
Project:	Valley Gardens Phase 3 Outline Business Case		
Our reference:	341760-RR-20-B		
Prepared by:	Matthew Lambert, Heidi Rist, Matt Hall and Nathalie Gordon	Date:	16/12/18
Approved by:	Robin Reed	Checked by:	Oliver Steele
Subject:	Valley Gardens Phase 3 – Economic Case Technical Note		

This technical note has been prepared by Mott MacDonald for Brighton & Hove City Council (BHCC) to outline the methodologies and assumptions used to quantify the economic impact of the shortlisted options for the Valley Gardens Phase 3 scheme. Outputs from this analysis are included in the Outline Business Case prepared for the Coast to Capital Local Enterprise Partnership (C2C LEP).

1 Introduction

The Economic Case for the Valley Gardens Phase 3 project incorporates a range of monetised economic impacts. This reflects the diversity of socio-economic objectives for the scheme, which incorporate movement, place and regeneration goals. The assessment of these economic impacts has followed guidance from the Department for Transport (DfT) and Ministry for Housing, Communities and Local Government (MHCLG). These economic impacts, and how they are structured within the scheme benefit:cost ratio are summarised in sections 1.1 and 1.2.

1.1 Benefits - numerator

The benefits assessed of the Valley Gardens Phase 3 scheme are:

- Transport-user benefits;
- Public realm enhancements;
- Land value uplift;
- Benefits from the development of Knowledge Intensive Business Services in Brighton;
- COBALT accident benefits, and;
- Active travel benefits.

1.2 Costs – denominator

The costs included in this analysis are:

- Capital expenditure (CAPEX) required for each option, and;
- Income to BHCC from the use of new commercial events space created by the scheme, presented as a negative cost.

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

1.3 Appraisal period

For all economic costs and benefits associated with Valley Gardens Phase 3, a 20 year appraisal period has been applied. A 2010 price base has been used and present values are discounted to 2010, in line with DfT WebTAG guidance.

2 Benefits

2.1 Transport User Benefits Assessment

2.1.1 Introduction

Transport user impacts, such as changes to vehicle journey times, are an important aspect of any transport scheme under DfT WebTAG guidance. Assessment of transport user impacts is based on outputs from the traffic model used to develop the identified Valley Gardens Stage 3 options set.

2.1.2 Methodology

Assessment of transport user benefits has been based on the model outputs from the city centre PARAMICS traffic model developed for BHCC by AECOM which has been provided to Mott MacDonald for this study. The model was previously updated following a data collection exercise in October 2015. As background traffic has not changed significantly during this period, additional data has not been collected; however, the model has been updated to reflect the agreed Phase 1-2 scheme.

The model considers the morning (07:00-10:00) and evening (16:00-19:00) peak periods and has been used to extract journey time data for the main north-south and east-west routes through the study corridor. These have then been input into the analysis of transport user benefits.

The economic assessment has been based on a spreadsheet assessment over a 20 year period in order to be consistent with the other aspects of the economic case. The spreadsheet has been derived from the original Highways England Project Appraisal Report (PAR) spreadsheet. The values in the spreadsheet have been updated with the latest WebTAG databook values. The spreadsheet requires inputs for the Do Nothing and Do Something schemes in terms of the network wide flow demand and the average journey time per vehicles from the PARAMICS model. The spreadsheet then monetises the journey time differences between the Do Nothing and Do Something options, discounted into 2010 values and deescalated to 2010 prices.

The spreadsheet assessment undertaken for this study is not a full (WebTAG Unit A-1) transport-user benefit assessment owing to the limitations of the outputs from the PARAMICS model. For example, it does not monetise vehicle operating cost savings, carbon savings or indirect tax revenues resulting from the scheme and as such may understate the benefits of the project.

2.1.3 Outputs

The outputs of the transport user benefits assessment are set out in Table 1. While all options report a negative benefit, Option 1 has the lowest negative impact and Option 2 has the greatest transport user dis-benefit.

Table 1: Transport User Benefits Assessment (£000's, 2010 prices discounted to 2010)

Criteria	Option 1	Option 2	Option 3	Option 4
	All traffic on the east with signalised junction	Informal layout with informal roundabout	Buses on west with signalised junction	Buses on west with continental roundabout
Journey time impacts over assessment period	-£17,042	-£101,085	-£22,353	-£23,998

Source: Mott MacDonald

2.2 COBALT

2.2.1 Introduction

COBALT (COst and Benefit to Accidents – Light Touch) is a computer program developed by DfT to undertake the analysis of the impact on accidents as part of economic appraisal for a road scheme.

COBALT assesses the safety aspects of road schemes using detailed inputs of either (a) separate road links and road junctions that would be impacted by the scheme; or (b) combined links and junctions. The assessment is based on a comparison of accidents by severity and associated costs across an identified network in 'Without-Scheme' and 'With-Scheme' forecasts, using details of link and junction characteristics, relevant accident rates and costs and forecast traffic volumes by link and junction.

2.2.2 COBALT inputs

2.2.2.1 Economic parameters

COBALT 2013.2 has been used for the assessments, together with the latest economic parameters file (version 2018.1).

2.2.2.2 Network Data

The COBALT network layout is consistent with that used in the PARAMICS model. Link lengths were taken directly from the PARAMICS model. Google Maps has been used to assign the appropriate link and junction classification to each section of the Do Minimum network. A similar process has been used for each option but relying on the scheme drawings for the information. The roundabouts in Option 2 have been assumed to operate in a similar manner to mini roundabouts, except for the roundabout at the junction of the A23 with the A259.

2.2.2.3 Traffic flows

AM peak (0800-0900),) and PM peak (1700-1800) flows from the 2018 PARAMICS model for each link of the COBALT network have been converted to annual average daily traffic (AADT) flows using factors calculated from the continuous Automatic Traffic Counter located on A259 Marine Parade, between Madeira Place and Camelford Street, east of the A23. It has been assumed that traffic flows across the network remain the same across the appraisal period.

2.2.2.4 Accident Data

Accident data for 2013 to 2017 has been included, with accidents allocated to the appropriate link or junction within the network. COBALT assumes accidents occurring within 20m radius to be associated with a junction while accidents occurring outside of the 20m radius are associated to links.

2.2.3 Outputs

The following table presents the results of the COBALT assessments over a 60-year forecast period. All options result in a reduction in the number of accidents, with Option 2 providing the biggest reduction. This is because the new roundabouts result in fewer accidents than the other types of new junctions proposed.

Table 2: COBALT Results (£000's, 2010 prices discounted to 2010)

	Option 1	Option 2	Option 3	Option 4
Without Scheme Accident Costs	52,383	52,383	52,383	52,383
With Scheme Accident Costs	29,464	14,603	29,859	28,583
Accident Benefits	22,919	42,408	22,524	23,800

Source: COBALT Assessments

Table 3: COBALT Results (Accident numbers)

	Option 1	Option 2	Option 3	Option 4
Without Scheme Accidents	1,286	1,286	1,286	1,286
With Scheme Accidents	712	384	723	726
Accidents saved by scheme	574	902	563	560

Source: COBALT Assessments

For consistency with the other impacts monetised for the economic case, a conversion factor was applied to show only the first 20 years of benefits from the COBALT assessment (The COBALT software only offers a 60-year forecast period). These results are shown in Table 5.

Table 4: COBALT Results over 20-year period (£000's, 2010 prices discounted to 2010)

	Option 1	Option 2	Option 3	Option 4
Accident Benefits (60-year period)	22,919	42,408	22,524	23,800
Conversion Factor	0.48	0.48	0.48	0.48
Accident Benefits (20-year period)	11,001	18,134	10,812	11,424

Source: COBALT Assessments

2.3 Active transport

2.3.1 Introduction

The Valley Gardens Phase 3 scheme is expected to have major benefits for cyclists and pedestrians by addressing a “missing link” in the cycling network and helping to address severance created by existing traffic flows along Marine Parade and Grand Junction Road. It is important these impacts are taken into consideration in developing the project business case.

2.3.2 Methodology

The following approach has been undertaken to assess active modes (i.e. walking and cycling) impacts the Valley Gardens Phase 3 scheme.

To assess the impacts, TAG unit A5-1 Active Mode Appraisal has been used which provides guidance on how to estimate and report impacts on active modes.

The guidance sets out the following key indicators are used in the appraisal of walking and cycling schemes:

- Cycling and walking users – used to appraise journey quality;
- New individuals cycling and walking – used to appraise physical activity and journey quality;
- Car kilometres saved – used to appraise:
 - Accidents
 - Greenhouse gas emissions
 - Air quality and noise
 - Indirect tax revenue
 - Travel time (decongestion)
- Commuter trips generated – used to appraise work absenteeism.

To calculate the associated benefits in terms of cycling and walking interventions, the Department for Transport's Active Mode Appraisal Toolkit (AMAT) has been used. The AMAT 'user interface' has been completed with the scheme details and mode information together with evidence of assumptions.

Inputs concerning scheme walking and cycling volumes and proportion of trips using the scheme are described below.

- Cycling volumes – Turning count data for the Pier Roundabout has been used, selecting only movements entering or exiting from Old Steine to capture those cyclists likely to use a significant part of the scheme area.
- Walking volumes – This is based on pedestrian count data at the Old Steine / Castle Square junction where pedestrian flow is highest across all other junctions surveyed in the scheme area. Only East -west volumes have been used, and data from one junction to avoid double counting.
- Number of journeys with the proposed scheme – Estimated for cycle users only, by uplifting the existing user volumes based on utility of changes in cycle facilities in TAG Unit A5.1.
- Proportion of trips using the scheme – This is based on scheme route length / average route length, with the scheme route length reflecting the estimated network coverage of the scheme. Average route lengths (and speeds) for walking and cycling are the default values in AMAT, Source: National Travel Survey data 2016.

Selection of current and proposed walking and cycling infrastructure inputs have been made in accordance with the scheme description.

For the AMAT assumptions section, the standard WebTAG inputs are included by default and it is recommendation only to edit these where there is good evidence to do so. Assumptions for the scheme are described below:

- An appraisal period of 20 years has been assumed, corresponding with the example in the WebTAG guidance and previous appraisal undertaken by Mott MacDonald.
- Proportion using the scheme to commute to work – NTEM data version 7.2 has been extracted for Brighton and Hove, cycling and walking, 2018, to calculate the proportions for commute relative to all trips.
- Diversion factor for general traffic to calculate the marginal external cost benefits (based on car kilometres saved) are the default values from WebTAG.

- Proportion of return trips – The default value in AMAT t has been used for the assumption of the proportion of people walking or cycling in the volume data input would appear twice (outbound and return trips). The benefits calculation then adjusts to account for this.
- Background growth rate in trips – The default value in AMAT has been used.
- Annualisation – The default value in AMAT based on the number of working weekday in a year. However, for this appraisal Saturday volumes are included as well, therefore the annualisation factors have been adjusted to reflect this.

2.3.3 Results

The active mode scheme appraisal benefit results are shown below. All four options were assessed as having identical Active Mode Scheme Benefits, this is because the differences between the options are not substantial enough to be captured by this approach. The Present Value Benefits in 2010 at 2010 prices of all four options is £1.5m. This is broken down in Table 6 below.

Table 5: Active Mode Scheme Benefits, all options (in £'000s) (PV discounted to 2010 in 2010 prices)

Category	Benefit
Congestion Benefit	13.81
Accidents	3.91
Local Air Quality	0.02
Noise	0.26
Greenhouse Gases	0.69
Reduced risk of premature death	392.23
Absenteeism	88.36
Journey Ambience	998.29
Indirect Taxation	-2.64
Present Value of Benefits (PVB)	1,494.92

Source: Mott MacDonald

2.4 Public realm enhancements

2.4.1 Introduction

Each of the “Do Something” options will lead to an increase in the quantum of land within the study area set aside for public realm uses relative to the “Do Nothing” scenario. The benefits of this to residents of Brighton & Hove have been calculated as part of the scheme economic case, consistent with MHCLG guidance.

2.4.2 Assumptions

The following assumptions were applied to the assessment of public realm enhancements associated with the Valley Gardens scheme:

- A willingness to pay figure of £1.80 per household for each hectare of new public realm was assumed, based on guidance from MHCLG¹.
- There are a total of 127,000 households in Brighton and Hove, according to data from the MHCLG².

¹ MHCLG, Valuing the benefits of regeneration, economics paper 7 – final report, December 2010

² MHCLG, Table 100: Dwelling stock: Number of Dwellings by Tenure and district, England; 2017, May 2018.

2.4.3 Methodology

The methodology applied to quantifying the monetised benefits of public realm enhancements was provided by MHCLG's guidance on the economic appraisal of regeneration projects³. In the assessment of the monetary benefits of public realm enhancements, MHCLG guidance suggests a willingness-to-pay figure of £1.80 for each household likely to benefit from the enhancements for each hectare of public realm delivered. This means that there is a public benefit equal to £1.80 (in 2010 prices) from each household for every hectare of new or enhanced public realm delivered as part of a scheme. It has been assumed that all households in Brighton and Hove will benefit from the scheme. For simplicity (and because the marginal change is likely to be relatively small), it has been assumed that the stock of housing is constant over the 20-year forecast period.

The quantum of public realm enhanced under each option is set out in Table 7 below:

Table 6: Public realm enhancements by option

	Existing	Option 1	Option 2	Option 3	Option 4
New Public Space (m ²)	-	8,795	6,024	6,325	6,160

Source: Mott MacDonald

2.4.4 Outputs

The initial assessment of the willingness-to-pay for public realm enhancements, which applied a single-year figure of £1.80 per hectare per household found the following for each option.

Table 7: Value of public realm enhancements per annum (2010 prices)

	Baseline	Option 1	Option 2	Option 3	Option 4
New public space (m ²)	-	8,795	6,024	6,325	6,160
Value (WTP per household) (2010 prices)	-	£1.58	£1.08	£1.14	£1.11
Value (WTP) (2010 prices) Total	-	£201,307	£137,882	£144,771	£140,995

Source: Mott MacDonald

2.4.4.1 Present value of public realm enhancements

The present value of the public realm enhancements of each option, in 2010 prices and discounted to 2010, is set out in Table 9.

Table 8: NPV of public realm enhancements (2010 values, 2010 prices, 20 year appraisal period)

2010 discounted values	2010 NPV, £000
Option 1	£1,893
Option 2	£1,297
Option 3	£1,362
Option 4	£1,326

Source: Mott MacDonald

2.5 Land Value Uplift

2.5.1 Introduction

Land value uplift captures in the increase in land value anticipated to occur in an area as a result of a targeted investment (such as a transport scheme) that enhances the attractiveness or accessibility of an

³ MHCLG, Valuing the benefits of regeneration, economics paper 7 – final report, December 2010

area. For the Valley Gardens Phase 3 scheme, an assessment has been undertaken of potential land use change that could occur within the study area should Option 1 proceed as the area is redeveloped as a result of lower traffic flows and consequent improvements to air quality and reduced noise pollution impacts.

No assessment has been undertaken of potential land-use change under Options 2-4.

2.5.2 Assumptions

The assessment of land value uplift for the Valley Gardens Phase 3 scheme was based on the following assumptions.

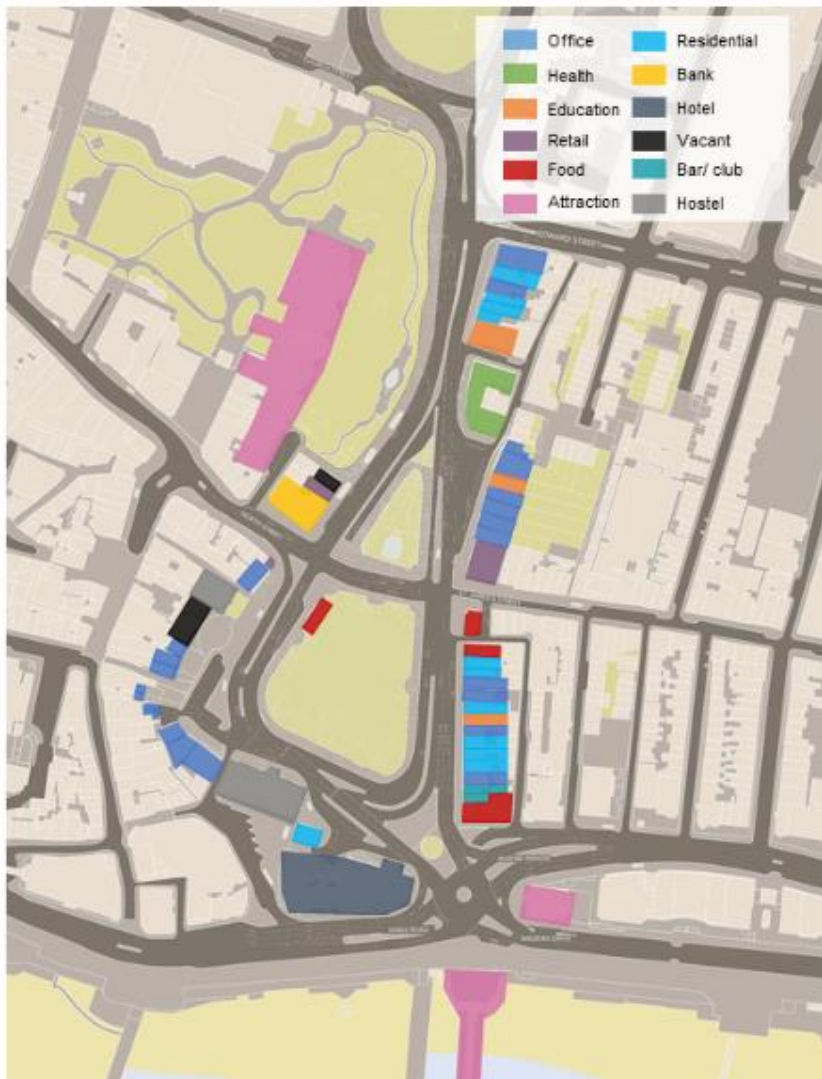
- The current land uses of sites was identified from a site visit, conducted in spring 2018 and confirmed through internet searches.
- Assumptions were made based on observations on the current use of the ground floor of each building and of each additional floor.
- The size of each building was estimated from mapping software that produced approximate measurements of each building in m².
- Buildings which were identified as being used for healthcare, education or as hostels, such as the YMCA hostel at the Old Steine, were not included in the analysis as these buildings serve a social purpose and so it was assumed would not change usage in the future.
- As a simplifying assumption for modelling purposes, it was assumed that the impact of the land value uplift would take effect in 2025
- Assumption on land-use change may not be consistent with current local planning policy.
- Average land values for residential, office and retail uses were derived from observed sales and rental prices in BN1 and BN2 post codes over proceeding 12-month period. It was assumed that these values would be constant in real terms in 2025.
- It was assumed that the Valley Gardens Phase 3 scheme would not increase local land values for existing uses vs. a Do Nothing scenario due to a lack of evidence of impacts of similar schemes.

2.5.3 Methodology

2.5.3.1 Site selection

The assessment of land value uplift focussed on 53 sites identified around Valley Gardens, running from Edward Street in the north to the Aquarium roundabout in the south. This area covers the likely area of influence as this area is the focus of Phase 3 of the Valley Gardens scheme. The sites included, broken down by use are shown in Figure 1.

Figure 1: Sites analysed for land value uplift



Source: Mott MacDonald

2.5.3.2 Data collection

The calculation of land value uplift was undertaken in line with appraisal guidance from the Ministry of Housing, Communities and Local Government (MHCLG (formerly DHLG)). As per MHCLG guidance, land value uplift is calculated by subtracting the modelled land value from the current land value.

As the specific values of each building included in the analysis was not available, data on current sale and rental values of offices and retail space was collected from the commercial property agents Propertylink⁴. Using this website, current market prices for office and retail spaces were collected for the BN1 and BN2 postcode areas, in which Valley Gardens is located. Residential land values were collected from the residential estate agent website Zoopla⁵, which produces regular data on average sales price of residential properties by postcode area. Data was collected and averaged across the BN1 and BN2 postcodes.

⁴ See <https://propertylink.estatesgazette.com>

⁵ See <https://www.zoopla.co.uk/market/bn2/?q=BN2>

This process produced the following figures for land value per m² by land-use type, based on the average value of all properties of each type advertised on the Propertylink and Zoopla websites in Brighton's BN1 and BN2 as of September 2018.

Table 9: Capital values per m²

Use	Capital value per m ²
Office	£3,147
Residential	£5,258
Retail	£6,696

Source: Mott MacDonald, collected from Propertylink and Zoopla.

This data was used as the basis for current land values based on the current uses of each site and to model the impact of changing the use of certain sites. To avoid creating unsupported assumptions, all sites were aggregated into their use classes. From this an assumption was made on a possible change in land use. An assumption of a 10% shift from office to residential use was applied.

2.5.4 Outputs

Based on the assumed 10% change of land-use from office use to residential use in the study area resulted in a land-value uplift of £8.2m for Option 1, an uplift of 8% vs. the "Do Nothing" scenario.

Table 10: Land value uplift (£2018 prices)

Land use	Current use			Future use			Land value uplift	
	m ²	%	Aggregate value	m ²	%	Aggregate value	£	%
Residential	7,715	20%	£40,566,744	11,597.60	30%	£60,982,096	£20,415,352	50%
Retail	5,942	15%	£39,785,223	5,942.00	15%	£39,785,223	£0	0%
Office	7,649	20%	£24,074,993	3,766.40	10%	£11,854,629	£-12,220,365	-51%
Other	17,520	45%	£0	17,471.70	45%	£0	£0	0%
Total	38,826		£104,426,960	38,826.00	100%	£112,621,948	£8,194,987	8%

Source: Mott MacDonald (figures may not sum due to rounding)

2.5.4.1 Present value

The present value (PV) of the land value uplift was discounted to 2010 and converted to the DfT's price base year (2010) using HMT's GDP deflator. Land value uplift is taken as a single one-time uplift in land values. The findings from this analysis is shown in Table 12.

Table 11: Land value uplift – Option 1 (2010 prices, £000)

Values	Land value uplift
2010 prices, discounted to 2010	£4,295

Source: Mott MacDonald

2.6 Knowledge Intensive Business Services

2.6.1 Introduction

Knowledge Intensive Business Services (KIBS) represent one of the fastest growing areas of the European economy, and in the UK are driving growth and rebalancing towards the private sector. These services play an increasingly important role in the performance of client sectors and are often considered to be one of the hallmarks of a modern knowledge-based growth economy. Brighton and Hove has particular strengths relative to its size in KIBS sectors. For example, Centre for Cities analysis shows that the city had the highest percentage of private sector growth of any city in the UK in the period from 1999-2008 and HSBC analysis places Brighton & Hove as one of seven UK 'supercities' which will create new types of growth and development in the UK economy.

As the Valley Gardens Phases 1 and 2 Economic Case noted⁶, Increasing Brighton & Hove's KIBS sectors relies on creating local conditions that encourage private sector investment, such as a high skilled local labour market, proximity to other similar business, processes and networks, and provision of high quality public realm and transport infrastructure. The Valley Gardens scheme overall, and Phase 3 specifically, will help to address the latter factor and therefore it is appropriate to consider the potential contribution of the project to KIBS-related local economic growth.

2.6.2 Assumptions

The assessment of the impact of Valley Gardens Phase 3 scheme on KIBS sector growth was based on the following assumptions. These are consistent with the assumptions made in the economic case for Valley Gardens Phases 1 and 2.

- Forecast GVA growth rate per annum for Brighton and Hove = 5.75%
- Percentage of future growth of Brighton and Hove GVA from KIBS sectors = 38%
- Percentage of this KIBS-related growth that would take place in Brighton and Hove city centre (and therefore be potentially impacted by the Valley Gardens Phase 3 scheme) = 64%
- Attribution of KIBS-related city centre growth to Valley Gardens Phase 3 scheme = 1%

Given the uncertainty in long-term economic forecasting, the forecast period for KIBS benefits in the economic case for Valley Gardens Phase 3 is 10 years (rather than the 20-year period used for other impacts).

2.6.3 Methodology

The methodology used to estimate the potential impact of the Valley Gardens Phase 3 scheme on the growth of KIBS sectors in the city is the same as that used on the *Valley Gardens, Brighton, Phases 1 and 2, Full economic case*.

The assumptions listed above were applied to the most recent ONS figure for GVA in Brighton & Hove (£8.52 billion, 2016) to give a figure for the estimated annual contribution to Brighton & Hove GVA from KIBS sectors as a result of the Valley Gardens Phase 3 scheme.

It was assumed that all of the four "Do Something" Options would have the same economic impact on the development of KIBS sectors in Brighton & Hove.

⁶ WSP, *Valley Gardens, Brighton, Phases 1 and 2, Full economic case*, 19/06/2014

2.6.4 Outputs

The estimated impact of the Valley Gardens Phase 3 scheme on Brighton & Hove GVA from KIBS sector growth is £1.2 million per annum (2017 prices).

2.6.4.1 Present value

This figure was extrapolated over a 10 year period from 2021-2030 and, consistent with other economic impacts, discounted back to 2010 and deflated to 2010 prices to give a present value.

The forecast present value of the Valley Gardens Phase 3 scheme on Brighton & Hove GVA from KIBS sector over a 10 year period is £6.2m.

3 Costs

3.1 Project cost

Mott MacDonald estimated the following capital expenditure for each option. The breakdown of these costs is set out in Table 13.

Table 12: CAPEX per option (£2018)

Projects costs	Option 1	Option 2	Option 3	Option 4
Planning and Feasibility studies	£230,000	£200,000	£230,000	£235,000
Construction, inc- materials, equipment and labour	£6,272,000	£5,451,000	£6,307,000	£6,430,000
Project management	£155,000	£155,000	£155,000	£155,000
Consultancy	£70,000	£70,000	£70,000	£70,000
Other (Site supervision)	£56,000	£56,000	£56,000	£56,000
Other (post-completion monitoring)	£20,000	£20,000	£20,000	£20,000
Other (post-completion project management)	£25,000	£25,000	£25,000	£25,000
Other (allowance for tender inflation)	£203,000	£264,000	£204,000	£208,000
Contingency*	£338,000	£293,000	£340,000	£346,000
Contingency*	£471,000	£409,000	£474,000	£483,000
Total Cost	£7,840,000	£6,943,000	£7,881,000	£8,028,000

Source: Mott MacDonald

These costs were discounted to 2010 values and deflated to 2010 prices based on an assumed expenditure profile with a targeted opening date for the scheme of 2021 for the purposes of the economic case.

3.2 Events income

The creation of new areas of public space and improved public realm are anticipated to increase the opportunity for holding commercial, community and charity events in the scheme area, which will provide a revenue stream for the Council. This revenue stream will be, in effect, a negative cost to the project. This will effectively reducing the total cost of the scheme, acting as a subsidy to the scheme itself. This approach is consistent with that applied under WebTAG guidance to other transport schemes which have a revenue-generative aspect, such as rail projects.

3.2.1 Assumptions

- **Events Fees and Hire Charges:** As per BHCC's Outdoor Events Policy⁷, the size and type of event determines the fees and charges payable to the council. This analysis is based on BHCC's Outdoor Events Fees and Charges for 2018/19 for Parks and Open Spaces and Commercial Promotions. A copy of BHCC's Events Fees and Charges for 2018/19 is included as an Appendix to this Technical Note.
- **Waivers:** In BHCC's Outdoor Event Fees and Charges for 2018/19 it states that community events may be eligible for a full or partial waiver of the hire fee. As such, it has been assumed that potential community events in the scheme area will be eligible for a full waiver and are therefore excluded from this analysis.
- **Operating Cost:** In recognition that events held on council-owned public land will incur costs for the council, this analysis assumes a 20% annual operating cost.
- **VAT:** 20% has been deducted from the anticipated annual hire fees to account for VAT.
- **Event type, size and frequency:** Tables 14 and 15 below summarise the assumptions made for each of the shortlisted options regarding potential event types, their size and frequency at various locations across the scheme area. These assumptions are based on consideration of the size and location of new and enhanced areas of public space, green space and pedestrian footways.

Table 13: Events assumptions – Option 1

Space	Event Type	Frequency (per annum)	Event size (based on number of visitors at one time)
Public space in front of Royal Pavilion Estate	Commercial	6	Small
Public space in front of Royal Pavilion Estate	Charity (National)	1	Small
Old Steine Gardens	Community	6	Small
Public space in front of pier	Commercial Promotion - Weekend	6	N/A
Old Steine Gardens	Commercial	2	Small
Public space in front of pier	Commercial Promotion - Weekday	2	N/A
Public space in front of pier	Charity (National)	1	Small

Source: Mott MacDonald

Table 14: Events assumptions – Options 2-4

Space	Event Type	Frequency (per annum)	Event size (based on number of visitors at one time)
Old Steine Gardens	Community	6	Small
Public space in front of pier	Commercial Promotion - Weekend	4	N/A
Old Steine Gardens	Commercial	2	Small
Public space in front of pier	Commercial Promotion - Weekday	2	N/A
Public space in front of pier	Charity (National)	1	Small

Source: Mott MacDonald

3.2.2 Methodology

The potential for future events, and their scale and frequency, is based on consideration of the size and location of new and enhanced areas of public space, green space and pedestrian footways. The associated

⁷ Brighton and Hove City Council, Outdoor Events Policy, April 2013. Available online: <https://www.brighton-hove.gov.uk/sites/brighton-hove.gov.uk/files/PDF%20D-08%20Outdoor%20Events%20Policy%20v6.pdf>

charges which would be payable to the council is based on BHCC's Outdoor Events Fees and Charges for 2018/19, deducting VAT and anticipated operating costs. It is assumed that the same types and sizes of event will occur at the same frequencies over the 20-year appraisal period, thereby providing a constant revenue stream for the council.

3.2.3 Outputs

Table 15: Anticipated annual events income, gross (£2018)

Option 1	Option 2	Option 3	Option 4
£21,900	£11,700	£11,700	£11,700

Source: Mott MacDonald

3.2.4 Present-value of events income

The present-value of these costs (total CAPEX plus the negative cost of the events income) in 2010 prices and discounted to 2010 values is set out below. The net income figure includes operating costs and VAT.

Table 16: Present value events income, net (Discounted to 2010, 2010 prices, £000)

Option	Option 1	Option 2	Option 3	Option 4
Present value income (negative cost)	-£116	-£62	-£62	-£62

Source: Mott MacDonald

4 Summary of Outputs

The benefit:cost ratio for Valley Gardens Phase 3 has been calculated by combining the present value in 2010 all of the benefits and costs set out in Section 2 by option, deflated to 2010 prices, and dividing this by the present-value cost of each option in 2010 terms. This produces a ratio of benefits to costs for each option and shows clearly the value for money that would be provided by each option. The output of this process is set out below.

Table 17: Benefit:cost ratio

Criteria	Option 1	Option 2	Option 3	Option 4
	All traffic on the east with signalised junction	Informal layout with informal roundabout	Buses on west with signalised junction	Buses on west with continental roundabout
Discounted Benefit (2010 market prices discounted to 2010)	£7,811,404	-£73,990,195	-£2,516,359	-£3,584,910
Discounted Cost (2010 market prices discounted to 2010) including BHCC commercial rental income	£6,608,603	£5,884,714	£6,689,295	£6,815,386
Benefit Cost Ratio	1.2	-12.6	-0.4	-0.5

Source: Mott MacDonald

We see from this Option 1 delivers by far the greatest net benefits of any option and is the only option to deliver a positive benefit:cost ratio. Option 1 produces a benefit:cost ratio of 1.2, meaning that it delivers

£1.20 of benefits for every £1 spent on the project. This rates in the 'low' value for money (VfM) category as set out by DfT⁸.

While Option 1 may only produce a 'low' rated VfM figure, Option 1 does produce much greater VfM than all other options. Options 2, 3 and 4 all result in negative benefit:cost ratios, meaning the costs of each option outweigh the benefits they deliver. Accordingly, Options 2, 3 and 4 produce VfM values rated 'very poor' by DfT guidance⁹. The benefit:cost ratio is helpful therefore in determining the relative merit of the options assessed.

It is also likely that there are a number of benefits from all the options that the analysis undertaken for this Economic Case have been unable to monetise. The transport user benefits assessment, for example, does not quantify the potential vehicle operating cost, air quality and noise benefits, as would be standard under a WebTAG approach, owing to the limitations of the microsimulation modal used. Equally, evidence from other projects that combine movement, place and regeneration objectives suggests that the place and regeneration impacts are relatively difficult to quantify except "ex post" and therefore the analysis undertaken for this project may under-score their relative benefits. Finally, Valley Gardens Phase 3 is part of a wider programme and the benefits of this part of the programme should be considered alongside the strong economic case for phases 1 and 2 of the programme.

⁸ DfT, Value for Money Framework, Moving Britain Ahead, 2015, p.25

⁹ DfT, Value for Money Framework, Moving Britain Ahead, 2015, p.25

Appendices

A. BHCC Outdoor Event Fees 2018/19

Appendix 1

OUTDOOR EVENT FEES 2018/19

Payment can be made by invoice, by card over the phone or by sending a cheque payable to 'Brighton & Hove City Council' to the Events Office. See the [Outdoor Events Policy](#) for more information about fees. These fees will be subject to change as of April 2018.

1. HIRE FEE

PARKS AND OPEN SPACES (per day)

	Small	Medium	Large
Commercial	£1080	£2165	Negotiable
Charity (National)	£540	£1080	£2165
Community*	£127	£270	£540

MADEIRA DRIVE (per day with Road Closure from 6am to 6pm)

Commercial	£9105
Charity (National)	£2900
Enthusiast	£1845
Community*	£1620

Community events may be eligible for a full or partial waiver of the hire fee. Refer to the council's Outdoor Events Policy.

COMMERCIAL PROMOTIONS (all sites)

per day (weekends)	£1590
per day (weekdays)	£1320

2. REINSTATEMENT DEPOSIT

Commercial	£5000
Charity/Community	£500

Doc ref	Document name	Document owner	Revision date	Version	Page
D-30	Outdoor Event Application Form	Daniel Watson	10/12/17	8	7 of 9