

URBAN VISION

King's Cross Station
Design & Access Statement

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Introduction

Founded in 2004 Urban Vision (see Annex 01) is a multi-discipline European media company, over the past 14 years the business has worked in close partnership with local authorities, companies and individuals across Europe to support cultural restoration work and development projects in urban areas of key cities.

In the UK Urban Vision is continuing this work focusing on the sponsored restoration of heritage buildings alongside special projects such as King's Cross Square where a unique partnership with TfL focuses on the development of a digital media screens on the existing vent shafts located within the plaza at King's Cross railway station.

All funds raised via the development of this project by TfL are re-invested straight back into the improvement of the public transport system in London benefiting residents and visitors alike.

230

Architectural restoration and urban regeneration projects

112

MILLION OF EUROS
Private funds channelled into restoration projects

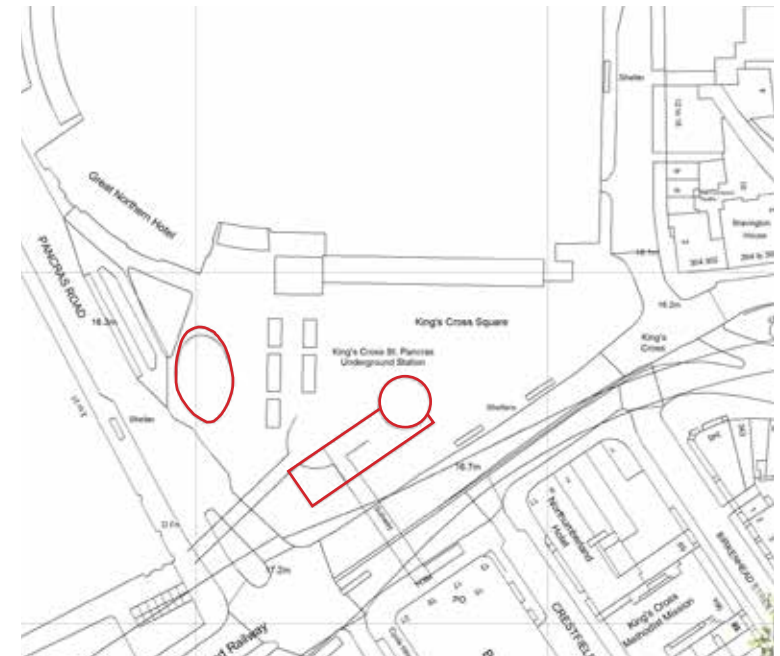


Proposal

This Design and Access Statement has been prepared by Urban Vision in support of the proposal to install a digital media screens on the existing vent shafts located within the plaza at King's Cross railway station within the London Borough of Camden.

The screens measure 60 metres x 6.5 metres and 27 metres x 4 metres and are specifically located on the side of each of vent shafts. As a precursor to this application there has been extensive interaction with Transport for London, as a result a road safety audit has been conducted to assess any impact on road safety because of the inclusion of the screens at this location. This report accompanies the application and supports the fact that there would be no impact on road user safety.

This statement has been prepared in support of the application for advertising at the location outlined in partnership with Transport for London.

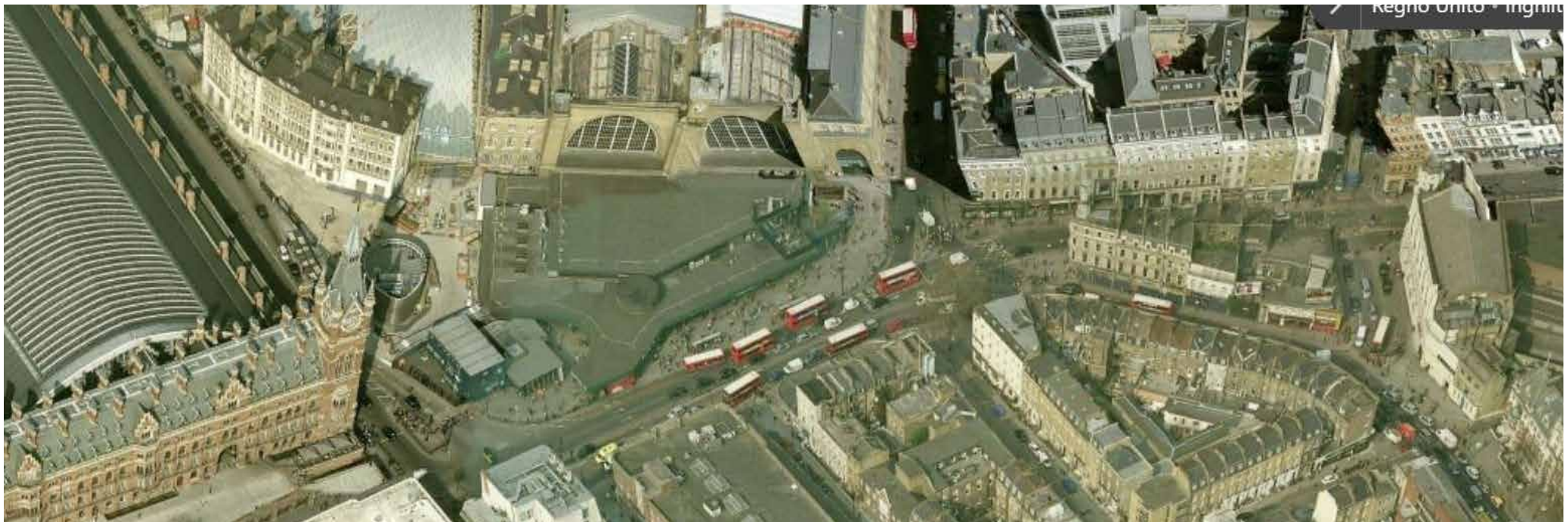
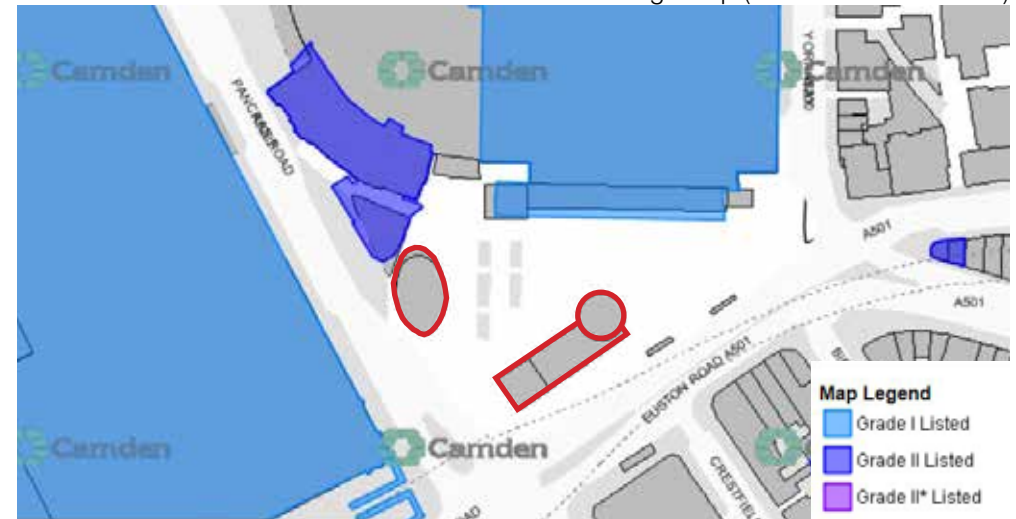


Site Location

King's Cross station is arguably one of the most important terminus in the city, London's King's Cross Station opened in 1852 as part of the Great Northern Railways and the terminus of the East Coast Main Line. Not just a hub that helps you get from one place to another, it is a major landmark with its own cultural impact.

King's Cross Station has 11 platforms and sees over 50 million commuters per year. The original cost of the land £65,000 and the construction cost was £123,000. By contrast, the estimated cost to renovate the station in 2008 was £650 million.

Listed buildings map (from Camden website)



Air Quality

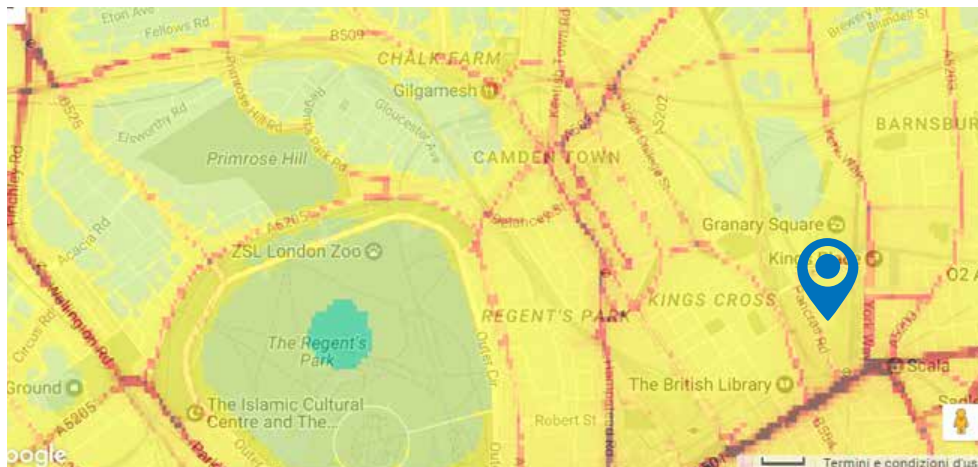
King's Cross Square

These maps show the annual mean pollution for PM 25, PM 10 and NO2. The maps also show which areas pass or fail the annual mean objective if there is one. (Source: TFL - London Air)

Urban Vision are working in association with a number of organisations in relation to how we can use The Breath to improve air quality in local areas where air born pollution is a major factor.

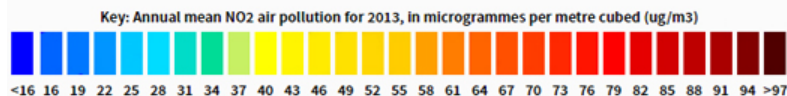
The Breath is a nano technology that has been developed in Italy in association with Urban Vision, the product captures and breaks down the damaging pollutant molecules, providing cleaner air.

Urban Vision has agreed with TfL that, as part of this application, we will install the Breath product on the structure supporting the screen.



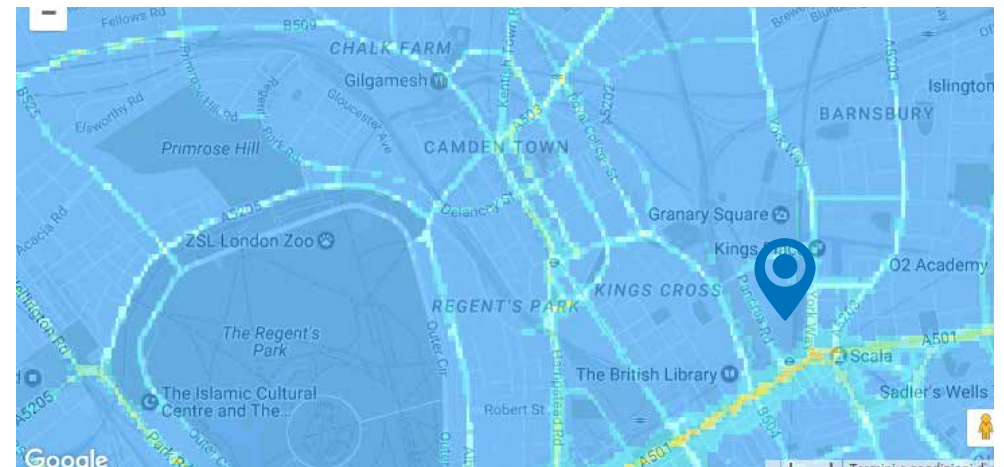
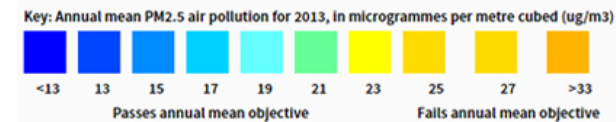
Modelled annual mean NO2 air pollution, based on measurements made during 2013.

This map was used with permission from The Greater London Authority and Transport for London, who fund, develop and maintain the London Atmospheric Emissions Inventory. For more information please visit data.london.gov.uk



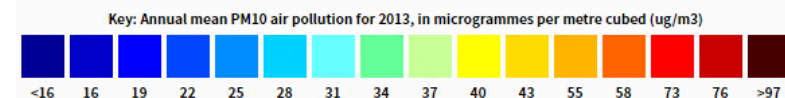
Modelled annual mean PM25 air pollution, based on measurements made during 2013.

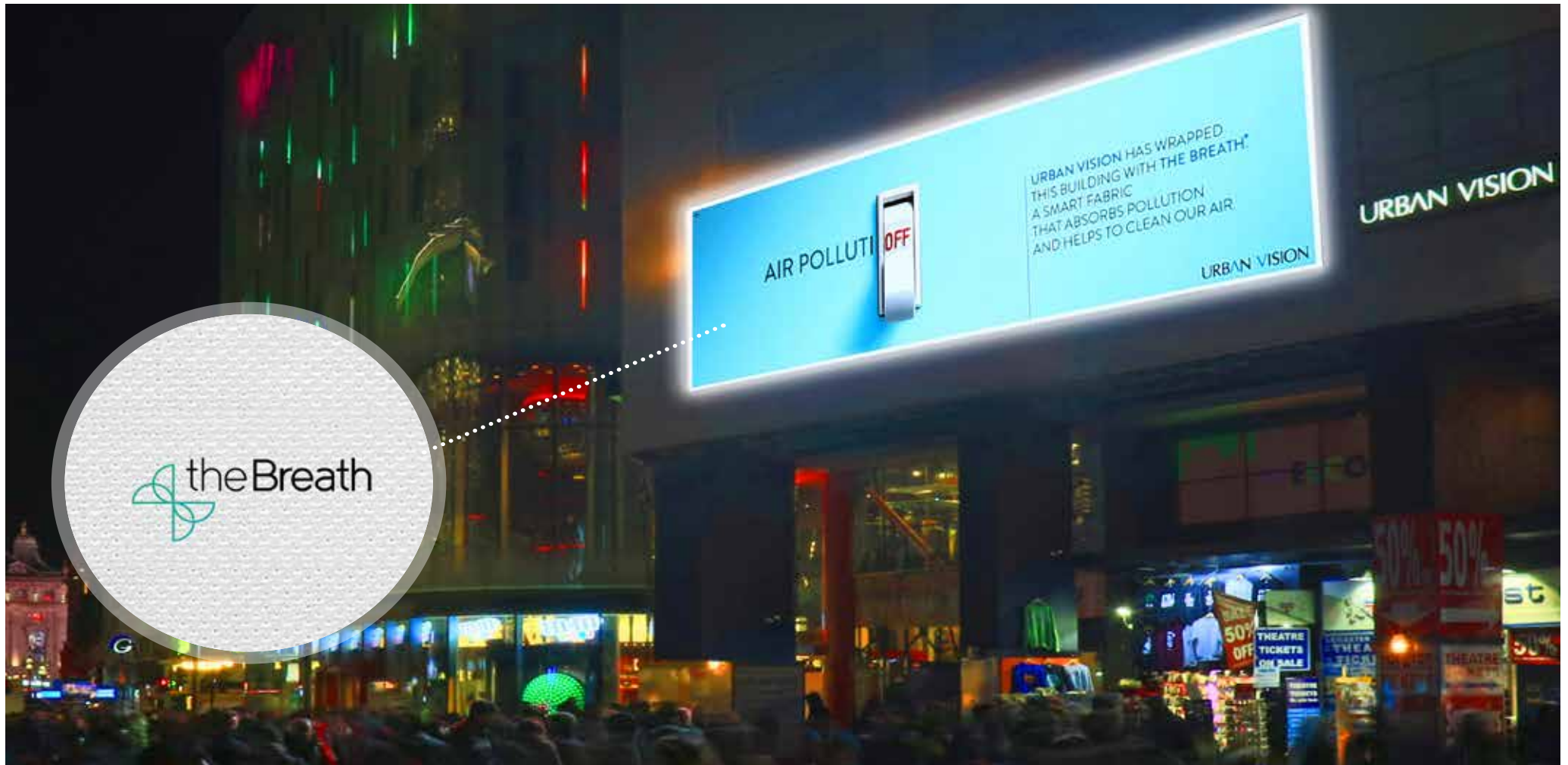
This map was used with permission from The Greater London Authority and Transport for London, who fund, develop and maintain the London Atmospheric Emissions Inventory. For more information please visit data.london.gov.uk



Modelled annual mean PM10 air pollution, based on measurements made during 2013.

This map was used with permission from The Greater London Authority and Transport for London, who fund, develop and maintain the London Atmospheric Emissions Inventory. For more information please visit data.london.gov.uk





theBreath



Anti-pollution:

The fabric reduces harmful airborne pollution.



Self-cleaning

The fabric is designed to dissolve airborne dirt



Anti-bacterial

The fabric's fibres prevent moulds or fungi from growing (even in north facing locations)



Water resistant

Protects buildings from rainfall whilst works are undertaken



Anti-odorous

Absorbs localised unpleasant smells

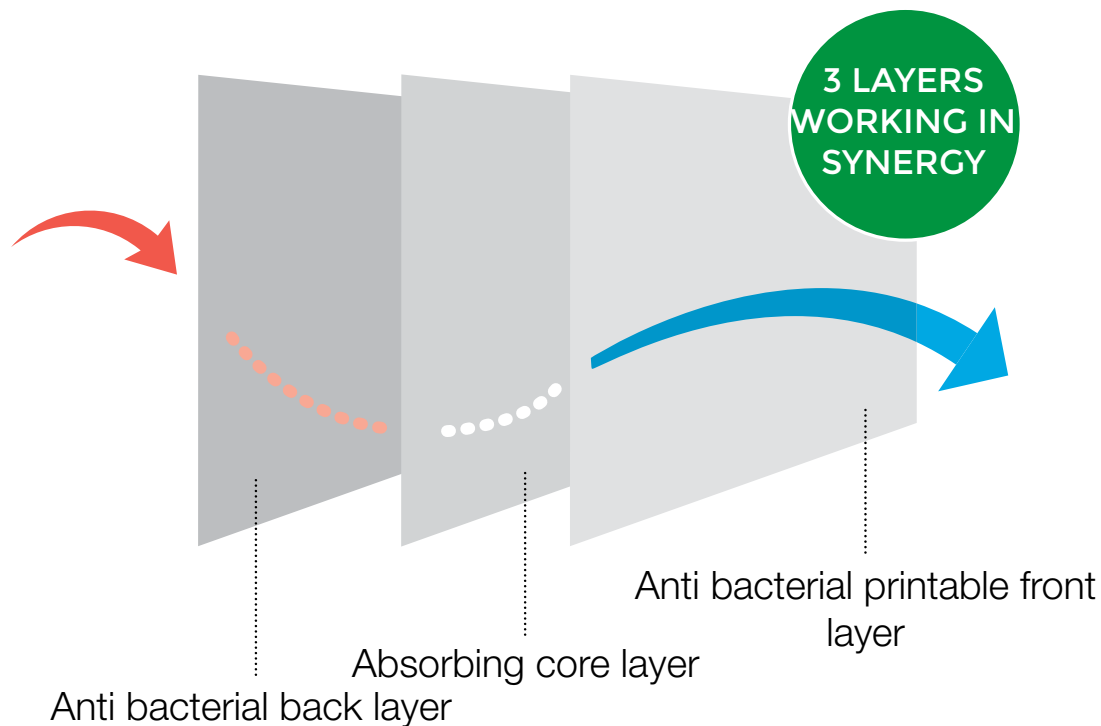


What is it?

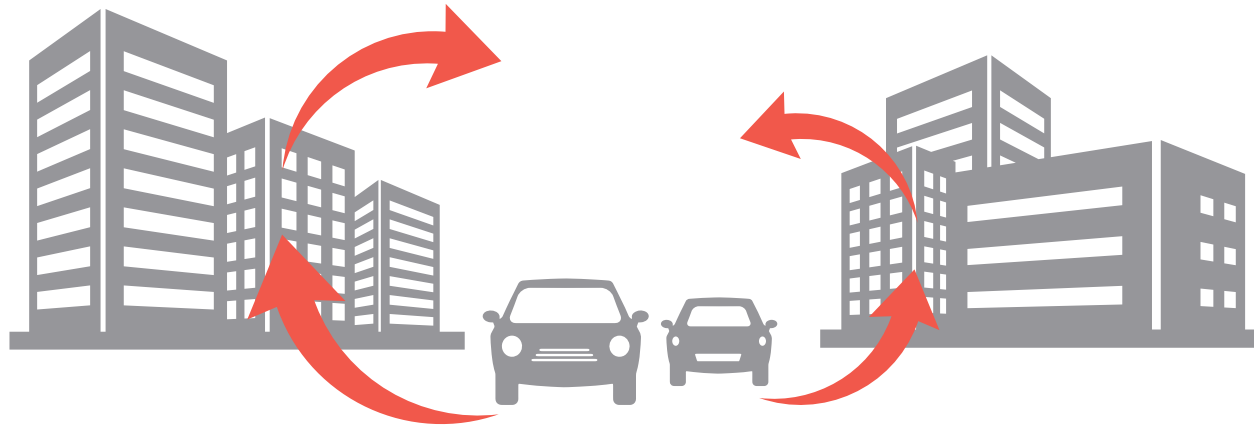
Urban Vision installs The Breath® in our sites: it is an innovative fabric that can be used to treat and purify polluted air in cities, thus improving local air quality.

How it works?

The Breath® is a sustainable, innovative and ecological solution: the high-tech fabric uses natural air circulation to reduce pollution.



URBAN CANYON EFFECT



An “urban canyon” is defined as the space above the street and between the buildings – thus creating a canyon-like environment.

Within this microclimate, pollution from vehicles and buildings is concentrated, leading to the build-up of a pollutants like:

Carbon monoxide (CO);

Nitrogen oxides (NO_x);

Ground level ozone;

Secondary particulates (PM₁₀,
PM_{0.1} and PM 2.5);

Sulphur dioxide (SO₂);

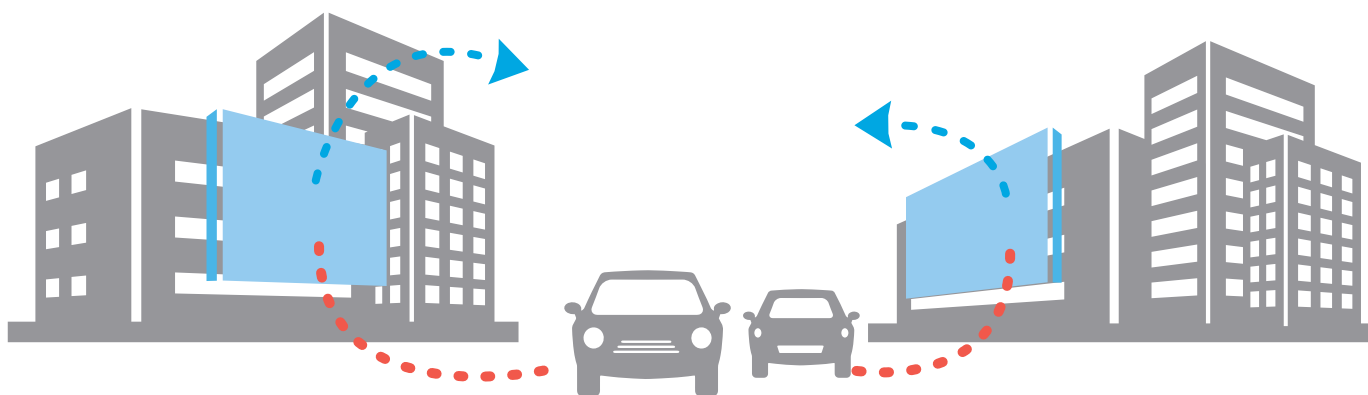
Hydrocarbons;

Lead (Pb);

Benzene (C₆H₆).

The density of buildings, roads and public transport infrastructure prevents the dispersal of the above pollutants.

BREATH EFFECT



The Breath has an optimum impact on air quality within an urban canyon – effectively removing pollution from the local atmosphere.

1. Within an urban canyon, air is circulated up into The Breath's fabric mesh.
 2. As air passes through the fabric mesh, pollution is trapped in The Breath's nano-molecular activated core.
- The core transforms the polluting molecules, this cleans the air.

The Breath Effect

Results of the absorption tests in London

In 2016 and 2017 Urban Vision carried out 2 pilot projects in Leicester Square and Shepherd's Bush, Uxbridge rd, where 10 sqm of The Breath had been installed.

The two locations show how The Breath performs in different environments: the former being a pedestrian square with a considerable amount of green , the latter being directly exposed to high volume traffic.

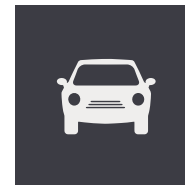
BASED ON LABORATORY TESTS RESULTS WE CAN ASSUME THE FOLLOWING DATA

ABSORPTION TEST LEICESTER SQUARE

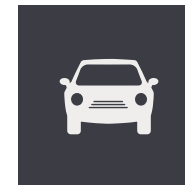
November 2016



100 SQM/YEAR



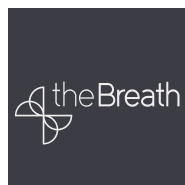
**54,740
DIESEL CARS**



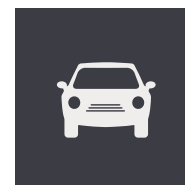
**136,500
PETROL CARS**

ABSORPTION TEST SHEPHERD'S BUSH

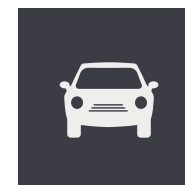
February 2018



100 SQM/YEAR



**99,960
DIESEL CARS**



**300,000
PETROL CARS**

The Breath projects realised



Leicester Square_Installation of The Breath October 2016



Uxbridge Road-Shepherd's Bush_Installation of The Breath March 2017

The Breath ongoing project



Morley House, Regent Street_Installation of The Breath May 2018

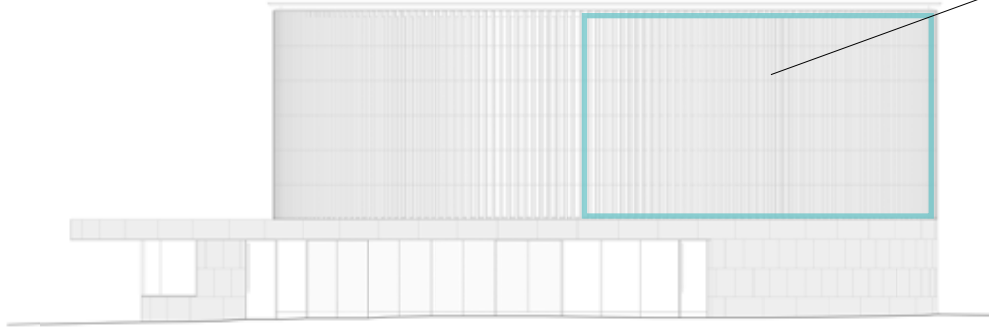


In May 2018 Urban Vision and The Crown Estate will launch a collaboration on Morley House, Regent St, London. 72 sqm of The Breath will be installed for monitoring and testing over a 6 months period. Laboratory testing of The Breath will be carried out every other month, to analyse the amount of pollution adsorbed. In addition, diffusion tubes will be deployed at strategic locations, to monitor the effect that The Breath has on Local air Quality. We expect an initial complete set of results to be available in October 2018.

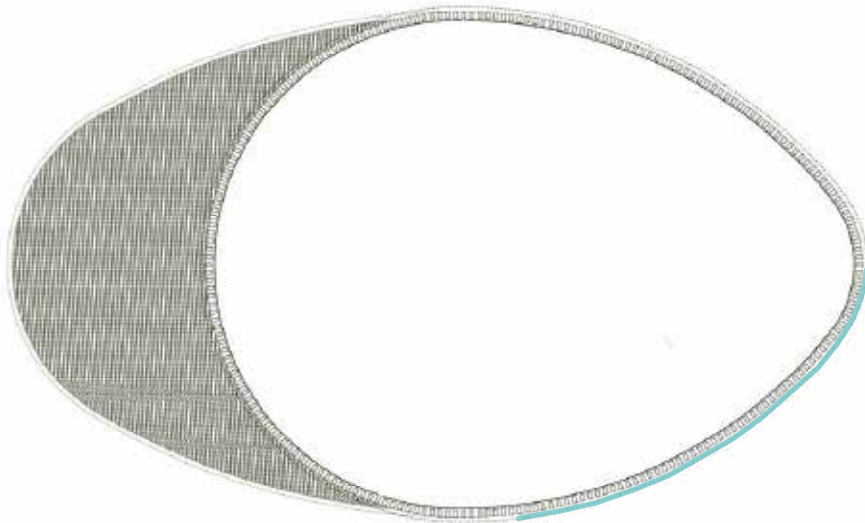


The Breath installation

- The Breath will be installed on the structure supporting the screen not visible from the street level.
- The Breath product will be replaced every 6 months.
- The Breath will be tested after removal to assess how much pollution it has captured over the 6 months period.



The Breath will be installed on the structure supporting the screen



A retail and tourist destination

The local area around Kings Cross is varied in use and character, from the remodelled station opening in 2008 to the newly developed canal side along with offices, residential and a broad spectrum of eateries and retail outlets to compete with any of London's famous hubs of activity such as Soho, Shoreditch, Camden or Covent Garden.

It is the result of this regeneration and investment that has made Kings Cross a destination that draws people from overseas tourists and Londoners alike.

The following photographs demonstrate the nature of the surrounding area in direct proximity to the location(s) to which this statement applies. The scale and age of the buildings in the area are highly varied which is typical for an inner-city environment and demonstrates the evolution of the area from a place to be avoided to a thriving commercial area with facilities for all.

The number of people and vehicles moving through the area :



Number of people using the underground (source: TFL):

- **95m** passengers per year (2nd busiest on the network)
- **145k** passengers enter through the station every weekday



The average daily traffic count considering the count point closest to the King's Cross Square is **62,493 vehicles**.

(Traffic count from Department for Transport website)



A retail and tourist destination



A retail and tourist destination



Camden advertising case studies

Euston Underpass



Camden advertising case studies

Euston Underpass



Camden advertising case studies

Holborn



Camden advertising case studies

Town Hall Annexe Euston Road



Camden advertising case studies

262 High Holborn



Design Development, Integration and CGI

The media spaces to which this statement refers have been carefully considered in their positioning and in relation to the ventilation shafts and the structure and shape of those shafts. Both media screens would be custom built to follow the exact curvature of the structures and provide a visually aligned addition to the utilitarian features of the existing structures, the use of low level architectural lighting to create soft hues in the very immediate areas around the screens achieved by the use of RGB lighting technology.



Existing



Existing



Proposed



Proposed

Lighting

All roadside media screens have tight controls over the luminance levels, typically this is restricted to 300cd/m – 600cd/m during the day and reduced at night when lighting levels only need to be approximately 5% of that in the day. Typically, all media screens are operated using software that automatically controls the lighting level based on the ambient light in the area, during daylight hours and periods of intense sunshine the screen will be operating at a higher level of luminance to enable images on the screen to be visible much the same as a television in the home.

There is no commercial requirement to operate media displays at levels above the minimum requirements, increased luminance requires more power that in turn produces heat that reduces the lifespan of the technology, hence the tight controls that exist.

Further to controls over luminance the LED units also have integrated louvres which minimise upwards and downwards light spill.

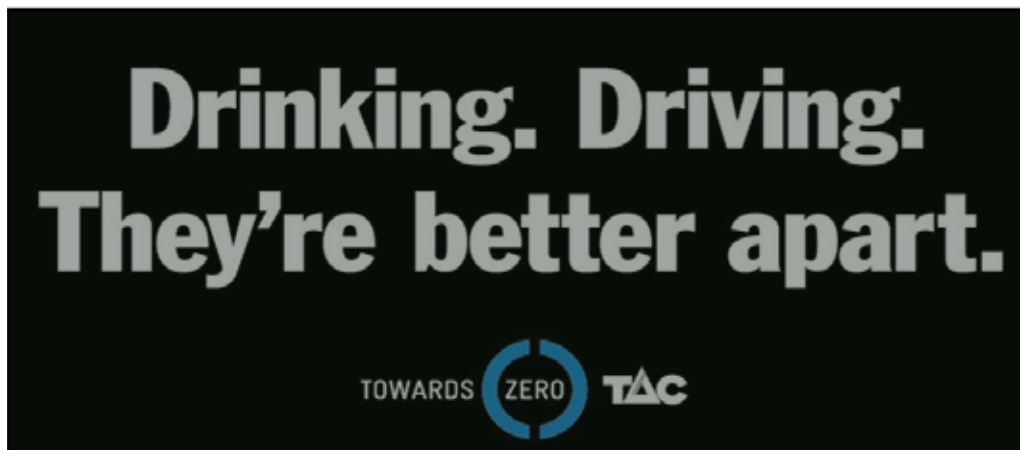
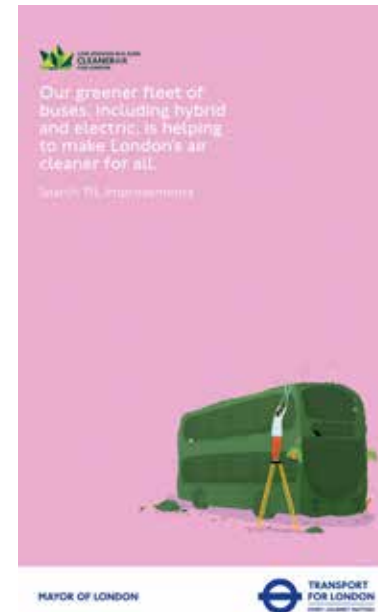


Content & Use of Displays

Under the advertisement regulations planning cannot be used to control the content of an advertisement, instead the nature and type of advertising content is regulated by the Advertising Standards Agency (ASA). However, planning can be used to control the operation of a digital display by linking conditions to the advertisement consent.

Typically these conditions revolve around the levels of illumination, use of static images only and rate/ speed of the change of content/ screen image for public safety reasons. These controls are recommended in the TfL adopted Guidance Document on Roadside Digital Advertising and would apply to this specific submission.

There are already digital signs in the borough that are subject to similar controls, some of these locations are shown in the examples shown in this document.



Maintenance

Maintenance of the display screen is very important to both TfL and Urban Vision, as a business that operates on the streets it is our responsibility to make sure our equipment is well looked after and we take that responsibility seriously as part of our obligations to the local area. The display will be placed on a rota of scheduled maintenance to ensure the visual appearance is always kept tidy and clean. The screen will be cleaned quarterly to remove the usual air born pollutants that attach to any structure or building, the cleaning process for the display is clean water and brushes to remove dust etc. from the bulbs, this process takes place during the evenings when pedestrian traffic is at its lowest to negate impact on the area to users of the public area and station.

A key benefit of any digital screen display is that much of the maintenance work can be completed remotely, this immediately reduces the requirement to use vehicles to travel to the locations and as with more traditional forms of media there is no waste by products such as paper posters.

To ensure the smooth operation of display screens Urban Vision operate a 2 hour service level agreement (SLA) with our technical team, available 24 hours a day, 7 days a week including Christmas day. This means that if we experience any fault with the display that cannot be rectified remotely a technician will be on site within 2 hours to physically assess and correct the fault.



Conclusions

The proposed property has been identified by TfL as being an appropriate location for media in road safety terms as showed in the Public Safety Assessment provided by TFL.

The media screens are located on the side of existing ventilation shafts located at the plaza in front of King's Cross railway station.

The media screens have been designed in accordance with the existing structural form of the vents and are designed to blend and form part of the structure rather than a bolted-on afterthought.

The proposed controls over the use of the display will ensure that the digital display is safe and can be used flexibly for media events or displaying emergency messaging.

The level of illumination will be closely controlled to ensure that the display is operated in accordance with the Institute of Lighting Professionals.

As previously mentioned in this document and detailed in the application the proposal will include the Breath, a revolutionary technology which targets polluted environments and can assist with reducing harmful pollutants from Euston Road. The area is identified with annual pollution levels that exceed those recommended for Nitrogen Dioxide and particulates.

The area in and around King Cross is a mixture of all elements that you would expect to find in a central urban area, retail, commercial and residential operating side by side. The nature of the built environment is very mixed and this is demonstrated in the earlier part of this document.

The media screen facing the plaza is highly unlikely to have any impact on the surrounding carriageway as it is largely unseen from the Euston Road. The media screen facing the junction of Euston Road and

Pancras Road is not significantly visible from the junction and does not impact on the operation of the junction as evidenced by TfL's road safety report.