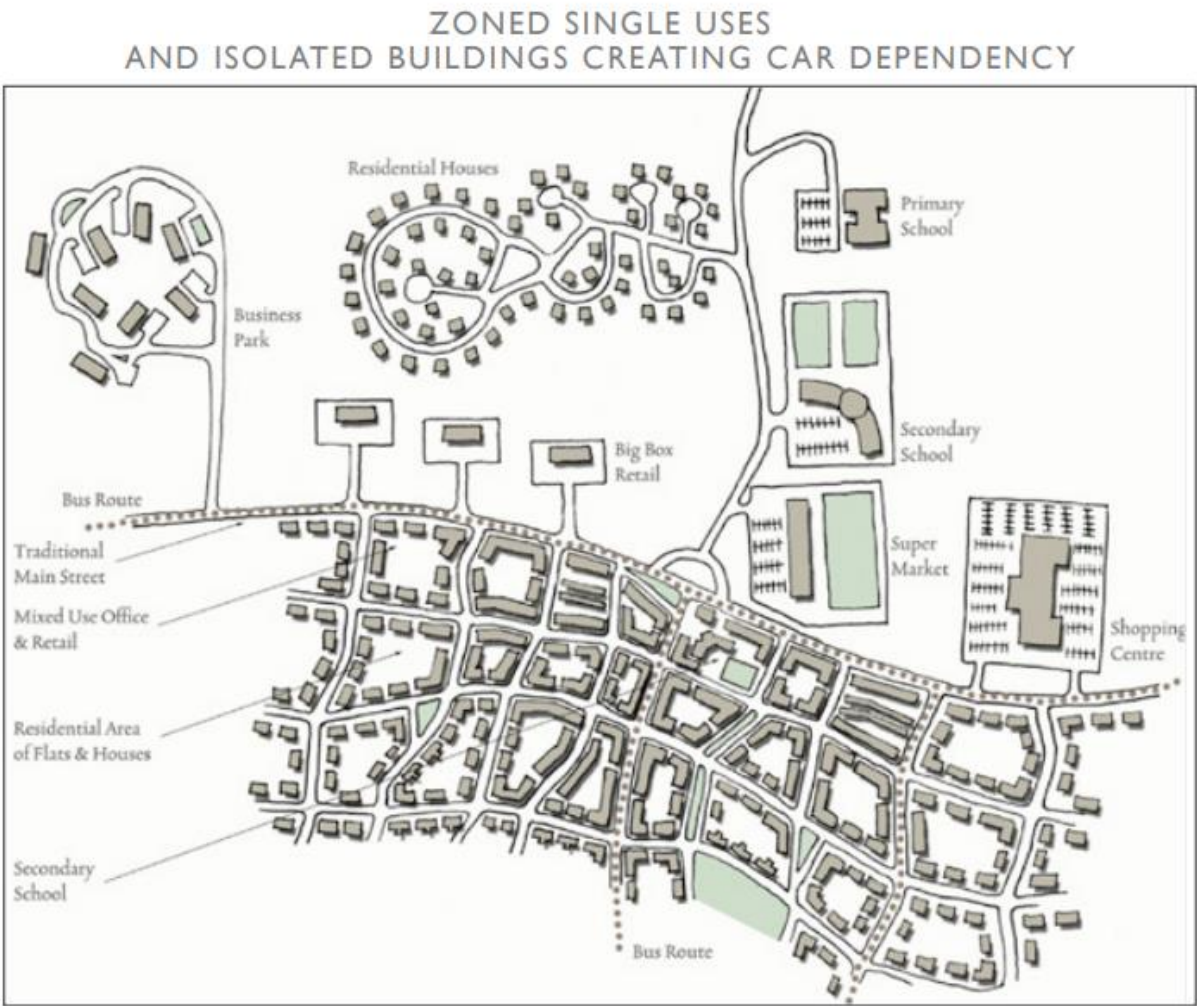
Floor space ↓ 11%

Open space ↑ 47%

Carriageway ↑ 10%

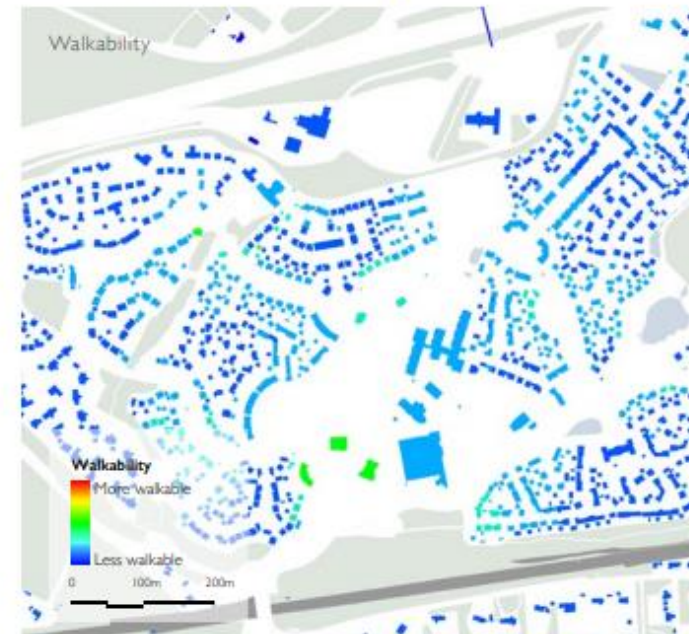
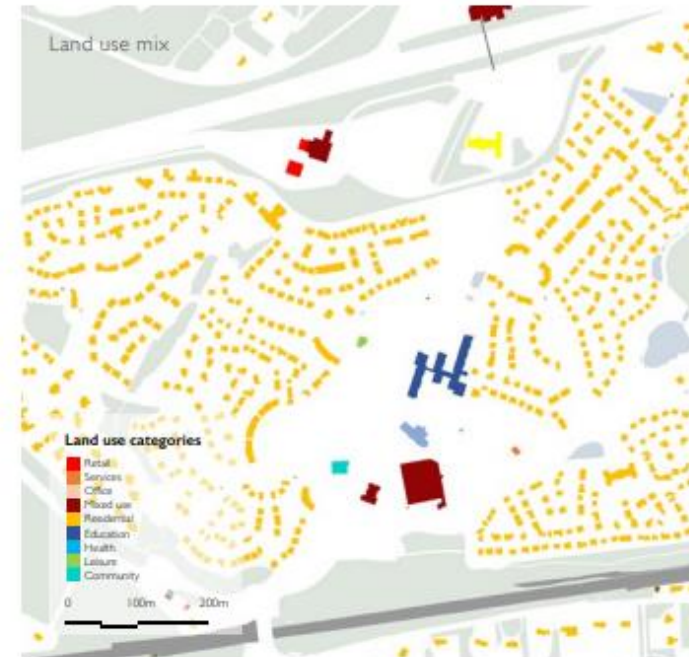
Land Use – Temple Circus, Bristol

The most common trip purpose is leisure and shopping. So lets mix this with where people live



# The most common trip purpose is leisure and shopping. So lets mix this with where people live

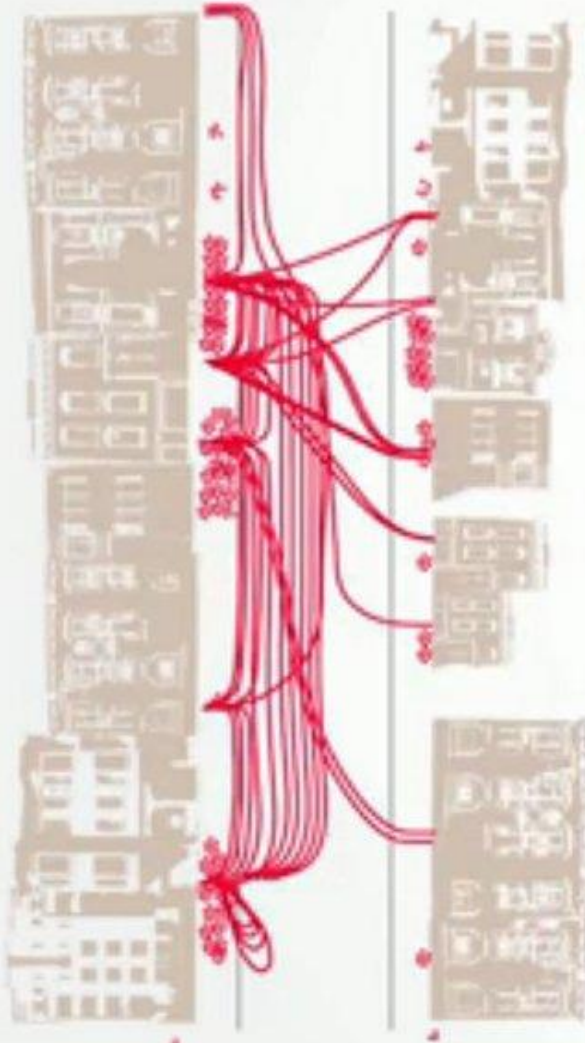
- 30% employed residents worked in the development
- 22% of people walked to work
- 1.3 jobs per household
- 7% value premium
- Walkscore of 88/100 vs 4/ 100



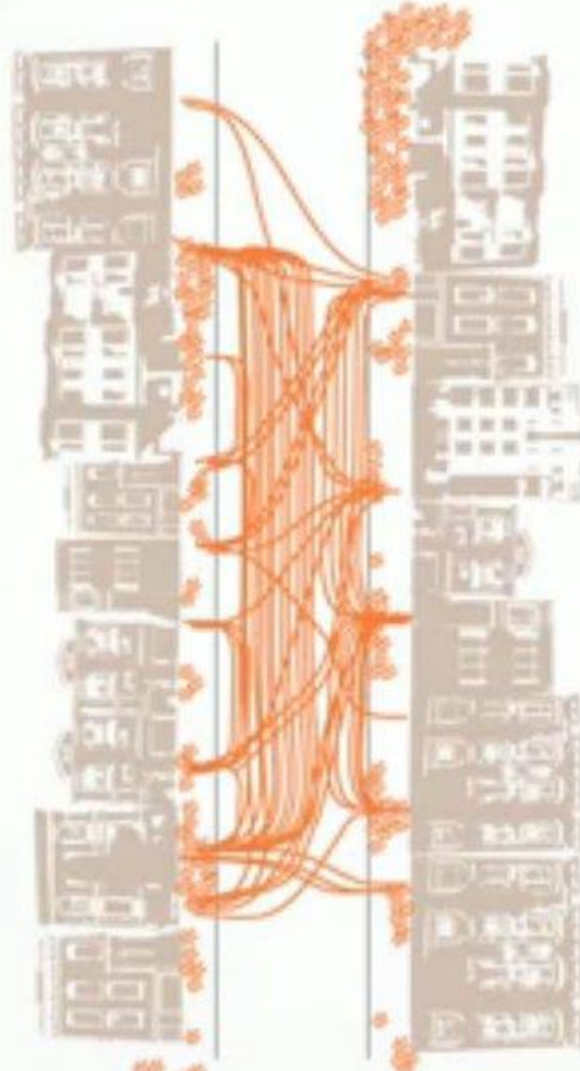
And these new visions can make us happier

## Social Interactions on Three Streets - Neighboring and Visiting

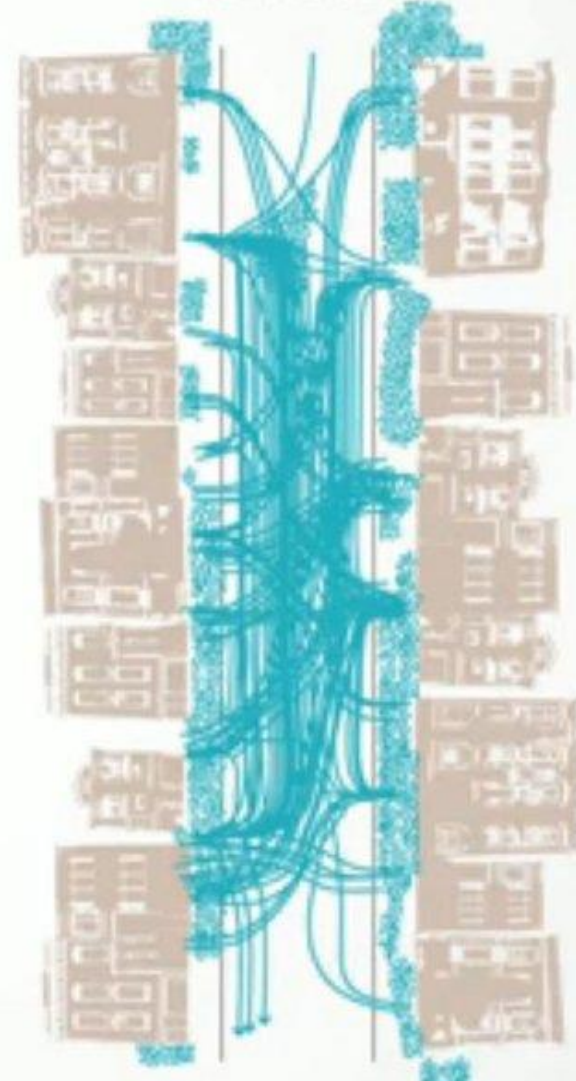
HEAVY TRAFFIC





MODERATE TRAFFIC



LIGHT TRAFFIC



  
Where people  
have friends

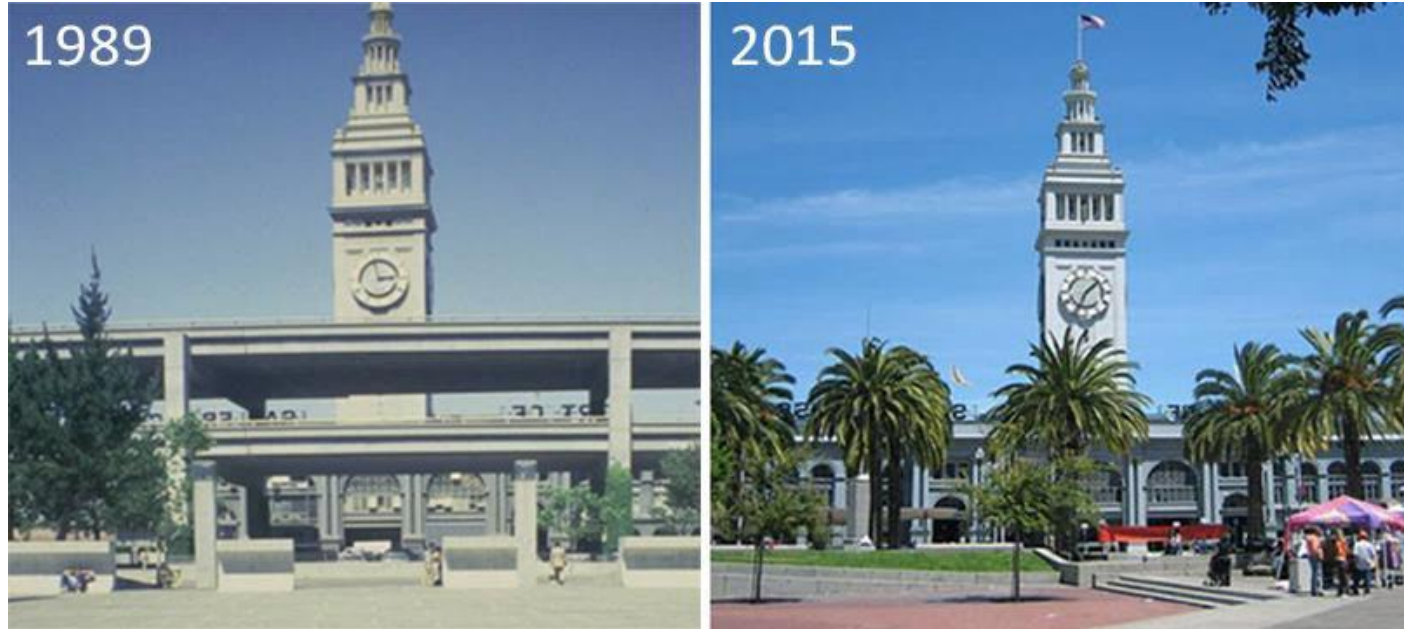
  
Where people  
gather



Healthier

King's College London report that up to 36,000 premature deaths a year in the UK alone can be attributed to air pollution.

This is in comparison to 78,000 deaths attributed annually to smoking as of 2016.



### San Francisco

- The Embarcadero and Central freeway was replaced with a boulevard following the 1989 earthquake.
- The increase in adjacent property was significant, with a **price increase of £118,000 and £116,000** respectively.

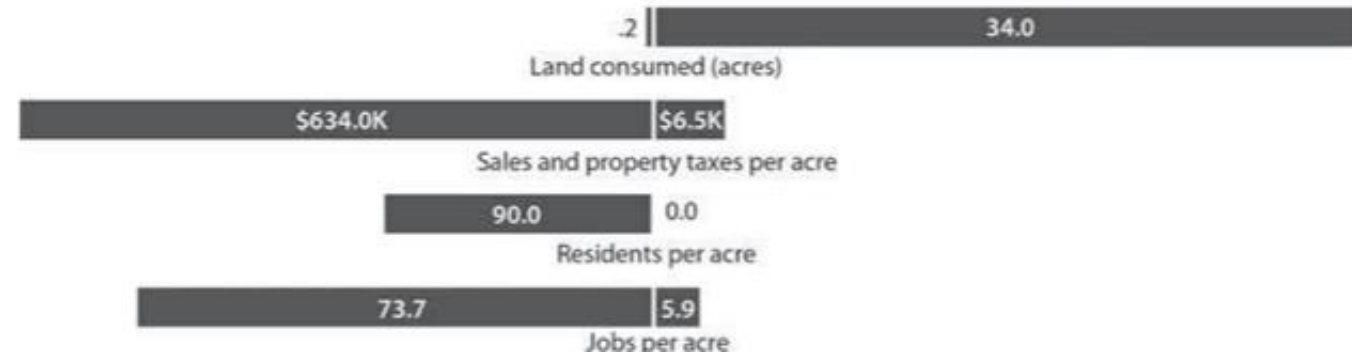
## Ashville, North Carolina

- Turning big box retail into walkable streets, blocks and shops adds value for landowners and the city.
- A per acre increase in **tax revenue of £6,500 to £634,000.**
- An increase in jobs per acre from **6 to 74**
- An increase in residents per acre from **0 to 90**

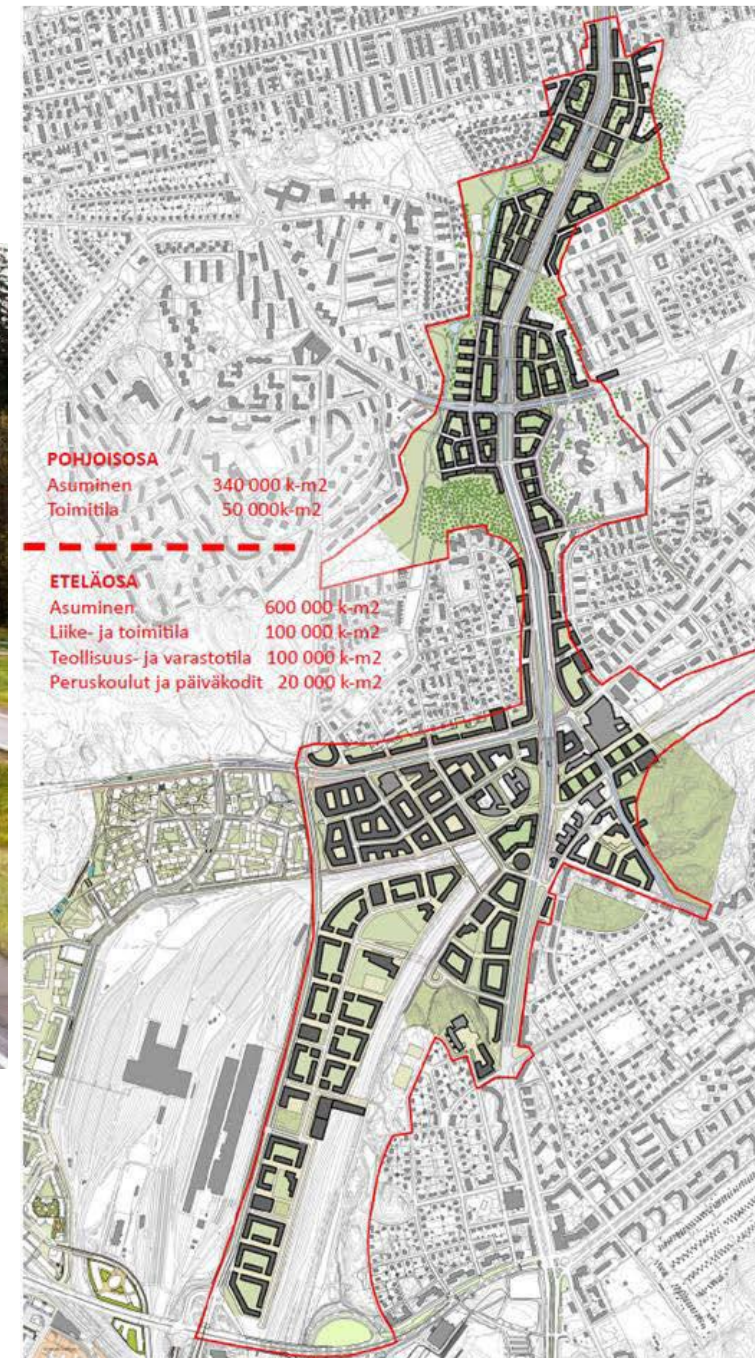


Mixed-use building, downtown Asheville

Asheville Walmart



We can take the vision and validate approach to existing places too



Tuusulan Boulevard Corridor Project, Helsinki, Finland

# Retrofitting our cities by building on the Roadbelt



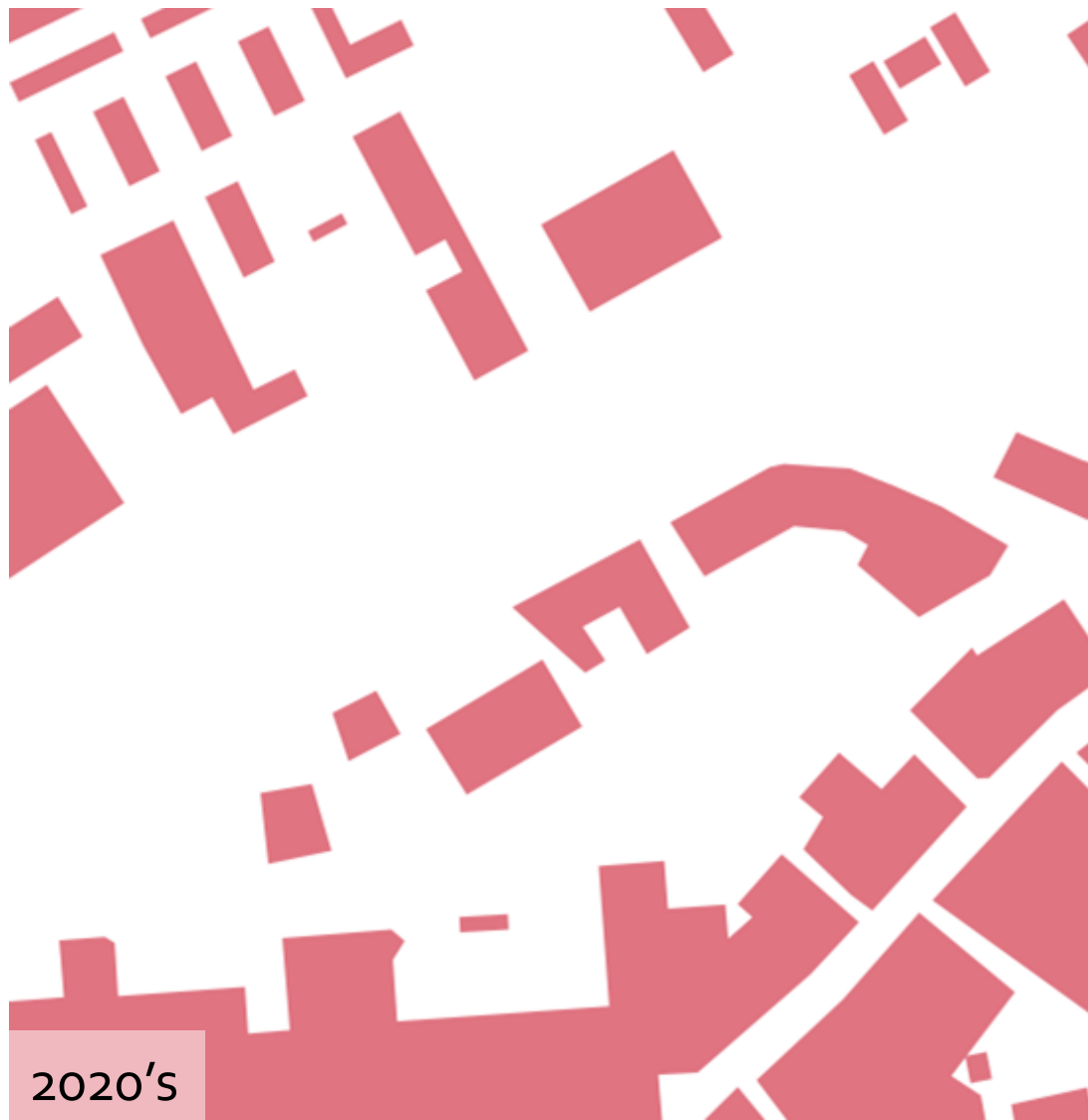
# The case of St Mary's Gate, Rochdale

# Introducing St Mary's Gate (A58)

## A major local route cutting Rochdale in half



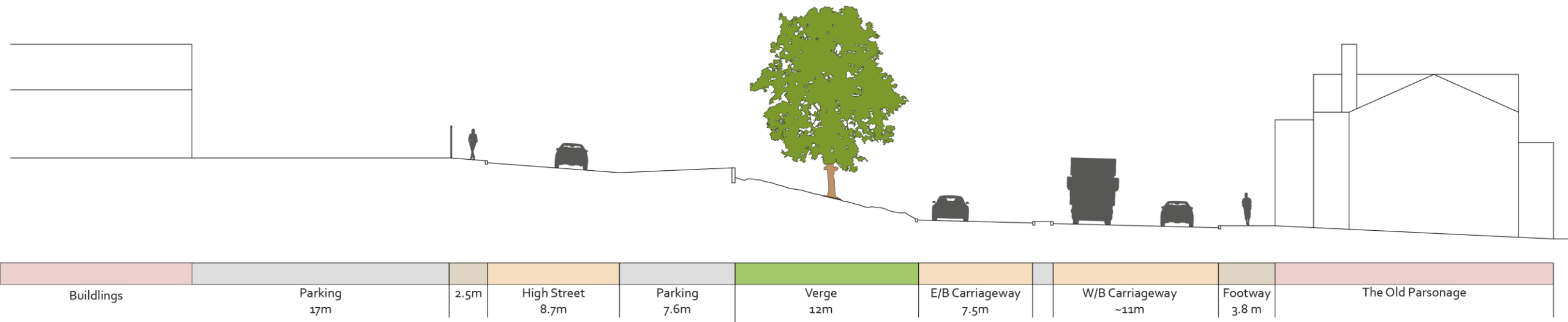
# Time to repair Rochdale's fabric?



# Existing cross section

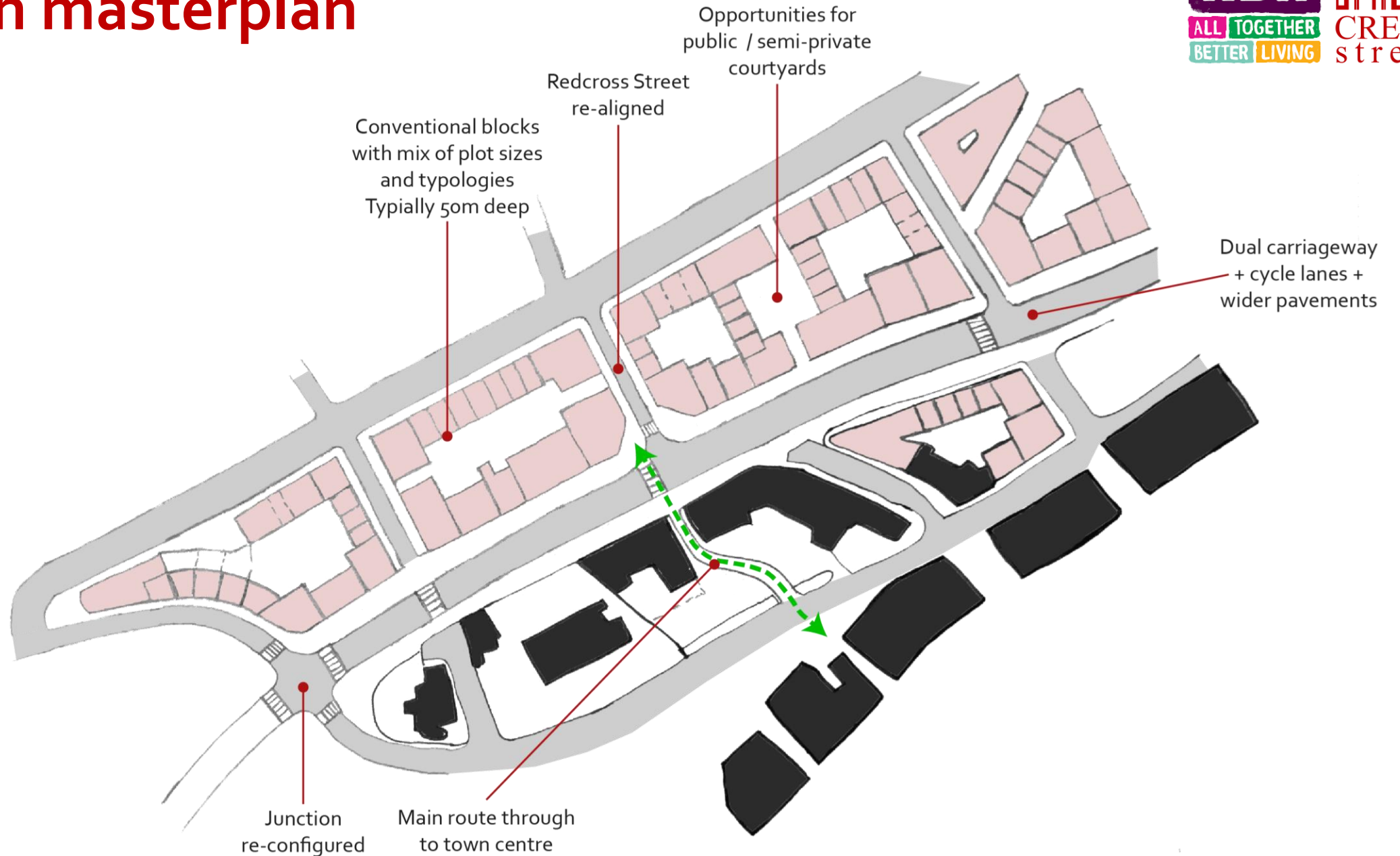
60m to 150m

Space between buildings created by St Mary's Gate

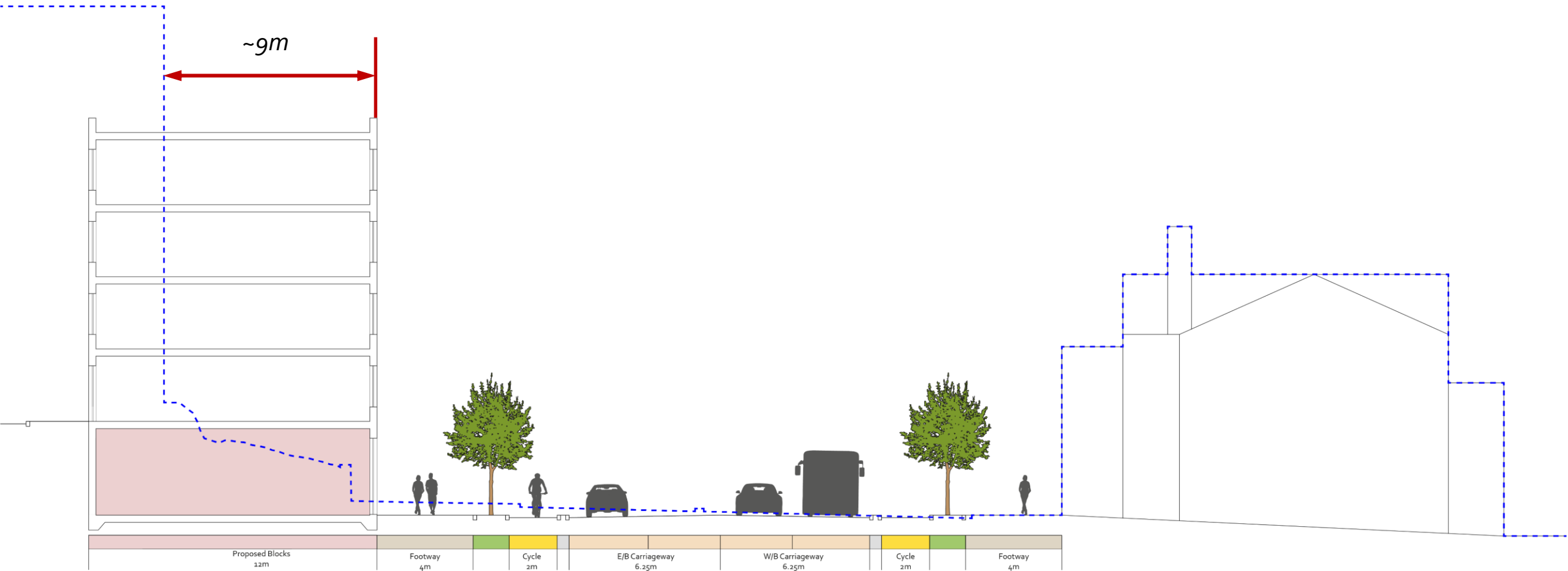


Section A

# Sketch masterplan



# A narrower street means more space for development and more captured value for transport improvements



Option 1 - Dual

TOTAL WIDTH = 31.5m

# Creating homes and prosperity

- 3 STOREY
- 4 STOREY
- 5 STOREY
- 6 STOREY



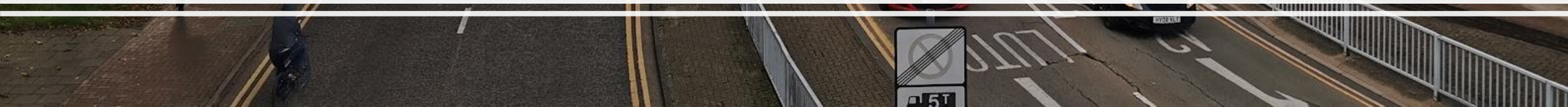
800 - 900 homes  
>10,000m<sup>2</sup> commercial  
>£100 million in value







An opportunity: Building on Britain's Roadbelt





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# Q&A

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