

CiViTAS
Cleaner and better transport in cities

ARCHIMEDES

AALBORG • BRIGHTON & HOVE • DONOSTIA-SAN SEBASTIÁN • IAŞI • MONZA • ÚSTÍ NAD LABEM

Brighton & Hove

T45.1 – BikeOff Anti-Theft Scheme in Brighton

Brighton & Hove

September 2010



THE CIVITAS INITIATIVE
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Contents

1. INTRODUCTION.....	4
1.1 BACKGROUND CIVITAS.....	4
1.2 BACKGROUND ARCHIMEDES.....	5
1.3 PARTICIPANT CITIES.....	5
1.3.1 <i>Leading City Innovation Areas</i>	5
2. BRIGHTON & HOVE.....	6
3. BACKGROUND TO THE DELIVERABLE	6
3.1 SUMMARY DESCRIPTION OF THE TASK	6
4. DELIVERABLE TITLE: BIKEOFF CYCLE ANTI-THEFT SCHEME	7
4.1 DESCRIPTION OF THE WORK DONE.....	7
4.2 SUMMARY OF ACTIVITIES UNDERTAKEN TO PROVIDE SECURE CYCLE STANDS IN BRIGHTON.	10
4.3 MAIN OUTCOMES	12
4.4 PROBLEMS IDENTIFIED	13
4.5 MITIGATING ACTIVITIES.....	13
4.6 DISSEMINATION.....	14
4.7 FUTURE PLANS	14

1. Introduction

1.1 Background CIVITAS

CIVITAS - cleaner and better transport in cities - stands for City-VITALity-Sustainability. With the CIVITAS Initiative, the EC aims to generate a decisive breakthrough by supporting and evaluating the implementation of ambitious integrated sustainable urban transport strategies that should make a real difference for the welfare of the European citizen.

CIVITAS I started in early 2002 (within the 5th Framework Research Programme);
CIVITAS II started in early 2005 (within the 6th Framework Research Programme) and
CIVITAS PLUS started in late 2008 (within the 7th Framework Research Programme).

The objective of CIVITAS-Plus is to test and increase the understanding of the frameworks, processes and packaging required to successfully introduce bold, integrated and innovative strategies for clean and sustainable urban transport that address concerns related to energy-efficiency, transport policy and road safety, alternative fuels and the environment.

Within CIVITAS I (2002-2006) there were 19 cities clustered in 4 demonstration projects, within CIVITAS II (2005-2009) 17 cities in 4 demonstration projects, whilst within CIVITAS PLUS (2008-2012) 25 cities in 5 demonstration projects are taking part. These demonstration cities all over Europe are funded by the European Commission.

Objectives:

- to promote and implement sustainable, clean and (energy) efficient urban transport measures
- to implement integrated packages of technology and policy measures in the field of energy and transport in 8 categories of measures
- to build up critical mass and markets for innovation

Horizontal projects support the CIVITAS demonstration projects & cities by:

- Cross-site evaluation and Europe wide dissemination in co-operation with the demonstration projects
- The organisation of the annual meeting of CIVITAS Forum members
- Providing the Secretariat for the Political Advisory Committee (PAC)
- Development of policy recommendations for a long-term multiplier effect of CIVITAS

Key elements of CIVITAS

- CIVITAS is co-ordinated by cities: it is a programme “of cities for cities”
- Cities are in the heart of local public private partnerships
- Political commitment is a basic requirement
- Cities are living ‘Laboratories’ for learning and evaluating

1.2 Background ARCHIMEDES

ARCHIMEDES is an integrating project, bringing together 6 European cities to address problems and opportunities for creating environmentally sustainable, safe and energy efficient transport systems in medium sized urban areas.

The objective of ARCHIMEDES is to introduce innovative, integrated and ambitious strategies for clean, energy-efficient, sustainable urban transport to achieve significant impacts in the policy fields of energy, transport, and environmental sustainability. An ambitious blend of policy tools and measures will increase energy-efficiency in transport, provide safer and more convenient travel for all, using a higher share of clean engine technology and fuels, resulting in an enhanced urban environment (including reduced noise and air pollution). Visible and measurable impacts will result from significantly sized measures in specific innovation areas. Demonstrations of innovative transport technologies, policy measures and partnership working, combined with targeted research, will verify the best frameworks, processes and packaging required to successfully transfer the strategies to other cities.

1.3 Participant Cities

The ARCHIMEDES project focuses on activities in specific innovation areas of each city, known as the ARCHIMEDES corridor or zone (depending on shape and geography). These innovation areas extend to the peri-urban fringe and the administrative boundaries of regional authorities and neighbouring administrations.

The two Learning cities, to which experience and best-practice will be transferred, are Monza (Italy) and Ústí nad Labem (Czech Republic). The strategy for the project is to ensure that the tools and measures developed have the widest application throughout Europe, tested via the Learning Cities' activities and interaction with the Lead City partners.

1.3.1 Leading City Innovation Areas

The four Leading cities in the ARCHIMEDES project are:

- Aalborg (Denmark);
- Brighton & Hove (UK);
- Donostia-San Sebastián (Spain); and
- Iasi (Romania).

Together the Lead Cities in ARCHIMEDES cover different geographic parts of Europe. They have the full support of the relevant political representatives for the project, and are well able to implement the innovative range of demonstration activities.

The Lead Cities are joined in their local projects by a small number of key partners that show a high level of commitment to the project objectives of energy-efficient urban transportation. In all cases the public transport company features as a partner in the proposed project.

2. Brighton & Hove

Brighton & Hove is an historic city, in the south-east of England, known internationally for its abundant Regency and Victorian architecture. It is also a seaside tourist destination, with over 11km of seafront attracting eight million visitors a year.

In addition, it is a leading European Conference destination; home to two leading universities, a major regional shopping centre, and home to some of the area's major employers. All of this, especially when set against the background of continuing economic growth, major developments across the city and a growing population, has led the city council to adopt a vision for the city as a place with a co-ordinated transport system that balances the needs of all users and minimises damage to the environment.

The sustainable transport strategy that will help deliver this vision has been developed within the framework of a Local Transport Plan, following national UK guidelines. The ARCHIMEDES measures also support the vision, which enables the city to propose innovative tools and approaches to increase the energy-efficiency and reduce the environmental impact of urban transport.

3. Background to the Deliverable

Brighton & Hove City Council (BHCC) are very keen to promote cycling as a healthy and sustainable mode of independent transport in the city. Based on the actions developed for cycling, the city council has been recognized with a number of national awards including the award of Cycling Demonstration Town status.

Since the year 2000, cycling practice has increased by 50% in the city. The council would like to support this increase by creating a safe and secure environment for cyclists.

Nationally, cycle theft is acknowledged to be a significant deterrent to cycle use. UK Department of Transport research shows that 19% of cyclists in the UK experience cycle theft. Of these, 24% stop cycling and 66% cycle less often as a consequence. By improving safe and secure cycle use, Brighton & Hove hope to further promote and encourage cycling.

3.1 Summary Description of the Task

The project worked with key stakeholders and residents to implement a range of innovative measures to combat cycle theft. The Design Against Crime Research Unit and BikeOff was appointed, by way of a sub-contract, to lead on the project and they worked with other partners including the Crime and Disorder Reduction Partnership, Sussex Police, and the Brighton and Hove Cycle Forum

Implementation was focussed on a cycle theft 'hotspot' area in the North Laine and Kemptown districts of Brighton. The BikeOff Research team has delivered research into the cycle theft problem at key locations in the area and this has been used to make recommendations for theft reduction interventions. Where the recommended interventions have been implemented, BikeOff will evaluate the effectiveness of the measures. The ultimate objective of these interventions is to bring about a reduction in cycle theft as reported by the Police.

The project introduced new cycle parking measures at 10 high-risk sites in conjunction with an innovative community engagement campaign. A further 10 sites were selected to act as control sites as part of the BikeOff research. BikeOff researchers carried out a pre-evaluation of the sites in November 2009.

The new cycle parking measures included the introduction of Pedal Cycle Parking Places (PCPPs). The community engagement aims to trial the effectiveness of communicating with residents at grass-root level by targeting very specific areas with information packs, introducing a 'Bikewatch' scheme and by holding events such as 'bike doctors' (a free bike maintenance service) and bike tagging (whereby bikes are marked with owners' post codes, increasing the chances that property can be returned if recovered, as well as providing a visible deterrent). This was carried out between June – September 2010.

4. Deliverable Title: BikeOff cycle Anti-Theft Scheme

4.1 Description of the Work Done

This project aimed to deliver comparable research on the effectiveness of cycle parking provision and engaging communities at their doorstep on improving security of cycle locking, reducing fly parking and obstruction, and, through these measures, in reducing cycle theft and increasing the uptake of cycling.

BHCC has therefore piloted a 'Bikewatch' initiative to investigate whether supporting cycle related community activities; and installing secure cycle parking facilities can increase the security of parked bicycles, reduce cycle theft and increase cycle use. To do this, BHCC have selected 20 sites within Brighton & Hove's CIVITAS corridor that are in areas where cycle theft is an issue and cycle parking is needed.

From the 20 sites:

- 5 have cycle parking and community engagement
- 5 have cycle parking only
- 5 have community engagement only
- 5 have no intervention

This deliverable focuses on the implementation of new cycle parking within the CIVITAS area of Brighton & Hove.

Good quality cycle parking in carefully considered and well-planned locations can de-clutter the streetscape and create a good level of cycle security. Sussex Police and the Crime & Disorder Reduction Partnership identified cycle theft as a key comparator crime affecting overall police targets negatively. A Cycle Theft Steering Group (CTSG) was formed in September 2006 to take action to reduce the level of cycle theft in the city. Experiencing bicycle theft is a known deterrent to continuing cycling.

The CTSG have commissioned BikeOff at the Design Against Crime research centre (University of the Arts, London) to assist in cycle theft reduction through a research project (Measure 45 Task 5.4 and 11.5.1)

Brighton & Hove characteristically has a high number of narrow pathways and streets in residential areas and the town centre. The lack of opportunities for cycle parking located on the pavement, has highlighted the need for 'on-carriageway' cycle parking provision, officially called 'Pedal Cycle Parking Places' (comprising a minimum of 5 cycle stands/capacity for 10 bicycles). Additional off street cycle parking was also identified where appropriate.

Overall, 10 sites were selected to receive cycle parking in the CIVITAS area of Brighton & Hove. A map of these sites is provided in Appendix 1, complemented by Appendix 2, which highlights pre-implementation cycle theft data.

A further 10 sites have been selected to act as control sites as part of the BikeOff research. BikeOff researchers carried out a pre-evaluation of the sites in November 2009. Figure 1 provides an example of an observation of cycle parking practice at one site.

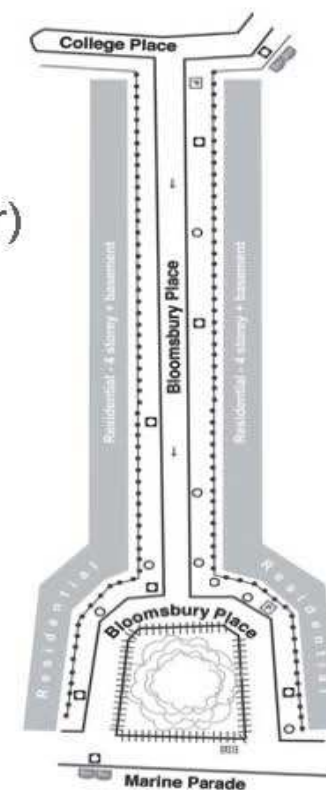
Figure 1: Example of Cycle Parking Practice Observation

2. Pre-intervention observation of all 20 study corridors

THURSDAYS AND SATURDAY'S DURING NOVEMBER AND DECEMBER

- Number of parked bikes
- Cycle parking practices (locking behaviours)
- Incidence 'fly parking'
- Incidence of bikes causing obstruction (street clutter)

	Hybrid	Child	Fold	Racer	City	Delivery	Style	Box	MTB	Recumbent	Other	Other	GP	GP
Date:	<input type="checkbox"/> Hybrid <input type="checkbox"/> Child <input type="checkbox"/> Fold <input type="checkbox"/> Racer <input type="checkbox"/> City <input type="checkbox"/> Delivery <input type="checkbox"/> Style <input type="checkbox"/> Box <input type="checkbox"/> MTB <input type="checkbox"/> Recumbent											GP	GP	
Site:	<input type="checkbox"/> Fly Parking <input type="checkbox"/> Fly Parking <input type="checkbox"/> Fly Parking											GP	GP	
Event ID:	<input type="checkbox"/> Fly Parking <input type="checkbox"/> Fly Parking <input type="checkbox"/> Fly Parking											GP	GP	
Observation notes:	<input type="checkbox"/> Fly Parking <input type="checkbox"/> Fly Parking <input type="checkbox"/> Fly Parking											GP	GP	



Map

Bike-Off Cycle Anti-Theft Scheme in Brighton & Hove --- Adam Thorpe --- Thursday 14 January 2010



Thursday, 14 January 2010

4.2 Summary of Activities Undertaken to Provide Secure Cycle Stands in Brighton.

Site selection for Pedal Cycle Parking Places

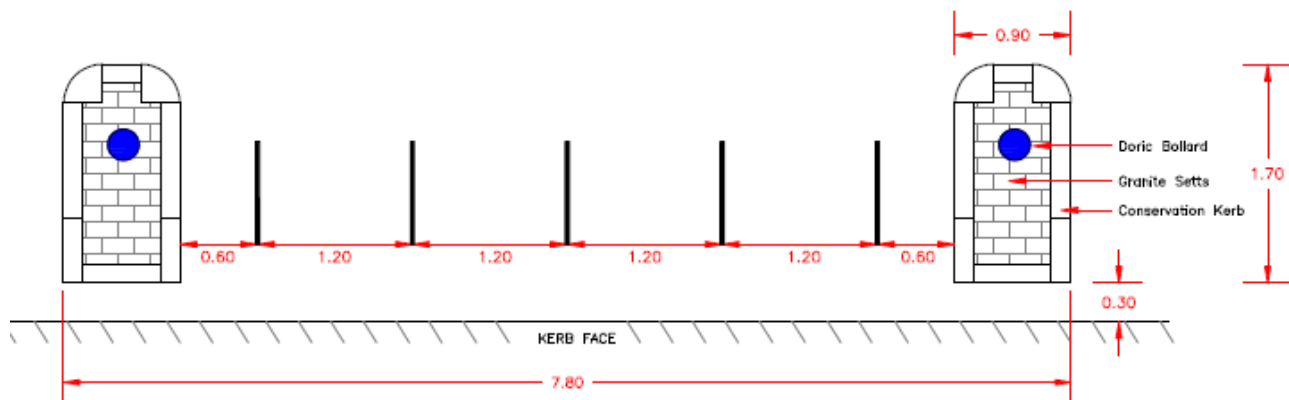
Initially, BHCC used a database of resident's requests to identify where the need for cycle parking in the city was. Following this, we visited locations and carried out a 'spot check' survey of fly parked bikes in the area. Fly parked bikes are a good indicator of inadequate or inappropriate cycle parking provision.

Positioning

Cycle parking should be located as close as possible to the destination it serves. From research carried out we know this is less than 25 metres and should be on the same side of the road and easy to access. The PCPP would normally be be situated on the end of a street where they could be used by residents / business in adjacent streets and could be readily found. Where feasible we aimed to locate PCPPs in areas where car parking would not be affected. However in city centre locations this can be difficult and as a result parking revenue was affected by the implementation. This loss in revenue is anticipated to be offset by the benefits to local resident's quality of life and contributions to wider transport issues such as city centre congestion.

Standard PCPP Layout

Figure 2: Diagram of PCPP



The entire length of a standard PCPP covers approximately 7.8 meters, which roughly equates to 1.5 car parking spaces and creates space for five stands (ten bikes). It was agreed that five stands would be the minimum that any one PCPP would contain to ensure that the cost benefit ratio was achieved.

The stands used were Sheffield Stands, which have been identified by BHCC as the default stand, which is known to encourage good locking practice. The stands are covered in galvanized steel, to give added protection in marine environments, and have three reflective bands, which enable stands to be easily seen in the dark (see Figure 3)

Figure 3: PCPP at Night



Stands were placed 1200 millimetres apart, following Transport for London design guidance. This enables users to practice the correct locking technique easily, when multiple users use adjacent stands simultaneously. The stands were located 300mm from the kerb edge to ensure the bike frame could sit against the stand with adequate room for the wheels.

Most of the structures were designed with two concrete build outs with a protective bollard again with reflective strips and cycle signs, as shown in Figure 4

Figure 4: PCPP Build Out



Lighting Surveillance and Guardianship

PCPPs were planned near windows so that they could be easily overlooked and in locations where 'natural surveillance' was obvious. Lighting is also considered important and usually street lighting is adequate. Where CCTV covers the structures, this is also ideal.

Consultation and Safety

Once the need and the locations were suitably identified formal consultation was carried out with local residents in the area, and this was followed with a formal Traffic Regulation

Order which amended the legal road parking allocation, so that locations were designated for cycles only and any other unauthorised vehicle using this space could be served with a parking fine.

The plans for each location were fully Safety Audited to highlight any potential safety risks, and to identify how to avoid these. Criteria in the Safety Audit included restrictions on highway space and vehicle movements, visibility to users and other road users, distances from junctions, crossing points and other highway entry/exit points.

Once Traffic Regulation Orders had been fully advertised and amended this was sealed and the PCPPs were prepared for implementation.

Implementation began in February 2010 and all PCPPs were complete by April 2010.

Pre-implementation evaluation by BikeOff researchers

BikeOff researchers visited the sites in November 2009 to evaluate the cycle parking situation prior to the implementation of PCPPs. The site visits will be repeated in November 2010 to feed into the evaluation process.

4.3 Main Outcomes

BHCC have installed cycle parking at 10 locations in the CIVITAS area of Brighton & Hove.

The results of the effectiveness of providing cycle parking (and/ or community engagement activities) on improving secure cycle locking, reducing fly parking and cycle theft will be available after the full evaluation of the research and demonstration has been carried out.

Figure 5: Photo of a new PCPP in Brighton & Hove



4.4 Problems Identified

There have been no major problems in installing the cycle parking provision.

However, there are some challenges that have been encountered:

- Prior to scheme implementation residents in the direct vicinity were consulted. Over three hundred residents were sent letters describing the PCPP plans and given the opportunity to object or comment. The response rate was less than 10 percent and although generally positive, there were a number of objections which needed to be considered. The majority of objections related to either loss of local car parking or the proximity to local residents' houses. Project officers found that taking the time to meet with residents and talking through the scheme's objectives helped to overcome any concerns and objections were removed. However, there was one location which had strong support but also strong opposition and, as it was not possible to resolve the objection, this site had to be removed from the programme of works.
- It wasn't feasible to locate all PCPPs without taking out car parking places, so parking revenue was affected. However, officers were able to negotiate this by showing the huge benefits that cycling brings to quality of life, health and reducing of congestion. The economic value of these balances out the loss of parking revenue.
- During construction, BHCC had difficulty in city centre locations restricting car parking so that the contractors could complete works. In some cases contractors were forced to tow away cars parked in the area so that works could be carried out.

4.5 Mitigating Activities

In addition to the issues noted in Section 4.4, there were several risks associated with the project:

- There was a risk that the PCPPs would not be fully utilised and be left redundant in a previously used car parking space. While careful consideration is given to the location to reduce this risk, it can be very difficult to predict human behaviour.
- There was also a risk that it would be difficult to stimulate interest in the project amongst residents in some of the selected areas, meaning that it would not be possible to deliver the community engagement element of the project at every area location. Nevertheless, a strong feature of the project is to evaluate the success of different interventions or combinations of.

To mitigate against these risks, BHCC firstly selected sites with a clear need for improved cycle parking provision, as has been discussed in this report. In addition, an information pack was distributed to every resident to explain the project and an 'introduction' meeting organised for every site involved in the community engagement. Furthermore, several activities were carried out in each area to enable residents to have a greater chance of getting involved in at least one of them.

4.6 Dissemination

BHCC have sent out an information pack to the residents involved in the community engagement side of the project and involved the communities in the events. Wider dissemination of the BikeOff cycle Anti-Theft Scheme has not been carried out to date. The reason for this is that to be able to carry out the research and fully compare the sites, there is has been a need to avoid cross contamination between the sites that were involved in the community engagement element and those that were not.

After the community engagement period is finished (June-September 2010) and the research conclusions have been finalised (January 2011), BHCC are planning several press releases and an article in the Archimedes Newsletter, as well as articles in the local cycle magazine.

4.7 Future Plans

It is hoped through the provision of cycle parking and education community engagement initiatives, that there will be an improvement of secure cycle locking, a reduction of fly parking and ultimately a reduction in cycle theft.

The next steps of this project are the evaluation of the community engagement and the post-evaluation of sites.

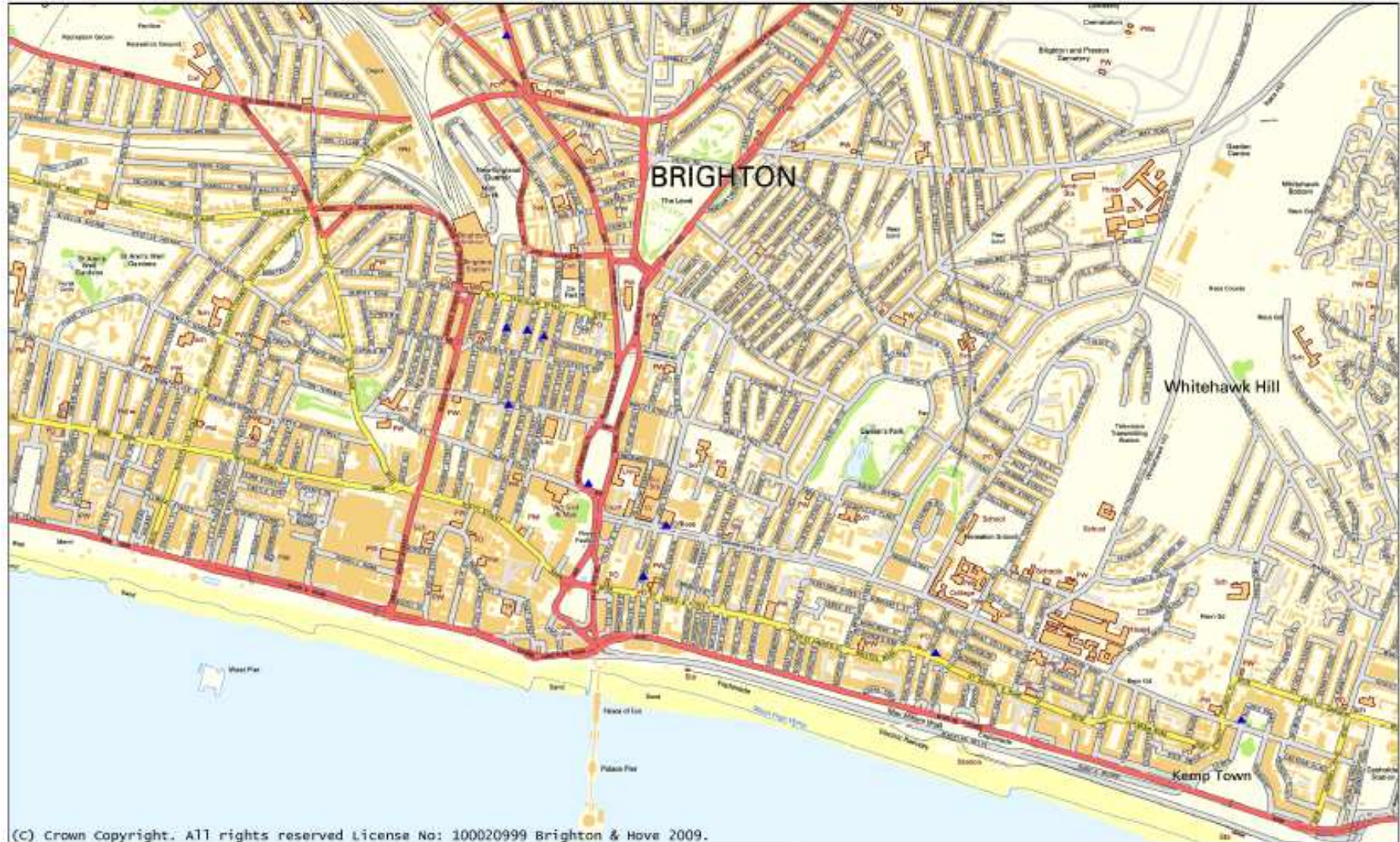
Community engagement evaluation

- The community engagement element of the project finished in September 2010. BHCC will now evaluate the results of this activity, such as how many residents were involved in the events, what the feedback was and how successful different elements of the engagement were.

Research

- The BikeOff researchers will revisit the 20 sites to carry out the post-implementation checks. This will take place in October / November 2010.
- BikeOff will compare the results of the site visits with the findings of the pre-implementation surveys carried out in November 2009. The conclusion and final research will be available in January 2011.

Appendix 1: New PCPP Locations



Appendix 2

Observation Corridors

