
The Scoping Report states that the effects of construction and operational traffic will be assessed in consideration of the predicted net change in traffic flows by comparing the likely trip generation of construction and operational traffic against future baseline traffic conditions based on the following IEMA Guideline rules:

- Rule 1 - Include highway links where traffic flows will increase by more than 30% (or the number of heavy goods vehicles will increase by more than 30%); and
- Rule 2 - Include any other specifically sensitive areas where traffic flows have increased by 10% or more.

Any road links that meet these criteria indicate the potential for significant effects and will be scoped into the assessment, however at this stage, the volume/distribution of development traffic for the construction and operational phases (and list of committed developments) are not yet confirmed and are subject to the outcomes of the Transport Assessment (TA) scoping.

At this stage, it is therefore not to determine with certainty which links could experience traffic volumes in excess of the IEMA thresholds. It is therefore proposed to scope in all of the potential environmental effects relating to Traffic and Transport into the ES and assess the magnitude of traffic increases against the IEMA thresholds at the outset of the ES Chapter.

The Scoping Report states that the assessment for the TA will focus on the impact of the commercial uses (office and hotel). As it is not proposed to increase parking provision, the volume of traffic accessing the stadium would not increase from that already assessed/approved under previous applications. It is however requested that the EIA assesses the full development proposals (regardless of extant permissions) in order to ensure the full effects of the proposals in terms of Traffic & Transport are assessed and appropriate mitigation measures are taken forward.

Whilst the proposals will have no additional parking provision, the operational phase would still generate a number of daily vehicular trips associated with servicing/deliveries, taxis/drop-offs (utilising the potential new drop-off provision) and car trips with drivers utilising alternative nearby car-parks which should also be taken into consideration.

Other highways impacts (including multi-modal trip generation and accessibility) would be assessed further within the submitted TA, with mitigation measures where necessary and measures to promote access by sustainable modes identified within a supporting Travel Plan.

There will be a requirement management and coordination of construction activities with reference to ongoing/imminent construction works in the locality within the supporting Construction Environmental Management Plan/Construction Management Plan with the cumulative effects of construction considered in terms of other construction activity occurring concurrently as part of the Traffic & Transport ES chapter.

The following points should also be taken into consideration as part of the Traffic & Transport assessment:

- Assessment should not only consider construction trip generation but also traffic redistribution impacts associated with any required traffic management/temporary road closures during the construction phase; and
- Assessment should consider any required traffic management/temporary road closure impacts on pedestrians during the construction phase.

Whilst it is noted that a number of the IEMA environmental effects would be considered within other technical assessments of the ES (including noise, vibration, visual impacts, air pollution, dust and dirt, ecological impact and heritage and conservation), appropriate traffic data should be provided to inform the associated assessments.

The following receptors have therefore been identified as having the potential to be subject to likely significant effects: severance, driver delay, pedestrian delay, pedestrian amenity, fear and intimidation and accidents and safety which is acceptable.

The raw data and calculations for the distribution and turning counts (once collected) will need to be provided for review. Strategic model flows should NOT be used for any of the assessments.

- The scoping information provided states that, *"It has been agreed with MCC and TfGM officers that any traffic modelling can be limited to the local junctions used to access the site from the A6010 Alan Turing Way (i.e. Gate 2 and Gate 3). This modelling will utilise existing traffic survey data collected in 2019 as part of the Campus Strategy Transport Assessment."*

It should be highlighted that whilst the junctions to be assessed have been agreed, the traffic flows used in the modelling has not. Therefore, the suitability of the 2019 flows should be demonstrated. Any existing data sources should be used to justify the use of the 2019 flows. Please note that TfGM have an ATC on Pottery Lane near the Sports City Way junction.

- Although signal timings have not been changed since the 2019 application, advice regarding correctly modelling the appearance of demand dependent stages has changed. TfGM are able to provide FOC signal monitoring logs for the two sites to ensure that the junctions are modelled as correctly as possible.

- The 'busiest' evening peak should be used for the non-event test. This can be determined from the TfGM ATC and not based on an assumption.

- With respect to Paragraph 2.7, mitigation is welcome, however this should help address existing problems with the walking route (reflecting the mitigation provided for the Co-Op Arena).

- Management of events by the TfGM travel teams is made more difficult by lack of visibility from the TfGM control room. It is suggested that extra TfGM CCTV cameras are funded to help better manage events.

There is no mention in the scoping document of the management of events; reference to the existing Traffic Management plan and implementation should be referred to and addressed. The existing pre- and post- event conditions for transport to and from the stadium should be provided. This should particularly cover the walking and cycling trips to and from the stadium to the city centre.

It would be hoped that the application to extend the stadium provides the potential to significantly improve the walking and cycling trips to and from the stadium. The mitigation should address the existing problems.

It should be highlighted that since 2014 the frequency of the tram service has increased and hence the interaction between the tram and walking trips has increased.

With respect to Paragraph 2.1, the guidance used in the TA should include changes in design guidance for cycling facilities issues by DfT in 2020 – LTN1/20.

The ES chapter should also include the following:

- A description of current baseline traffic conditions in the area.

- An analysis of injury accidents during a recent five-year period, commenting on whether there are any underlying patterns of injury accidents that might be affected by the development.

- Traffic surveys and queue surveys (weekdays) - scope to be agreed with the Local Highway Authority (LHA), TfGM UTC and HFAS. TfGM UTC can be contacted in respect of the availability of any traffic counts in the area that could be used for the assessment.
- A clear estimate of the level of new traffic likely to be associated with the development, based on an inspection of similar (and similarly-located) developments across the UK (excluding London) via the TRICS (or similar) database. The assessment work should be undertaken using a person-trip approach and applying the appropriate modal share percentages from local Census data. Other methodologies to determine trip rates are acceptable but these should be fully explained in the TA.
- A clearly defined methodology for determining the distribution /assignment of development trips onto the network i.e. understanding of where such new traffic is likely to distribute to/from, based on data sources such as a Census Journey-to-Work statistics and/or vehicle turning proportions at nearby junctions.
- An assessment of traffic levels and impacts at the specified year of opening of the development, and at a future year at least five years later, with due regard for traffic growth (if any).
- An understanding of the likely impacts of the proposed development considered alongside any other nearby committed developments.
- In the relevant TA, clear diagrams should be provided illustrating the following elements, each individually:
 - Base Flows
 - Committed Development Flows
 - Proposed Flows
 - Proposed Distribution
 - Base plus Committed plus proposed development
 - Future plus Committed plus proposed development
- TfGM HFAS recommends an increase of about 30vehs/hr at a junction as an appropriate threshold for considering the necessity of a traffic impact assessment; this is in preference to a percentage-increase threshold, which tends to favour development in already heavily-trafficked areas.
- The scope of the junctions to be assessed by detailed modelling should be agreed with TfGM (UTC) and the LHA in advance and will depend upon the outcome of the trip assessment and distribution exercise. For this reason, TfGM would advise that a trip generation and distribution exercise should be issued before submission of the planning application. Once this is undertaken it will be possible to finalise TfGM requirements in terms of the TA. This will largely depend on the amount of trip generation.
- Traffic modelling should be undertaken using demand flows to ensure that results are realistic and representative of existing conditions. For congested junctions, demand flows can be derived using traffic count and queue survey data.
- Clear details of proposed vehicular access arrangements including general servicing arrangements. An engineering drawing should be supplied showing the changes to the road network to fully understand the impact of the proposed development.
- A swept path analysis should be provided for any vehicular access.
- A review of Traffic Regulation Orders on the surrounding streets in the vicinity of the development.
- An assessment of the likely environmental/traffic impacts of HGVs during the construction process.

Site Accessibility by Sustainable Modes

Walking and cycling should form the natural mode choice for shorter trips, and also provide a viable option to facilitate longer trips through providing easy access to public transport. New developments should connect with, and enhance, existing walking and cycling networks in their vicinity, and also provide high quality facilities and networks for walking and cycling within development sites.

The TA should include a comprehensive review of the existing provision in the vicinity of the site for all pedestrians including those with disabilities. In addition to walking distances and pedestrian

desire lines, pedestrian environment (including footway condition and widths) and pedestrian safety and security should be considered. An audit of the footways in the vicinity of the development should be undertaken and improvements identified.

A comprehensive review of the cycling infrastructure in the vicinity of the proposed development should also be undertaken. This should include an assessment of the connectivity of the site with existing cycle routes. The quality and condition of existing infrastructure, cyclist safety and security should also be considered.

The catchment area for cycling, walking and public transport should be captured in maps. The quality of the routes for pedestrians and cyclists should be described and this should include a description of any signing for cycle routes as appropriate.

The TA should provide a review of existing public transport services (including service frequency and location of nearest stations/stops), with a view to supporting improvements to existing public transport services as required, in particular, assess the quality of the surrounding bus infrastructure i.e. upgrade to shelters etc.

The TA should include a plan clearly showing details of the proposed pedestrian and cycle access points serving the site and linkages into the surrounding area. Connectivity with local public transport networks should be highlighted. The applicant should consider measures to encourage access by sustainable modes. Possible measures include but are not limited to the provision of pedestrian crossings, cycleways, cycle parking, new/improved footway ensuring that there are linkages into existing cycle and pedestrian facilities, as well as upgrades to existing bus stops (where appropriate).

TfGM would suggest that a pedestrian survey is carried out in the vicinity of the site, as per guidance <https://www.livingstreets.org.uk/media/1434/street-reviewguidance-for-web.pdf> and included as part of the TA.

It should be highlighted that LTN/120 has been introduced by the DfT and this has changed the requirements for the design of cycling provision.

Details of cycle parking facilities for the proposed development (e.g., number of spaces, location and type) should be provided and shown on plan.

Mitigation Measures

Impacts of the development should be identified through the above assessment work. The applicant should identify appropriate mitigation to accommodate any increases in traffic generation and increased pedestrian and cyclist movements.

Any appropriate mitigation should be identified in conjunction with TfGM UTC and the LHA who will be happy to work with the developer to agree an approach.

The TA should consider the impact of the development on the existing public transport networks in terms of extension of bus services, additional person trips. Mitigation measures should be considered where appropriate.

A Framework Travel Plan for the development should accompany any future planning application.

If there are any changes planned for bus infrastructure, for example relocation of existing bus stops or the creation of new bus parking areas, TfGM would request that the applicant liaise directly with TfGM's bus infrastructure which can be contacted at Shelters@tfgm.com.

In relation to walking, the importance of providing and maintaining good quality footways, free from obstruction and wide enough for when they are at their busiest, is critical to encourage and maximise walking levels associated with new developments. Useful guidance on street layouts

which encourage walking is provided in Manual for Streets (Department for Transport, 2007). MfS provides guidance on lightly trafficked residential streets, and Manual for Streets 2 (CIHT, 2010) further develops the principles of the first Manual for Streets for application in wider circumstances on busier streets, including town and district centres.

In relation to cycling, infrastructure should be designed in accordance with current Greater Manchester Cycling Design Standards, the latest version of which is available from the TfGM website or by emailing cycling@tfgm.com. In particular, connections to/from and within developments should be designed in accordance with the Key Design Criteria of Safety, Coherence, Directness, Attractiveness and Comfort. A general principle is that infrastructure should be designed to be attractive to those who do not currently cycle, in order to drive the increase in cycling's mode share.

The Bee Network will be the largest joined-up system of walking and cycling routes in the UK and has been developed with all 10 Greater Manchester local authorities. More information on this is available on <https://www.tfgm.com> and TfGM would encourage the applicant to review the map online to determine whether there is an opportunity for this development to connect into the proposed Bee Network.