

CiViTAS
Cleaner and better transport in cities

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

Brighton & Hove

T21.1 Clear Zone in Brighton & Hove

Brighton & Hove

January 2012



THE CIVITAS INITIATIVE
IS CO-FINANCED BY THE
EUROPEAN UNION

Project no.	TREN/FP7TR/218940 ARCHIMEDES
Project Name	ARCHIMEDES (Achieving Real Change with Innovative Transport Measure Demonstrating Energy Savings)
Start date of the Project	15/09/2008
Duration:	48 months
Measure:	No.
Task:	T3.2 Clear Zone in Brighton & Hove
Deliverable:	T21.1: Clear Zone in Brighton & Hove
Due date of Deliverable:	15 th April 2010
Actual submission date:	25 th January 2012
Dissemination Level	Public
Organisation Responsible	Brighton & Hove City Council
Author	Tom Campbell
Quality Control	Alan Lewis
Version	1.0
Date last updated	25 th January 2012

Contents

1. INTRODUCTION	3
1.1 BACKGROUND CIVITAS	3
1.2 BACKGROUND ARCHIMEDES	4
1.3 PARTICIPANT CITIES	4
1.3.1 <i>Leading City Innovation Areas</i>	4
2. BRIGHTON & HOVE	5
3. BACKGROUND TO THE DELIVERABLE	5
3.1 SUMMARY DESCRIPTION OF THE TASK	5
4. CLEAR ZONE IN BRIGHTON & HOVE	6
4.1 DESCRIPTION OF THE WORK DONE	6
4.2 SUMMARY OF ACTIVITIES UNDERTAKEN	7
4.3 MAIN OUTCOMES	14
4.4 PROBLEMS IDENTIFIED	15
4.5 MITIGATING ACTIVITIES	15
4.6 FUTURE PLANS	15

Appendix 1: The Social and Emotional Benefits of Good Street Design

Appendix 2: Fulfilling CIVITAS Monitoring Requirements

Appendix 3: What the General Public Like and Dislike About New Road Today

1. Introduction

1.1 Background CIVITAS

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

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

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

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

Objectives:

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

Horizontal projects support the CIVITAS demonstration projects & cities by :

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

Key elements of CIVITAS

- CIVITAS is co-ordinated by cities: it is a programme “of cities for cities”

- Cities are in the heart of local public private partnerships
- Political commitment is a basic requirement
- Cities are living 'Laboratories' for learning and evaluating

1.2 Background ARCHIMEDES

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

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

1.3 Participant Cities

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

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

1.3.1 Leading City Innovation Areas

The four Leading cities in the ARCHIMEDES project are:

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

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

The Lead Cities are joined in their local projects by a small number of key partners that show a high level of commitment to the project objectives of energy-efficient

urban transportation. In all cases the public transport company features as a partner in the proposed project.

2. Brighton & Hove

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

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

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

3. Background to the Deliverable

The reduction of road traffic is a central theme of Clear Zones, providing spaces where it is clean and safe for people to go about social, work and shopping activities. The measure has involved the introduction of a clear zone in Brighton & Hove with the main aim of reducing road traffic and reducing the impact on the environment and improving the local quality of life.

3.1 Summary Description of the Task

The purpose of the measure was to explore the social and emotional impact of street improvement schemes upon different user groups, the research focused on two separate (but conjoined) schemes in Brighton city centre;

- New Road, which was converted into a shared surface as part of a £2m scheme in 2007
- Church Street junction with New Road and Jubilee Street. This junction forms part of one of the busiest pedestrian routes in Brighton city centre.

A third paper will be written once the final stage of video observations from the Church Street junction has been completed. This final paper will discuss the combined findings of the two studies and conclude on the overall findings. This paper will form part of the final evaluation of this measure within ARCHIMEDES.

4. Clear Zone in Brighton & Hove

4.1 Description of the Work Done

The map below shows the area involved in the measure. The measure focussed on the Church Street / New Road / Jubilee Street junction.

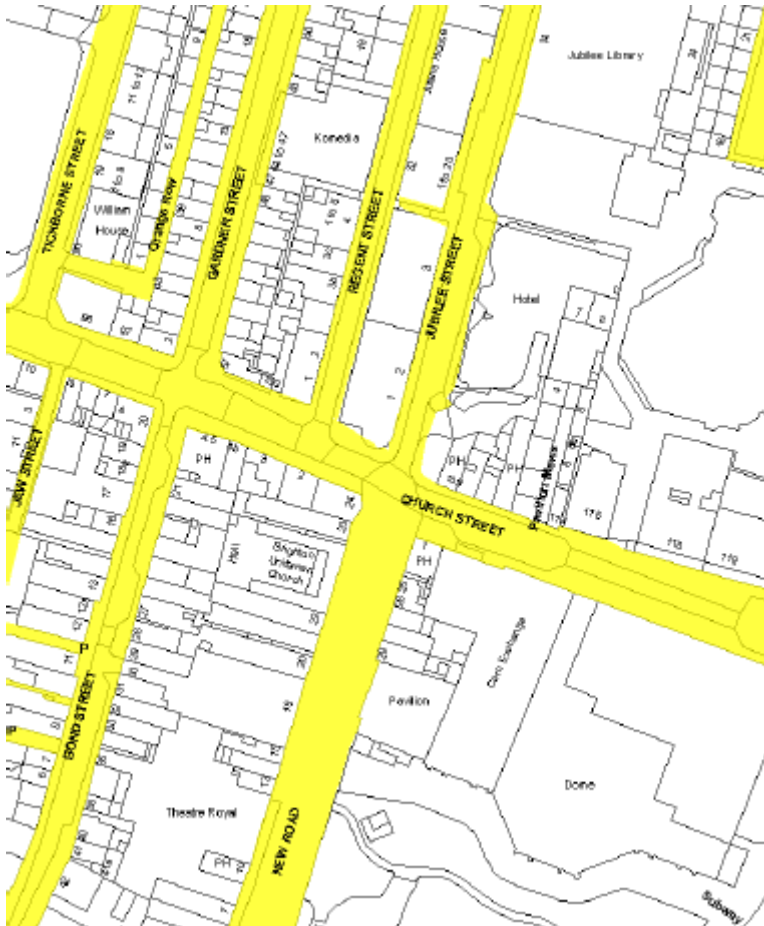


Figure 1: Map of Measure area

This section provides an overview of all work completed within this task.

- November 2010 to January 2011 - New Road research designed by Council officers.
- February 2011 - Fieldwork conducted in New Road, we interviewed members of the general public, local businesses, a 'movement' group (taxi and delivery drivers, cyclists and pedestrians) and the 'Street Community' (street drinkers and rough sleepers).
- March 2011 to August 2011 - Results from fieldwork analysed and research subsequently completed.

- February 2011 to March 2011 - Construction of Church Street junction raised table.
- November 2010, March 2011, February 2012 - Video footage collected and subsequently analysed at Church Street junction.

4.2 Summary of Activities Undertaken

4.2.1 New Road Study

The main output of this work was a research paper, which explored the emotional and social benefits of good street design. The aim was to better understand the social and emotional benefits of balanced street design, and develop new methodologies for assessing and evaluating the social and emotional benefits of balanced street design.

This element was interview based and focused on four different street User Groups: people spending time in the street (General Public), street drinkers and rough sleepers (Street Community), people moving through the street (Movement) and Businesses.

The research sought to enable a better understanding of:

- The potential social & emotional benefits of a thorough and inclusive design process
- The social & emotional impacts of traditional and better balanced streets on users
- The elements that attract and repel people from streets
- The elements that influence people's behaviour in the street, and
- Whether users can / are willing to attach a financial figure to any social and emotional benefits they gain from better balanced street design

The fieldwork was all interview based.

- General Public: 105 members of the general public were interviewed over the course of 34 hours of fieldwork. All interviews took place on site and with people who were actually using the area i.e. sitting down. People who were simply passing through the street were not interviewed.
- Businesses: All 21 businesses in New Road area were interviewed. The interviews took place on-site and followed a semi-structured format.
- Movement: We interviewed 10 van drivers, 5 HGV drivers, 17 cyclists and 17 pedestrians for the movement group. All interviews took place on site, apart from those with cyclists which were completed by email.
- We interviewed several members of the Street Community on-site and also various representatives of different agencies that are involved with the community i.e. Police, social workers etc

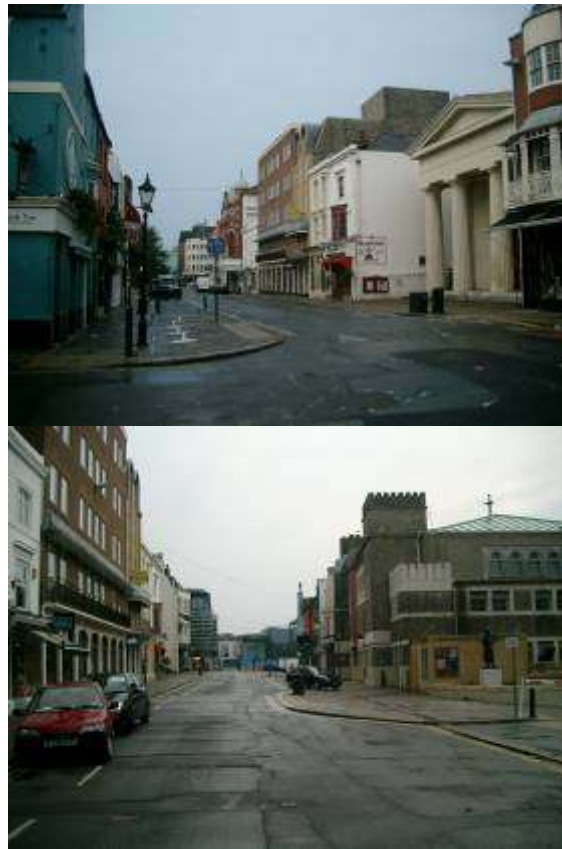


Figure 2: New Road Pre-Re Design

Previously New Road was a fairly dull and uninteresting street, it was poorly maintained and did little for the cultural attractions in the area (See Figure 2)



Figure 3: New Road Post-Re-Design

New Road's new design uses minimal "restrictive" street furniture, offers a good deal of public seating, and employs subtle material definition of a linear central "vehicle space" across a shared surface treatment.

4.2.2 Church Street Junction

Using a hierarchy based on pedestrian numbers Brighton & Hove Council identified a 'walking network' for the city, consisting of key routes through the city centre. The walking network is shown in Figure 4.

Pedestrian Movements

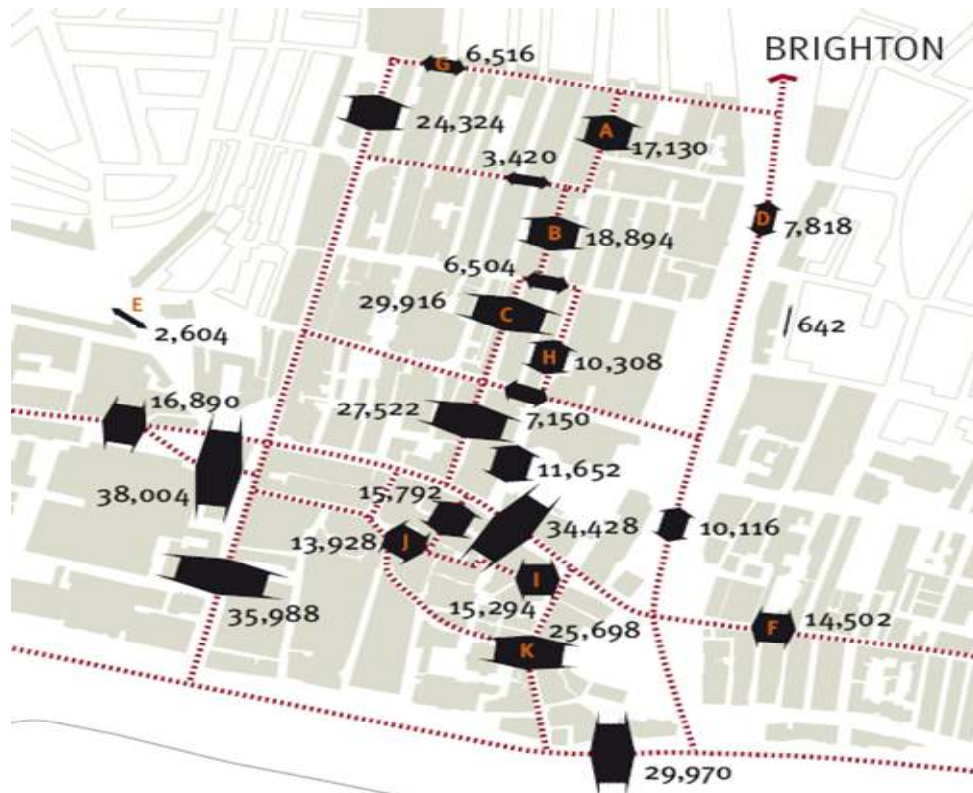


Figure 4: The Walking Network

New Road and Jubilee Street form one of these routes in Brighton’s Old town area. They are intersected by Church Street, a vehicular-dominated road that forms a barrier to pedestrian movement. The scheme attempted to mitigate the effect of Church Street on pedestrian movement.

The image shown in Figure 5 shows the junction before the measure was implemented.



Figure 5: Church Street Junction Pre-Redesign

This element of the scheme aimed to change the behaviour of different users in Church Street by altering the perceived balance of street design. The scheme's working hypothesis was that the improvements would make use of the junction more balanced amongst different modal groups because users' behaviour would change according to wider environmental improvements, specifically raised levels and ambiguous materials. The design shown in Figure 6 shows an early plan for the scheme.

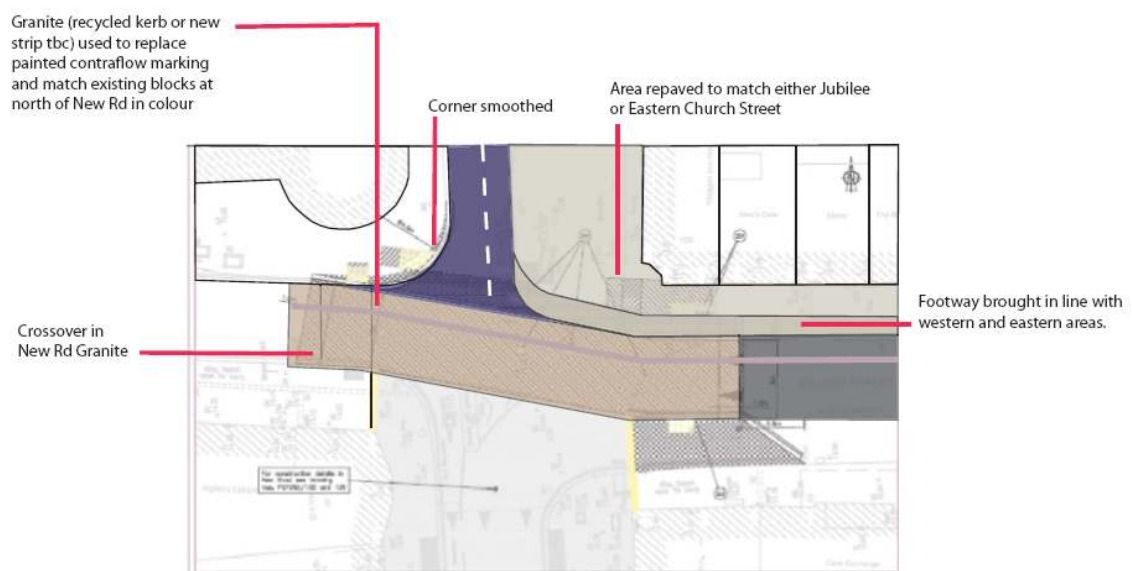


Figure 6: Early Scheme Plan Church Street

The intention was to use an alternative surface material for the carriageway in order to change drivers and pedestrians' perception of where priority lay. Before

installation of the scheme all users (drivers and pedestrians) deferred to cars. By changing their perception it was hoped that pedestrians would become more assertive when crossing the road and drivers would become more cautious.

The design recommended the use of granite as this was a suitable colour contrast to the black tarmac of Church Street and was also the same material as that of the neighbouring New Road. Using the same material as New Road helped create the sense of a coherent route across Church Street from New Road to Jubilee Street, reinforcing the idea of a 'walking network'.

In order to secure political approval to proceed decision-makers were shown the proposals on site and the implications explained to them. Extensive consultation with local businesses and residents was carried out to provide reassurance that there was local support.

The scheme was installed during February and March 2011. During construction it was found that the ground below the crossing contained many more utility boxes and cables than had been anticipated. As a result it was not possible to provide foundations as deep as was required in order to lay the granite. Therefore a new surface material, that did not require deep foundations, was necessary. As a result a light grey aggregate surfacing was used, selected as it achieved the criteria of colour contrast to the black tarmac of Church Street, matched the colour of surfacing used on New Road, and was durable.

The image shown in Figure 7 shows the crossing during construction.



Figure 7; Church St during construction

The image in Figure 8 below shows the completed crossing:



Figure 8: Completed Church St crossing

Evaluation

Video cameras were installed for a 24 hour period overlooking the junction. The video analysis had three stages;

1. Recording the numbers of vehicles, pedestrians and cyclists using the junction.
2. Recording the details of encounters* between different modes.
3. Recorded vehicle speeds through the study area in Church Street over 24 hours.

(* For the purposes of the study, an 'encounter' was recorded when one mode had to wait for another i.e. when a vehicle had to wait for a pedestrian to cross the road)



Figure 9: Video analysis stills

The above images have been taken from the three stages of development at the Church Street junction, moving from left to right. In stage one the road surface is uneven, road markings are faded and most importantly the junction looks 'normal'. In stage two the road has been resurfaced and the junction has been raised to the same level as the neighboring streets. In stage three, the raised table has been treated with an aggregate and the road markings have been renewed.

4.3 Main Outcomes

Full details of the outcomes and methodology of the study can be found in Appendix 1: 'The Social and Emotional Benefits of Good Street Design'. The main outcomes of the New Road study are;

- General Public interviewees expressed positive emotions (e.g. feeling relaxed, comfortable, happy), when describing how they felt in New Road's balanced street environment. They were attracted to the street by a range of attributes (such as an attractive environment, a place to sit, a place to people-watch) supporting a conclusion that successful streets cannot be created by surface treatments alone. On average participants were willing to contribute £34.50 each towards a similar scheme to New Road.
- 80% of Businesses associated New Road's redesign with benefits extending well beyond financial profit. These included positive outcomes reported by businesses including an enhanced sense of community (73% of interviewees), empowerment (60%), ownership (75%) and street appeal (66%).
- Within the Movement group, pedestrians (100%) and cyclists (94%) were slightly more positive about the balanced street design than vehicle drivers (82%). Vehicle drivers and cyclists were now more cautious and conscientious and had adapted their behaviour due to the anticipated presence of pedestrians in areas traditionally set aside for vehicles. Pedestrians felt more ownership of the whole street due to lack of physical segregation of space and therefore felt more comfortable using the 'whole' of the street environment
- The Street Community reported having value in a place to sit, feeling safe, people watching and meeting acquaintances. Better balanced streets help create conducive environments for these activities. Reaction to the Street Community from others raises important questions about what uses / users

are and should be considered desirable and / or acceptable in public spaces. These questions are beyond the scope of this study as they deal with the view of society as a whole towards the street community. However it should be noted that negative responses to the street community were predominantly received from businesses, with relatively few negative comments from individual users.

The main outcomes of the Church Street junction study (so far) are;

- 55.2% of all movement in the *before* observations was pedestrian and in 92.5% of encounters pedestrians gave way
- At the *intermittent* stage pedestrian traffic increased to 68.9% but pedestrians still waited in 91.2% of encounters.
- Mean Speeds during peak hours (6am – 9am and 5pm – 9pm) ranged from 12.3mph at the *before* stage, and 10.9mph in the *intermittent* stage.

Early findings suggest that use of the junction has not become more balanced, despite the above trends which were favourable to more balanced use. It appears that the works have had an impact on drivers' behaviour, but a relatively small impact on cyclists and pedestrians. The junction can therefore be considered to be partially successful, in that it has altered the behaviour of drivers. However it may not have achieved the required change in pedestrian and cyclist behaviour due to the surrounding environment- namely that the stretch of Church Street leading to the junction still reads as traditional road space and is understood by users in this way. In order to achieve greater changes it would be necessary to widen the scope of the measure to the surrounding area.

4.4 Problems Identified

- Delays in advertising the Traffic Regulation order caused by lack of political agreement on the design.
- During construction the surfacing material had to be changed due to unexpected utilities equipment found underground.

4.5 Mitigating Activities

- Decision-makers were shown the proposals on site and the implications explained to them. Extensive consultation with local businesses and residents was carried out to provide reassurance that there was local support.
- A survey to identify whether there were underground obstacles could have been carried out prior to works starting, however this was ruled out due to costs. A quick decision to change the material was made once the obstacles were located. Materials had not been ordered in advance to ensure money was not wasted.

4.6 Future Plans

A final paper will be written which will conclude on the findings from the two studies, once the final stage of Church Street analysis has been completed. This will be included in the final evaluation document.

Appendix 1

The Social and Emotional Benefits of Good Street Design

**Jim Mayor & Benjamin Coleman
Brighton & Hove City Council**

Part 1 of a CIVITAS funded study

August 2011

1.0 Introduction

Introduction to Study

Streets comprise the majority of the city's public realm. Historically, Street design in the UK has prioritised free-flowing vehicular movement over other street users and uses. Pre and post appraisal of such schemes has tended to focus on vehicular-led variables such as traffic flows and associated levels of noise and emissions. Even road safety has arguably focussed on maintaining easy vehicle movement, constraining vulnerable road users rather than the vehicles that pose the risk to those users.

Shared Space design (of which New Road is an example) seeks a street-scene that not only better balances the priority afforded various movement modes through, but also the movement and place functions of, the street. There is growing recognition that better balanced schemes offer an array of social, environmental, health related and economic benefits. Some of these benefits are easier to quantify and evaluate than others.

Enhanced cost / benefit values of balanced schemes are therefore typically demonstrated through the increased business turnover and property values that tend to result from increased footfall. However precedents such as the Copenhagen Heart study (which focuses on the health benefits of cycling) have started to establish methodologies for quantifying and applying a value to some of the additional benefits such schemes can offer.

Social and emotional benefits of successful streets are difficult to quantify, not least because of the intangible nature of emotions. However, consideration of these benefits is critical if we are to make fully informed decisions on the cost / benefit values of investing in well designed streets.

This study documented in this paper set out to:

- Better understand the social and emotional benefits of balanced street design, and
- Develop new methodologies for assessing and evaluating the social and emotional benefits of balanced street design

The work forms part of an EC sponsored CIVITAS project into "Clear Zone".

Overview of Study

The study focussed on New Road and Church Street in Brighton.

The research was broken down into 2 parts:

Part 1 focussed on New Road. This element, which was interview based, worked with four different street User Groups: people spending time in the street (General Public), street drinkers and rough sleepers (Street Community), people moving through the street (Movement) and Businesses. The research sought to enable a better understanding of:

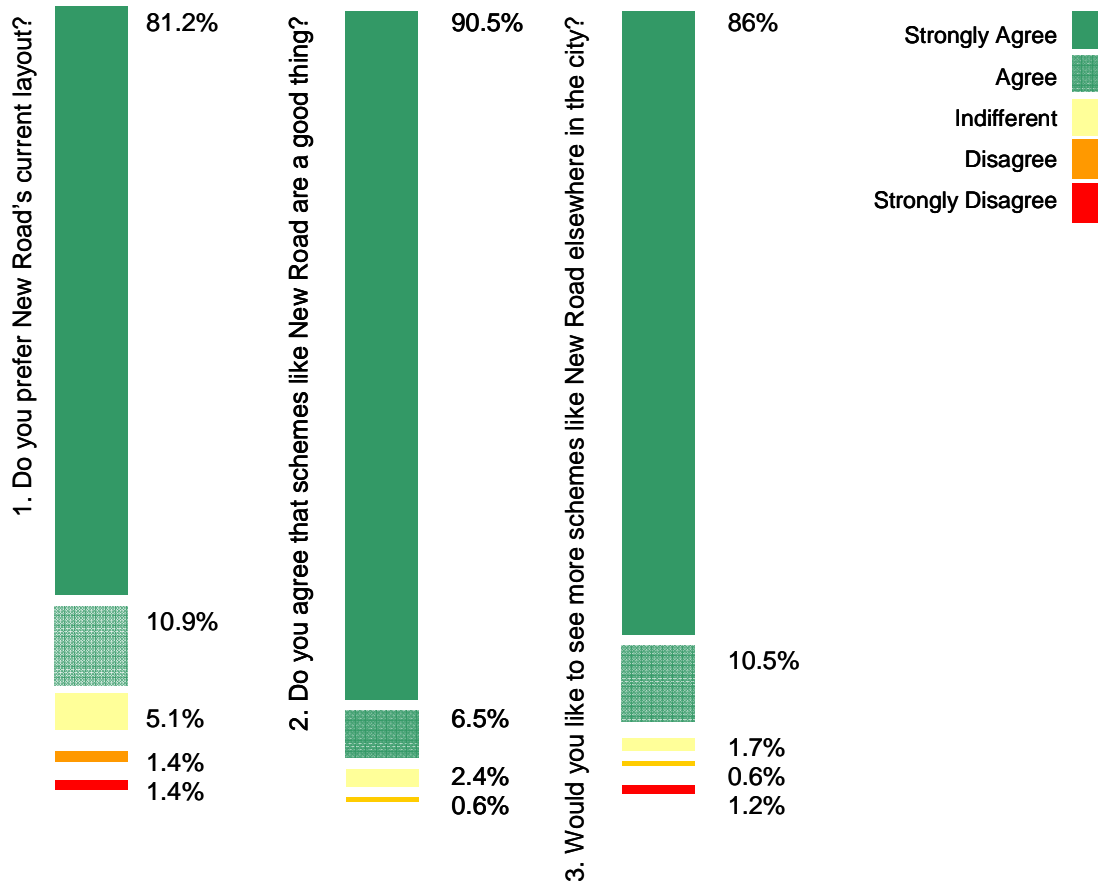
- The potential social & emotional benefits of a thorough and inclusive design process
- The social & emotional impacts of traditional and better balanced streets on users
- The elements that attract and repel people from streets
- The elements that influence people's behaviour in the street, and
- Whether users can / are willing to attach a financial figure to any social and emotional benefits they gain from better balanced street design

Part 2 used video surveys to test the impact of physical changes to the New Road / Church Street junction on user behaviour.

This paper focuses on Part 1 of the Study.

Overview of Research Findings

Interviewees across all four User Groups expressed a strong preference for New Road’s new, balanced street design over its previous, traditional (vehicle prioritised) design. The three questions below were put to all User Groups. Their combined responses are illustrated by the graphs below.



General Public interviewees expressed positive emotions (e.g. feeling relaxed, comfortable, happy), when describing how they felt in New Road’s balanced street environment and recollected negative emotions when spending time in the previous, traditional street environment (e.g. feeling indifferent and unsafe). They were attracted to the street by a range of attributes, supporting a conclusion that successful streets cannot be created by surface treatments alone. On average participants were willing to contribute £34.50 each towards a similar scheme to New Road.

Key General Public Findings:

- *Successful streets require a mixed offer, not just good surface design*
- *People feel positive emotions in a well designed street, and negative emotions in a traditional (vehicular dominated) street*

- *Users are able to conceptualise and identify the positive and negative emotional impacts of street design*
- *People are willing to contribute towards a street they enjoy spending time in*

80% of **Businesses** associated New Road's redesign with benefits extending well beyond financial profit, the traditional focus of cost / benefit analysis informing decisions on public realm investment. Other positives reported by businesses included an enhanced sense of community (73% of interviewees), empowerment (60%), ownership (75%) and street appeal (66%). 46% of businesses felt that the design process had improved their opinion of the council; 73% felt that the final physical scheme had enhanced their opinion of the council.

Key Business Findings:

- *Benefits to businesses of good street design extend well beyond increased levels of financial turnover, the traditional focus of cost / benefit analysis. A majority of participants referred to more social and emotional benefits when questioned, rather than financial gains.*
- *Improving the public realm increases businesses' awareness of their impact on the street environment, which in turn leads to businesses improving their "Street Appeal".*
- *Creating a more balanced street environment increases the sense of community amongst businesses, and makes them more likely to care for that environment.*

Within the **Movement** group, pedestrians (100%) and cyclists (94%) were slightly more positive about the balanced street design than vehicle drivers (82%). Overall 82.2% of interviewees felt that New Road's previous, traditional street layout indicated vehicle priority, 73.6% felt that the new, balanced street design signalled pedestrian priority. 87.5% of interviewees said the new design had altered their use of and behaviour in New Road. Vehicle drivers and cyclists were now more cautious and conscientious and had adapted their behaviour due to the anticipated presence of pedestrians in areas traditionally set aside for vehicles. Pedestrians felt more ownership of the whole street due to lack of physical segregation of space and therefore felt more comfortable using the 'whole' of the street environment.

Key Movement Findings:

- *Reduced segregation of space influences pedestrian perception of ownership of different areas of the street*
- *Pedestrian presence in areas of the street traditionally set aside for vehicles causes vehicle drivers and cyclists to move through the space with more care and caution*

Feedback from and about the [Street Community](#) was less conclusive than that gathered around other User Groups, being restricted by the small number of interviews that took place within the Study period. This is an area that could benefit from further investigation in a follow up Study.

Key Street Community Findings:

- *Like others, the Street Community value having a place to sit, feeling safe, people watching and meeting acquaintances. Better balanced streets help create conducive environments for these activities.*
- *Reaction to the Street Community from others raises important questions about what uses / users are and should be considered desirable and / or acceptable in public spaces.*

Methodology Review Summary

The questionnaires successfully engaged users, and so should be considered a success. Part of this success was due to extensive testing and rehearsing of the questionnaires prior to beginning the fieldwork.

The finance (contribution) and ‘emotional benefit’ questions worked better than expected, given the potential difficulty in framing these questions and anticipated difficulty members of the general public would have in conceptualising their emotional response to the street environment. There was a certain degree of scepticism among a minority of the sample who couldn’t conceptualise or understand why the study would be interested in ‘how they felt’, but at least 97% of those questioned responded positively.

Interviewing different User Groups enabled useful comparison of views.

The research approach was adjusted to best accommodate the likely context of each User Group’s interaction with the interviewer. This proved successful in enabling the best quality of data to be gathered during the course of the study, whilst enabling meaningful comparison of different group’s perceptions where relevant.

2.0 Project Approach

Project Origins: CIVITAS Clear Zone

CIVITAS is an EC funded programme which seeks to implement and test innovative approaches to sustainable transport. The Study in this paper forms part of the CIVITAS “Clear Zone” project.

Historic use of Clear Zone terminology is vague – having been applied to a range of project approaches that share the common objective of trying to reduce vehicular dominance of street environments.

Many of these precedent Clear Zone schemes have focussed on restricting vehicle access. Originally, the CIVITAS Clear Zone project sought to implement and monitor the impact of restrictions on vehicular access in the Lanes area of Brighton & Hove's Old Town.

However for various reasons changes in the Lanes could not be implemented within the timescale of the CIVITAS programme. This presented an opportunity to switch the project focus to New Road and Church Street. Close to the Lanes, New Road had recently been reinvented as a 'Shared Space'. The scheme had proved very successful in encouraging human activity back into the public realm whilst maintaining vehicle access, and attracted international interest due to its innovative design approach. The junction of New Road and Church Street was due for completion within the CIVITAS programme lifetime, fulfilling a further CIVITAS obligation to combine research with physical changes to the environment.

The new geographic focus of Clear Zone in Brighton & Hove still tested the benefits of reducing the impact of vehicles. However, rather than reducing vehicle impact through rules and regulations, the work in New Road and Church Street focussed on reducing the impact of vehicles by accommodating them within a better balanced street design.

Compared with a scheme to restrict vehicles, New Road's Shared Space approach, along with established interest in the scheme made the new project focus better suited to the CIVITAS objectives of contributing to shared knowledge and learning in an innovative field. The main output of the work would be a research paper (The Study).

A description of New Road and Church Street is provided in Appendix 1.

Developing the Research Focus: CIVITAS obligations & opportunities

The project was obliged to gather data against seven previously agreed CIVITAS "evaluation indicators":

- Reducing the impact of road traffic on the environment
- Creating a more equitable use of space between transport modes
- Improving vehicle management
- Creating a more appealing environment
- Benefitting the local economy
- Improve the quality of the environment
- Providing urban realm opportunities

Detail of how the project fulfils these obligations is provided in Appendix 2.

However, the project team was keen to extend the focus of research beyond traditional criteria such as vehicle numbers and business turnover. The Study offered an opportunity to gather new evidence on the wider benefits of good street design.

Developing the Research Focus: The Expert Panel & Project Team

Various leading UK Street Design practitioners who had previously expressed interest in New Road offered their time to inform the focus of the research. This 'Expert Panel' comprised:

Ben Hamilton-Baillie (Hamilton-Baillie Associates), Graham Paul Smith, Julian Broster (Stockleys), Louise Duggan and Thomas Bolton (Commission for Architecture & the Built Environment), Stuart Reid (MVA) and Wayne Duerden (Department for Transport).

The expert panel complemented a Project Team led by Brighton & Hove City Council officers Ben Coleman (Planning Technician) and Jim Mayor (Senior Project Manager), supported by Luke Ede (Research Assistant) and Sarah Jay (Environment Initiatives Manager).

Literature Review

The research approach incorporated a literature review of relevant studies to test any opportunities to learn from and build on existing approaches to financially evaluating the benefits that general street users gain from good street design.

The Expert Panel identified a number of precedent studies with potential to inform The Study's approach. This section gives a brief summary of the literature reviewed and an explanation (in italics) of how each precedent contributed to the development of The Study's methodology.

TFL- “Valuing the Public Realm” (2006): The TFL Study states that “Urban realm business cases are formulated around time savings and safety benefits, which underestimates the importance of schemes which improve ambience”. Valuing the Public Realm used the Pedestrian Environment Review System (PERS) to assess the start and end condition of case study schemes, and monitored user numbers and the length of time they spent in the study streets. Fiscal values were then attributed to PERS improvements.

Valuing the Public Realm provides another precedent methodology for linking financial values to street improvements. However, its focus was on physical elements of ‘good street design’. The Study shares objectives with Valuing the Public Realm but tests an interview (rather than PERS) based approach to evaluating public realm benefits, and extends to wider benefits (such as the design process).

CABE- “Paved With Gold; The real value of good street design” (2007): sought to better understand the ‘societal benefits’ of well designed buildings, spaces and places; considering values of benefits such as public health that are important but difficult to evaluate. CABE’s study had two strands:

- Regression models were used to calculate financial benefits of hypothetical street improvements.
- The general public were interviewed about whether they were willing to pay for better quality streets.

The CABE report focused entirely on the value of the overall street rather than individual aspects of design or wider context. The report recommended that a future study could focus on better understanding the impact of individual elements of street design on perceived value.

Over the course of The Study, participants were asked to identify specific elements of New Road that they did or didn’t like, enabling a better understanding of which elements of street design and context impact positively and negatively on user perception of the street environment.

[One North East Report; “Capturing the impacts of quality of place investments” \(2008\)](#): The One North East Report sought to identify and quantify the links between quality of place and economic performance, to inform future investment decisions.

The report sought to identify direct and indirect benefits of investment in better street design. Direct benefits focused on investment as an attraction in itself, resulting in increased visitor numbers and revenue generation etc. Indirect benefits included employment levels and house prices. The One North East Report was able to identify quantifiable trends which implied that scheme design quality had potential to positively or negatively impact on economic performance of the focus street and its immediate surroundings.

The failures of Blyth Market highlight the importance of what happens in the public space beyond completion of a physical design intervention. The questions for the Study were developed with Blyth’s failures in mind, helping us develop questions around specific areas in which Blyth has failed and (We anticipated) New Road had succeeded.

[DfT “Shared Space Project- Stage 1; Appraisal of Shared Space” \(2010\)](#): The DfT research is the most comprehensive work to date on the Shared Space concept in the UK. The Shared Space Project assimilates domestic knowledge on Shared Spaces and clarifies many of the misunderstandings currently associated with the concept.

The Study provides an opportunity to test the Shared Space Project observation that “individual pedestrians cannot physically assert priority over a driver who has assumed right of way”. The Shared Space Project also identifies that there “is little published information on the views of drivers or cyclists and such evidence as is available tends to be continental” – a shortfall that, to an extent, The Study helps redress.

The Research Focus

Following consideration of various options, the project team agreed that The Study would be divided into 2 parts.

Part 1 would use interviews to test ways of assessing and evaluating social and emotional benefits of “good street design”, and also test the extent to which different elements of design intervention and wider street context impact on user behaviour. For the purposes of The Study, “good street design” is seen as the physical realisation of an environment that accommodates all street users and uses appropriately, and the processes that result in that physical realisation. Potential for social and emotional benefit from good design therefore covers a wide area: people may simply enjoy spending time in a pleasant environment, or feel more engaged and empowered from having played an important role in the design process.

Part 1 of the research would enable a better understanding of:

- The potential social & emotional benefits of a thorough and inclusive design process
- The social & emotional impacts of traditional and better balanced streets on users
- The elements that attract and repel people from streets
- The elements that influence people's behaviour in the street, and
- Whether users can / are willing to attach a financial figure to any social and emotional benefits they gain from better balanced street design

Part 2 used video surveys to test the impact of physical changes to the New Road / Church Street junction on user behaviour.

Assumptions, Constraints & Other Notes

The Study assumes that balanced street design is good design and that New Road and the Church Street Junction are / will be examples of balanced street design. Traditional design is used to describe the design approach that has dominated UK streets in recent decades, and seen vehicle needs prioritised irrespective of the primary uses or users of the environment.

Space within a balanced street design can be more shared or less shared. It is assumed that New Road's design will be more shared than that of Church Street. A greater level of sharing does not automatically equate to a better designed street: different design approaches will be appropriate in different locations, depending on the functions and context of each specific location.

Efforts have been made to ensure the study evaluates the benefits of good design rather than the benefits of a high profile "showcase" scheme (a category that New Road would fall into). This is so that any methodology developed during the course of The Study can be applied to a range of future schemes.

As the research approach was identified after New Road was redesigned, directly comparable baseline data was not available. Where relevant, The Study approach countered this by using photographs of New Road's previous layout to help interviewees compare emotional reactions to the scheme pre and post re-design.

Ideally a scheme impact will be monitored over longer timescales. New Road is currently only three years old. Should the research outlined in this note prove interesting, the opportunity of carrying out a follow up study in future years should be considered.

Identifying the Part 1 User Groups & Research Questions

The Study assessed the social and emotional impact of good design on four New Road User Groups: General Public, Local Businesses, Street Community and Movement. Decisions on which User Groups to include in the study were based on:

- Potential to build on rather than replicate existing research approaches
- Potential to provide interesting and contrasting perspectives of social and emotional values that can be achieved by good design
- Practicality and likely research robustness

Research questions were designed to test hypotheses specific to each User Group, and also test whether opinion to three common questions differed between different users. The three common questions asked of each group were:

- Do you prefer New Road's current or previous layout?
- Do you think schemes like New Road are a good thing?
- Would you like to see more schemes like New Road elsewhere in the city?

General Public: The General Public group focussed on people spending time in (rather than moving through) New Road. This group comprises people who are likely to have made a conscious decision to spend time in New Road for optional rather than necessary reasons. The group was chosen because it offered insight into which, and how far, different street qualities influence why and how people choose to spend time in a street.

Traditional street design prioritises vehicle movement over other uses and users of the street, repelling rather than attracting wider use, whilst New Road has been designed to accommodate all uses and users, whilst inferring prioritisation for pedestrians – the primary users of the street. The starting assumption is that users of a well designed street will feel more positive about (and so be more likely to use) a well designed street. In testing this assumption the study investigated:

- How users' emotional responses to the new (balanced) street environment compare with the previous (traditional) design
- What aspects of street environment make people want to spend (more) time there
- What aspects of street environment can prevent people from spending time there
- Whether these aspects can be placed in a hierarchy of importance
- Whether users value their experience of New Road's 'Good Design' sufficiently to place a financial value on that experience

Local Businesses: The Local Business group offered an insight into the benefits that can be achieved through a good design process. The group also offered an insight into the impact balanced street design can have on the street's servicing, on perception of the business amongst customers and staff, and any benefits beyond financial turnover.

The starting assumption is that benefits of good design for businesses go further than the benefits of the final physical scheme and beyond basic financial gains. A good design process can lead to an increased feeling of community, engagement, empowerment and ownership of the street environment by those who work in the street. The research also investigated the extent to which good street design is conducive to local businesses increasing their street appeal. Overall, the study investigated:

- Whether the New Road design process had led to businesses having an increased sense of ownership of the public realm
- Whether the New Road design process had led to businesses feeling part of a more cohesive street community
- Whether the design process had given businesses an enhanced sense of empowerment relating to perceived ability to influence their environment
- Whether the street's design enhanced the appeal of the business (to customers or staff)
- Whether the move to a balanced street design had impacted on business viability

Street Community: New Road has always had a street drinking and homeless community. To many, the Street Community is an aspect of city life that they would like to see removed from New Road altogether. But if it is accepted that the community is an aspect of city life that cannot be “designed out”, is it better to accommodate the community in a balanced street environment? Does the range of activities and people using New Road nurture a degree of tolerance, to the benefit of everyone?

The Study does not consider whether street drinking is an acceptable or desirable aspect of public realm activity. Instead it investigates whether balanced street design impacts on the success with which the Street Community is accommodated within the public realm and wider city community.

The starting assumption is that whereas elsewhere in the city, the Street Community has been isolated in areas which they have come to detrimentally dominate, in New Road, the Street Community represents a small proportion of a wider city community – and any potentially negative impact of their presence is diluted as a result. In testing this assumption the study investigated:

- The relative impact of the Street Community on other street users' perception of the street
- How the Community feel about balanced and traditional street design
- Whether the Street Community are perceived differently in a balanced and traditional street environment
- Whether there are any reasons why the Street Community choose to spend time in New Road

Movement Group: The Movement group was selected to test how far emotional response to street environment impacts upon the behaviour of people moving through a street. The group included cyclists, pedestrians and vehicle drivers.

The starting assumption is that when segregation (and so implied ownership of) space is removed from a street, people will negotiate their way through the street with civility rather than assumed priority based on notions of "might is right". This change in behaviour is prompted by environmental cues presented by (or missing from) a balanced street. In testing this assumption the study investigated:

- How people feel moving through a balanced and traditional street
- What elements of balanced and traditional street design influence behaviour of people moving through a street
- If and how balanced street design influences awareness of others in the street
- Whether people moving through the street feel that balanced or traditional street design offers a good and fair balance between the street's different users

Interview Approach: Challenges

The research approach presented four significant challenges:

1. Enabling interviewees to compare the current environment of New Road with its previous design

It was important that interviewees were asked to compare the balanced street environment of New Road with its previous, traditional layout, rather than a different street that still featured a traditional design treatment. Limiting the research to New Road meant that factors of the wider street context (such as scale, quality of building frontage, mix of building uses) had consistent influence on user responses.

Interviewees were provided with photographs of the previous street design so that they could make as much of a like for like comparison as possible.

2. Identifying a way of measuring social and emotional benefits

Measuring social and emotional benefits is challenging in part because quantifying emotions is very difficult (there is still no consensus, for example, on exactly what happiness is), and in part because it was suspected that interviewees were likely to find it difficult to rationalise and articulate their emotional response to street design.

The questionnaires overcame this issue by offering the interviewee a selection of emotions that they could pick from to describe how they felt in the street. Interviewees could either choose from examples provided, or use these as prompts to help them conceptualise the question and identify other emotions they felt were more relevant.

3. Ensuring that interview questions did not bias responses.

The project team were mindful to ensure that questions were not framed in a way that led interviewees to favour New Road's balanced design. Final questionnaires were designed so that the same questions were asked of the current and previous environments wherever possible. For the emotional response question, a single list of positive and negative emotions was created, and interviewees were asked to pick from the same list when describing their reaction to the current and previous New Road environment.

4. Establishing a way to gather user views on the financial value of Good Design

Asking people to place a financial value on Good Design presented a challenge. As with the emotional question described above, "financial value"

of a place is quite an intangible concept for members of the general public to identify and articulate. There was also a political sensitivity associated with asking the public to contribute real funds to something they may feel “the council should be doing anyway”, and the risk that responses may be influenced by dialogue with the interviewer (people may not wish to contribute a financial value, but feel obliged to say otherwise).

Various options were considered, including asking people to assess their contribution in terms of everyday purchases (e.g. “you’ll pay £3 for a sandwich, how many sandwiches would you value New Road at?”), asking what percentage of their council tax they would be happy to see spent on schemes like New Road or asking people to choose a donation from a fixed range of parameters (£0, 1p-25p, 26p-50p etc). Consideration was also given to dividing interviewees into two groups and testing the relative success of different approaches to “the money question”.

In the end, The Study tested an approach that saw people invited to partake in a mock “donation” process (where a contribution amount could be written down on a piece of paper and anonymously put in a container).

The decision to only test one approach to the “money question” was influenced by the interviews taking place during the run up to the local elections. This increased potential sensitivity associated with asking a question based around council tax, or being perceived to be canvassing for opinion on future council funding priorities.

Final questionnaires were refined through extensive internal testing before being tested on User Groups.

User Group Approach

General Public research was undertaken using a mix of questionnaire and before / after photographs. Members of the General Public were asked the following questions:

- Are there any elements in particular which you do/don’t like about New Road now?
- Which of the below emotions do you feel best reflect how you feel using New Road now?
- What is it about New Road that makes you spend more time here?
- Are there any elements in particular which you did/didn’t like about New Road before?
- Which of the below emotions do you feel best reflect how you felt using New Road before?
- How much would you be willing to contribute to raise funds to develop a similar scheme?

Businesses were interviewed by phone or in person using a semi-structured interview format. This allowed discussions to develop and incorporate a qualitative element whilst still adhering to a consistent quantifiable format. Businesses were asked the following questions, rating their response on a scale of -10 to +10 where appropriate depending on their level of disagreement or agreement:

- Did the design process of New Road (positively) affect your opinion of the city council?
- Has the design given you an increased sense of ownership of the public realm?
- Do you think that your business has improved its ‘street appeal’ because of the improvements?
- Do you consider New Road improvements have had a positive influence on your business?
- Has the design of New Road (positively) affected your opinion of the city council?

Businesses were also asked whether their opinion of the Street Community had changed since the redesign of New Road.

The **Street Community** research was interview based. Interviews were carried out with members of the Street Community and agencies (like the police) who work with the community. Businesses were also asked explicitly for their views on the Street Community. There was an opportunity for the General Public and Movement groups to refer to the Street Community if they wished (through general questions about aspects of the street they did or did not like etc) – however interviewers did not attempt to influence these groups to comment on the Street Community.

Interviews with the Street Community were looser than those undertaken with other User Groups. They tended to be spontaneous and time with interviewees was often limited, but the interviews generally followed the same template as the General Public interviews:

- Are there any elements in particular which you do/don’t like about New Road now?
- Which of the below emotions do you feel best reflect how you feel using New Road now?
- What is it about New Road that makes you spend more time here?
- Are there any elements in particular which you did/didn’t like about New Road before?
- Which of the below emotions do you feel best reflect how you felt using New Road before?

The **Movement** group research was primarily conducted via emailed questionnaires. Interviewees comprised members of the general public who had previously participated in transport related studies with the council, and indicated a willingness to participate in future studies. Feedback from the initial emailed research would inform a decision as to whether further supplementary street based interviews were required. The Movement Group were asked:

- Who you feel had priority in New Road before and after the redesign?
- (if applicable) How has the change in priority affected your behaviour when using New Road?
- (if applicable) Why do you think priority has changed?
- Which emotions best represent how you feel using New Road now?
- Which emotions best represent how you felt using New Road before?

A decision was made not to interview taxi drivers, due to concerns around political sensitivity during the build up to the local elections.

Interview Approach: Limitations

Sample size of the Street Community group: The size of the Street Community sample was limited by difficulties in finding members of the Community who were willing to participate in the Study. Interviews also had to be attended by a member of the Community Agency Staff, who proved difficult to coordinate during the limited research time window.

Limited time and the complexity of working with this User Group also necessitated abandonment of the original aim of undertaking a parallel (and comparable) piece of research testing perceptions associated with the Street Community in a traditional street environment.

Lack of before data: All comparative data relating to the previous, traditional New Road layout was gathered by providing interviewees with pictures of New Road before its redesign. For some interviewees the photos weren't enough for them to feel that they could sufficiently answer questions related to the old design.

3.0 Findings

This section reviews the Study Part 1 (New Road) research findings.

Key Findings

The figures below represent the combined responses to three questions which all User Group interviewees answered. These questions were designed to give an overall indication of New Road's popularity and also to allow comparison of different User Groups' opinions on New Road. The results

show that overall the sample was strongly in favour of New Road's re-design and wanted to see more similar schemes.

Question: Do you prefer New Road's current or previous layout?

Overall 92.5% of interviewees said that they preferred New Road's current, balanced design to its previous traditional one. The current layout was most popular with the Movement group, 93.3% of whom strongly agreed that they preferred the current design. However the current layout was least popular with the van drivers within the Movement group; 22.2% of whom preferred the previous layout.

Question: Do you agree that schemes like New Road are a good thing?

Overall 97% of interviewees thought schemes like New Road were a good thing. The General Public were most positive (99%); the Movement Group were least positive (although 93.6% still felt schemes like New Road were a good thing).

Question: Would you like to see more schemes like New Road elsewhere in the city?

95.3% of interviewees wanted to see more schemes like New Road elsewhere in the city. The General Public were most in favour of more schemes with 98.1% of the sample agreeing, whilst again the Movement group ranked the lowest with 93.6%.

User Group 1: General Public

The General Public user group comprised people undertaking staying activities in the street (staying activities being those not primarily concerned with moving through the street). 103 people were interviewed.

Reaction to the New Road approach

The group were strongly favourable to New Road and its approach.

91.25% of the sample preferred New Road's current design to the previous arrangement.

99% of participants agreed that schemes like New Road are a good thing.

98.1% of the sample would like to see more schemes like New Road elsewhere in the city.

Potential funding contribution

Just under half (51) of those interviewed said that they would donate towards the development of a similar scheme to New Road. Only one participant was vehemently against the idea, one said they would donate a “fair amount”, one said they would donate “lots”; another said they “would help”. The remaining contributors specified donation amounts ranging from £1 to £1000. There was generally little correlation between participants’ willingness to donate and their responses to other questions in the survey. For example, some were willing to donate £100 and yet did not seem particularly positive about the new scheme or to seeing more schemes elsewhere in the city. Below are the headline figures excluding non-specific responses:

- Total Donations £3449
- Average Donation per Person £34.49
- £17.58m if everybody in the city donated

Response to the question was surprisingly positive. It was particularly interesting to see how people conceptualised their donation. The quotes below have been extracted from the interviews:

“I’d spend £3 a day to hire a deckchair for the day on Brighton Beach.....so I would happily pay for my seat in New Road”

“I’d definitely contribute if the changes were to a street in my neighbourhood”

“I bring my lunch here and eat it here now, rather than buying it elsewhere so I’d donate the money that I save”

“Historically the general public paid for public monuments e.g. war memorials, so why not pay for a scheme like New Road?!”

The results demonstrate that users of New Road value their experience sufficiently to donate money towards such schemes. A majority (74.5%) of donors said they would prefer to donate a one-off figure; several of these donors thought that their donation would be towards a good cause, almost as if their donation was charitable. Twelve interviewees likened their contributions to an entrance fee for an attraction and said they’d prefer to pay-per-visit. 11 donors conceptualised their donation as a quasi-maintenance fee and said that they would prefer to pay on a weekly basis and in return they would expect to see the area kept clean and tidy.

A majority of non-donors felt that their council tax should pay for such schemes; others commented that they would donate if the scheme was in their neighbourhood area and some said they simply couldn’t afford to donate at the time.

What did people like and dislike in the current and previous New Road arrangements?

The most popular elements in the current New Road arrangement were the lighting (56%), benches (54%), the restaurants, cafes and bars (44%), the sociability of the street (33%), vibrancy (30%), al fresco eating opportunities (26%), greenery (19%), materials (18%), nightlife (16%) and quiet (14%).

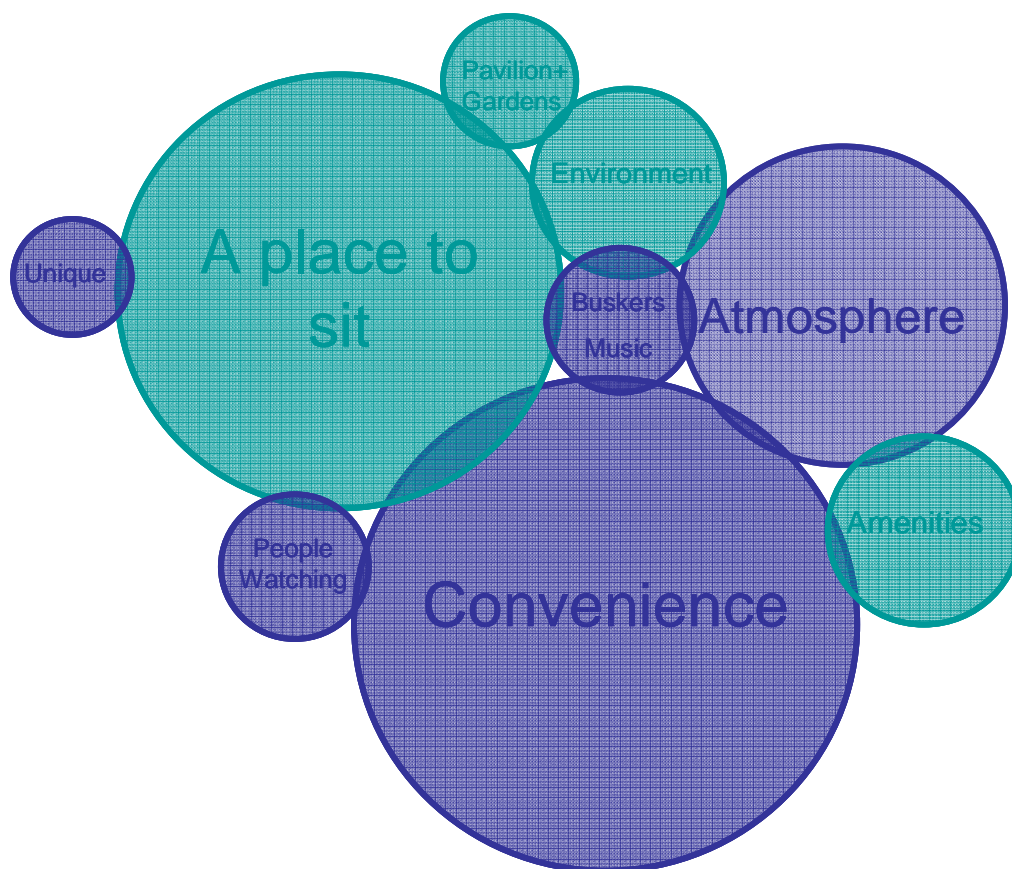
The most unpopular elements were the volume of vehicles (25%), not knowing who has right of way (17%), and anti-social behaviour (14%). In total 60% of negative comments were related to the Shared Space concept: a significant number of participants in conversation said that they thought that New Road should be completely pedestrianised and that the presence of vehicles was to the detriment of the environment.

93.4% of comments on the previous, traditional New Road design were negative. When asked what they liked about New Road in its previous form, people liked the buildings (3%), greenery (1%), lighting (1%) and restaurants / bars (1%). They didn't like the number of vehicles (21%), the bleak environment (21%), anti-social behaviour (20%), the lack of seating (20%), the fact the street was uninteresting (13%) and feeling unsafe (8%). 20% of interviewees quoted additional aspects that fell into a general "other" category. Appendices 4 and 5 summarise comments relating to the current and previous street layout.

Why did people spend time in New Road?

A majority (56.2%) of participants referred to experiential / social and emotional factors when explaining why they spend time in New Road, such as convenience, atmosphere, people watching and buskers. The remaining responses referred to physical elements such as having a place to sit, amenities, proximity to the Pavilion Gardens and the quality of New Road's built environment.

The diagram below illustrates all the reasons interviewees gave when asked why they spend time in New Road. The size of each circle represents the number of times the attribute it represents was cited. Answers in purple refer to experiential and social / emotional attributes; blue are physical attributes. 82.5% of interviewees gave more than one reason for spending time in New Road. Overlapping circles show where interviewees gave multiple answers. For example, some interviewees mentioned both "Unique" and "Place to Sit" attributes, none mentioned both "Unique" and "People Watching".



Emotional impact

When asked which emotions best reflected the participants' mood when using New Road, 94.7% were positive when questioned about the current scheme, whilst only 5.7% of emotions were positive when referring to the previous scheme.

People were most likely to report feeling relaxed (66%), happy (44%), comfortable (40%), social (29%) and safe (23%) in New Road today. In the previous design people were most likely to feel indifferent (37%), unsafe (17%), frustrated (7%) and alarmed (5%).

Summary

Feedback from the General Public group saw interviewees state a strong preference for schemes like New Road over traditional, vehicle orientated street designs. The variety of things that people liked about New Road today supports a conclusion that a wide offer, rather than a limited number of physical interventions (such as Shared Surfaces), are important if a street is to realise its place potential. Good, balanced street design has potential to have a significant positive impact on user's emotional state (and people are more likely to spend time in streets they feel good in). The relatively high

“donation” made by interviewees can be seen as a measure of the public’s valuation of good street design.

User Group 2: Businesses

The second user group comprised businesses occupying buildings in New Road. In total 19 business representatives were interviewed.

Reaction to the New Road approach

The group were strongly favourable towards New Road’s good design approach.

92.9% of participants preferred New Road’s current layout

94.1% of participants thought that schemes like New Road are a good thing

94.1% of respondents wanted to see more schemes like New Road elsewhere in the city

(Names of business owners in the following summary are changed).

Impact on feelings of community

73% of respondents felt that the sense of business community had increased as a result of the New Road redesign. Several participants (Gary, Chris, Polly & Reda) felt that the new design had instilled a common concern for the upkeep of the street, which in turn had increased communication amongst businesses.

Several respondents identified the design changes as a catalyst for increased conversation. They are now more likely to spend time outside their businesses in New Road which therefore increases the likelihood of meeting other business owners. Gary believed that ‘the road invites community’ because there is now an increased concern among businesses for the state of the public realm.

For some the enhanced sense of business community had extended beyond New Road and into neighbouring streets. Chris and Polly attributed this extended community to a mutual appreciation of developments in the area, which they felt had brought businesses closer together.

Kate, Benny and Petra felt that the consultation process and initial teething problems after New Road first reopened had increased the dialogue amongst businesses in New Road, but that the sense of community had subsequently declined and businesses were now speaking less with each other.

Interestingly there was little relationship between length of tenancy / business type and perception of community. Integration into the community seemed to depend more on individuals' propensity to socialise.

Impact on feelings of empowerment

60% of interviewees felt that New Road's redesign had increased their sense of empowerment to influence things in the street. A majority of respondents supported their answers with examples of contacting other businesses, contacting the council or speaking to the general public (etc) about an issue relating to the redesigned New Road.

Gary, for example, felt that the redesign had led to him being more concerned with the upkeep of the street and therefore more likely to interact with other businesses, namely Mr Fitzherberts pub, about standards of maintenance. The Unitarian Church now allows charity collectors to use their steps. Benny felt that this was an example of the Church exercising its increased sense of empowerment over the street environment.

Petra, Charlie and Steve felt that their opinions had not been adequately considered in the design process, and this had led to them feeling less empowered. (Their concerns generally related to design details such as final locations of bins and other items of street furniture). Mary and Gary felt that their inability to remove buskers in New Road impacted negatively on their sense of empowerment.

Benny felt that individuals' sense of empowerment had increased but that this had been to the detriment of the overall community. He felt that businesses cared more for their immediate environments (e.g. outdoor seating areas), but that they were less concerned with how this impacted on the wider New Road street-scene, which in turn undermined the overall sense of business community.

Attitude towards the council

46% of respondents said that their attitude of the city council had improved as a result of the New Road design process. Interviewees commented on their relatively straight forward experiences with the council. Any complaints were related to the disruption caused by construction or street furniture being placed in front of their unit.

73% of the sample thought that the physical re-development of New Road had improved their opinion of the city council; this included several sceptics who weren't convinced about the scheme before its completion. Several respondents regarded the development as an indication that the council were taking care of the city and were impressed that the scheme had effectively

created a new part of the city – often referred to by businesses as the “Cultural Quarter”.

Impact on feelings of ownership

75% of businesses felt that their sense of ownership had increased as a result of New Road’s redesign. Responses to this question often overlapped with businesses’ responses to questions about sense of Empowerment and Street Appeal. Several participants cited greater interest in their immediate environment as evidence of their increased sense of ownership.

Improving New Road seems to have raised businesses’ expectations, and therefore awareness, of the public realm. Chris commented that ‘you’re part of the road and people care here because of that environment’; Polly added that ‘(New Road) feels like everyone’s, rather than just ours’. Paul commented that he now felt ‘more aware of the wider world, rather than being an insular little pub’. Reda felt that he was now more aware of what is going on New Road, which was representative of his increased sense of ownership. The pub owners commented that their new outdoor seating areas had increased their sense of ownership, and that this increased ownership had resulted in increased pressure to maintain these areas. This was seen as a positive outcome because it suggested that resident businesses are willing to increase their footprint but also accept the consequent additional responsibilities for the greater good of the street.

Gary recounted complaining to the owners of Mrs Fitzherberts about the upkeep of their outdoor area, which for Gary was an example of him exercising his increased sense of street ownership. He added that even though his business does not have an active frontage on New Road, maintenance of the street was still important to him, and this influenced his perception of and interaction with businesses whom he felt were not maintaining those standards.

Impact on Street Appeal

66% of businesses reported increased Street Appeal following New Road’s redesign. One pub owner commented that improvements to New Road had created “a platform for businesses to step-up to, to show themselves off”. Improving the quality of the public realm appears to have raised businesses’ consciousness of their own appearance, which in turn has increased the likelihood that they’ll improve their own Street Appeal.

Businesses gave the following examples of ways in which they had improved their street appeal:

- The Theatre Royal is applying for a license to introduce an outdoor café and seating area for their customers. The Theatre was also

refurbished for its 200-year anniversary, which coincided with New Road's reopening as a better balanced street.

- The Mash Tun pub has maximised the size of its outdoor seating area. The pub hoses the outdoor area every morning, feeling the upkeep of the outdoor space is a reflection of their business. Pinocchio's and the Colonnade Bar have also increased the quality and quantity of their outdoor seating.
- Leaders Estate Agents have improved their internal and external appearance, and feel that the business now has a better presence in New Road than ever before in their 18 year tenure.
- The Unitarian Church now leaves its doors open which has attracted significantly more visitors to the building.
- Oki Nami moved into New Road after the redesign, but commented that they were drawn to the street because of opportunities to have an outdoor, attractive space for customers. Prior to the redesign, the building occupied by Oki Nami had been vacant and in a poor state of repair.
- The Dome Theatre's box office is about to be refurbished and enhanced as an interface with the general public. The Theatre now has seating outside, which it would have never considered before New Road was redesigned. The business has also improved the inside of the Dome and adjacent Museum to maximise appeal to the general public, and to tie-in with the 'Cultural Quarter' concept that New Road's redesign is considered to symbolise.
- Strada's head office allocates a larger than normal budget to the outdoor facilities of the New Road restaurant because they believe the street environment makes the restaurant's location unique, and a benefit to be utilised. In December Strada invested in new outdoor seating, lighting, signs and barriers.

Impact on Business

80% of businesses felt that the improvements in New Road had been good for their business. Interestingly a majority of respondents referred to social and emotional benefits rather than financial gains when asked to explain the impact on their business.

Some respondents felt that clients/customers were more relaxed when using New Road, some reported that staff enjoyed being based in New Road, and others cited a certain prestige associated with the street. Other benefits included increased footfall through the street which increased the number of

potential customers, and the fact that there were no longer any vacant premises in New Road (prior to the redesign three properties had been vacant).

- Steve, Reda, Charlie, Petra & Chloe identified increased footfall as a primary benefit resulting from New Road's redesign. This led to increased business exposure to the general public and therefore increased levels of passing trade. Businesses identified alfresco eating opportunities and public benches as being key design features in attracting increased footfall to the newly designed street.
- Gary said that 'he loved working in New Road!' (as did two of his colleagues)
- Employees at Leaders Estate Agents work all over the region, but their favourite branch is always New Road.
- George and Mary agreed that being based in New Road resulted in a certain level of prestige which conveyed a good image of their businesses.
- Gary, Mary and Kate felt that being in New Road enhanced the client's experience of the area before and after appointments/shows, which in turn was good for the business. The clinic felt that the ambience of New Road benefitted the wellbeing of patients before visits.
- Benny likened New Road to a mini Covent Garden during the daytime.

Only two participants referred to explicit financial benefits:

- The Mash Tun pub estimated that average takings had increased by 200%, and in the height of the summer nearer 300% following the improvements
- The Colonnade Bar thought that business had increased overall by roughly 33% since New Road was redesigned.

Only Geoffrey, Petra and George made negative comments relating to business. However these comments were specific to individual business frustrations rather than issues relating to the layout of the street.

Summary

Like the General Public, Businesses were generally in favour of New Road's balanced street design over the previous, traditional arrangement. Businesses associated the newly designed street with a range of benefits extending well

beyond financial profit – the traditional focus of cost / benefit decisions guiding investment in the Public Realm.

User Group 3: Movement

The third user group comprised people moving through the street. In total, 49 people were interviewed of which 17 were pedestrians, 17 were cyclists and 15 were driving motorised vehicles.

Reaction to the New Road approach

The group were strongly favourable to New Road and its approach.

- 93.3% of the sample preferred New Road's current design
- 93.6% agreed that schemes like New Road are a good thing
- 93.6% agreed that they'd like to see more schemes like New Road elsewhere in the city.

New Road was significantly more popular amongst cyclists and pedestrians. Vehicle driver opinion tended to focus on functional rather than experiential issues. Pedestrians and cyclists were more interested in the aesthetic and social qualities of the area. A significant number of pedestrians and cyclists commented that they now actively choose to use New Road instead of other routes. Some drivers said that if possible they would try to avoid using New Road.

Impact on Perceived Priority

The results suggest that perceived priority in New Road has shifted from motorised vehicles to pedestrians as a result of New Road's redesign. 82.2% of the sample thought that motorised vehicles had priority in New Road's previous incarnation, whilst 73.6% think that pedestrians now have priority in New Road.

Footfall seemed to be the determining factor on perceived priority in New Road. From lunchtime onwards there are significantly more pedestrians using New Road, which slows traffic down. Some drivers said that they will avoid New Road after lunchtime because of the footfall. The pictures below give an indication of the visual impact that pedestrians can have on the appearance of New Road. The picture on the left was taken at 10am and the picture on the right was taken at 2pm.



Emotional Impact

The feedback from pedestrians and cyclists suggests that the redesign has had a positive impact on their emotions whilst travelling through New Road. The impact on drivers was more difficult to interpret, mainly because some of the emotions quoted – such as “vulnerable” or “confused” - could be viewed as either positive or negative. For example, whilst a feeling of vulnerability may be a negative emotion for the driver of a car, the feeling of vulnerability is likely to make him or her drive with more care – which is a positive outcome for all street users.

“The decision whether sharing (of shared spaces) takes place seems to rest primarily with the driver.....individual pedestrians cannot physically assert priority over a driver who has assumed right of way’ (DfT, Shared Space Project)

The statement above implies that priority in a street is governed by a conscious decision from the vehicle driver. The research in New Road suggests a significant shift in priority towards pedestrians, but that this stemmed from a subconscious decision on the part of the pedestrian. Many instances were observed where pedestrians would inadvertently obstruct a vehicle and then move out of the way. Collectively, these smaller experiences appeared to inform non-pedestrian modes of transport that pedestrians had priority in the street. This is supported by the fact that 75% of drivers identified pedestrians’ behaviour as the main influence on their own behaviour when using New Road.

Cyclist behaviour observed in New Road was unpredictable. Some cyclists would dismount and walk their bike through the street, some would continue moving but at a slower speed, whilst others would weave and dodge through the space quickly. Cyclist behaviour observed at the junction of New Road / Church Street was similarly unpredictable – notably more so than that of other movement modes. Some vehicle drivers interviewed during the course of the research expressed concern about this erratic cyclist behaviour.

Has there been an impact on behaviour?

87.5% of the sample felt that the current design has changed how they use / behave in New Road. Drivers and cyclists were generally more cautious and conscientious of other users: 62% reported driving more slowly in New Road's new environment. 79% of pedestrians reported using a greater area of New Road than before (when they would have felt confined to the traditional footways).

Individuals identified concessions in their behaviour when moving through the redesigned New Road. 16.7% of drivers used their hazards, 12.5% of cyclists now weaved through New Road and 6.25% of cyclists chose to dismount when entering New Road. Below are examples of comments from the cyclists and drivers:

- “I cycle more slowly, and everyone is aware of their space, surroundings and oncoming vehicles”
- “As a cyclist I have to be very aware of meandering pedestrians oblivious of other traffic.”
- “I drive dead slow with my hazards on, and am generally more attentive”

There was a strong relationship between pedestrians' understanding of Shared Space and their opinions of New Road. Negative comments generally came from participants who would prefer New Road to be pedestrianised and didn't feel completely safe using the whole environment (although it can be assumed that most, if not all of those people had still chosen to travel through New Road rather than adjacent, more traditional streets).

- “When I walk down there I walk where I want to rather than before when there were pavements to confine you”
- “I now wander in the middle of the road”
- “I find it irritating; I'd prefer it if it was pedestrianised”

What informs users' behaviour?

The research suggested that different mode's behaviour was influenced by different prompts within the street. 86.7% of pedestrians and 63.6% of cyclists identified the layout / design of New Road as the main reason they acted differently in New Road than they would in a traditional street (or in New Road before it was redesigned). 75% of drivers identified pedestrians in the traditional carriageway, rather than design features, as being the most influential factor on their behaviour.

Pedestrian responses were the most unanimous in the sample. Clearly the design and layout of New Road is very influential upon their interpretation of priority and subsequent behaviour. 60% of comments focused on the overall design concept and 40% referred to a lack of demarcation / a kerb line in the design.

- "There's no delineation or kerbs"
- "Because of the layout and lack of demarcation"

Cyclists referred either to the design of New Road or the prominence of pedestrians as the reason for their perceived shift in priority.

- "It (New Road) appears as it is one big pavement"
- "The road is seen to be 'pedestrianised' by virtue of the paving and street furniture"
- "Due to the nature of the surfacing, the hard landscaping including Benches and lighting"
- "People are unpredictable"

75% of drivers said that they behave differently because of the pedestrians in New Road. Participants said they behaved different because of their 'knowledge of pedestrians' and several participants said the unpredictable nature of pedestrians informed their behaviour. The responses are supported by observations of drivers' behaviour at the junction of Church Street and New Road, which showed vehicles slowing down when entering New Road throughout the course of the day. Their behaviour suggested that they expected something different in New Road and so drove accordingly. A majority of respondents just said 'pedestrian' or 'people in the street', making it difficult to find any particularly interesting quotes:

- "(New Road is) More of a street than a road"
- "Knowledge of pedestrian presence"
- "New Road looks like a pedestrian zone"

Summary

This section of the research suggests that streets with less physical and visual segregation of space encourage pedestrians to take greater ownership of available space, which in turn leads to cyclists and vehicle drivers adapting their behaviour, anticipating the unexpected and driving with greater care and at lower speed.

User Group 4: Street Community

The Street Community has always spent time in and around the New Road area. Research with this user group focussed on gaining a better understanding of how balanced street design can impact on the way the Street Community integrate with the wider public. The research incorporated interviews with 9 members of the Street Community, all 19 business representatives, and 3 agency staff who work with the community.

What did the Street Community like/dislike about New Road?

100% of the sample valued having somewhere to sit. They valued having somewhere to meet their friends and to people watch in relative peace. Several participants mentioned that they felt less visible sitting in New Road than they did elsewhere in the city, which was an important factor behind their choice to spend time in the street. They thought that they were more likely to cause offence in parks or on the beach, whilst they were generally left to their own devices in New Road.

Several business and agency representatives had commented that the new street design had made the community more visible, so it was interesting that the Street Community themselves felt less visible.

100% of participants felt safe in New Road. Unfortunately participants didn't really elaborate on why, although it is possible that this is due high levels of footfall and natural surveillance in the street. A couple of participants said that they felt safer in numbers, explaining why members of the Street Community tend to gather in groups. Feeling safe was very important for participants particularly because of unsavoury experiences elsewhere in the city. 'Paul' was recently attacked in the city centre when he was alone and as a result has started spending more time in New Road.

16.6% of participants agreed that they were drawn to New Road because they could be reasonably assured that they would meet a friend or acquaintance there; a further 16% found New Road convenient.

What the agency staff said

The agency staff felt that the Community's presence in the street was an inevitable product of creating a more comfortable and desirable environment, but unfortunately their use of the area seemed to conflict with an image of New Road which the businesses are keen to upkeep. The agency staff accepted that there had been unpleasant events involving the Street Community in New Road, but thought that a vast majority of the population were well behaved and just wanted to enjoy the space like anyone else.

The staff felt that the new balanced street environment has inadvertently made the community more visible, which led to friction with businesses. The agency staff were cautious of creating an environment that made the Street Community comfortable (effectively creating a "day centre"), but conversely recognised that the community have the same rights to enjoy a space as any other member of society.

The agency staff felt that the Street Community are victimised in New Road and also stigmatised by wider society. They observed that pubs allow their customers to drink outside of licensed areas (which is legally defined as street drinking) with little opposition from other businesses, and yet many businesses don't approve of the Street Community drinking on the benches. Agency staff felt that this was proof of double standards within a business community that had somehow agreed an informal separation of acceptable and unacceptable street drinking*. The Police Sergeant working with the Community suggested that street drinking isn't the issue that concerns society as much as who is doing the drinking:

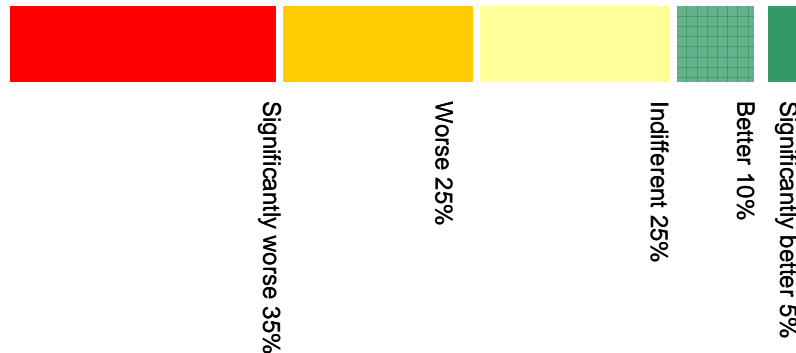
"I am keen for you to consider that it is not only street drinkers that find it attractive to sit and drink on the Benches. Drinkers from the Colonnade Bar and theatre love sitting outside the venues, drinking their drinks that have been purchased in those venues".

**However, it should be noted that some businesses did complain about pubs allowing customers to drink outside designated areas, in part contradicting claims that the business community felt this behaviour was acceptable. Specifically, some businesses complained about disruptive pub drinkers upsetting other street users.*

What the Business Community said:

All businesses were asked whether they thought the situation with the Street Community had improved or worsened since the redesign. 60% of businesses said that their opinion of the Street Community had worsened since New Road's redesign. Businesses at the southern end of the street, where the Street Community tend to congregate, were more likely to be negative about the community. Several interviewees vehemently opposed the community due

to unpleasant experiences: Paul kept a log of incidents in the street since 2007, 95% of incidents recorded involved the Street Community.



Paulo and Ken said that sometimes their customers were reluctant to use outdoor seating because they were intimidated by the presence of the Street Community.

It seemed that the presence of the Street Community clashed with the increased sense of pride and ownership many businesses related to New Road since the street's redesign. Street Drinking did not fit in with the image some businesses felt New Road should now aspire to.

Some respondents felt that problems with the Street Community have been exacerbated by a lack of direct security (CCTV, private security services) in New Road, and a recent proliferation of cheap off-licenses in the surrounding area. The benches were also cited as encouraging the Community's presence in New Road.

Not all interviewees were negative. Some welcomed the fact that the Street Community had a space in which they could relax and enjoy the city centre and reported positive experiences. Chloe had even provided tea and biscuits during inclement winter weather.

The General Public

Less than 2% of General Public interviewees commented on the presence of the Street Community, lending some support to the hypothesis that a balanced street environment that attracts a representative sample of the city demographic enables the Street Community to be integrated within (and any potential negative impact of the presence be diluted by) the wider community.

Summary

The main catalyst for friction between the Street and Business Communities appeared to be different expectations of how New Road should operate and

be perceived. The Street Community, like the General Public, want a place to sit and relax whilst Businesses want to maintain a street image which complements their business. The findings from this section of the research support Benny's notion of an "empowerment free-for-all", in which businesses' individual pursuits overshadow the importance of what is best for the wider community and environment.

This area would benefit from further investigation. The Study was restricted by the difficulty in engaging with significant numbers of the Street Community within the limited time window available. However, numerous people indicated their support for and interest in further work within a field that is currently considered to be under-researched.

Study Endnote: The Streets

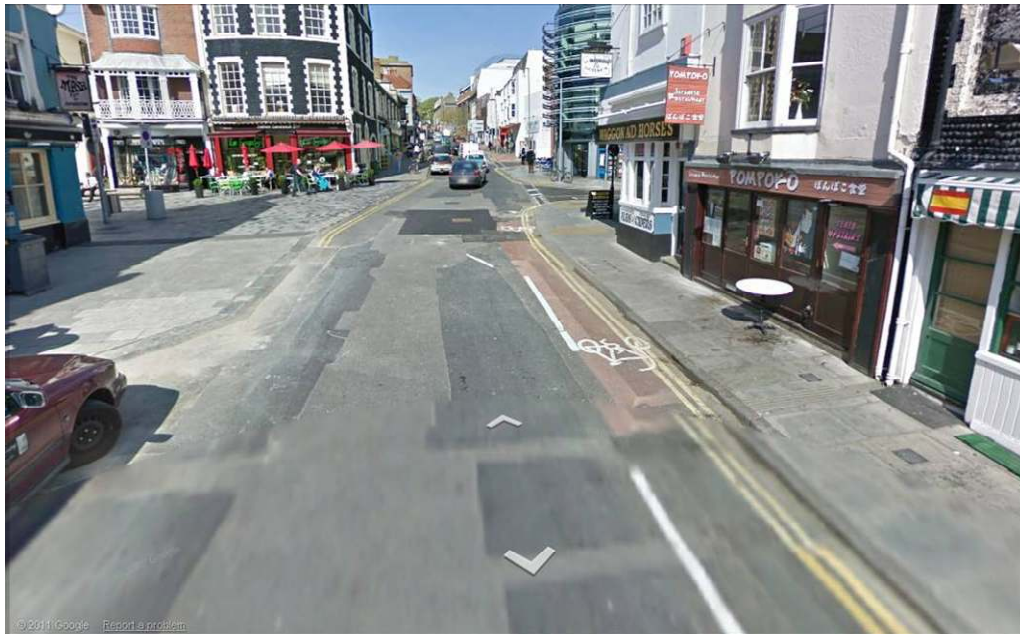
Located at the heart of Brighton's 'cultural quarter', New Road is home to a diverse range of uses, ranging from residences to significant cultural destinations. New Road's design uses minimal "restrictive" street furniture, offers a good deal of public seating, and employs subtle material definition of a linear central "vehicle space" across a shared surface treatment. The New Road design process actively involved the users of the street through a series of workshops. The reinvented New Road has been in situ for 3 years, giving it time to become accepted as the norm by users. The Study Area will be the whole length of New Road.



Running parallel with and to the immediate north of New Road, Church Street has a traditional carriageway design. Despite being one way for traffic westbound, the Study Area (the vicinity of the junction with New Road) has a wider than necessary carriageway, narrow pavements and a partial cycle contra flow. The Study Area is lined by pubs and restaurants, but due to

limited footway width formal outdoor staying opportunities are limited. The planned redesign will retain segregated surfaces, but a better balance will be achieved between vehicle and pedestrian space through widening of footways and provision of a raised crossing from New Road across the Church Street junction.

The photograph below is looking west up Church Street with the entrance to New Road on the left hand side.



Appendix 2: Fulfilling CIVITAS Monitoring Requirements

CIVITAS requires the impact of Clear Zone to be evaluated across a range of evaluation “indicators”. The indicators are listed below which this Study would specifically address;

1- Reduce the impact of road traffic on the environment:

This indicator will be investigated by:

- Comparing before and after traffic speeds in Church Street
- Comparing behaviour of different vehicle modes before and after physical measures are implemented in Church Street

2-Creating a more equitable use of space between transport modes:

Analysis of before and after video footage will investigate the impact of a better balanced street design on movement and usage patterns in Church Street. The Study will also refer to observations of movement patterns and conflict in New Road – although unfortunately no before data is available for New Road comparison.

6-Improve vehicle management:

Before and after data from Church Street and New Road will be assessed to see if either scheme has an impact on vehicle management, although due to relatively low vehicle numbers any impact is considered likely to be negligible

7-Creating a more appealing environment:

This indicator will be tested by evaluating the emotional impact of the schemes on users.

9-Benefitting the local economy:

Businesses will be asked to relate the perceived positive or detrimental impact on business levels resulting from both schemes

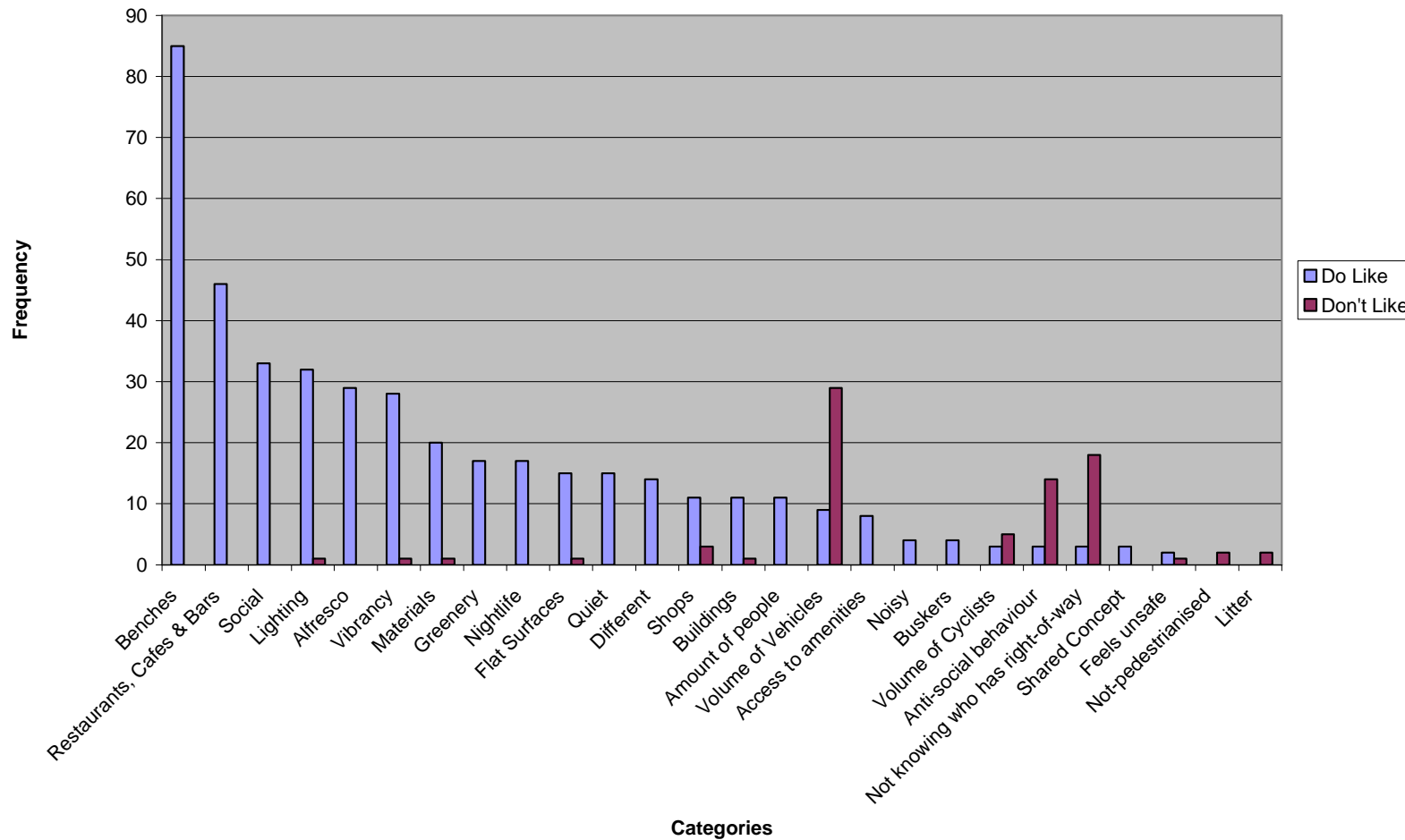
11-Improve the quality of the environment:

This indicator will be tested by evaluating the emotional impact of the schemes on users

12-Provide urban realm opportunities:

The New Road research will investigate the relative importance street users apply to different types of Street offer and design. This will help identify ways of maximising the impact of future public realm schemes.

Appendix 3: What the General Public Like and Dislike About New Road Today



Appendix 4: What the General Public like and dislike about New Road before

