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Business improvement districts in urban freight sustainability initiatives: A case study approach

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Abstract

The paper extends research into the importance of freight transport partnerships by considering the role of Business Improvement Districts (BIDs) in supporting sustainable urban freight initiatives. A review of the freight transport-related work that has been carried out in BIDs in central London is included. A detailed case study of a freight project in the Baker Street Quarter (BSQ) Partnership provides insight into work carried out in the multi-tenanted office and hotel sectors. The findings of this research in terms of freight transport and logistics activity patterns at the businesses studied together with the potential freight transport solutions identified are discussed.

1. Introduction

The research extends work on the importance of freight transport partnerships by considering the role of Business Improvement Districts (BIDs) in supporting sustainable urban freight initiatives. A BID is a business-led body formed to improve a defined commercial area, in which the local businesses have voted to invest collectively to
improve their environment. The improvements made by a BID are selected by their business members and can include activities such as street cleaning and security services, recycling, business support, improved infrastructure, area branding and promotion. During the past 10 years a number of researchers have noted the growing importance of public-private partnerships in relation to urban freight transport (Allen et al, 2010; Lindholm and Browne, 2013). In most cases the partnerships being discussed have been established specifically to deal with freight transport matters. However, in the UK the emergence of a growing number of BIDs provides another organisational structure within which freight issues can be addressed. The BIDs in central London are typically not-for-profit companies, funded by businesses that work closely with local public-sector partners (including local councils, Transport for London (TfL), and the Metropolitan Police) to achieve the desired improvements for the area.

Several of the BIDs in Central London have now started to work on projects concerned with urban freight transport. The paper will review five such BIDs in central London explaining the structure, membership and main activities to date. The review identifies the extent to which each of the BIDs has engaged (or plans to engage) with improving freight sustainability among its business members. The review includes an assessment of the freight transport impacts already achieved and the importance of the forthcoming plans among the BIDs. The review is then followed by a case study of the Baker Street Quarter BID that focuses on freight transport and logistics activity among non-retail business organisations (in this case offices and hotels). The case study makes use of interview and survey data to provide an analysis of the freight activity patterns, issues faced, and potential solutions.

2. Review of Bids in Central London

The Mayor of London and the Greater London Authority (GLA) strongly endorse the concept of BIDs and their role in the ‘place shaping’ of local town centres and industrial estates. BIDs are included in the Mayor’s Economic Development Strategy (EDS) and the London Plan which highlight the fact that BIDs are an important way of getting diverse local businesses to work together (Shared Intelligence and the Association of Town & City Management, 2013). The GLA identifies 37 BIDs operating in London (GLA, 2014 - see Fig. 1 and 2).
A number of business benefits related to BIDs have been noted (GLA, 2014):

- BID levy money is ring-fenced for use only in the BID area
- Businesses decide and direct what they want for the area
- Business cost reduction (for example reduced crime and joint procurement)
- Mediation with urban authorities, Transport for London, the Police and other public bodies
- Increased footfall and staff retention
- Promotion of the specific location (to the public and prospective businesses)

For the purposes of this paper five central London BIDs have been reviewed: (i) New West End Company, (ii) Heart of London Business Alliance Piccadilly and St James, (iii) Heart of London Business Alliance Leicester Square to Piccadilly, (iv) Better Bankside and (v) Baker Street Quarter. At present three of these BIDs have urban freight initiatives and therefore there will be rather more discussion of these three examples. For the purposes of the review the two BIDs that are coordinated by the Heart of London Business Alliance have been discussed together since many of their activities are coordinated.

2.1. New West End Company

New West End Company (NWEC) is the UK’s largest retail BID representing 600 businesses in the retail heartland of London's West End including Oxford, Regent and Bond Street, and 22 surrounding streets. The aim of NWEC is to promote London's West End as one of the world’s top shopping destinations, ensuring the commercial success of the area by developing and promoting it - the importance of attracting customers is noted by the BID which seeks to keep the streets clean, safe and welcoming in order to increase footfall and investment. The BID was established in 2005 and is now in its third term (85% businesses in the West End voted ‘YES’ for another five years of the BID managing the area, from 2013 – 2018) (New West End Company, 2014).

The most important freight initiative within the NWEC BID area focuses on Regent Street where there have been two initiatives. The first initiative was led by the Crown Estate, one of the major landowners in London's West End. As part of its overall aim of reducing traffic movement by 25% in Regent Street, the Crown Estate has introduced a freight consolidation scheme (Transport for London, 2012). Goods are delivered to a warehouse some 14 miles outside London, and from there are consolidated onto two fully loaded electric vehicles with gross weights of
10 tonnes which deliver them to participating shops on Regent Street. These electric vehicles arrive at the stores at pre-arranged delivery times, thereby better suiting the retailer than the system used previously. Both electric vehicles make two delivery rounds to London per day (morning and afternoon). The vehicles are also used to make collections from suppliers/retailers on the return journey to the warehouse where possible. Approximately 20 retailers now participate in this scheme and there are many reported advantages to both the retailers and to the environment of Regent Street where congestion and pollution is seen as a significant problem. The Crown Estate has supported the purchase of the electric vehicles used by Clipper, the chosen logistics company, to make deliveries to retailers (see Fig. 3).

A further freight initiative, building on the initial project described above, has seen the Crown Estate, together with the Regent Street Association working to find ways to consolidate and centralise office supply deliveries in Regent Street. One way of encouraging this consolidation (and a switch to electric vehicles) has been the partnership with Gnewt Cargo a company that specialises in using electric vehicles for city deliveries (Butler, 2013). Gnewt Cargo offers a number of delivery services in and around the Regent Street area working in partnership with other delivery companies. They are a nominated carrier company for members of the Regent Street Association (see Fig. 4).

2.2. Heart of London Business Alliance

Heart of London Business Alliance operates two BIDs that represent 500 businesses in the Piccadilly and St James’s areas of London’s West End (these areas include Leicester Square and Piccadilly Circus). London’s West End is one of the world’s top cultural, entertainment, shopping and dining destination, with 2,500 restaurants and
bars, 2,000 shops, 40 theatres, 30 museums and galleries, 17 Michelin star restaurants and 7 parks or public green spaces.

The central objective of the two Heart of London Business Alliance BIDs is to ensure the continued importance of the areas at both a national and international level able to attract visitors to the wide variety of entertainment and leisure locations within this part of London. The marketing strategy is made up of three components:

- To promote the area as a vibrant part of London’s West End
- To promote the iconic locations as destinations in their own right
- To promote the range of businesses

The purpose of this strategy is to encourage further business investment and to increase tourism and visitor activity and thus spending.

Specific attention has been paid to recycling and freight consolidation with a strategy aimed at offering cost savings to businesses within the area. About 70 businesses use the subsidised Recycling Scheme (Heart of London Business Alliance, 2014). This helps save money through allowing waste to be recycled in one sack and with just one contractor serving businesses, resulting in fewer vehicle trips within this congested area (contributing to less disruption and a lower carbon footprint). It is claimed that in 2013 CO2 savings of 512 tonnes were achieved by recycling 355 tonnes of mixed products. In January 2013 The BID negotiated £80,000 of joint funding from TfL and The Crown Estate for a Freight Consolidation Project designed to deliver operational cost savings for businesses and enhance the quality of the environment (Heart of London Business Alliance, 2014). The proposed consolidation scheme is intended to improve how deliveries are made within the constrained and busy business location, reducing peak hour delivery activity and kerbside loading activity to help provide a more pleasant shopping, dining and entertainment experience. The plan considers the use and expansion of the existing Regent Street consolidation scheme, preferred supplier schemes, onsite logistics facilities, waste management, procurement, employee deliveries and future funding sources.

2.3. Better Bankside

Better Bankside was the third BID to be established in the UK, the second in London and the first south of the river Thames. Better Bankside's has approximately 500 members in the BID area who pay its annual 'levy'. Services offered to members include:

- Mixed Recycling for all small to medium sized businesses (for larger organisations Better Bankside contributes to recycling provision)
- Collective Purchasing Discounts – on carbon neutral taxis, recycled paper, training sessions etc.
- Buzz Card for all employees and residents, giving local shopping discounts
- Secure bicycle parking
- Free local recruitment services
- Smart Green Business – tailored expert environmental action plans and consultancy

Better Bankside has tried to encourage greater use of cycle freight. An example of a recent project trial involved the use of a cargo cycle operating in November and December 2013. One of the aims was to show how zero emission freight vehicles could help to reduce pollution - Better Bankside noted that “The high levels of pollutants and ‘dust’ produced by motor vehicles including delivery vans, are a real problem in Bankside…” The cargo cycle payload was of up to 300 kg with a cargo box (dimensions of 0.78m x 0.98m x 1.15m). The vehicle could be driven on roads, cycle paths and pedestrian zones (Better Bankside, 2013).

2.4. Baker Street Quarter Partnership

Baker Street Quarter (BSQ) Partnership was established in April 2013 to bring a new-found purpose and focus to the Baker Street and Marylebone area (which is located a short distance north of London’s famous Oxford Street).
The BID was founded by a core group of businesses in the area and now represents over 160 members with a goal to drive forward positive change to create a thriving and prosperous community for everyone. The overall aim is to create a quality environment in which to work and live, a vibrant area to visit and a profitable place to do business. The long-term projects and area management initiatives seek to improve the BID area for the benefit of all, and support and promotion provided to businesses is intended to ensure the area continues to thrive (Baker Street Quarter, 2014).

The BSQ is the commercial district of the West End of London. The area suffers from dominant traffic (A41 gyratory and Marylebone Road) and poor air quality. A Perception Analysis study (in 2012) identified vehicular traffic/congestion as the dominant concern among businesses in the area (87% with the next most significant being street maintenance 53% and litter 32%). The domination and noise from traffic was also identified as the most significant negative to the area in the recent ‘Health Check’ of the street (The Retail Group, 2013) and Market Intelligence survey and focus groups (in 2012) found the traffic and associated noise and air pollution to be concerns common to both business and residents. Particulate and nitrogen dioxide levels are very high throughout the Baker Street Quarter area and the significant levels of traffic contribute to CO2 emissions.

3. Detailed case study-Baker Street Quarter

This section contains a case study of a freight transport study and initiative currently being carried out in the BSQ Partnership. The BSQ area contains many large office blocks as well as significant hotels. Many of the BID members are in multi-tenanted office blocks. These sites generate substantial numbers of goods vehicle trips. However such sites have not been the focus of much previous study in terms of freight transport efficiency but have the potential for greater co-ordination of such freight transport activities thereby improving the freight sustainability of such sites. Hotels also have opportunities for consolidating deliveries but existing research suggests that such practices are very varied. There are many potential benefits in gaining a much greater insight into the consolidation opportunities for these two types of land use.

3.1. Motivation for a study

There was little understanding of the freight flows generated by the BSQ BID members. This information is essential to assess new business practices that BID members could implement to improve the efficiency and sustainability of their freight transport activity. Within the BSQ BID there was considerable interest among members in developing a freight initiative. The businesses were willing to both explore and, if appropriate, implement initiatives within the BID. Therefore a scoping study was devised to gather information about current freight transport activity in the BSQ and consider possible initiatives that would result in greater freight transport sustainability. The most appropriate initiative/s could involve a range of actions taken independently or in partnership between various BID members. The results of the study were intended to inform the planning of a pilot trial. This scoping study received financial support from TfL. An important factor in the study is to identify at an early stage how the freight trial to be piloted (and then, if successful, rolled out more fully) can involve as much company involvement as possible so as to maximise its transport and environmental sustainability as well as its commercial sustainability once the initial pilot and funding ceases.

3.2. Membership of the BID

As already mentioned, many BSQ members are office based companies that are located in multi-tenanted office blocks. Large hotels are also well represented among the membership. Both of these types of site generate substantial goods and service vehicle activity, but have received relatively little previous urban freight research. They have the potential for greater co-ordination of freight transport activities thereby improving freight sustainability. Table 1 provides a breakdown of the Baker Street Quarter membership by type.
Table 1. Baker Street Quarter (BID) Members by Type, March 2014.

<table>
<thead>
<tr>
<th>Types of BID Members</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Office</td>
<td>112</td>
</tr>
<tr>
<td>Restaurant</td>
<td>7</td>
</tr>
<tr>
<td>Hotel</td>
<td>6</td>
</tr>
<tr>
<td>Bank</td>
<td>5</td>
</tr>
<tr>
<td>Shop/showroom</td>
<td>4</td>
</tr>
<tr>
<td>Pub</td>
<td>2</td>
</tr>
<tr>
<td>Educational</td>
<td>2</td>
</tr>
<tr>
<td>Attraction</td>
<td>2</td>
</tr>
<tr>
<td>Members Club</td>
<td>1</td>
</tr>
<tr>
<td>Car park</td>
<td>1</td>
</tr>
<tr>
<td>Casino</td>
<td>1</td>
</tr>
<tr>
<td>Gym</td>
<td>1</td>
</tr>
<tr>
<td>Clinic</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>145</strong></td>
</tr>
</tbody>
</table>

3.3. Methodology

The scoping study concentrated on multi-tenanted office buildings and hotels. Nine buildings in the BSQ were studied (five major multi-tenanted offices and four large hotels). The research comprised the following research techniques to acquire the necessary information and data: i) interviews, ii) site visits and observation surveys, and iii) analysis of vehicle loading bay logs (where available). The extent of this work at each site varied depending on the complexity and scale of freight activity at the building and the availability of existing freight-related data. In total approximately 16 people were interviewed during the work. Once this research had been carried out the information, data and views collected were analysed.

3.4. Scoping study results

The freight transport and supply chain operations at the sites studied together with the freight transport problems identified are summarised in the sub-sections below.

3.4.1. Vehicle trip generation and trip timings

Both multi-tenanted offices and hotels generate substantial numbers of freight vehicle trips. The offices studied generate between 100-900 vehicle deliveries and collections per week, while the hotels generate between 80-120 trips per week.

The vast majority of goods vehicle collection and delivery activities at the hotels and offices studied take place during the working day, and during weekdays (Monday-Friday) rather than at weekends. More vehicle activity occurs in the morning than the afternoon at most sites studied.

3.4.2. Types of products supplied

For offices, the most important product types in terms of vehicle deliveries and collections generated are: parcels, post and documents; food; and office supplies; and collections of waste. Parcels, post and documents are the single most important product category accounting for 40-80% of all vehicle trips at various offices. Food accounts for approximately 10-20% of vehicle trips, and waste for approximately 5-10% of vehicle trips. Waste includes general
waste, recycling and confidential waste. Other products delivered and collected by vehicles include office supplies and paper, newspapers, printing, linen and towels, flowers, data storage.

For hotels, the most important product types in terms of vehicle deliveries and collections are: food and drink (approximately 15-30% of vehicle trips); parcels, post and documents (20-30% of trips); linen, towels and dry cleaning (15-25% of trips); and waste (5-15% of trips). Other product types delivered and collected include newspapers, cleaning supplies, and goods for maintenance and repairs.

Among the offices studied, it is estimated that a substantial proportion of parcels and packages delivered are personal online orders by employees rather than intended for the companies. Two of the offices studied estimated that these accounted for approximately 40-60% of all parcels and packages received, and these flows are thought to be growing over time. Some of the parcels carriers and couriers delivering to and collecting from the offices studied visit each office block several times per day.

### 3.4.3. Vehicle types used

Vans are the most commonly used vehicles for deliveries and collections at offices and hotels. However motorbikes and bicycles are also important for post and documents at offices. When heavy goods vehicles are used for deliveries and collections at the offices and hotels studied, these tend to be rigid vehicles rather than larger articulated vehicles. This is due to the size of the loading/unloading facilities available at the sites and the difficulty of handling larger vehicles in central London, as well as the type of products and order sizes involved.

### 3.4.4. Supply chain organisation and building management issues

The tenants in the office blocks select the suppliers used and organise the associated deliveries and collections (rather than the building management companies that manage the office blocks and staff the reception desks and loading bays).

Consolidation of deliveries and collections can have an important bearing on the total vehicle trips generated. At one office studied there are two loading bays, with each bay serving a similar floor space. However, one of the loading bays serves many different tenants, while, in the case of the other bay, the majority of the floor space is occupied by a single tenant. The latter results in the use of larger goods vehicles with larger delivery quantities, leading to only approximately half as many vehicle trips.

### 3.4.5. Site-specific issues of relevance

Vehicle dwell times are affected by site-specific factors including the quantity of goods flow, the size and number of loading bays, the number of goods lifts, and the management of the internal logistics within the building. Having loading bay staff who accept deliveries/collections in the loading bay on behalf of office tenants helps to reduce the total number of vehicle trips and reduces the time taken per vehicle (as this removes the need for the vehicle driver to personally hand the goods to the tenants, which involves the driver in using lifts to travel around the buildings). At one office block studied, vehicle deliveries that can be accepted by loading bay staff on behalf of tenants take, on average, two minutes less than those the driver has to take to the receiver. However, in general, the building management and loading bay staff at the offices studied do not accept deliveries on behalf of tenants due to legal liability concerns.

Several of the sites studied are subject to time restrictions for vehicle delivery and collection activity imposed by the urban traffic authority. In some cases this requires that vehicle loading and unloading takes place off-street in loading bays. These restrictions have been imposed by the urban authority because of the proximity of these offices and hotels to residential properties and therefore the disturbance that such activities can result in.
3.4.6. Freight transport problems identified

Freight transport problems at the sites studied were noted. At four of the nine sites studied the interviewees identified specific major freight transport-related problems that they face (while at five of the sites no such problems were felt to exist). The range of freight transport problems the hotels and offices face include:

- One site which struggles to cope with the absolute volume of goods vehicle trip generation which is peaked at particular times and can result in on-street vehicle queuing.
- Urban traffic authority imposed time restrictions on when collections and deliveries can take place are an inconvenience and can create difficulties and unintended problems at some sites.
- Offices are receiving ever-growing quantities of personal goods ordered online by staff.
- Larger rigid and articulated goods vehicles cannot access most of the sites’ loading bays due to their limited size and height.
- There is limited storage space available in most of the buildings studied.
- Car drivers parking in front of loading bays – they typically move on when requested to do so by loading bay staff.
- Some sites suffer from difficulties in transporting goods from vehicles to reception/storage areas and within buildings (due to insufficient goods lifts).
- Several sites are currently or planning to undergo refurbishments and this generates additional goods vehicle flows that can be difficult to accommodate especially when larger heavy goods vehicles are involved.
- One hotel is due to undergo a major refurbishment in future that will reverse the front and back door and result in difficulties to overcome in terms of existing delivery time restrictions and competition for this on-street space from other adjacent businesses.

3.5. Potential freight initiatives and barriers identified

There are several types of urban freight initiatives that could be considered in multi-tenanted offices and hotels in the BSQ in order to increase the efficiency and reduce the environmental impact of these operations. These include:

- Retiming deliveries and collections – so that they take place outside of the traffic peaks and/or to reduce vehicle queuing at large sites that generate many deliveries and collections
- Increasing load consolidation – so that the number of vehicle deliveries required is reduced (either through the use of a consolidation centre or through virtual consolidation achieved by working closely with suppliers)
- Using environmentally-friendly vehicles such as electric vans and cycles to make deliveries
- Better organisation of ordering and provision of goods and services through:
  - Reducing the frequency of suppliers’ goods deliveries and collections – thereby reducing the total number of vehicle trips (this can be done in conjunction with centralising and/or increasing stockholding)
  - Rationalising the number of suppliers from which goods are ordered or services are provided to reduce vehicle trips (this can be done within a single large company or in conjunction with neighbouring businesses – i.e. collaborating to use the same suppliers)
- Making use of off-street loading and parking space to take pressure off the road network

In addition to these BSQ-wide solutions that could be shared between participating members, there are also opportunities for the implementation of site-specific changes and initiatives to address localised problems. These can include issues such as signage and site management.

All these possibilities were discussed with participants from the nine sites studied. Respondents identified three key barriers that need to be taken into account in developing a freight trial. First, retiming goods delivery and collection activity to off-hours would be difficult to achieve for many of the sites due to: i) existing urban traffic authority imposed time restrictions that prevent early morning or evening/night freight operations, and ii) sites not subject to imposed time restrictions tend to only accept vehicles during the normal working day when the building
management and security staff that deal with this activity are present – retiming would therefore require additional staffing and alterations to staff rotas.

Second, there is little scope to make better use of off-street loading and parking space to take pressure off the road network, because where such off-street facilities exist at the sites surveyed they are already highly used. Also, even in cases where there may be scope to use off-street facilities more intensively, there is no evidence of their vehicles causing negative impacts on the road network.

Third, a key issue to emerge from research at multi-tenanted offices is the fact that tenants make their own freight transport arrangements with suppliers and carriers, so to carry out some types of trial that require changes to ordering or delivery arrangements would need the direct involvement and support of these tenants. This especially relates to joint procurement and the use of a nominated delivery address.

3.6. Preferred freight initiatives among participants

Taking these barriers and the other views of participants into account, a shortlist of possible trials was drawn up. For multi-tenanted offices three promising urban freight trial ideas emerged. The first is the use of a nominated delivery address other than the office for selected product types (of which the most likely are consumables that are delivered in large quantities frequently, but which are not time-sensitive or perishable, as well as personal items ordered online by staff). The nominated delivery address would be that of a selected parcel carrier’s depot where the goods could be consolidated and then delivered in a single daily vehicle trip rather than many different companies making these deliveries at different times of day as presently occurs. Environmentally-friendly vehicles could be used to provide these deliveries to the offices. The second option is to review existing loading/unloading time restrictions that buildings are subject to, working with the building management team and the urban authority that imposed these time restrictions. It may be possible to combine the first and second options. The third option is to increase and enhance the information provided to vehicle drivers and carriers. This would aim to improve their understanding of the delivery arrangements at the buildings and help manage their expectations, thereby reducing the negative impacts of freight transport activity at the site. This could also include use of more signage at loading bays.

For hotels, the three options described above for multi-tenanted offices are all potentially viable together with two others. These were, first, the use of an off-site storage facility and occasional last mile delivery operated by a logistics provider for large, bulky items such as cleaning products, office supplies and furniture that hotels currently struggle to deal with due to limited on-site storage space. Second, there may be joint procurement possibilities to rationalise the number of suppliers from which goods are ordered and the number of waste collection companies used to reduce costs and vehicle trips.

Further work is currently being carried out to attempt to get one or more of these trials implemented and monitored.

4. Discussion and Conclusions

Several of the main points that emerge from the review and case study discussed in this paper provide support for the idea that linking BIDs to urban freight improvements could provide valuable benefits. These points are discussed below.

The BID approach could have a particular value in encouraging the uptake of sustainable urban freight initiatives. BIDs have a formal decision-making function and are also composed of public and private sector organisations. This means they are able to act collectively to adopt improvements within a given geographical area. At present few BIDs have sought to adopt specific urban freight initiatives. However, many BIDs offer a joint procurement service to members - in many cases this starts with a focus on waste and recycling and may extend to office supplies and also to the procurement of some services (for example taxis). There is a strong link between procurement and the delivery of products and this provides a valuable starting point for discussions about the scope to change delivery patterns and consolidate flows.

BIDs also provide a very clear route to discussing urban freight with a varied group of receivers (varied in terms of size and also varied in terms of type of business/activity). Previous urban freight research has illustrated the
importance of addressing receivers as well as gaining the involvement of carriers (transport operators). Focusing on receivers has been essential in persuading firms to adopt strategies such as retiming deliveries to move the delivery operations out of the peak traffic periods that prevail within many cities. The initial research carried out by reviewing BIDs in Central London combined with a more detailed investigation of the scope for change with one BID (Baker Street Quarter) has highlighted the powerful role that can be played by receivers when they combine their interests.

Overall it seems that the receiver focus and the clear delineation of a specific urban area can be a powerful way to approach urban freight problems. Although experiences are limited at present there are a number of encouraging projects in existence or under development. It is essential that these projects are monitored and evaluated in order to learn as many lessons as possible from them in respect of initial implementation and then on-going operation.

References


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