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Rethinking Transport Assessments – A Research Proposal

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About the Transport Planning Society

The Transport Planning Society (TPS) is the only professional body focusing entirely on transport planning in the UK. The aim of the Society is to raise the profile of transport planning and chart a course for the profession.

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Introduction

This note proposes a programme of research into Transport Assessments (TAs) to enable them to support the Government's policy for Vision-led Transport Planning for new developments, as set out in the National Planning Policy Framework.

The concern is that without firm evidence underpinning the new approach to TAs required by this recent change in policy, highway authorities will continue to press for worst-case assessments of the traffic generation of new developments, perpetuating the demand for unnecessary and unsustainable increases in highway capacity. This will undermine the Government's intention of speeding up the planning process and the delivery of much-needed housing.

The note has been developed on behalf of the Development and Land-use Planning Policy Group of TPS by a group of professionals and academics specialising in the transport and development planning field. It is intended to form a starting point for further discussion with Government over the

creation of a research programme to provide the evidence necessary to support the transition to vision-led planning.

Background

The Role of Transport Assessments in Planning

Transport Assessments are a key document in the land use planning process, across the UK, which identify the implications of development proposals on local transport systems and the need for any interventions to improve accessibility or mitigate impact – most commonly through increases in road capacity.

There are no published studies quantifying the number of TAs produced annually, but in the year to March 2024 there were some 1100 planning applications for residential developments of more than 50 dwellings, most of which will have been accompanied by a TA, or a simpler Transport Statement. Many other TAs will have been produced for commercial development. Similarly, the scale of private sector investment in transport infrastructure identified in TAs is not available but is likely to be in the order of £millions.

Origins and Evolution of the TA

TAs are the direct descendants of Traffic Impact Assessments (TIAs) which began in the US in the 1970s and were first carried out in the UK in the 1980s. TIAs focused on assessing the traffic capacity of the highway network, determining the traffic impact of the traffic generated by the new development, and identifying any highway capacity improvements, if necessary, to mitigate the impact.

The TIA evolved over time into the Transport Assessment, although the main elements were largely unchanged. In England, the Government's Guidance on Transport Assessment (GTA) (DfT/DCLG 2007) described the TA as a comprehensive and systematic process that sets out transport issues relating to a proposed development of a significant scale. The GTA contained much detail including identifying whether a TA is required and if so, what the level and the scope should be. A correctly prepared TA was seen as allowing the transport implications of the proposed development to be properly considered and identifying suitable measures for a more sustainable outcome. Unfortunately, the GTA was lost with the arrival of the NPPF in 2012 and replaced by the less detailed Planning Practice Guidance on Transport in 2014 which is now very dated. This is considered poor by many practitioners and new TA guidance is long overdue.

Current Practice and Its Limitations

Although the TA now typically considers all modes of transport its principal function to many practitioners is still to test the impact of increased traffic on the capacity of the surrounding road network. In England this is driven by the statement in the NPPF (now Para 116) that development should only be refused if the impact of development on the road network is severe (as well as on safety).

The view of much of the profession to date has been that the science of transport planning for new developments is built on firm foundations and does not need major reform. However, there is also now a significant body of professional and academic opinion that the existing standard approach is

woefully inadequate, misaligned and outdated and that the Transport Assessment process requires a step change to meet the needs of our time.

Lack of Evidence and Risk of Over-Engineering

Despite their key role in the transport/land use planning process there is very little research underpinning the assumptions and methodologies that most TAs follow. Evidence is lacking on the real-world changes in traffic and travel patterns caused by developments, largely because there is rarely any interest in monitoring to see whether the TA forecasts accurately reflect what happens post-occupation. The exception is where Travel Plans are properly implemented and evaluated, but practice in this area is generally inadequate and monitoring data is not routinely collated, nor collected and shared across local authorities. As the onus is on demonstrating that congestion is to be avoided, there is a tendency, driven largely by highway authorities, to overestimate traffic generation 'just in case', resulting in traffic forecasts that may not actually materialise.[1]

As well as resulting in unnecessary expenditure that could be better used for other purposes, e.g. sustainable transport or social housing, over-providing highway capacity will in time induce more traffic and therefore increased carbon emissions, both through use and in the construction process. New or enlarged roads are also controversial and can result in delays to development. Reducing the burden on development will help improve viability and speed up the delivery of housing and commercial development. Creating greater confidence in the data and processes used in preparing TAs will also simplify and accelerate the planning process, reducing professional and administrative costs for developers and local authorities.

Shift to Vision-Led Planning

The Government made changes to the NPPF in December 2024 which require a move to 'vision-led' transport planning, challenging the default assumption of (non-development) automatic traffic growth and designing for a 'worst case' peak hour scenario. This represents a move away from the traditional 'predict and provide' approach - to focus on the outcomes desired and planning to achieve them.

Gaps in Guidance and the Need for Evidence

There is currently no suitable English national guidance on TAs but a new document is in preparation by DfT, hopefully for publication in the near future, which will provide more detail on how vision-led TAs should be produced. While there are more recent TA guidance documents in place for the devolved nations, they are not consistent with vision-led planning principles.

The Case for a Stronger Evidence Base

The promise of new guidance is welcome, but while it is likely to change some aspects of the TA process, we are concerned it will not be sufficient to change common practice, particularly if the NPPF tests of impact on congestion and safety remain the sole determinants of whether a development should be approved.

We believe stronger evidence is needed to underpin this new approach to TAs, in order to convince highway authorities – both at officer and member level – that a move away from worst-case traffic assessments is acceptable.

[1] Harwood, C. (2016) *An Investigation into the Accuracy of Trip Generation Forecasts for New Developments in England*, MSc Dissertation Transport Planning and Management, University of Westminster, September.

Research Proposals

We believe there are a number of fundamental questions underpinning TAs that remain to be addressed. A programme of research is therefore urgently needed into this vital but under-investigated area of transport planning. This research should be carried out alongside other related workstreams, including TRICS research being carried out on the accuracy of TAs.

The following potential areas for study have been identified, which can be developed and refined through further discussion. Answering these questions will help to develop improved guidance which better reflects the policy objectives of all arms of Government.

Funding for such a programme of research and how it would be procured, managed and carried out are still to be established. Each topic would benefit from an initial literature review stage to identify and review any existing research.

Initial Suggested Research Topics

Research Topic	Notes
International Benchmarking	While TAs/TIAs are common practice in some other countries (eg US, Australia), there is a lack of knowledge on how the transport effects/needs of new development is assessed in other countries, particularly in Europe. Research to compare international practice would be very useful to identify whether different approaches could be considered.
Visioning	By definition under the new policy, a vision setting out the desired outcomes is required at the outset of the planning process; how this is best done needs to be researched. Approaches that allow stakeholders to achieve an agreed vision for a development should be examined.

Trip Generation	Established data sources for traffic generation – principally TRICS and historic Census data – are typically used to predict the future based on an extrapolation of past travel behaviour. TRICS data is relatively simple, consisting of a snapshot of multi-modal travel demand at the site entrance(s) at a particular time, linked to basic information on a development. 2021 Census data is compromised by the pandemic and so there is still much reliance on 2011 data. More modern data sources, for example mobile phone and in-car GPS data, may provide more complete and representative information in comparison and so enable TAs to better reflect current and future travel patterns. The recent changes to the NPPF move the focus of TAs away from catering for peak hour traffic and so an assessment of trip generation over a broader range of times will be needed. Research into the availability and use of such data sources would be valuable.
Trip Modality	Many TAs for larger sites are based on first-principles travel demand models which use (inter alia) assessments of the mode split of trips for different purposes and to different destinations. There is often much disagreement over these factors and inconsistent methodologies are used, as there is little relevant research to draw on. Studies of completed large developments would help to address this knowledge, together with evaluations of the effect of improvements in public transport and active travel provision more generally.
Trip Internalisation	TAs for larger mixed-use developments generally assume significant levels of trip internalisation, particularly for commuting and education trips in the peak hours, and this can lead to large reductions in external trip generation forecasts. As with trip modality there is little definitive research to draw on and so there is much disagreement over this key factor. TRICS did carry out some research, but it was largely inconclusive as there were too many interfering variables. Further research, potentially informed by new data sources, would be valuable.

Trip Additionality	Most TAs assume that traffic generated by the site and nearby 'committed' developments is wholly additional to background traffic, which is then typically subjected to growth factors. Pass-by and diverted trips are often considered for retail schemes, but housing is always assumed to generate wholly new trips. It is not unreasonable to assume that some new residents will have previously been living nearby (e.g. young people, with parents or in shared accommodation) and so would have been making similar journeys. In other cases, trip lengths may have increased as a result of a housing move. Assessments of the real-world additionality of the traffic generated by developments, in different circumstances, would inform when less than 100% additionality should be assumed.
Background Traffic Reduction	Larger developments can fund significant improvements in walking, cycling, and public transport provision, and these will often serve existing communities beyond the site. Developments may also provide additional facilities within walking/cycling distances of existing housing. Both have the potential to result in a reduction in background traffic, which would help offset any residual traffic impact as well as help to achieve local traffic reduction/decarbonisation targets. This is a fairly new approach and further study into its effectiveness would be valuable.
The Impacts of Home-Working and Internet Services	Home working reduces pressures on transport networks at peak times, at least on some workdays, and internet services may reduce the need for physical trips. Countering this there may be more local trips (e.g. going out for lunch – which in a large, mixed-use development could be internal to the site) and increased deliveries and services to the home (mainly at off-peak times). The latter impacts are not currently measured.

Travel Plans	Travel Plans (TPs) accompany most large developments and include measures and (sometimes) targets to achieve a reduction in single-occupancy vehicle trips. Government has previously conducted research into TPs which found that they can be effective, but this was some time ago. There are concerns that many TPs are now not achieving the desired outcomes. Updated research to identify whether and how they can reduce traffic intensity, both in their drafting and operation, should be carried out. There is now an increasing imperative to develop sites that are net carbon neutral, including in transport terms, so this requires a rescoping of TPs.
Monitoring and Enforcement	A vision-led TA will typically assume less traffic generation than might 'normally' be expected. As a result, highway authorities often adopt a more precautionary approach when reviewing such TAs. There are concerns that vision-led TAs are subject to legal agreements which commit to more onerous monitoring and enforcement requirements than are required for traditional traffic-oriented TAs. Research should identify whether there is evidence to substantiate this. In addition, it should consider variations across the country in the conditions being applied, particularly via S106 agreements, details of the monitoring requirements, and any enforcement regimes deployed. This would also help to determine the effectiveness of such regimes, their impact on highway authority resources and the additional costs to development.

Summary and Conclusion

This note has made the case for the establishment of a programme of much-needed research into the basic assumptions and common practices underpinning the production of Transport Assessments. TAs are pivotal documents in determining the travel demands of new developments, both residential and commercial uses, and any changes to transport infrastructure that are required.

Recent changes to national planning policy in England requires a move to 'Vision-Led' assessments and new DfT guidance is expected soon. Similar changes in policy and guidance are being made in the devolved administrations. However, there are concerns that without firm evidence supporting this new approach, TAs will continue to make simplistic assumptions about traffic impact, driven by highway authorities' caution and culture, and perpetuating a reliance on highway capacity increases to enable new development.

The Transport Planning Society is issuing this note to a range of stakeholders, including Government, for review, and comments are welcome. In the Autumn TPS will call a workshop to discuss the issues raised, with the aim of agreeing the topics to be researched and how the work will be carried out.

About the Transport Planning Society Policy Panel

The TPS Policy Panel was formed in November 2024 to:

- Ensure TPS is influential and proactive in seeking improvements in policy and practice, and in setting the transport agenda at a national, regional and local level.
- Be proactive in the creation of an open, diverse and inclusive transport planning community.
- Provide the widest possible forum to engage on relevant and topical transport planning issues.
- Improve the public understanding and the image of transport planning and transport planners and promote transport planning as a profession.

The panel has five sub-groups, and this report is from the *Development & Land Use Planning (DLUP)* panel, produced by Dr Colin Black, Mayer Brown and TPS (DLUP Lead), Professor Peter Jones (UCL), Phil Jones (PJA), Dr David Knight (NRP), David Milner (Create Streets), and Chris Stack (PJA).

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