Bath & North East Somerset Council

The potential introduction of trams to Bath

Initial evidence-based study

ATKINS

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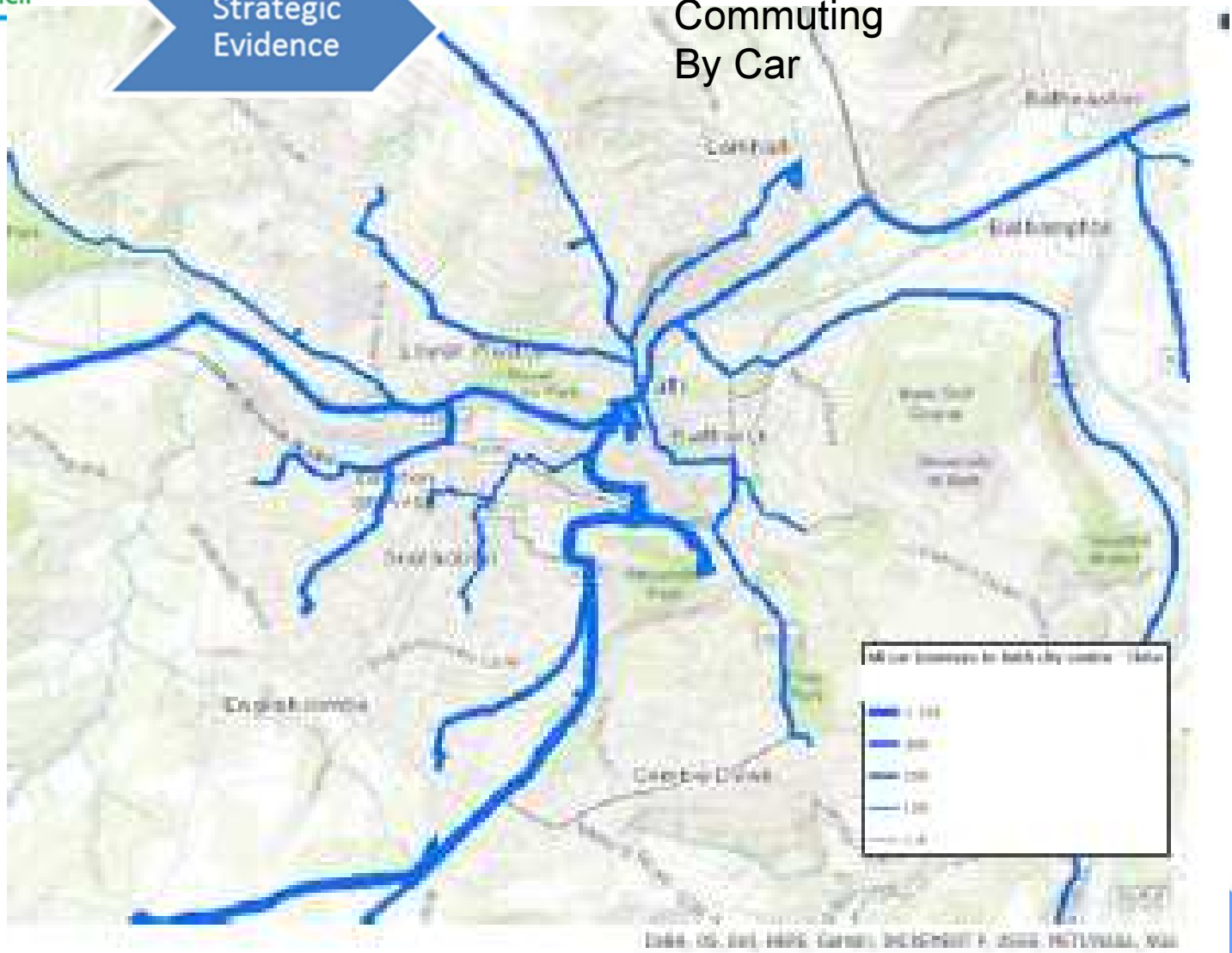
Strategic Evidence

Commuting By Car



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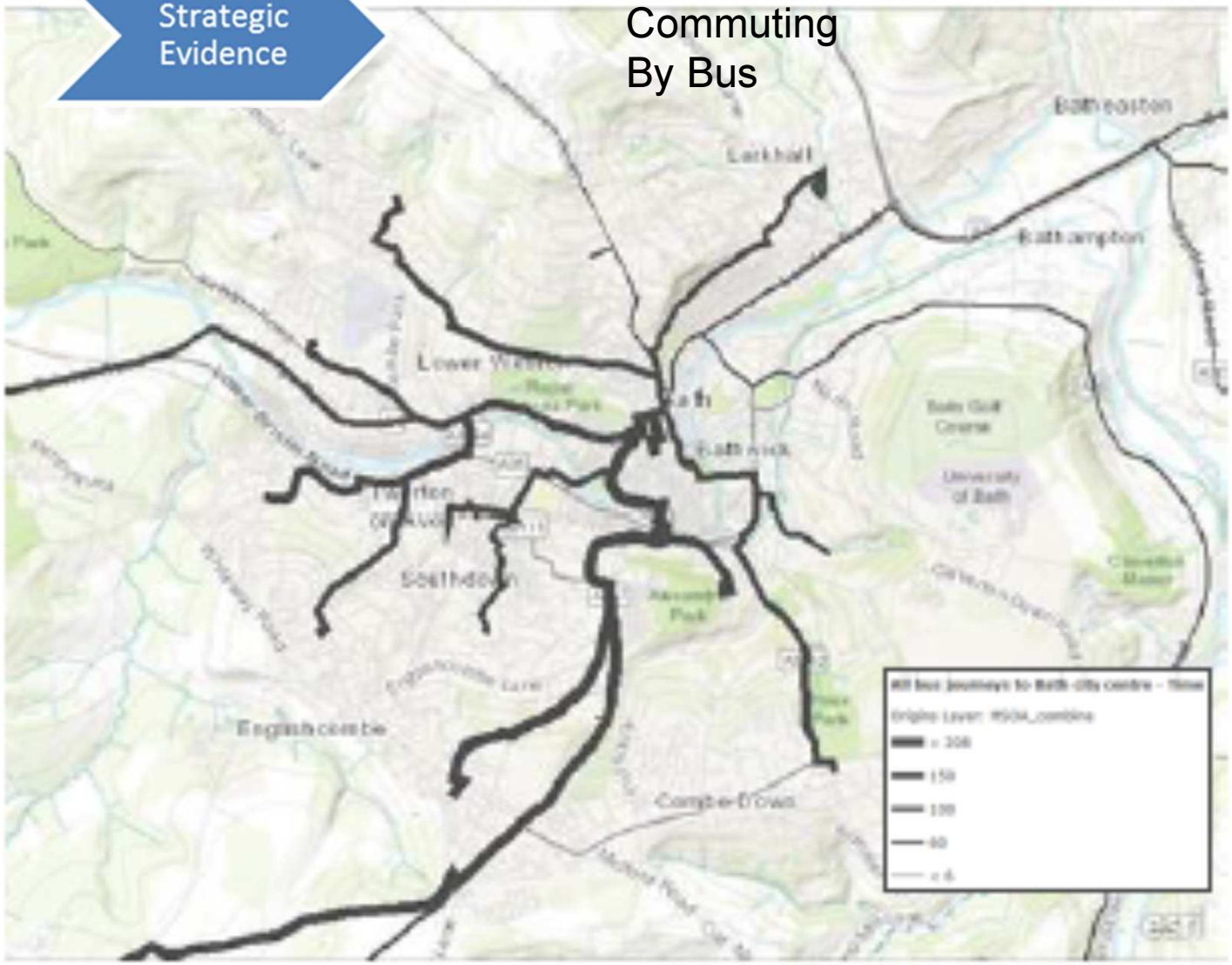
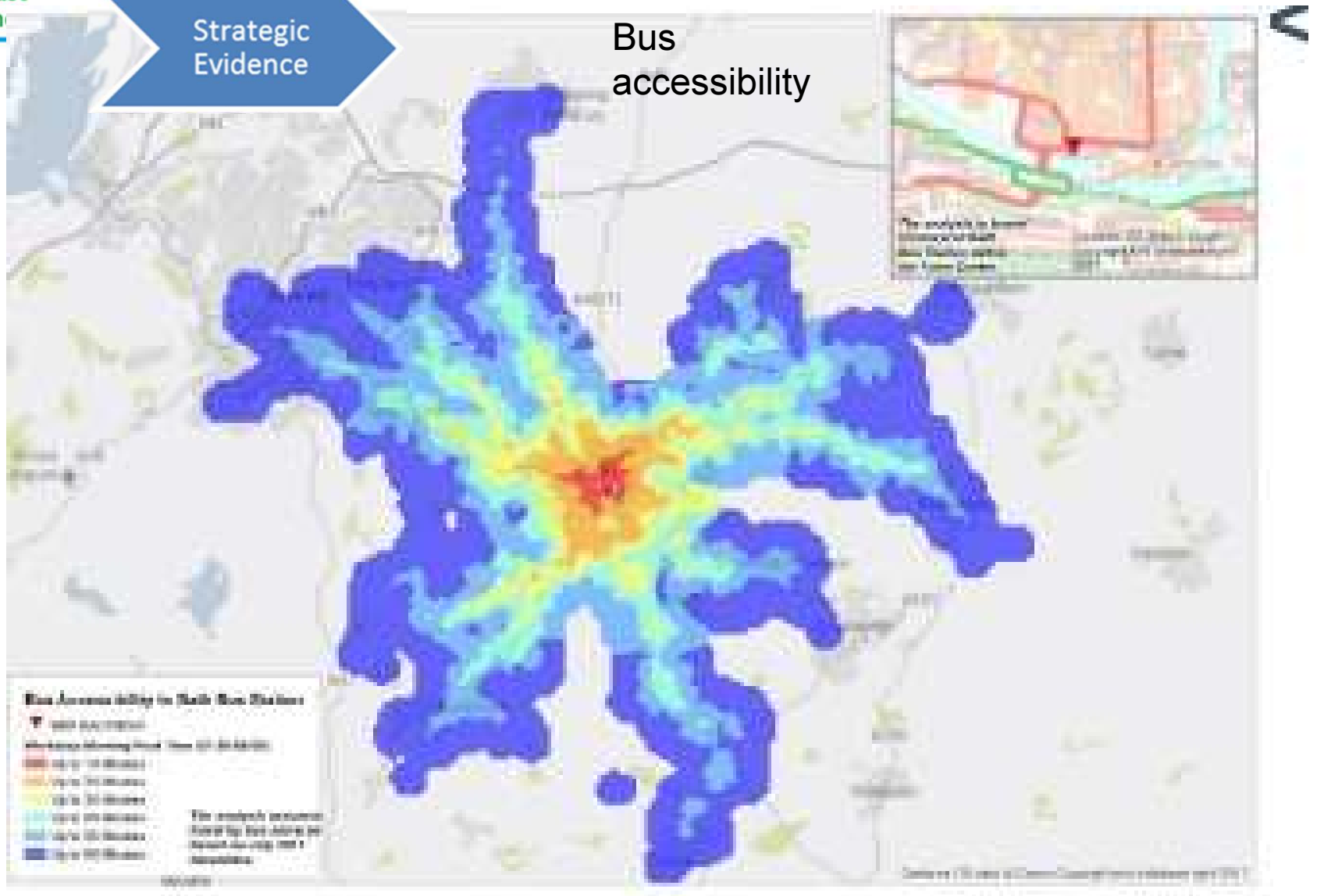
Strategic Evidence

Commuting By Bus



Strategic Evidence

Bus accessibility



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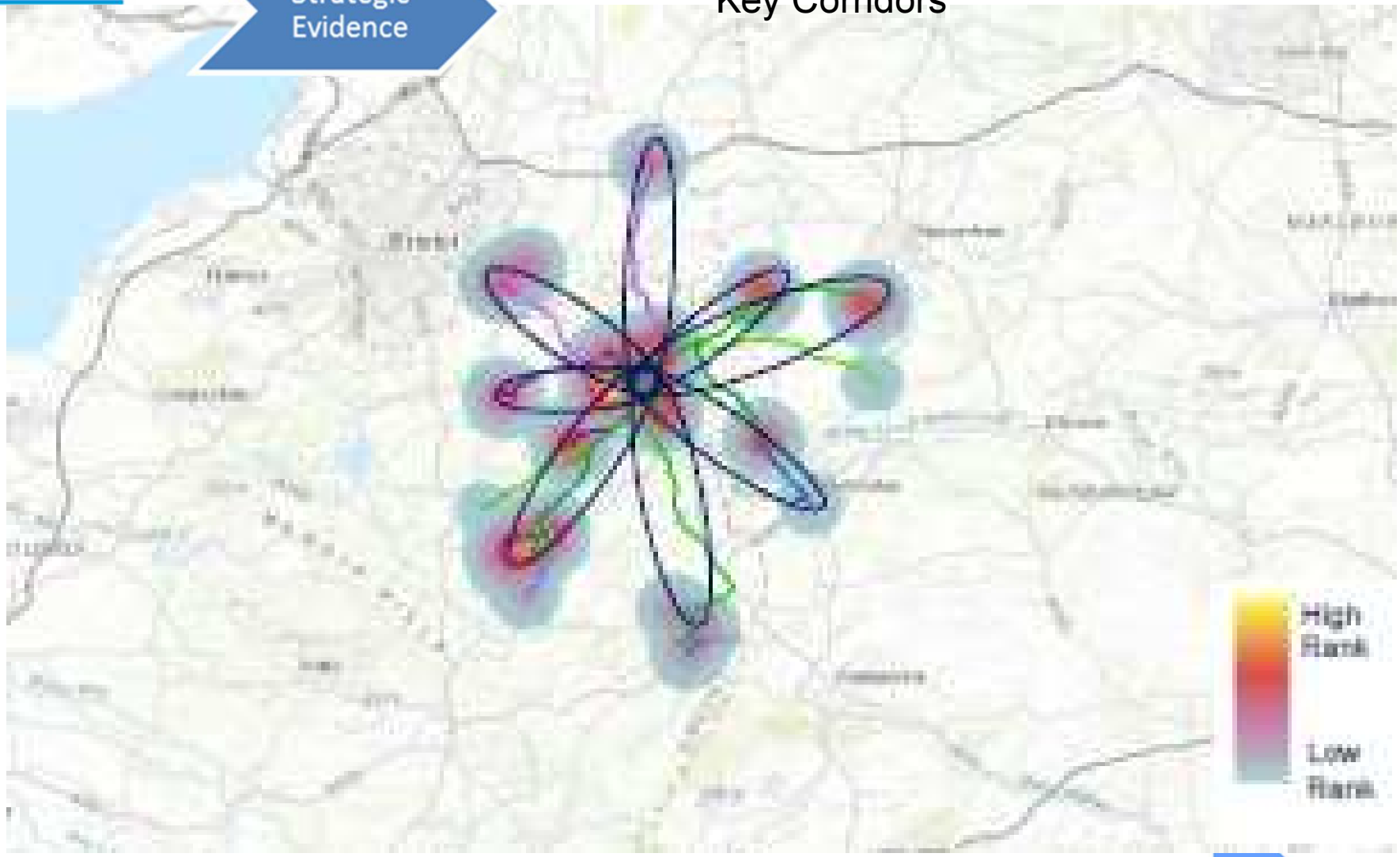
Strategic Evidence

Key Corridors



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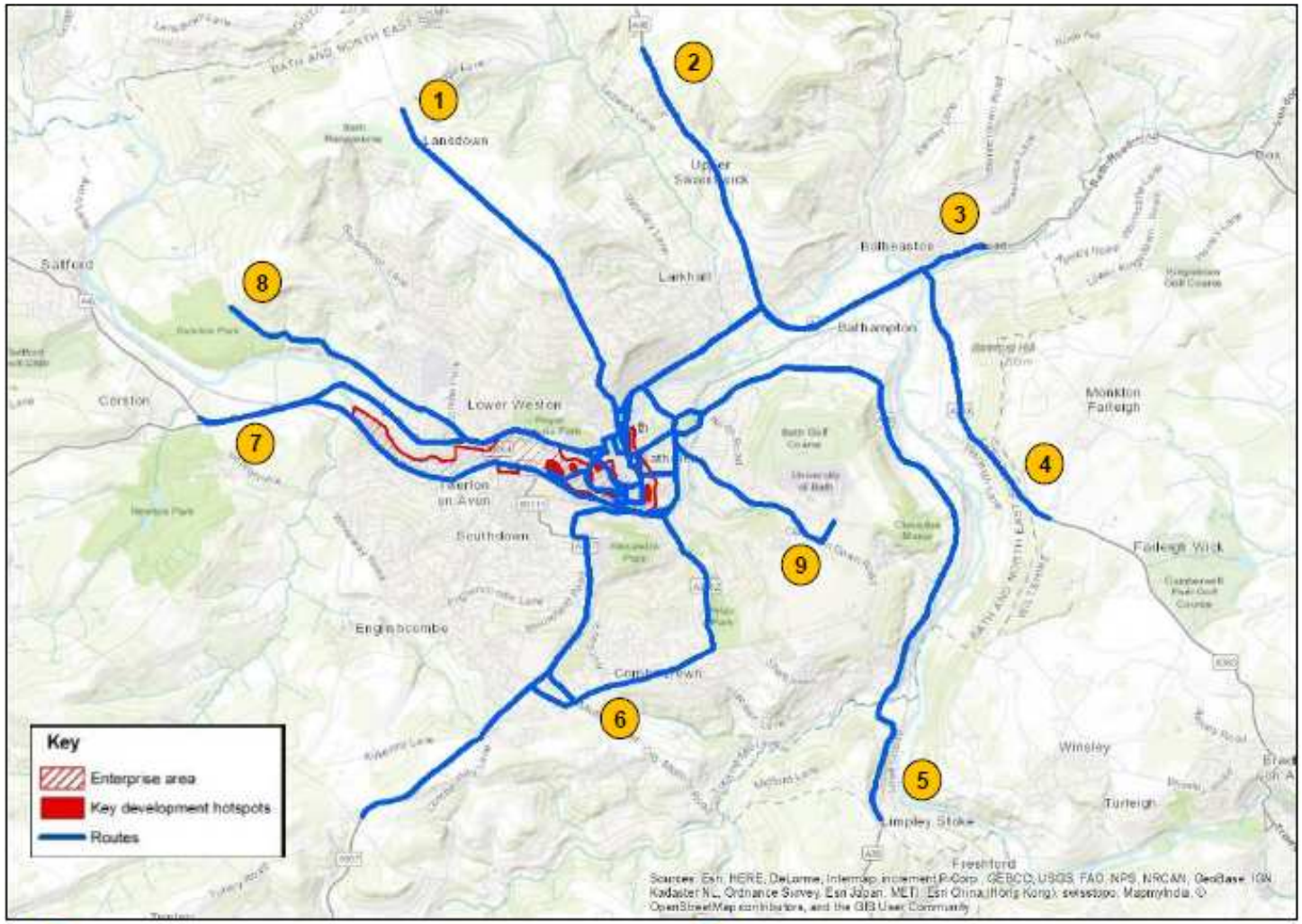

1 Lansdown - Centre

2 A46 Gloucester Road - Centre

3 A4 Batheaston - Centre

4 A363 Farleigh Wick - Centre

5 A36 Warminster Road - Centre

6 A367 Odd Down - Centre

7 A4/A36 Newbridge - Centre

8 A431 Kelston - Centre

9 Bathwick Hill - Centre

Note: For the purpose of this study, the centre of Bath has been defined as Stall Street, adjacent to the Roman Baths.

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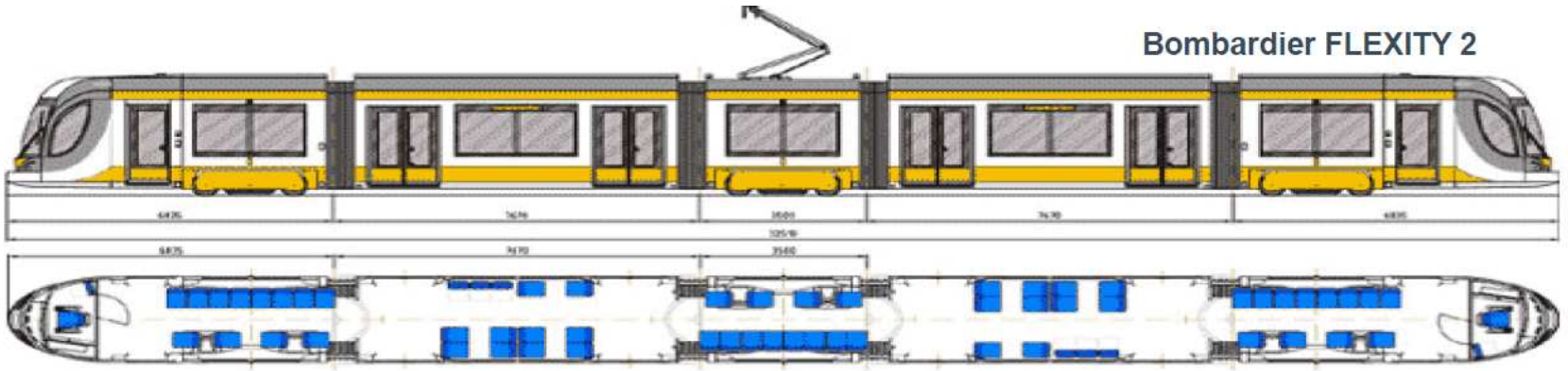
Technology

- Power Systems
- Ultra Light rail
- Gradients
- Structural
- Stops
- Track



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Technology

Depots

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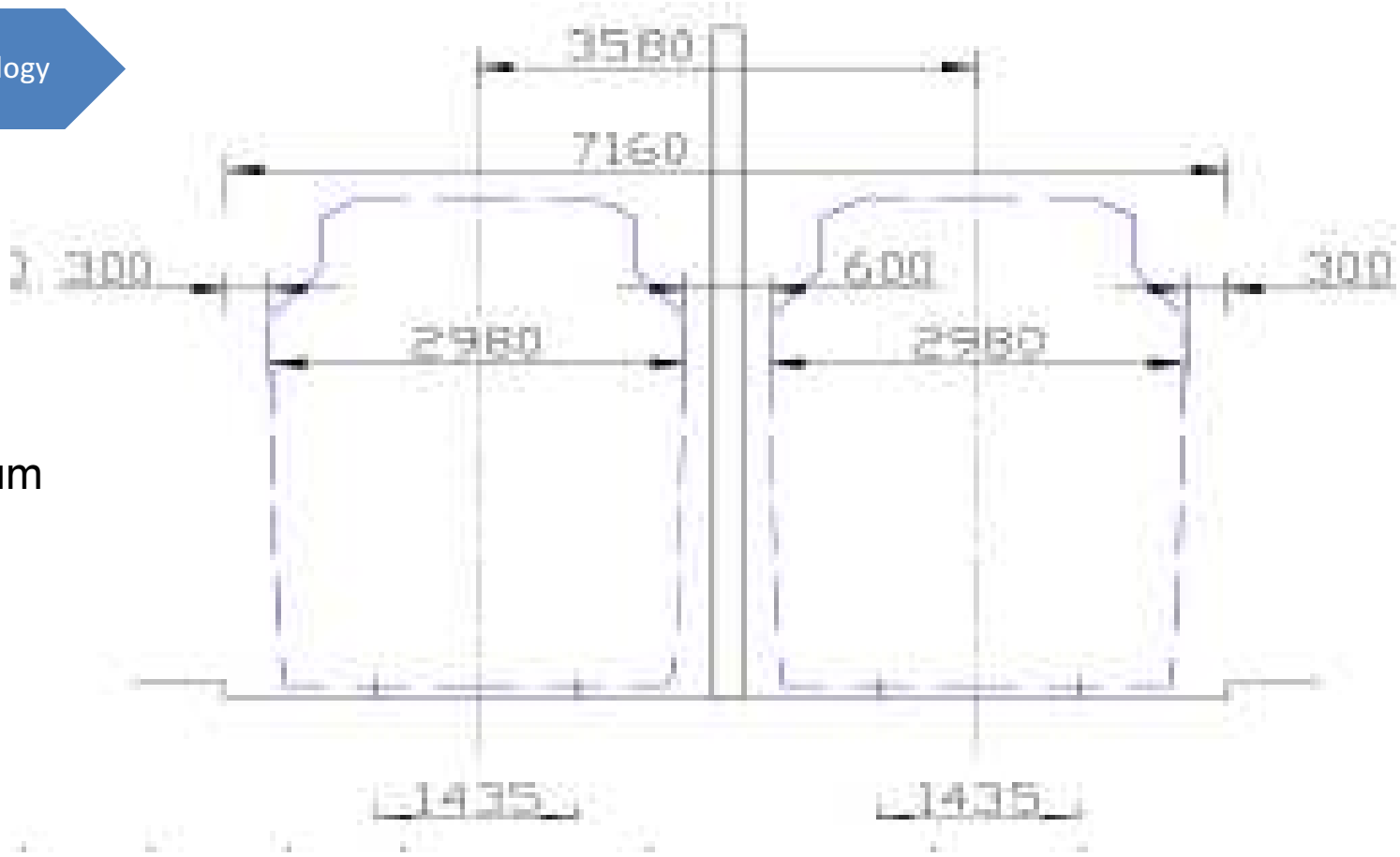
Technology

Road space minimum 10.2m



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System	Date Opened	Actual construction cost (£ millions)	Construction cost at (2017 Prices) (£ millions)	Length of track (kilometres)	Construction cost per km (2017 Prices) (£ millions)
Manchester Metrolink	1992	150	210	31	7
Sheffield Supertram	1994	240	340	29	12
Midland Metro	1999	150	180	21	9
Croydon Tramlink	2000	200	240	28	9
Nottingham Express Transit	2004	180	200	14	14

Extensions	Date Opened	Actual construction cost (£ millions)	Construction cost at (2017 Prices) (£ millions)	Length of track (kilometres)	Construction cost per km (2017 Prices) (£ millions)
Manchester Metrolink	2000	160	190	8	24
Nottingham Express Transit	2015	570	570	18	33
Midland Metro	2015	40	45	1	39
Manchester Metrolink (Airport)	2014	400	410	15	28

Manchester 1992, £7m/km
Manchester 2000, £24m/km
Nottingham 2015, £33m/km
Midland Metro 2015, £39m/km

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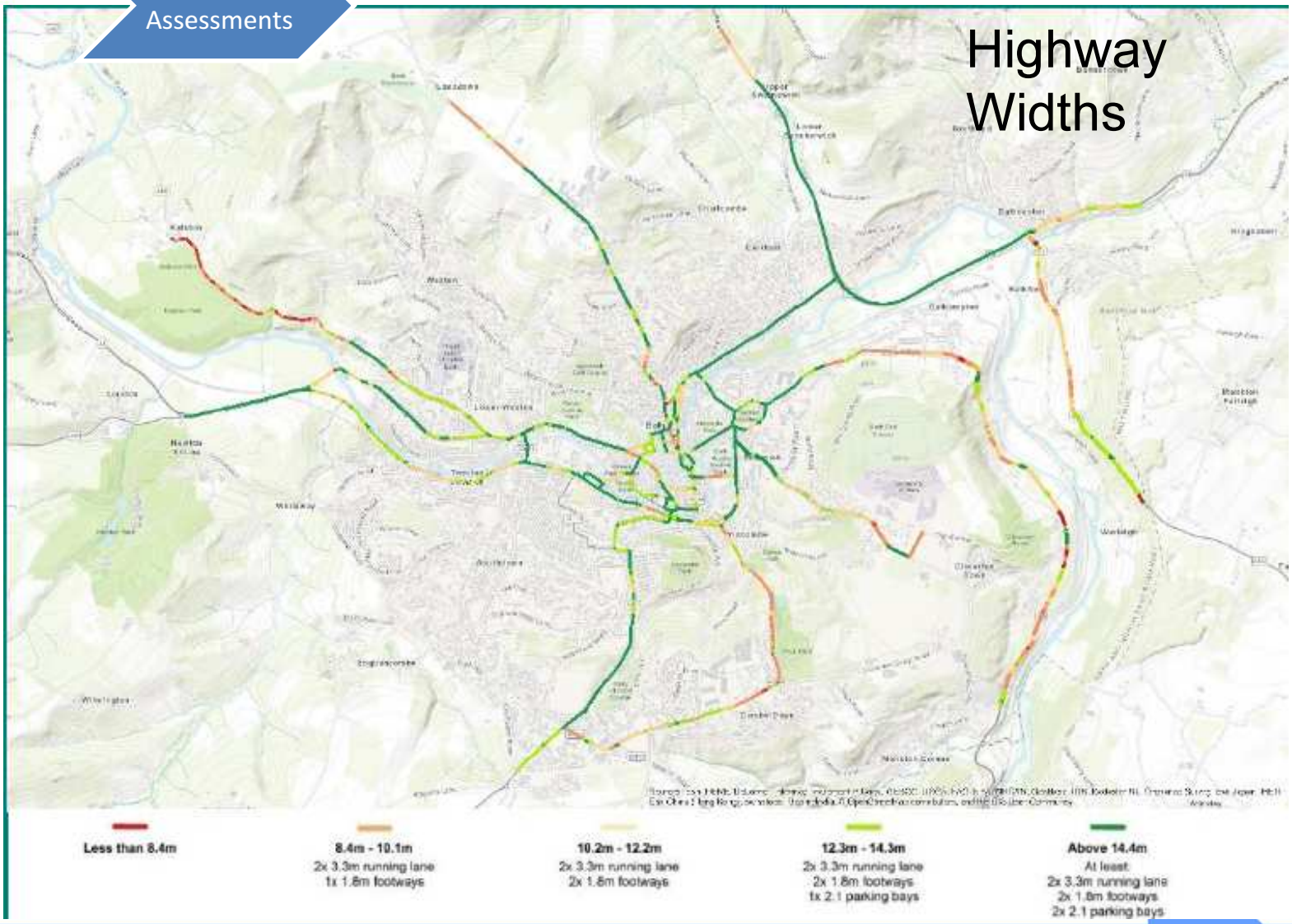
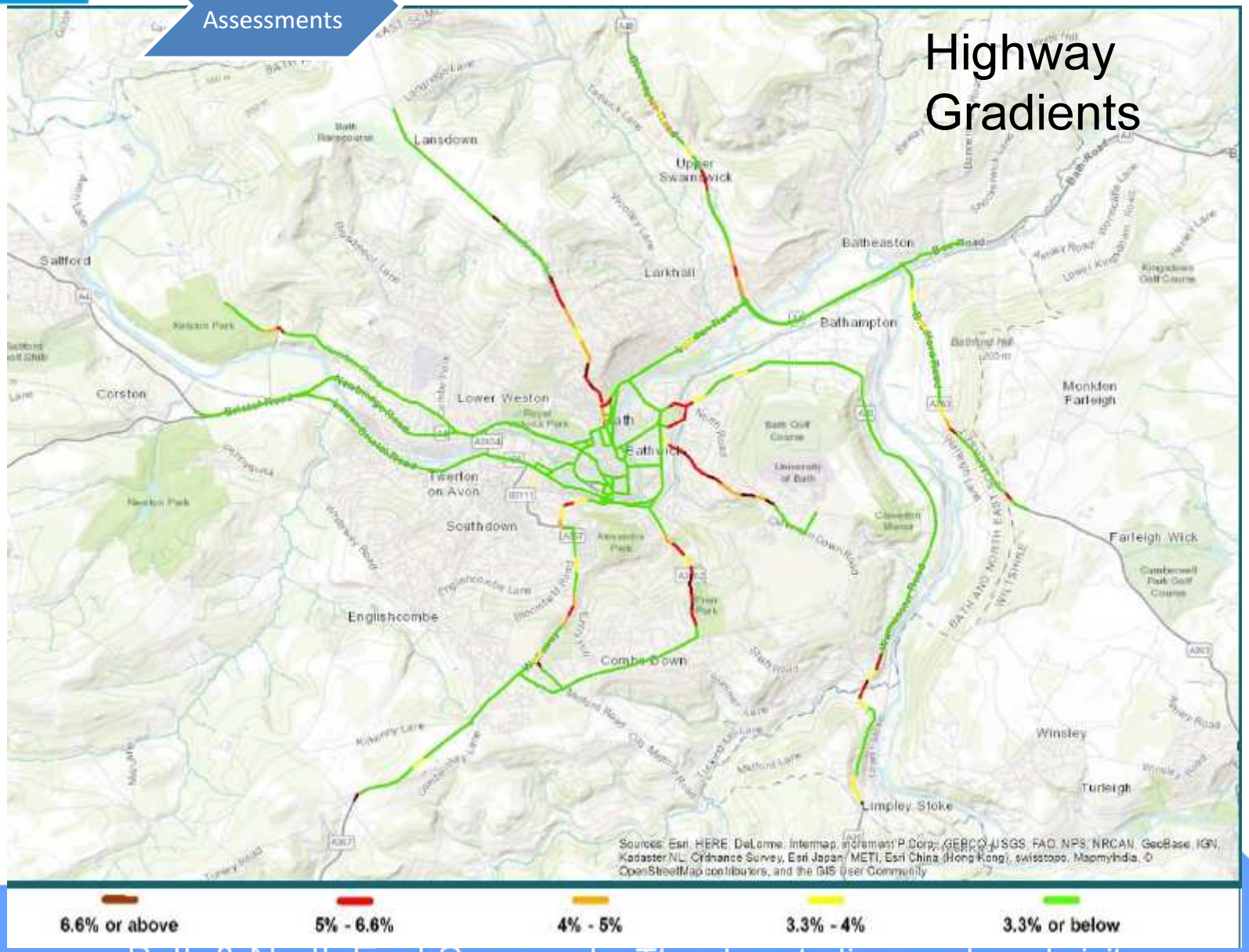
Corridor Assessments

Highway Widths



Highway Gradients



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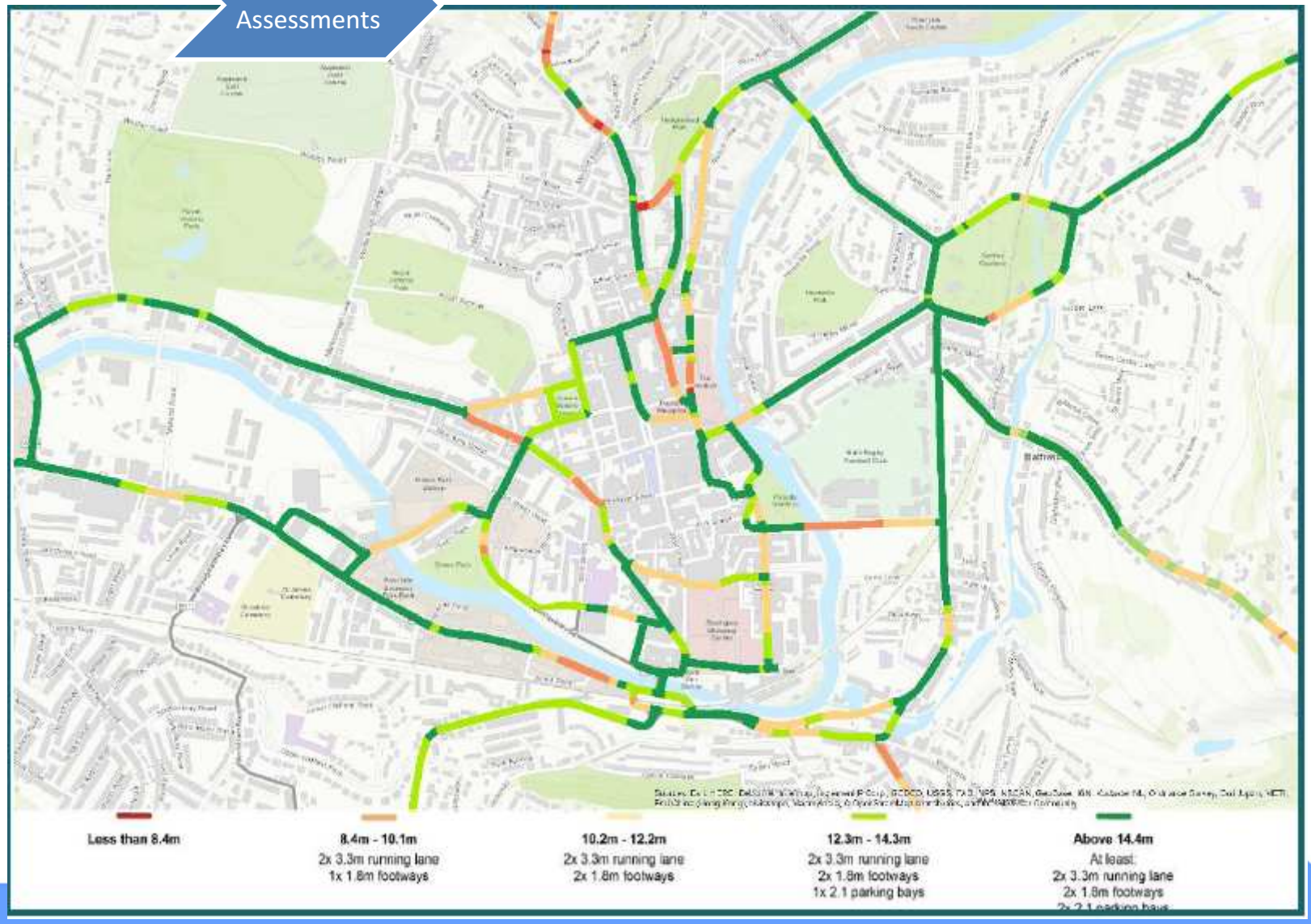
Corridor Assessments

City Centre Highway Width



Summary of Constraints

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Summary

5.1 Indicative RAG assessment

Corridor	Demand	Existing Park & Ride site on corridor	Width constraints	Gradient constraints	Environmental constraints	Potential for depot along corridor
1 – Lansdown to Centre	High demand	Lansdown Park & Ride	Some constrained areas	Some constrained areas	Green Belt and AONB throughout	Location near to existing Park & Ride site could considered
2 – A46 Gloucester Road to Centre	Relatively low demand	**No current Park & Ride site**	Some constrained areas	Some constrained areas	Green Belt and AONB throughout	**Unlikely to be viable**
3 – A4 Batheaston to Centre	Relatively high demand	**No current Park & Ride site**	No width constraints	Relatively few gradient constraints	Flood risk and Green Belt	Potential site options on A4 at Batheaston
4 – A363 Farleigh Wick to Centre	Relatively low demand	**No current Park & Ride site**	Limited widths	Some constrained areas	Flood risk, AONB and Green Belt	Potential site options on A4 at Batheaston
5 – A36 Warminster Road to Centre	Relatively low demand	**No current Park & Ride site**	Some width constraints	Some constrained areas	Green Belt and AONB throughout	**Unlikely to be viable**
6 – A367 Odd Down to Centre	Very high demand	Odd Down Park & Ride	Significant constraints on A3062, few on A367	Significant constraints on A3062, few on A367	Green Belt and AONB on A3062, none on A367	Location near to existing Park & Ride site could considered
7 – A4/A36 Newbridge to Centre	High demand	Newbridge Park & Ride	Few width constraints	Few gradient constraints	Green Belt and AONB on edge, flood risk throughout	Location near to existing Park & Ride site could considered
8 – A431 Kelston to Centre	Relatively low demand	**No current Park & Ride site**	**Significant width constraints**	Slight gradient concerns	Green Belt and AONB	**Unlikely to be viable**
9 – Bathwick Hill to Centre	Expected high demand	**No current Park & Ride site**	**Significant width constraints**	**Significant gradient constraints**	World Heritage Site; no flood zone, AONB or Green Belt	**Unlikely to be viable**

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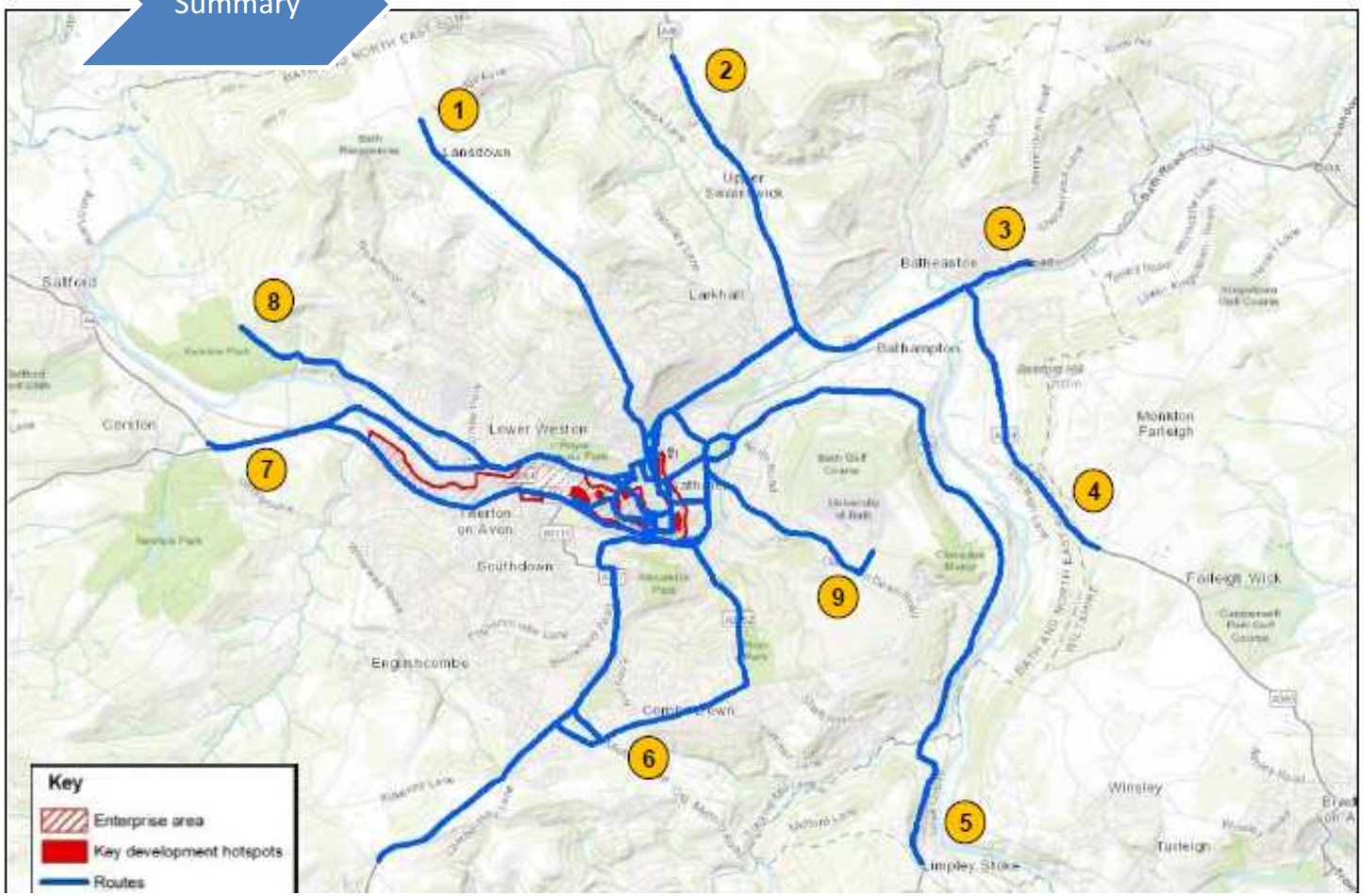
Summary



- **Recommendation - Initial assessment has demonstrated that there is a case for further consideration of the potential introduction of trams on corridors 6,7,1 and 3**

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Issues to be considered

- Requires mode shift from cars, buses and P&R. Bus services would need to compliment not compete.
- How to create a system that will not be delayed by congestion.
- Vaults and utilities will need detailed assessments to reduce risk.
- Impact on heritage.

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Next Steps

- Set up Officer Client Group to include an expert from UK Trams.
- Undertake a detailed assessment on one corridor (subject to expert advice).
- Investigate opportunity to progress the study further/develop a business case with support from WECA.