
Project:	Brighton & Hove City Council - Cycle Hangars Project		
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Subject:	Business Case Note		

1 Introduction

Mott MacDonald has been commissioned by Brighton and Hove City Council (BHCC) to provide support to the development of their cycle hanger programme. This support includes the provision of a basic business case document comprising a high-level review of potential operating models and costs, which is outlined in this technical note. The following areas are covered:

- The benefits of cycle parking, drawing on a review of current literature;
- Examples of different operating models and the pros and cons of each;
- High level risk assessment;
- Assessment of the likely costs for the different elements, drawing on a review of current local authority schemes;
- Economic appraisal of cycle parking using the Active Mode Appraisal Tool (AMAT);
- Economic benefits of cycle parking, from a literature review; and
- A review of other local authority schemes based on publicly available information.

While this note sets out key factors influencing a basic business case, it is important to recognise that it may not provide the definitive standalone business case for the cycle hanger programme. The findings in this note use a wide range of cost and scope assumptions and sources to provide the best possible estimates at the time of writing and make no allowance for any risks and contingencies specific to the Council's cycle hanger programme. As more details of the scope and cost of the Council's cycle hanger programme become known over the coming months, the assumptions and sources used in this note may not provide the best possible estimates at the time of investment.

2 The strategic case for secure cycle hanger parking

In order to compile the strategic case for this project, three tasks were carried out:

- A review of the policy context in terms of the project's impact on delivery of the city's published corporate priorities and relevant service strategies;
- An assessment of the need for intervention in the form of the cycle hanger programme
- A review of the literature around opportunities and benefits of cycle parking

2.1 Policy context

The review of impacts on corporate priorities and relevant service strategies is summarised below:

- The scheme will also help deliver the following city corporate plan priorities:
 - To build community wealth so that local people and organisations benefit from prosperity in the city, by buying goods and services to operate the cycle hangar programme locally where possible. Notably, the Council’s decision to initially outsource operation for a short term provides a basis for the council to develop a viable in-sourced operation as a response to future increased demand for cycle hangars across the city. A viable in-sourced operation would support the council’s goals to increase local income and purchasing.
 - To take all action required to make our city carbon neutral by 2030, by delivering a transport system which provides sustainable travel with investment in walking and cycling.
 - To listen and work with all our communities, including those with less access to a car, public transport, or good cycle parking, to make the city a great place for them to live and thrive in, a place where people feel safe, supported and valued, and that participation and engagement is fair and representative of the whole city.
 - To listen to children and families, and to focus on inclusion and improving outcomes for the most disadvantaged including those with less access to a car, public transport, or good cycle parking, serving children and families to live happy, safe, healthy, and positive lives.
 - To serve the most vulnerable residents in the city including those less able to use a car or public transport and ensure that people will have a strong say in how their local health and wellbeing services develop.
- The scheme aligns to the city’s development plan policy SA6 Sustainable Neighbourhoods;
- The scheme supports the city’s development plan strategic objective SO4 to improve housing accessibility; also supporting the city’s housing strategy action 24 to reduce the impact of student lets on neighbourhoods through measures that include providing safe bicycle storage;
- The scheme aligns with the city’s economic strategy action GC5 to support investment in transport infrastructure across the City Region and local active travel; also supporting the city’s health and wellbeing strategy key actions to plan transport schemes promoting health and wellbeing and help more people to travel actively.

2.2 The need for intervention

As noted in BHCC’s brief for this project, the provision of 100 cycle hangars on-street has been identified as a high priority. The Council notes that demand for existing cycle hangars in the city has been high and that across the city requests for similar facilities have been received, often from residents who have no space to store a bike within their property or who have no access to secure parking.

The important role cycle hangars perform for cyclists was examined in the study *Cycle Parking Analysis and Outline Methodology* completed for BHCC by Mott MacDonald in December 2020, highlighting that:

- The availability of secure cycle parking at home, the end of a trip or at an interchange point has a significant influence on cycle use;
- The fear or direct experience of vandalism and theft deters people from cycling. This includes a lack of convenient space to keep a cycle in the home, which can be particularly problematic for those on housing estates, shared flats, and residents without outdoor space, and for disabled cyclists who need easy access for their cycle; and
- Provision of secure residential cycle parking reduces these barriers and increases the attractiveness of using this as a mode of travel.

The Council's aim for this project is to encourage modal shift in line with the developing LTP 5, to help towards BHCC becoming a carbon neutral council by 2030, to reduce issues for residents such as cycle theft, cycle storage space, and to support the use of cycling as a mode of transport.

2.3 Opportunities and benefits

A literature review has been undertaken to identify the types of opportunities and benefits that can be delivered through cycle hangar schemes. This review is provided in full at Appendix A and summarised below. While the literature focusses on urban and local centres, as opposed to residential neighbourhoods, key findings from the review can be inferred as follows:

- Cycle parking at the start of the trip can unlock further benefits accruing to urban and local centres from increased cycle infrastructure and parking at destinations;
- By providing alternatives to car parking in residential areas, the scheme could help to reduce disbenefits to urban and local centres due to people's choice of mode for travel arising from the relative convenience of parking a car on street at home compared with parking a bike;
- The scheme has potential to tackle the particular problems for residents of housing estates, shared flats, and those without outdoor space, and for disabled cyclists who need easy access for their cycle;
- The scheme supports the views of key stakeholders in the housing market that there is increasing demand for cycle parking and that this helps to deliver more new homes; also, that people seek to live in quiet, low-car or car-free streets, which cycling infrastructure can help achieve;

3 Example operating models: pros and cons

Pros and cons of example operating models, that could be considered as part of the Commercial Case, were compiled from a review of local authority schemes as follows:

Table 3.1: Cycle hangar example operating models: pros and cons

Model	Pros	Cons
In-house	<p>For management, can be integrated with current residential financial operations.</p> <p>Generates revenue to augment costs.</p> <p>Due to minimal cleaning required, opportunity that some existing services could absorb some operations, e.g., general maintenance by the street cleaning team.</p>	<p>Requires significant additional administrative resource.</p> <p>BHCC assesses this is not feasible initially due to resource constraints and lack of experience.</p>
Managed by community groups	<p>Expands community group and housing association role in the community.</p> <p>Generates income to help support maintenance and/or augment other projects.</p>	<p>BHCC's experience that this was not a sustainable option for looking at large-scale rollout of facilities in the city.</p>
Commercial	<p>Proven business case (at commercial rents) for freestanding schemes outside London combining reactive and proactive sites (Glasgow).</p> <p>Can cover maintenance as well as management.</p> <p>Provides the market's best price / quality combination.</p> <p>Opportunity in the contract to share revenues with the council.</p>	<p>Lack of transparency (or additional cost to monitor) service quality and validity of ad-hoc charges.</p> <p>If managed externally, then no full access to the potential revenue stream.</p>
Local authority partnership	<p>Enables opportunity for separate maintenance and management suppliers.</p>	<p>May require additional administration requirements, such as partnership agreements with neighbouring authorities.</p>

Model	Pros	Cons
	<p>Can secure an income stream for the Council to help protect essential services.</p> <p>Enables better value to be secured for the Council.</p> <p>Opportunity for scale/network economies via partnering with other nascent cycle hangar schemes in nearby areas.</p>	

4 High level risk and opportunity assessment

A high-level risk and opportunity assessment has been undertaken and detailed in Table 4.1. This has been informed by the literature review set out earlier but also in discussion with BHCC.

Table 4.1: Cycle hangar high level risk and opportunity assessment

High level risk / opportunity	Recommended action
Opportunity to increase green infrastructure on-street and reduce demand for car parking on-street leading to reduced car ownership and use	Early stakeholder engagement with key stakeholders
Budget underspend	Rephase funding; spread purchase across multiple suppliers; reduce pre-implementation activity, e.g. prioritise off-carriageway and non-TRO locations, use installer to make initial site inspections then follow up in-house site survey for any issues raised by installer
Low take up due to low levels of awareness of the scheme in priority areas	Community engagement
Low take up due to lack of affordability in priority areas	Early engagement with key stakeholders; subsidised rental, trial rental
Low take up due to other barriers to cycling in priority areas	Co-ordinated local delivery with other spatial/behavioural change interventions, e.g. healthy neighbourhoods, cycle clubs/breeze, cycle training, schools/employer activities
Low take up at a site due to low demand	Assess level of demand at each site
Perception that hangars aren't secure	Site in well-lit areas, promote security features, user obligations and ways to improve security; feedback any theft monitoring to users; regular key checks/re-issues to deter passing on
Perception that cycle parking space isn't allocated fairly	Regular, full, and two-way communication on the allocation policy and its governance; develop a fair and proportionate policy for larger and/or disabled cycle parking; retain a budget contingency for reactive design, supply, and installation of adapted hangars
Increased parking stress	Assess ratio of permits (or applications) to available space; evaluate cycle parking demand versus car parking stress level
Visual intrusion	Early engagement with key stakeholders, e.g., planning officers, heritage groups
Increased property prices in priority areas leading to lower social cohesion	Co-ordinated local delivery with business, employment, and training schemes
Discontinuity of service	Liaison with council prior to installation. Regular operational and management review. Escalation process. Maintain exit plan.
Contractor terminates contract	Regular operational and management review. Maintain exit plan.
Cost of restoration/replacement and recycling of parts due to rust	Check feasibility/cost to retrofit better or replacement parts, factor in costs for retrofitting, warranty cover and non-warranty repairs Pilot a range of products (e.g. hangars, fixings, mechanisms, locks, etc.), make regular inspections, encourage users to report damage promptly.
The installer's keyless lock is not compatible with the managers access control system	Require hangar supplier to demonstrate locks are compatible with apps in the marketplace.
Accidental damage by vehicles	Siting of hangars away the ends of parking bays and street corners, installing kerb protection with opportunities for green infrastructure.
Conflict with future kerbside services, e.g. EV charging	Early engagement with key stakeholders.

5 Economic and Financial Assessment

5.1 Indicative assessment of the cost of scheme set up

To undertake an assessment of likely capital and revenue costs that would be required to implement the cycle hanger scheme, a summary of typical costs is set out in **Table 5.1**.

The source for the figures in **Table 5.1** are taken from publicly available data published by Lambeth Council, as detailed at Appendix B. Risks and contingencies specific to the BHCC cycle hanger programme are not included and BHCC should review these costs to ensure they continue to represent to typical implementation costs that could be expected to be incurred, as well as taking into account the Council's preferred operating model once this has been selected.

Table 5.1: Summary of indicative / approximate costs to implement secure cycle hangers

Capital cost item	Approx. cost per 60 hangars (£)	Approx. cost per hangar (derived from case study sources) (£)	Approx. cost per 100 hangars (£)
Consultation / TRO adverts	15,000 (3)		
Parking bay suspensions	9,240 (3)		
Signage	3,100 (3)		
Project management	15,000 (3)		
Subtotal development cost	42,340	700	70,000
Supply		3,500 (2)	350,000
Install		500 (2)	50,000
Total development, supply, and installation cost		4,700	470,000
Management service and routine maintenance per annum		200 (2,3)	20,000
Non-routine maintenance per annum		100 (1,3)	10,000
Total operation cost per annum		300	30,000

Sources: (1) <https://www.glasgow.gov.uk/councillorsandcommittees/viewSelectedDocument.asp?c=P62AFQDNDXZLT1ZL81>; (2) <https://democracy.brent.gov.uk/documents/s95746/11.%20Cabinet%20Report%20Bike%20Hangars.pdf>; (3) <https://modern.gov.lambeth.gov.uk/documents/s120629/ODDR Phase 4 CPZ Cycle Hangars.pdf>

5.2 Indicative financial appraisal of revenue

A further financial appraisal has been undertaken to assess the revenue that may be generated by a cycle hanger scheme in Brighton & Hove. For the purpose of this assessment a financial appraisal comparing these costs against illustrative options for annual rents per space of £60, £50, and £40 was carried out and the findings presented overleaf in **Table 5.2**.

The purpose of this illustrative assessment is not to recommend any particular option but to indicate how one possible range of alternative options for setting of rental charges would impact on the business case of each option.

The assessments set out overleaf assume 100% occupancy of each bike hanger, based on feedback from other local authorities. This assumption and the annual rents used for this assessment should be reviewed and agreed by BHCC to confirm appropriateness (both politically and against other permit charges operating in the City) prior to onward reporting.

Table 5.2: Indicative revenue appraisal based on indicative annual charges

Cash benefit	Estimated annual income per 6-space hangar (£)	Estimated annual income per 100 hangars (£)
Option 1: Rent of £60 per space per annum		
Rental income	360	36,000
Total operational cost per annum		30,000
Estimated net income (less total indicative operational cost per annum from Table 5.1)		6,000
Option 2: Rent of £50 per space per annum		
Rental income	300	30,000
Total operational cost per annum		30,000
Estimated net income (less total indicative operational cost per annum from Table 5.1)		Nil
Option 3: Rent of £40 per space per annum		
Rental income	240	24,000
Total operational cost per annum		30,000
Estimated net income (less total indicative operational cost per annum from Table 5.1)		-6,000

Table 5.2 suggests that across the various annual charge scenarios assessed a breakeven charge is likely to be in the region of a charge of £50 per annum. The scenario where an annual charge of £40 was assessed indicates an estimated net loss of £6,000 per annum when the operating costs are taken into account.

5.3 Economic assessment using Active Mode Appraisal Tool (AMAT)

How AMAT works

To illustrate potential economic benefits of a scheme of 100 hangars, subject to certain assumptions, the Department for Transport's (DfT) Active Mode Appraisal Tool (AMAT) was used. This allows for total benefits and cost of the proposed scheme to be quantified.

The types of cost and benefit used in AMAT are presented below in **Table 5.3**:

Table 5.3: Summary of costs and benefits estimated in AMAT

Cost / benefit type	Benefit metrics	Description
Mode Shift	Congestion benefit	Traffic congestion improvements as a result of a reduction in vehicle kilometres
	Infrastructure maintenance	Reduced wear and tear on the roads, and therefore reduced maintenance costs, due to fewer vehicles travelling on the road infrastructure
	Accident	Reduced road traffic accidents due to a reduction in car kilometres
	Local air quality	Improvements in air quality from a reduction in car kilometres including changes in nitrous oxide (NOx) and particulate matter (PM)
	Noise	Improvements in noise pollution as a result of a reduction in car kilometres
	Greenhouse gases	A reduction in emissions of greenhouse gases due to a reduction in car kilometres
Health	Reduced risk of premature death	Increased active travel delivers health benefits by reducing the risk of premature death
	Absenteeism	Increased physical activity of individuals improves their health and therefore reduces their number of 'sick days', resulting in increased economic activity

Cost / benefit type	Benefit metrics	Description
Journey quality	Journey ambience	Benefits to new and existing cyclists or walkers as a result of improvements to infrastructure (such as secure cycle parking) can relate to a perception of improved safety and / or environmental conditions
Government impact	Indirect taxation	Typically, a reduction in car kilometres is associated with a reduction in fuel duty
	Government costs	The cost to central and local government from the scheme
Private costs	Private contribution	Private contributions to the scheme if appropriate, e.g., rental income

The values for the metrics set out in in Table 5.3 are used in the calculation of total value of benefits and total costs of the assessed scheme. The total value of benefits are those the scheme is expected to deliver over an assumed appraisal period. The total value of costs is the total cost of the scheme to central and local government, including any additional costs associated with maintaining the infrastructure and reflects the reduction fuel duty that would be incurred by reduced vehicle journeys.

Where a scheme reduces maintenance costs these are included in the total value of benefits rather than subtracted off the total value of costs.

AMAT follows DfT and HM Treasury guidance by reporting the quantified costs and benefits in a common price base (2010 prices), adjusted to take account of inflation. This produces values referred to in AMAT as the 'present value' of benefits and the 'present value' of costs. AMAT uses these to calculate the value for money represented by the proposed scheme, expressed as the ratio of the present value of benefits to the present value of costs, or 'Benefit to Cost Ratio' or BCR.

Further guidance on AMAT is published by the DfT at:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/888754/amat-user-guidance.pdf

Assumptions made for the assessment

In order to use AMAT, the scheme to be assessed is required to state its impact on cycling trips. For the purpose of this assessment this has been assumed as 250 new two-way trips per day (based on 45% usage by new cyclists of 600 spaces across the City). This reflects a conservative assumption that the initial cycle hangar programme will equally serve both potential cyclists (who are not currently cycling due to lack of sheltered, secure accessible cycle storage) and existing cyclists who would be willing to pay for secure cycle parking.

Further assumptions made for the purposes of using AMAT were as follows:

- Revenues generated by the scheme assume an opening annual charge of £60 per user and 100% subscription / usage;
- Costs of development, supply and installation include an optimism bias of 15% based on the cost estimates selected. Optimism bias is a proportional increase applied to cost estimates to reflect the extent to which the true cost of an intervention is likely to be greater than the estimated cost;
- Operating costs of the scheme are assumed at an opening year rate of £300 per hangar (6 spaces); and
- The appraisal period of the operation is assumed to be 20 years and the lifespan of each hangar before the estimated re-supply and re-installation costs are incurred is assumed to be 10 years.

Results of the assessment

- **Table 5.4** below provides a full breakdown of the various economic benefits and costs accounted for in AMAT. Benefits are grouped according to their association with mode shift, health, and journey quality improvements.

- The Present Value of Benefits comprises the total changes in the different types of benefit listed in **Table 5.4.** associated with the proposed scheme. The Present Value of Costs comprises the estimated costs to BHCC and government to develop, supply and install the cycle hangars.
- The estimated rental revenue from user subscriptions is expressed as a Private contribution and recorded as a disbenefit of the scheme as users are incurring a charge to use the cycle hangers.

Table 5.4: Economic assessment using Active Mode Appraisal Tool (AMAT)

Cost / benefit	Benefit metric	Economic Impact / £'000s
Mode shift	Congestion benefit	52
	Infrastructure maintenance	0
	Accident	15
	Local air quality	0
	Noise	1
	Greenhouse gases	3
Health	Reduced risk of premature death	1524
	Absenteeism	341
Journey quality	Journey ambience	386
Government Impact	Indirect taxation	-10
Private costs (expressed as a disbenefit)	Private contribution	-270
Present Value of Benefits		2042
Government / BHCC costs	Cost to implement / maintain scheme	522
Present Value of Costs		522
Benefit to Cost Ratio (BCR)		3.92

Key findings from the results

The results indicate that the cycle hangar project has a potential BCR of 4:1 based on the assumptions used. This comprises a present value of costs of £522,000 and a present value of benefits of £2,042,000. According to AMAT this result is categorised as 'very high' value for money.

6 Summary

This note aims to establish the business case for a scheme of on-street cycle hangars in Brighton & Hove. It sets out strategic, operational, financial, and economic aspects of the business case. In summary the key findings are that:

- The strategic case for the scheme aligns with many of the council's objectives and will improve cycling journeys across the city. Notably the Council's decision to initially outsource operation for a short term provides a basis for the council to develop a viable in-sourced operation as a response to future increased demand for cycle hangars across the city. A viable in-sourced operation would support the council's goals to increase local income and purchasing;
- The scheme contributes towards making the City carbon neutral by 2030, by delivering secure cycle parking to users who may presently have this, encouraging new cycling trips and mode shift in the City;
- The scheme will provide disadvantaged areas, including those with less access to a car and public transport with good, secure cycle parking allowing them to have a say in how their street can have a positive impact on their health and wellbeing;

- The scheme aligns to the city's development plan policy SA6 by contributing to creating sustainable neighbourhoods;
- The scheme supports the city's development plan strategic objective SO4 by improving housing accessibility; and supporting the city's housing strategy Action 24 to reduce the impact of student lets on neighbourhoods by providing safe bicycle storage;
- The scheme also aligns with the city's economic strategy action GC5 to support investment in transport infrastructure across the City Region and local active travel.
- The Scheme supports the city's Health and Wellbeing strategy by promoting active travel.
- The economic assessment using the Active Mode Appraisal Tool indicates the potential of the scheme to provide very high value for money where it is aimed at removing the barriers to cycling created by a lack of accessible, secure, and sheltered cycle parking; and
- The indicative revenue appraisal shows that with an assumed 100% level of usage and estimated costs based on those of similar schemes elsewhere, this scheme could be expected to cover operating costs.

A. Economic benefits of cycling: literature review

6.1 Cycle Parking Implementation Plan

In TfL's "Cycle Parking Implementation Plan" (2019) typical benefits of providing a secure cycle storage or bike hanger scheme were identified as follows:

Supporting the high street:

- Five times increase in retail spend per sqm of cycle parking versus car parking;
- More frequent use of local town centres;
- Increased retail rental values and occupancy; and
- Community support.

Enabling good growth:

Positive impact on housing supply and the housing market, with increased marketability;

Improving access to public transport:

Widening the reach of public transport interchanges;

Boosting productivity:

Improving marketability of offices and the retention and unlocking wellbeing benefits for employees enabled by parking to cycle to work; and

Reducing the cost of living:

Cycle parking is cheaper than car parking, parking which enables cycling reduces travel costs.

6.2 The Pedestrian Pound

In Living Streets' report, "The Pedestrian Pound" (2018) typical benefits of providing a secure cycle storage or bike hanger scheme were identified as follows:

Increased retail spends and potential:

- By switching space from cars to pedestrians and cyclists, the absence of customers that came by car is more than compensated for by the customers that come by foot or by bike afterward (ECF, 2015);
- People who biked and walked to a shopping street (in a case study of Toronto, Canada) reported they spent more money there per month than those who arrived by car (Tolley, 2011); and
- Approximately 75% of motorists surveyed (in a case study of Munster, Germany) purchased two or fewer bags of goods. Many could easily have carried their shopping on foot, by bicycle or on the bus (Tolley, 2011).

Urban regeneration:

- Public realm improvements which support walking have a wide role to play in increasing inclusion and reducing inequality, given the significance of no or low car availability and the financial burden of car ownership;
- However, there is little evidence to link property or infrastructure-led development to economic improvements for the most deprived communities;
- Improving walkability leads to higher commercial and property prices, potentially restricting local access to home ownership increasing inequality and reducing residential diversity and social cohesion (Lees 2008; Stevens 2009); and
- In Temple Bar, Dublin, the state-owned development company bought up properties prior to regeneration and reinvested the monies generated from increased rental income into property renewal and cultural projects (Montgomery, 2004).

Adaptability to change:

- Digital trends are changing the role of high streets and town centres as omni-channel retailing (online purchase with same day collection from a local store) becomes the norm (Hortascu, 2015);
- Retailers and other businesses are unlikely to be able to compete on price alone and consumer experience will be key to attracting and retaining sales;
- To achieve this, walkable, accessible high streets and town centres are likely to grow in importance (Quercia et al., 2015); and
- In the light of the COVID-19 pandemic, these considerations might arguably also apply to the future of employment.

6.3 Walking and cycling: the economic benefits

In TfL's "Walking and cycling: the economic benefits" Pack (2018), typical benefits of providing a secure cycle storage or bike hanger scheme were identified as follows:

Increased access to the benefits of active travel:

Active travel is more affordable, many can cycle, and many live on low income with no car available, many live within 10 minutes' walk of a high street, many jobs are located outside the city centre;

Reduced absence and increased productivity:

Regular cyclists save the national economy £128M in sick days, feel happier, more energised, and productive;

Attracting employees and benefits:

Most businesses recognise the importance of cycling, including high-quality cycle parking;

Keeping the city moving:

Cycling has the potential to absorb the travel demands of a growing city without things grinding to a halt. In one car space 12 people can park a bike;

Boosting high streets and local centres:

Supporting cycling leads to increased retail sales, by increasing walkability and cycle parking, making local centres more vibrant places to linger and spend time and money in, rather than wasting time and money getting there and back by car; and

Wider economic benefits:

By the DfT's prudent estimate, the average benefit cost ratio for walking and cycling projects is 13:1. Protecting the NHS is directly linked to increasing walking and cycling. Property values are also protected by providing secure cycle parking.

6.4 The value of cycling

In DfT's report, "The value of cycling" (Raje F. and Saffrey A. 2016. University of Birmingham and Phil Jones Associates) typical benefits of providing a secure cycle storage or bike hanger scheme were identified:

Strategic economic benefits:

High-density, cycle-friendly urban form is conducive to achieve agglomeration benefits, although evidence in relation to regeneration and residential property effects is mixed;

Individual benefits:

Evidence for individual benefits accruing from a specific investment is mixed, acknowledging the link between hard and soft measures to deliver individualised benefits that address underlying structural barriers to cycling;

Employment benefits:

Both as an enabler of access to employment and education for transport-deprived residents, and as a means of attracting and retaining skilled labour and inward investment with lower staff absenteeism and turnover;

Local economic benefits:

Increased retail spend density. Per sqm, trip end parking for cycles generates 5x more retail spend than car parking (Lee A, and March A. (2010) 'Recognising the economic role of bikes: sharing parking in Lygon Street, Carlton'. Australian Planner. 47(2), 85–93);

Public expenditure benefits:

Typically low cost, high benefit, reduced spend on healthcare and school travel, and the potential of existing infrastructure, particularly if targeted at new cyclists; and

Fiscal benefits:

Increased revenues arising from agglomeration benefits, and specifically potential to reduce the opportunity cost of car parking space by giving more people access to on-street parking.

6.5 Place Value Wiki

In Place Alliance's "Place Value Wiki" (hosted by University College London Bartlett School of Planning, accessed 03/08/2021) typical benefits of providing a secure cycle storage or bike hanger scheme are presented as follows:

Property uplift in the residential sector:

Influenced by access to views, trees, and open space, lower pollution, mixed use (up to a point), walkability, neighbourhood character, access to public transport (if not too close to homes), external appearance, public realm quality, connectivity, and vitality;

Reduced public expenditure:

Through reduced capital and maintenance costs for roads infrastructure, reduced public realm maintenance and management (including security) costs, support for the historic built environment and urban regeneration, lower crime and policing costs, and reduced health and social care expenditure (thanks to reduced levels of medication, prescriptions, and hospitalisation);

Higher local tax take:

Through attracting new development; and generating a greater willingness to pay for place services from businesses and communities alike;

Lower costs of living:

Through lower car use and public transport costs (more viable / cost effective public transport), and lower costs for health insurance, and reduced energy consumption and smaller carbon footprints (from transport, infrastructure, and buildings); and

Higher productivity:

A more efficient workforce, easier recruitment of employees, the enabling of higher density development and more efficient land use, greater adaptability of buildings and spaces over time, and avoiding the unnecessary costs associated with bad design.

6.6 TfL's report, "Cycling and the housing market" (2017)

In TfL's report, "Cycling and the Housing Market", key stakeholders' views on benefits of providing secure cycle storage were identified:

Good quality cycling infrastructure helps deliver more new homes:

Creating good places for walking and cycling can have a positive impact on the housing supply and market more widely, helping to deliver more new homes. There is increasing demand for high-quality cycling infrastructure among both renters and homebuyers. A number of boroughs and developers reflected on the increasing demand for cycle parking.

Some developers felt that improving cycling provision in and around new developments can be commercially advantageous. However, others highlighted concerns around of some opportunity costs, especially in relation to a loss of developable space due to providing cycle parking.

Cycle parking helps meet the expectations of people moving into new developments:

There was general consensus that there is increasing demand for cycle parking and other cycle provision in new developments. Stakeholders also felt that people seek to live in quiet, low-car or car-free streets, which cycling infrastructure can help achieve.

Good quality cycling infrastructure improves the liveability of areas, both for current and new residents:

Many of the stakeholders identified how cycling improvements at neighbourhood and network level can help create attractive new developments. These improvements, including quieter streets and connections to the wider cycle network, will also benefit existing residents as well as those moving to new developments.

The most significant threat discussed by stakeholders was a potential loss of total developable space within new developments to accommodate cycle parking. However, many stakeholders also identified an increasing demand and expectation of cycle parking within new developments.

Disbenefits could include opposition from some on aesthetic or other grounds:

Some contributors suggested that a disbenefit associated with the provision of cycle parking could negatively impact on the aesthetics of the streetscape or development. Almost all stakeholders representing planning authorities and London boroughs described some difficulty in gaining public support for the delivery of good quality cycling infrastructure.

B. Review of local authority schemes

As part of our research exercise to inform the preparation of this note we reviewed a number of similar schemes that have been implemented by other UK local authorities. **Table 7.1** sets out some of the qualitative benefits and disbenefits reported by these authorities and **Table 7.2** sets out the monetised costs and revenues reported by the same authorities (where available).

Table 6.1: Review of local authority schemes: qualitative benefits / disbenefits

Local Authority (year)	Stated benefits
Lambeth (2021)	Supports explicit policy Environmental Health Income generation: As part of the council's contract the managing/maintaining contractor pays the council £60 per cycle hangar each year.
Glasgow (2021)	Reduced traffic congestion Reduced noise pollution, Improved air quality Better long-term physical/mental health Removes bikes from stairwells, a frequent source of tension in tenement properties; Communal storage model benefits: Opportunity to improve social cohesion; Opportunity to generate an income (for community and social enterprises) focuses these organisations at the heart of the community
Merton (2021)	Decision report guided by findings from report "Reclaim the kerb: the future of parking and kerbside management" by Centre for London: "London boroughs should set residential parking permit charges at a level that helps achieve strategic modal shift objectives and fully covers the total operating costs of residential parking. All boroughs should move towards a harmonised emission-based charging structure, alongside escalating charges for additional vehicles" (https://www.centreforlondon.org/wp-content/uploads/2020/03/Centre_for_London_Future_of_parking.pdf)
Islington (2017)	Encourage more physical activity amongst residents and lead to healthier lifestyles; Improved local air quality and may influence behaviour towards more sustainable modes of transport. Enable better value to be secured for the Council Allow for the service to expand into other boroughs. Generate income for the Council to help protect essential services. Disbenefit: Reduction in income within the parking account if the locations of the cycle hangers lead to loss of parking bays.
Wandsworth (2021)	Enable cycling that is otherwise discouraged Supports the Wandsworth Environmental and Sustainability Strategy (WESS) 2019-2030 objective for Wandsworth to be an easy place to use, own and store a bicycle. Helps meet Council transport and air quality objectives, including targets for mode shift Disbenefits: "incongruous features" needing careful siting to avoid detracting from the quality of the street scene, particularly in conservation areas. Can attract litter, weeds, and other maintenance problems.
Brent (2016)	Promoting sustainable travel Encouraging more residents to cycle and to enjoy the many benefits that cycling brings Reducing air pollution Facilitate modal shift to cycling and Supports the Councils response to the Climate Emergency Tackle poor air quality Respond to growing demand for secure on street parking particularly in areas where residents do not have access to private outdoor space and bikes are blocking hallways and staircases or are a target for cycle theft if left on street. Address barriers to residents choosing to cycle.

Local Authority (year)	Stated benefits
	Disbenefit: Potential loss of on-street parking space
Camden (2021)	Potential modal shift leading to reduced emissions, cleaner air, and climate action
Haringey (2021)	Enables many potential cyclists to pursue cycle ownership. Helps reduce car dependency Makes more efficient use of the limited kerbside space

Table 6.2: Review of local authority schemes: monetised costs and revenues

Local Authority (year)	Supply / install cost per hangar	Ancillary costs	Operating income per cycle hangar space	Equivalent income per low emission car parking permit	Allocation of funds
Lambeth (2021)	£2995	15% for fees and costs	£42.50	£37.29	£195 allocated to installer for regular management and maintenance £60 allocated to council for irregular maintenance / income
Glasgow (2021)	n/k	£30,000 for staff costs, street surveys, design etc. to develop and implement 60 hangars	£72	n/a	Estimated liability for non-routine maintenance = 1.5% (£75)
Merton (2021)	n/k		£20	£20	n/k
Islington (2017)	n/k		£107.75	Free	n/k
Wandsworth (2021)	£2500		£72	n/a	n/k
Brent (2016)	Supply: £3283 Falco £3420 Cyclehoop Install: £1150 per 3 Falco £1200 per 3 Cyclehoop		£36 where subsidised	n/a	Routine management and maintenance £200 Falco £432 Cyclehoop Non-routine maintenance by council is "minimal"
Camden (2021)	n/k, contract rates for bulk discounts	£38000 per 10 hangars (includes street trees)	£36 where subsidised	£130.28	n/k
Haringey (2021)	n/k		£36 where subsidised	£21	n/k

Sources: <https://www.glasgow.gov.uk/councillorsandcommittees/viewSelectedDocument.asp?c=P62AFQDNDXZLT1ZL81>;
<https://democracy.brent.gov.uk/documents/s95746/11.%20Cabinet%20Report%20Bike%20Hangars.pdf>;
<https://moderngov.lambeth.gov.uk/documents/s120629/ODDR Phase 4 CPZ Cycle Hangars.pdf>