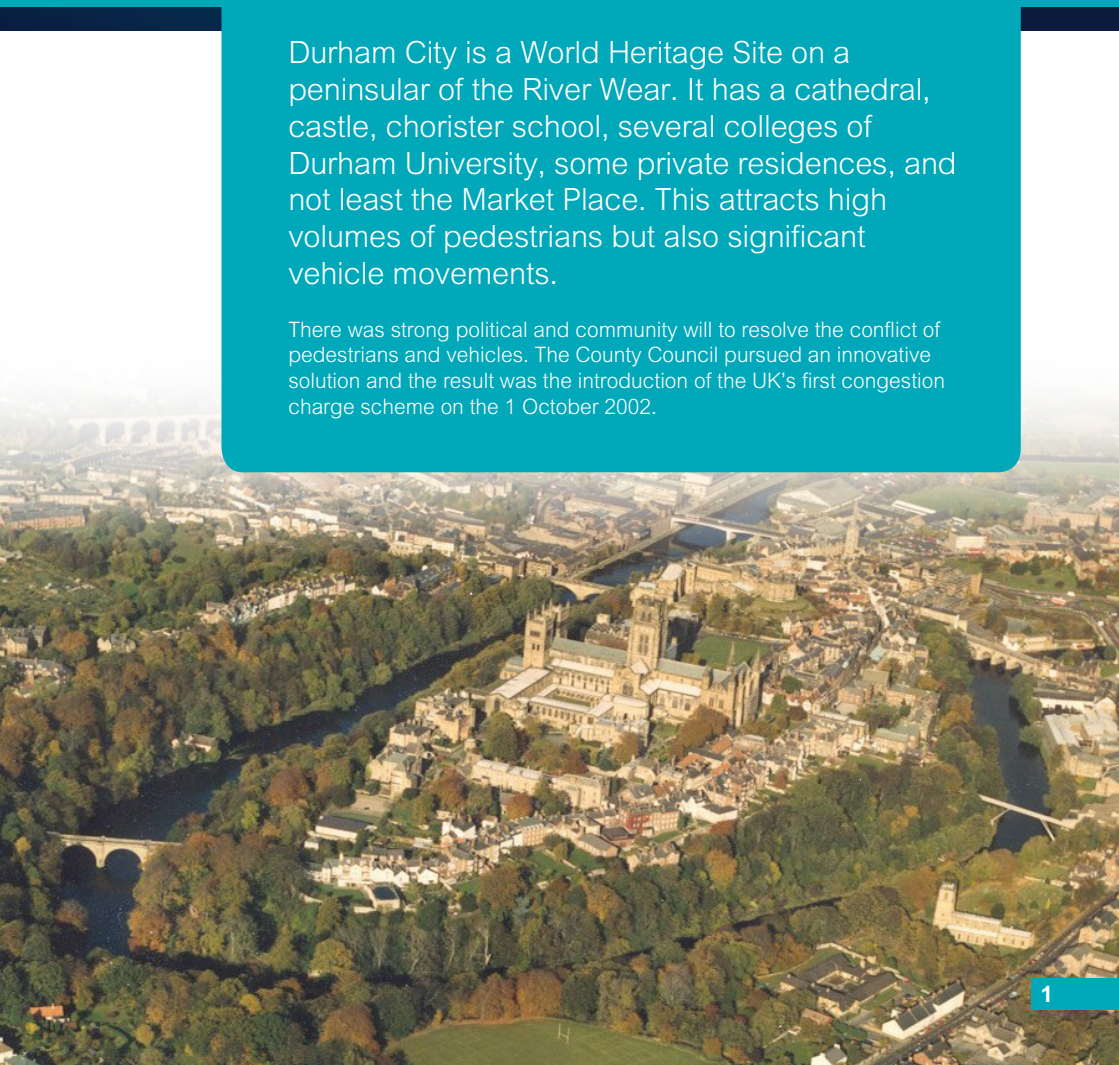


Durham City Centre Road Charging Scheme

Durham City is a World Heritage Site on a peninsular of the River Wear. It has a cathedral, castle, chorister school, several colleges of Durham University, some private residences, and not least the Market Place. This attracts high volumes of pedestrians but also significant vehicle movements.

There was strong political and community will to resolve the conflict of pedestrians and vehicles. The County Council pursued an innovative solution and the result was the introduction of the UK's first congestion charge scheme on the 1 October 2002.





The City of Durham

Durham City has a unique character and is famous for the quality of its architecture and townscape. The Norman Cathedral and Castle in their spectacular setting on the Peninsula above the banks of the River Wear are acknowledged as being of international importance by their designation as a World Heritage Site. The quality of the landscape surrounding the City Centre afford it a unique setting amongst the historic Cities of England and it has become a major tourist attraction (more than 500,000 visitors a year) and an attractive place in which to live and work.

The City remains a centre of economic activity in an area blighted by the decline of traditional industries such as mining. It is an educational centre containing Durham University (12,000 students) and a number of major colleges and secondary schools serving the district and region. The City itself has some 38,000 residents (excluding students), with a further 42,000 in the small towns and villages of the surrounding area.

Historic Problems

Despite major road building around Durham during the late 1970s, the problems of a historic and little changed city centre in the late twentieth century compounded year on year. These included access and parking, the requirements of modern retailers, changing expectations of tourists, the needs and demands of students, the implications of a burgeoning evening economy and a city divided by significant traffic routes.

A travel study undertaken by Colin Buchanan and Partners in 1997 highlighted the difficulties on Durham's Historic Peninsula due to the conflict between high volumes of traffic and pedestrians in a confined area.



The Peninsula incorporates the Cathedral and Castle, designated World Heritage Sites, the main retail centre of the City, the Chorister School, several colleges of Durham University, some private residences, and the Market Place. The County Council recognised that there was the need to “significantly reduce pedestrian and vehicular conflict by removal of a substantial proportion of the existing traffic”.

To achieve this, it was identified that any such solution must:

- *increase pedestrian safety*
- *improve access for the disabled*
- *enhance the World Heritage Site*
- *preserve the viability of the Peninsula as a working part of the City Centre*

The only vehicular access to the Peninsula was through the busiest shopping and tourist area of Durham City including the historic Market Place. Vehicles accessing the University, Cathedral and Castle travelled along a narrow single carriageway where traffic signals controlled access. Although the flow of 3,000 vehicles per day prior to controls being introduced seemed low, compared to other city centres, they share a narrow, confined space with up to 17,000 pedestrians per day.





Innovative Solutions

Although previous proposals had been developed to reduce traffic by the introduction of a permit type scheme, a solution could not be identified that would deter casual use whilst retaining access for essential traffic. The introduction of the Transport Act 2000 provided the opportunity to deliver an effective solution through road user charging to differentiate between essential and non-essential users.

A strong political will to resolve this growing problem, together with support from the main commercial organisations including the Chamber of Commerce, the University and the Cathedral enabled the County Council to pursue a more innovative solution. In November 2000 a consultation exercise was commenced regarding the introduction of a £2 charge for vehicles using Saddler Street and the Market Place during a period from 10.00 am and 4.00 pm Monday to Saturday. This period was chosen as it coincided with peak pedestrian flows.

The physical constraints of the highway and the sensitivity of the locality had to be taken into account in sourcing a suitable system for access control. It was decided that an automatic bollard system managed from a remote parking control office would provide the most appropriate solution. The scheme depended on the development of a successful control system based on the use of CCTV, an automatic bollard, and specifically modified payment equipment.

Telecommunication links to a remote office enabled assistance to be provided to drivers experiencing difficulties using the system. The link provided for uploading statistical and alert data and diagnostic support from the equipment supplier. Automatic incident detection and CCTV surveillance also formed an important part of the system.

It was also necessary to accommodate a very limited number of frequent users who required access. These users and Public Transport Operators travelling through the controlled area on a regular basis were supplied with Autotag transponders capable of being detected on approach to the system and providing an automatic exit facility. To provide an attractive alternative to the car, new low emission easy access buses was introduced to provide an easily identifiable and frequent ‘Cathedral Bus’ service around the City Centre and into the Peninsula area.

To allow ease of use of permits by visitors, and mitigate against any congestion, payment collection was located on exit rather than on entry.

The £2 charge was considered to be sufficient to deter particularly those undertaking short duration shopping or commercial activities or dropping off and collecting passengers. Such trips were known to constitute over half of the total trips prior to the introduction of the charge.





Enhanced Environments

The UK's first city-centre congestion charged opened on 1st October 2002, several months ahead of its much larger London equivalent.

After a period of monitoring, the scheme's benefits were revealed:

- *a reduction of 85% in traffic volumes*
- *an increase in pedestrian activity by 10%*
- *a 50% reduction in HGV/LGV activity during the restricted period*
- *HGV/LGV activity increased outside restricted period*
- *an increase in bus patronage*
- *a 10% increase in those interviewed who considered Durham Peninsula to be a safe environment*
- *70% of those interviewed considered Durham Road User Charge to be 'A Good Idea'*
- *83% of businesses did not have to alter any servicing arrangements*

At the time of introduction, the £2 charge, payable Monday to Saturday 10 am to 4 pm, generated enough income to subsidise an enhanced ‘Cathedral’ bus service, and supported a Shopmobility scheme

This unique and innovative charging scheme attracted an exceptionally high level of both national and international media interest, especially as it preceded the London Congestion Charge. Positive press coverage focussed on the long term effectiveness of the scheme and it generated significant interest from other highway authorities, although no others have yet implemented a local road charging scheme.

The scheme continues to operate today with the only significant change being the removal of the automatic bollard in favour of an Automatic Number Plate Recognition (ANPR) system. The current charge of £2 remains, however the local authority is considering whether this should be increased.

It is considered the Durham Congestion Charge is a proven initiative of what can be achieved and may yet prove to be a forerunner of similar projects in years to come, particularly in the historic cores and pedestrianised areas of city centres.

Thanks to Dave Wafer at Durham County Council for preparing this article.

