

WCC Modelling Protocol

Advice Note 02a.2 – Multi-Modal Trip Generation Assumptions for Modelling

Purpose of this note

1. This note is to align WCC's Microsimulation Models with the Vision-led planning (also referred as: "Vision and validate", or "decide and provide") provision of sustainable and multimodal infrastructure.
2. This advice note relates specifically to the provision of multi-modal trip generation for use in WCCs microsimulation models and should be considered in conjunction with the wider Protocol.

Use of TRICS

3. Use of TRICS (Trip Rate Information Computer System) must be undertaken in line with the TRICS Good Practice Guide and other relevant guidance issued by the TRICS consortium¹.
4. Use of TRICS must follow the latest version of TRICS Good Practice. TRICS outputs will only be accepted if the number and characteristics of surveyed sites selected is relevant to the development. If the number of Multi-Modal Surveys is limited by original selection criteria established in the Modelling Protocol, then the selection can be expanded to include all regions and areas in mainland England (except London Greater Area). The selection should not contain sites with established Travel Plans, unless agreement with WCC Transport Planning has been secured in advance.
5. TRICS outputs must be for "Total People" Trip Rate Mode to apply Multi-Modal split from other sources. "Total Vehicles" will not be accepted as this split already discounts vehicle occupants (not drivers), public transport users, pedestrians and may include cyclists for some surveys. Modal Split provided by TRICS should not be the only source of evidence to inform modal split assumptions. It must be based on local conditions such as public transport provision, active travel infrastructure, geography, socio-demographic conditions, and other externalities which are particular to each area of analysis.

Using Proxy Site Surveys

6. WCC also supports the use of locally observed data for the calculation of trip rates and, in many cases, this approach may be preferable provided it is sufficiently relevant in size and location. The location of the proxy sites, and the methodology for surveying the sites, must be agreed with WCC in advance of collecting the data. Use of the data for other applications will need to be checked to ensure it remains valid and appropriate. .
7. As a minimum, proxy sites must include the following surveys (additional data can be provided to complement surveys):

¹ <https://trics.co.uk/advice/#technical-guidance>

- Vehicle counts at all access points.
 - Pedestrian and cycle counts at all access points.
 - Vehicle occupancy survey.
 - Public transport occupancy survey.
8. A Multi-Modal analysis report must be provided with reference to the surveys undertaken which should be provided alongside the surveys and relevant data. This is necessary to provide WCC with Technical Assurance that the assumptions are appropriate.
9. Trip rates to be used for each mode of transport must be calculated based on results submitted as part of the Multi-Modal analysis. Further analysis may be requested by WCC for robustness. If other stakeholders such as National Highways and Neighbouring Authorities are also being consulted, WCC expects the applicant to have agreed the assumptions with the relevant stakeholders before submitting the final trip generation to WCC.

Modal Split

10. Modal Split Data Sources can include:
- Proxy site survey
 - National Travel Surveys for the relevant geographic area
 - Method of Travel to Work Survey – Census 2021. (should be used with caution due to Covid-19)
11. Multi-Modal split should be considered for the Lower layer Super Output Area (LSOA) where the site is located, where appropriate Proxy LSOAs can be considered for Modal Split if agreed with WCC. All assumptions made must be justified and supported with evidence.
12. WCC requires that the validity of data is checked prior to any analysis.. WCC and any other Highways Authority involved in the process must agree if the assumptions are still valid. If not, the assessment should be repeated based on new surveys/data.

Multi-Modal Travel Analysis

13. A Multi-Modal Analysis Tool such as TRACC can be used to inform the modal split. Isochrones and catchment areas for walking, cycling and public transport infrastructure must be analysed having the demographic centroid of the development site as pivotal point. Catchment areas must be supported with latest guidance and consider whether appropriate transport infrastructure is available.
14. A report of the Multi-Modal Travel Analysis must be submitted for review by WCC. Case Studies can be used for reference. The analysis report must include as a minimum:
- Background/ Introduction
 - Methods of calculation
 - Results
 - Discussion
 - Conclusion

15. All calculations must be included in the appendix and referenced on the results. Any GIS or software outputs must be accompanied with a GIS files and PDF outputs and referenced within the document.
16. Any analysis presented as part of the assumptions for Multi-Modal trip rates or trip generation must be referenced as part of the TA.

Mitigation including provision of Multi-Modal infrastructure and/ or services (Vision-led approach)

17. WCC recognises the need for development proposals to be vision led. The purpose of the analysis set out prior to this is that it will provide WCC with evidence to assess the suitability of the assumptions being promoted by the developers.
18. WCC expects developments to seek to maximize travel by active and sustainable modes of transport but it cannot be expected that WCC will accept any assumptions which rely on national travel trends or arbitrary assumptions around how uptake will occur in the future.
19. For WCC to be able to accept assumptions pertaining to 'vision led' development proposals which promote active and sustainable transport it is essential that the evidence provided to support these assumptions is both realistic and plausible. Any proposition to increase uptake of these modes must be based on evidence relevant to the local area and travel trends.
20. Mitigations proposed can include the provision of new multi-modal/ alternative transport infrastructure or the provision of any scheme based on transport as a service and align with the key priorities of Warwickshire's current Local Transport Plan (LTP). Where appropriate, reference should be made to WCC Bus Service Improvement Plan (BSIP) or Local Walking and Cycling Improvement Plan (LCWIP). Mitigations included as part of the proposal must be previously agreed with the corresponding WCC Transport Planning teams and reviewed by Highways Development Management. If other inputs are required, the applicant must seek advice and pay the corresponding fees.
21. Forecasted trip generation or modal shift must be justified and based with evidence. The proportions per mode for the forecasted years must be agreed with WCC before proceeding with further analysis. All calculations must be included as part of the Transport Assessment/ Statement or Technical Note submitted with the proposed development or scheme.
22. If the reference case scenario modal split is dependent on the provision of a scheme, the same principles must be applied as with Mitigation Schemes. All forecasted scenarios must include a with and without modal shift showing the dependency on the provision of new transport infrastructure or service in accordance with MUPAN02a.1– Expected Model Scenarios, MUPAN03.1 – Model Analysis and Reporting and MUPAN02b.5 – Guidance on Testing New Infrastructure. Further scenarios or sensitivity test may be required by WCC. Any agreements or requests by other Highways Authorities must be also agreed with WCC in advance of any analysis. It is the applicant's responsibility to seek advice from any other third party that must be involved in the process.
23. The results of the scenario with the proposed modal shift will be only considered if a multi-modal mitigation has been proposed, analysed and agreed as part of the transport impact. Details of the assumption and analysis must be included within the final Transport Assessment.