

TRANSFORMING GREY TO GREEN INFRASTRUCTURE

Bristol Street Green Screens Trial – Birmingham
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Provided for the BCC Tree Policy Task and Finish Group meeting 30/11/2017

Bristol Street Green Screens Trial



Bristol Street 2014



Bristol Street 2016

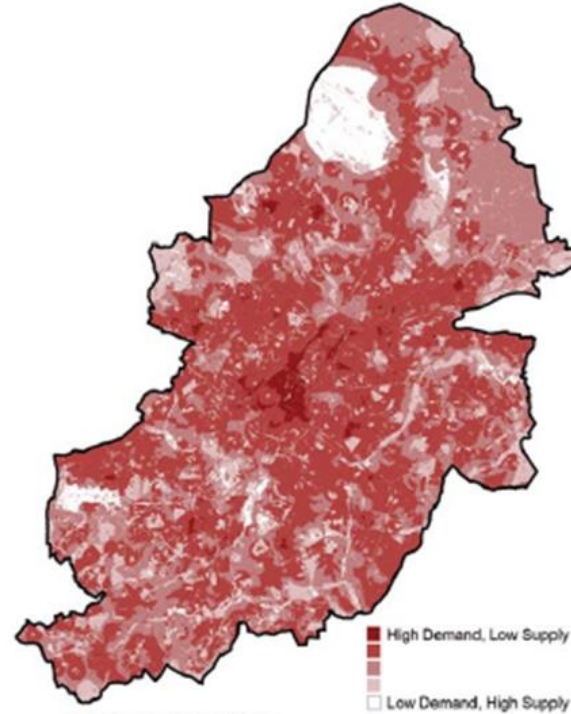
Bristol Street Green Screens Trial

Background to the idea

- Maximise opportunities for greening in dense urban environments
- Use the vertical dimension where there is limited ground level space
- Retrofit and transform a piece of existing and common infrastructure
- Low cost approach
- Multifunctional – identifying the benefits



2009 Corporation St 2016



City centre green infrastructure - high demand but low supply (BCC Green Living Spaces Plan 2013)

Chris Rance



aerial images Google Earth



Densely built-up central area - low provision and opportunity for green space and street trees

Bristol Street Green Screens Trial

Project attributes

- Transform the ubiquitous grey pedestrian guardrail
- Retrofit with green vegetated screens
- Located along a major city centre highway
- Test foliage for airborne particulate trapping – Staffordshire University findings
- Supported by local business community - Southside BID members

Benefits

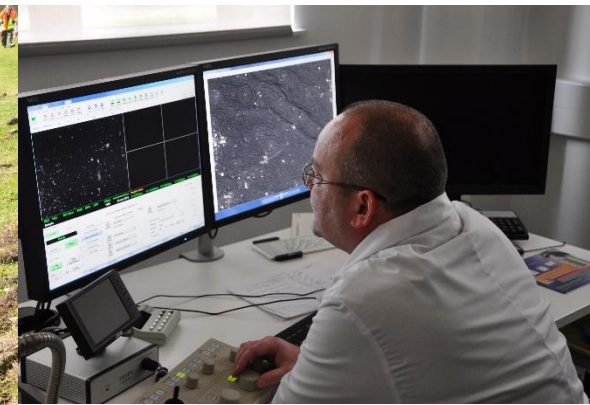
- Airborne particulate filtration
- Improved visual setting for local businesses
- Positive local opinions

Particulate matter (PM) interception rate is likely to be higher than 145 million particles per square metre of green vegetated screen per day – Staffordshire University findings

Installing the green screens



Analysing foliage for particulates



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Significance for city scale green infrastructure

- Simple and low cost
- Can be replicated on a broad scale
- Helps to address poor air quality - major health problem for cities
- Space efficient – in high urban density environments



Links to related articles and publications

Atkins Angles (2015)

<http://www.atkinsglobal.com/en-GB/angles/all-angles/turning-the-grey-city-green>

WHO Urban green space interventions and health: A review of impacts and effectiveness (2017) – case study (Appendix 2 pp 26/27)

<http://www.euro.who.int/en/health-topics/environment-and-health/urban-health/publications/2017/urban-green-space-interventions-and-health-a-review-of-impacts-and-effectiveness.-full-report-2017>

Creating a more attractive and healthier environment

- Better for business
- Better for people



Urban Green Space Interventions and Health

A review of impacts and effectiveness