The urban realm encompasses streets and open spaces and is a key part of both the urban fabric and transport system. High quality public realm can have many social, health, economic and environmental benefits, however it is currently not possible to fully monetise these impacts within a transport cost benefit analysis that would form part of a business case for urban realm improvements. This topic note briefly defines and explains urban realm and related concepts, reviews the current UK transport appraisal guidance and introduces some new evidence that values urban realm quality in London.

What is the urban realm?

‘Urban realm’ refers to the publicly accessible spaces between buildings in an urban environment. The urban realm encompasses: streets; squares; station entrances; laneways; and potentially other types of urban public space. The terms ‘urban realm’ and ‘public realm’ are used interchangeably, and the concept is closely aligned with ‘streetscape’, ‘townscape’ and ‘placemaking’.

Manual for Streets 1 & 2 (2007/10) set out design principles for urban streets, including:

• Clear user hierarchy with pedestrians at the top;
• Community function for social interaction and commerce;
• Permeable, connected street networks that support and reflect the desire lines of pedestrians and cyclists;
• Developing street character types and local design codes;
• Inclusivity, appropriately catering for different users; and
• Designing for low traffic speeds (20mph or below).

Designing high quality urban realm, either as part of a wider development/regeneration effort or as a standalone transport intervention, is, about creating more people friendly places.

User benefits of link and place

Manual for Streets discusses how streets offer both a ‘movement function’ (or link function) and a ‘place function’; and there is much literature to explain how streets can be classified into types or hierarchy matrices based on the relative strengths of each.
Transport interventions on streets that improve the flow of traffic or highway capacity such as adding lanes or upgrading junctions, clearly increase the movement function of that street. Similarly, interventions that improve the quality of the urban realm such as de-cluttering or reducing the physical separation between carriageways and footways, may increase the place function. Urban realm interventions can also affect the movement function, positively and negatively, for different road users, whilst transport network upgrades aimed at improving the movement function can also affect the place function.

Changes to the movement and place functions caused by transport interventions are both ‘user impacts’ and should, where relevant, be monetised within a cost benefit analysis (CBA) to consider the resultant change in welfare.

**Coverage in DfT Appraisal Guidance – WebTAG**

Monetisation of changes in the movement function is well established in economic appraisal, as defined through DfT WebTAG guidance, primarily through the value of travel time savings and change in vehicle operating costs. Other changes in the movement function such as change in accidents, and related effects such as physical activity and environmental impacts can also be monetised, included within a transport CBA and quoted in the initial benefit cost ratio (BCR). The DfT Value for Money Framework (2017) states the following in relation to these impacts:

> “the method used for estimating the impact and its monetary value is accepted, well-researched, and tried-and-tested”.

In terms of transport impacts that relate to the place function that can be quoted in the initial BCR, WebTAG currently only allows ‘journey quality’ values. These are ‘aspects of the pedestrian environment’, including ‘street lighting’, ‘kerb level’, ‘crowding’, ‘pavement evenness’, ‘information panels’, ‘benches’ and ‘directional signage’ giving a value in pence attached to each for every pedestrian kilometre travelled. The values come from two studies (Heuman, 2005; Heuman et al., 2005), now 13 years old. Whilst these values are relatively easy to apply in an appraisal, they are quite limited in that they do not cover the full extent of the urban realm. The other key drawback is that due to the fact the values are largely attached to scheme inputs, it ignores the fact that the place function of a street or the quality of the urban realm as whole, is not necessarily equal to the sum of its constituent parts.

WebTAG acknowledges other aspects of the urban realm for example severance, townscape and historic environment; however, the appraisal for these features is qualitative and ‘non-monetised’ meaning that it cannot be included within either the initial or adjusted BCR.

It is clear that the full impacts of changes to the urban realm are not currently being captured in the existing accepted CBA framework. This can result in very low BCRs for improvement schemes and scheme promotors putting extra weight on the Strategic Case as opposed to the Economic Case, acknowledging that the BCR does not reflect every aspect of the scheme. This also means that schemes focussed only on improving the movement function, that could have negative implications on the urban realm, are not picking up such disbenefits leading to an overstated BCR.

The shortfall often means that other, non WebTAG compliant, approaches are taken to prove that an urban realm scheme provides value for money. Examples include estimating economic development impacts and retail spend based on improved footfall or using Transport for London (TfL)’s Valuing
Urban Realm toolkit to estimate changes in retail rents and residential property prices. These values cannot be included within a transport BCR as they do not measure welfare change at the national level.

The DfT consultation document ‘Appraisal and Modelling Strategy – Informing Future Investment Decisions’ (2018) mentioned urban realm as an area where improvements are needed in the appraisal and valuation framework:

“Improvements to the urban realm, often considered alongside transport schemes, can also generate value for affected communities which we need to better capture in appraisal.”

“There is also continued interest in the appraisal of integrated land-use / transport policies and programmes, for instance where public realm improvements are promoted alongside traditional ‘accessibility improvements’ to improve location attractiveness.”

“...the appraisal of direct interventions in this space requires a robust, consistent approach to estimating benefits which is founded on the principles of welfare maximisation”

“...we will need to develop tools to robustly assess the quality of the urban realm as perceived by those who live in it and link these measures to a robust valuation framework.”

**Millard, Nellthorp and Ojeda-Cabral (2018)**

**Research Paper**

PJA’s Tom Millard, in collaboration with Dr John Nellthorp and Dr Manuel Ojeda-Cabral, both from University of Leeds Institute for Transport Studies (ITS), have recently written a research paper on the subject of urban realm valuation titled ‘What is the value of urban realm? – a cross sectional analysis in London’.

The research comprises a hedonic house price model of the whole of greater London for properties sold in 2015 (56,000 observations) to understand the extent to which urban realm is valued by estimating implicit values for indicators of urban realm quality. The model specification included as many independent variables as possible thought to influence property prices including four urban realm areas of evaluation:

- **Traffic and severance** – the results demonstrate that increases in calculated severance values (estimated by TfL), increases in road speed and increases traffic volumes negatively influence residential property values;

- **Heritage** – the results demonstrate that increases in the number of listed buildings locally, being located within/next to a world heritage site and proximity to scheduled monuments positively influence residential property values;

- **Open space** – the results demonstrate that being located near green open spaces such as parks and gardens positively influences property prices; and

- **Street trees** – the results demonstrate that the presence of street trees in the local area positively influences property prices.

The vast majority of parameter estimates are statistically significant, and the model records a good overall model fit.

There is clear evidence that the quality of the urban realm results in high property prices where there is: less severance; more heritage features; closer open space; and more street trees. The results demonstrate that there is a positive welfare effect associated with urban realm and go some way in exploring the extent to which urban realm quality is valued. Further research to build upon this evidence should be a priority for DfT in determining the outcomes of the appraisal and modelling consultation. This is required, not only to be definitive about the impacts, but to go further and estimate reliable appraisal values that represent the willingness to pay for urban realm improvements, addressing the existing shortcomings in the appraisal guidance.

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1 A development of Tom’s award-winning dissertation (2017) submitted as part of his MA in Transport Economics, which utilised some data and input from TfL through an academic collaboration agreement with ITS

2 A full break down of model results, including control variables not mentioned above, as well as an explanation of the methodology and dataset is given in the paper.