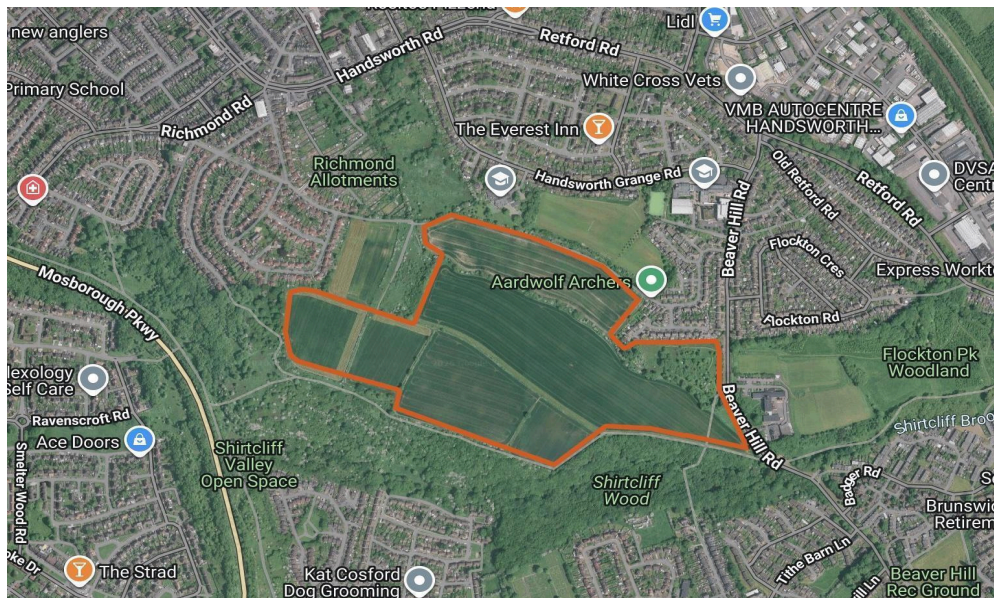


# “The Sheffield Plan”

## Review of Proposed Sites SES29 and SES30 Handsworth Rd, Finchwell Rd & Beaver Hill Rd, Sheffield S13



SES29 - Handsworth Hall Farm, Finchwell Road, S13 9AS – Google



SES30 - Land between Bramley Lane and Beaver Hill Road, S13 7JH - Google

April 2026

## 1 TERMS OF REFERENCE

Aprica Ltd has been commissioned by the Save S13 Greenbelt campaign to comment on the highway implications of the proposed Main Modifications MM410 and MM411 for sites SES29 '*Handsworth Hall Farm, Land at Finchwell Road, S13 9AS*' and SES30 '*Land between Bramley Lane and Beaver Hill Road, S13 7JH*' hereafter referred to as 'SES29' and 'SES30'. These Greenbelt sites have been identified in the proposed 'Sheffield Plan' ('the Plan') consultation documents as potential sites for mixed use (SES29) and housing (SES30) developments.

The purpose of this report is to assess the transport and traffic implications of the current proposals. It is intended that this report be considered by the campaign group with a view to submitting a formal response to Sheffield City Council ('SCC'). The report is based on local knowledge, prevailing highway conditions and available documents, illustrative drawings etc.

Ian Taylor (I.Eng MICE) has produced this report. Ian is an Incorporated Engineer and a Member of the Institution of Civil Engineers, with thirty-five years' experience of public and private sector highway infrastructure disciplines including transportation planning, RoSPA accredited accident investigation & prevention, traffic management, road safety audits, traffic regulations, and highway design & construction. Ian has led on numerous major highway projects for Local Authorities and has presented at Planning Committees, Council meetings, public meetings and drop-in events, and at Public Inquiry.

## **2 INTRODUCTION**

The scope of this report is to consider the proposed 'Main Modifications' to the Sheffield Plan (the Plan), for Site SES29: 56.40 hectares of Greenbelt land earmarked for mixed use of 870 homes and 20 hectares of employment space, and Site SES30: 35.28 hectares of Greenbelt land earmarked for the construction of 827 homes, a secondary school, and a multi-faith burial ground. The two sites lie around 1km apart by road. The intention is to offer expert commentary on the sites' safe and practical useability by the travelling public, the impact on the highway network and the possible cumulative effects of both sites being developed.

For ease of reference this report is separated into the following parts:

- 1 Terms of Reference
- 2 Introduction and Executive Summary
- 3 Background
- 4 Sheffield City Council and Other Documentation
- 5 Assessment of Highway Proposals
- 6 Sustainability
- 7 Injury Collision Record
- 8 Other Factors to Consider
- 9 Cumulative Impact
- 10 Conclusions and Recommendations

## EXECUTIVE SUMMARY

This report, commissioned by the Save S13 Greenbelt campaign, reviews the transport and highway implications of the Sheffield Plan proposed Main Modifications MM410 (SES29: Handsworth Hall Farm/Finchwell Road) and MM411 (SES30: land between Bramley Lane and Beaver Hill Road), and the cumulative effect of developing both sites.

The evidence currently available does not demonstrate that the local road network in the vicinity of these proposed Greenbelt allocations can accommodate additional trips safely and efficiently, nor that Active Travel England's LTN 1/20 expectations for sustainable travel can be met. It is recommended that SES29 and SES30 not be taken forward unless and until robust evidence and a fully funded, deliverable mitigation and sustainable transport package is secured.

Key risks result from:

- Existing congestion on a constrained network - regular queuing and unreliable journeys on the B6066/B6200 corridors, with limited scope for capacity improvements.
- Mitigation risk - proposed signalisation at Retford Road/Beaver Hill Road sits very close to the new Lidl signals, increasing 'blocking back' risk and leaving significant residual queues.
- High likelihood of car-dependency - settlement-edge locations severed by busy B-roads make mode shift difficult without high-quality comprehensive alternatives.
- Active travel deliverability - achieving LTN 1/20-compliant routes (including segregation where needed) is uncertain within current highway constraints and steep gradients (notably Beaver Hill Road).
- Trip generation uncertainty - TRICS inputs/mode shares may be optimistic. If understated, impacts on already stressed junctions and corridors could be made materially worse.
- Road safety and severance - recorded injury collisions (2020–2024) include serious/fatal outcomes. More traffic and crossings increase exposure and risk of conflict.

Together the sites could add around 1700 homes, employment land, a secondary school and a burial ground onto the same constrained corridors. The report finds limited evidence that cumulative impacts alongside other committed/emerging development have been robustly tested.

As a minimum the proposals require:

- Robust trip generation testing using appropriate TRICS sample site inputs plus sensitivity tests, appropriate to congested, car-dominant corridors.
- Cumulative dynamic modelling (such as VISSIM micro-simulation) covering both sites, the closely spaced signals, school peaks and committed development in the wider area.
- A deliverable sustainable transport package meeting ATE expectations and LTN 1/20 standards, secured early, not left as aspiration.
- Enforceable phasing/conditions including Grampian-style conditions so that mitigation and safety measures are delivered before development proceeds.

## Conclusion

If the above evidence and measures cannot be secured and introduced, the report's position is that SES29 and SES30 should be removed from the Sheffield Plan.

### 3 BACKGROUND

Planning Inspectors have considered the 'Sheffield Plan' (the Plan) proposals under a number of stages of the Planning process including 'Regulation 19' of The Town and Country Planning (Local Planning) (England) Regulations 2012. Regulation 19 focused on four main tests of soundness, namely **Positively Prepared**: Based on a strategy that seeks to meet objectively assessed development and infrastructure requirements; **Justified**: Based on proportionate evidence; **Effective**: Deliverable over the plan period; **Consistent with National Policy** (such as the National Planning Policy Framework (NPPF)). The Inspectors now consider the Plan to be 'sound and legally compliant subject to main modifications being agreed and made'. The Inspectors will essentially seek to determine whether adding a site or sites, such as SES29 and SES30, makes the plan 'sound' (by meeting employment needs etc), or 'not sound' by creating unmitigable traffic issues. The modifications must still undergo detailed transport assessment, sustainability appraisal, habitats assessment, and public consultation and it can still be argued that the four main tests of soundness have not been satisfied because the proposed Main Modifications fail to resolve the infrastructure and highway safety issues identified during the examination.

The proposals still lack detail on matters such as access design, precise number of houses (since MM223 makes all numbers "indicative" and are neither minimums or maximums), number of people employed, and acceptable likely trip data (see below under TRICS), which makes it difficult for Inspectors to make a final decision, and for consultees to offer fully considered responses. Neither is there sufficient mention, or demonstrable evidence, of the possible cumulative effect of the addition of the proposed Greenbelt sites to the many other committed and ongoing developments in and around Handsworth, for example the new Lidl store immediately between the two sites, the expanding Advance Manufacturing Park (AMP) at Highfield Spring, the Waverley housing development, and the nearby SES28 allocation on Beighton Road. It does not seem that the overall traffic impacts of these and other developments have been sufficiently considered in the individual site assessments for the Sheffield Plan, or as a whole.

Whilst it must be accepted that building on some Greenbelt land might offer more variety and choice of homes, along with local employment opportunities, this should only be considered over Brownfield/urban development where it can be achieved without significant impact at the proposed sites and in the wider area. More detail needs to be provided on, and more consideration given to, the impact on the existing local road network and how any proposals taken forward could be mitigated to eliminate or sufficiently reduce adverse effects. Should it not be possible to reduce adverse impacts to acceptable levels, sites should be withdrawn and alternatives sought.

Because the sites are greenbelt sites the Inspectors require proposals to meet the 'Golden Rules' of the National Planning Policy Framework (NPPF). The Golden Rules state that for greenbelt release, sites must deliver 50% affordable housing, the upfront provision of necessary local infrastructure and the creation of enhanced, publicly accessible green spaces. This means that the developer must prove that they can mitigate the impact on local roads and provide the required improvement measures, preferably pre-commencement rather than pre-occupation to avoid construction traffic adding to the existing traffic problems. For the area in question this is likely to mean more local signalisation of junctions, improvements to the Strategic Road

Network (SRN) and other infrastructure changes. Significant active travel measures will also be required.

#### **4 SHEFFIELD CITY COUNCIL AND OTHER DOCUMENTATION**

SCC and their consulting partners AECOM say that: *'Handsworth Hall Farm (SES29) is highly accessible by public and active transport, although development at these locations would still add pressure to already congested local roads at peak times.'* Highly accessible by active transport is disputed. There is more on this matter under Sustainability below. Their reports go on to state that *'the sites at Handsworth (SES29, SES30) are characterised by fairly sensitive landscapes where development would reduce openness and alter landscape function, with complete mitigation difficult to achieve.'* This, on the other hand, is not disputed.

The Integrated Impact Assessment confirms that *'The local road network is known to be highly congested during peak hours, with development likely to add further pressure.'* It then concludes that *'this strategic location would generate "moderate positive effects" in transport terms'*. The document therefore recognises serious current and future congestion, while still reaching an overall positive conclusion on transport and accessibility, a contradiction.

MM410 - Main Modifications for proposed Site Allocation SES29 outlines that: *'Vehicular access requires further transport assessment and detailed transport modelling to ensure safe and efficient operation; the masterplan must integrate with surrounding road infrastructure while minimising impacts on existing communities; junction improvements are required at the Retford Road/Beaver Hill Road junction and contributions may be required for additional improvements at other strategic or local highway junctions; Development must demonstrate that the local and strategic road network can accommodate additional trips safely and efficiently; The site lies within 200 metres of a road with traffic flows exceeding 19,000 trips per day, increasing sensitivity to pedestrian and cyclist safety - safe vehicle, pedestrian, and cycle access arrangements must be demonstrated at the planning application stage; any existing public footpaths or permissive routes crossing the site must be retained, protected, and safely integrated into the layout; The layout must provide and prioritise safe pedestrian and cycle connections within the site and to surrounding neighbourhoods; The masterplan should encourage modal shift away from private car use, particularly in relation to the scale of housing and employment proposed; The site must safeguard opportunities for a new railway station, allowing space for station access, pedestrian and cycle links across the rail line and potential car parking and ancillary infrastructure - financial contributions towards a new station may be required; Ensure that the scale of residential and employment development does not compromise highway safety, is supported by appropriate transport infrastructure improvements and encourages safe, sustainable, and multimodal travel choices'*. All these are valid points and are discussed later in this report but should be thoroughly assessed by the Inspectors and SCC if the development goes ahead. If there is any doubt about them, the site should be withdrawn from the Sheffield Plan.

MM 411, Main Modifications for proposed Site Allocation for site SES30, states that: *'Access to the site via Beaver Hill Road will be subject to further transport assessment; Improvements to the Retford Road/Beaver Hill Road junction are required; Additional developer contributions may be required for highway improvements at other strategic and local network junctions, reflecting the cumulative traffic impact of up to 827 new homes; Any changes to the highway network*

*must be supported by transport assessments; The scale of residential development is expected to generate significant additional traffic which must be mitigated across local roads and the wider strategic network, not just immediate access points; Highway design and improvements must ensure safe access and egress for all users, including vehicles, pedestrians and cyclists; Existing public footpaths and permissive paths crossing the site must be retained and protected, helping to avoid conflict between vehicles and non-motorised users; Masterplanning must account for land stability and public safety risks, including those arising from historic coal mining, which could affect road construction and safety; Protection and integration of existing footpaths supports walking and sustainable travel - the Masterplan is expected to support connectivity with surrounding areas, encouraging walking and cycling rather than reliance on private cars; Safeguarded land for a secondary school within the site highlights the need for safe walking and cycling routes for pupils, through careful traffic management to mitigate school-related peak-hour congestion, and future transport planning should address school travel patterns, including potential for sustainable school travel plans'. Again these valid points are discussed later in this report but should be thoroughly assessed by the Inspectors and SCC. If there is any doubt about them, the site should be withdrawn from the Sheffield Plan.*

The Transport Assessment: Report on Local Road Networks says that: 'The A630 Sheffield Parkway/B6200 Handsworth Road, once reverted to the standard layout, is found to be within capacity and does not require mitigation; The Retford Road/Beaver Hill Road junction is forecast to experience significant congestion, especially in the PM peak, with capacity exceeding 150% in the 2039 Local Plan scenario - the main issue is a large increase in right-turning traffic from Retford Road to Beaver Hill Road – proposed mitigation resolves the issue and comprises full signalisation of all arms of the junction, a dedicated right-turn bay and retention of the left-turn lane for westbound traffic, existing pedestrian crossings retained with potential for additional facilities and possible bus priority measures; Ongoing monitoring is recommended as development sites come forward'. These assertions are discussed later in the report.

The National Planning Policy Framework (NPPF) and SCC's own Policies resist the coalescence of settlements, to guard Greenbelt land against urban sprawl. It is suggested that developing these two large sites would add significantly to such sprawl and would coalesce development.

Sheffield Online, in December 2025, ran an article on residents' concerns about severe traffic congestion and unsafe parking caused by school drop-off and pick-up times for Handsworth Grange Academy and Ballifield Primary School. They said that '*the narrow road becomes chaotic at school times, with cars parking on zig-zags, pavements, grass verges and even private driveways. This blocks access for residents including disabled people, damages verges and often leads to arguments and unsafe situations. Despite repeated reports to the police, the schools, and Sheffield City Council, locals feel that no effective action has been taken. They are calling for stronger enforcement and better management to improve safety for children, parents, and residents*'. This seems to strongly contradict SCC's position on local roads being within capacity and not requiring mitigation. There is other evidence, later in this report, to suggest that the actual situation on the local highway network is not working as well as SCC suggests, and indeed would be made far worse by further development.

## 5 ASSESSMENT OF HIGHWAY PROPOSALS FOR SITES SES29 and SES30

### Sites SES29 and SES30 Immediate Highway Network

The two sites both lie on the busy B6066, just 1km apart and on either side of the even busier B6200 Retford Road. The layout forms what is effectively a large staggered B-road crossroads.

Indicative Access Arrangements have been provided for both sites but in the absence of further detail and further assessment of trip data etc, it is difficult to comment at this stage. It is, however, very likely that the access proposals will change.



*Indicative Access SES29 – Savills EXAM179*



*Illustrative Concept Plan SES30 – EXAM168*

Between the two sites there is a new Lidl (opened in December 2025), at the junction of Rotherham Road and Retford Road. New traffic signals were installed at that junction, in an effort to reduce the effect of all the additional traffic. Evidence suggests that the signals have not helped sufficiently. Residents state that traffic queues often reach all the way up Handsworth Road to St. Mary's Church, with a former 2 to 3 minute journey now taking 10 to 15 minutes.



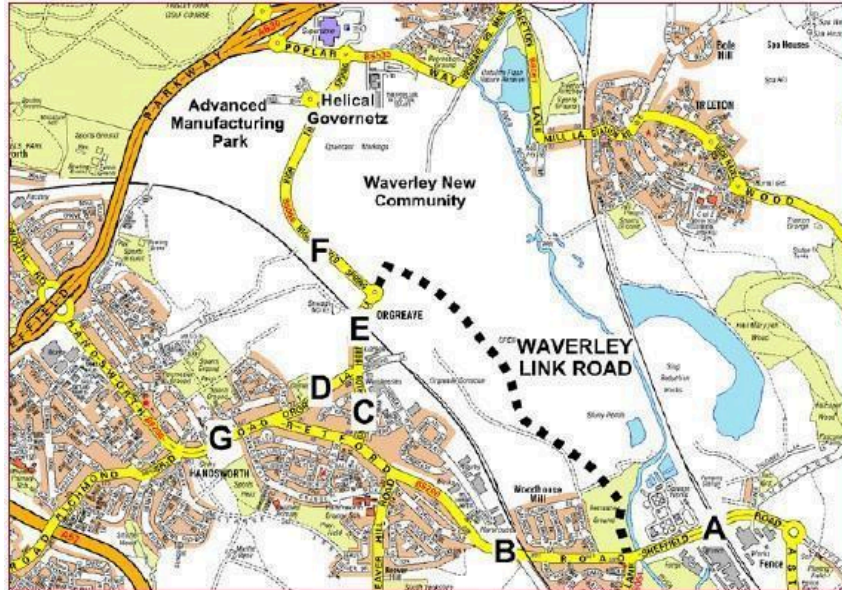
*Looking East from Orgreave Lane Towards Lidl, Queue Length Over 400m – Local Resident Photo*



*Part of Queue from St Mary's Church To Lidl,  
Queue Length Approximately 800m – Local Resident Photo*

In addition to the Lidl, also between the two sites, are Handsworth Grange Community Sports College, exits from the large Ballifield housing estate, a One Stop supermarket, the vast Dore House Industrial Estate, Flockton Park Football Ground and Woodland Park, and South Yorkshire Fire and Rescue's Training Centre. All add to congestion around the B6066/B6200 junction.

Just a few hundred metres further afield are the Handsworth Medical Practice, Ballifield Primary School, the large Poplar Way industrial/commercial site and adjacent Waverley Housing Estate. To the south is the centre of Woodhouse. Together, these facilities attract significant traffic numbers to the area of and around the B6066/B6200. The growing Waverley Estate currently has around 1800 dwellings, the overall capacity being around 4000. Since, technically, the estate falls within the Rotherham (RMBC) area it appears to have been overlooked in SCC's assessments of impact. Mitigation was planned, many years ago (around 2010) for the impact of the Waverley Estate, in the form of the 'Waverley Link Road'. Despite traffic figures being assessed from a 2007 baseline to predicted over-capacity figures of up to 139% for Handsworth Road the link road has never been built, allegedly due to a dispute between RMBC and SCC.



*Screenshot of Proposed Waverley Link – RMBC Leaflet 2010*

It is noted that a new school is proposed as part of the SES30 Schedule of Proposed Main Modifications. This too would add to congestion, particularly at ‘school run’ times.

The proposed mitigation for SES29 and SES30 is to install traffic signals at the junction of the B6200 Retford Road and the B6066 Beaver Hill Road. This hardly seems proportionate to the known problems and strong evidence of the severe traffic problems that already exist. Alternatives, such as a roundabout, have not been possible even to explore due to the constrained highway boundaries. This is likely to be the case for other measures such as sustainable travel incentives (discussed below). Furthermore the proposed signals would be just 200 metres from those installed in December 2025 for the new Lidl supermarket. This would leave space between the signals installations for around 25 stationary vehicles (a mix of HGV/LGV/car/motorcycle) or as few as 10 slow moving vehicles. The Traffic Assessment (TA) modelling predicts, even with mitigation, a PM peak queue of 52 car lengths. This would clearly leave traffic queuing between and through the signals, blocking Rotherham Road.

On-street and verge parking is commonplace on all of the local roads, further impeding the flow of through-traffic, particularly buses and HGV’s, and arguably affecting road safety for users such as cyclists or crossing pedestrians.



*Overspill Parking, SY Fire & Rescue Training Centre – Resident Photo*

#### Wider Highway Network

In terms of the Strategic Road Network (SRN), the A630 Sheffield Parkway, one of the most critical arterial routes in the region, is less than 2km away. The Handsworth Road junction is the B6200/B6066, taking traffic directly to and from the Parkway, straight through the area in question. Traffic also accesses and egresses the A630 via Poplar Way, again a route through the area of concern, to Woodhouse, Beighton and Crystal Peaks shopping centre. Handsworth Grange Road is already a notorious ‘rat-run’ between Beaver Hill Road/Handsworth Road and The Parkway and city centre, as shown in the photo below.



*Handsworth Grange Road – Resident Photo*

## 6 SUSTAINABILITY

In the UK, standards for sustainable travel and the hierarchy of travel modes are set by the Department for Transport's (DfT's) Manual for Streets (MfS) and Local Transport Note 1/20 (LTN 1/20). The DfT publishes the National Planning Policy Framework (NPPF). Paragraph 114 explicitly states that applications should "give priority first to pedestrian and cycle movements." The MfS is the go-to guide for urban design. It established the hierarchy that places pedestrians at the top and private cars at the bottom.

Active Travel England (ATE) is the government's Sustainable Travel Inspectorate. It reviews large planning applications (such as SES29 and SES30) to ensure that they meet these standards. If a site is too 'car-dependent' ATE can formally object. They are concerned that these sites are each at the edge of the 'settlement', and are severed by the B6200 and B6066. ATE are not content with simple footway measures or shared use cycle markings etc, they require prioritised measures for pedestrians and fully segregated cycle facilities, not just within and to and from the nearby highway but to the proposed Waverley Railway Station and the wider area. There is no Active Travel Check at present and therefore the proposals do not meet ATE's published national standards.

The South Yorkshire Mayoral Combined Authority (SYMCA) has been mandated by the DfT that all local transport authorities are required to review and update their statutory Local Transport Plans (LTP's) to align with current national and local priorities, and to provide a more consistent basis for determining future investment priorities. 'Connecting Sheffield' is part of the long-term vision for the future of travel in the city of Sheffield, creating high-quality, convenient and safer routes into and around the city for cycling, walking and public transport. Funding has been made available, from central Government and other sources, to deliver work that aims to transform the city and enable people to make better travel choices. The website <https://haveyoursay.sheffield.gov.uk/connecting-sheffield> gives updates on projects. It is suggested that the proposed allocations for SES29 and SES30 are inconsistent with the 'Connecting Sheffield' strategic framework, in that the framework mandates a 'mode-shift first' approach to all major growth areas. Whilst the emerging Local Plan (via MM410 and MM411) identifies the need for active travel and mass transit integration, these requirements remain aspirational rather than secured and lack a committed delivery timeline within the Infrastructure Delivery Plan (IDP).

For sites SS29 and SES30 the hierarchy of travel modes – 1. Walking, 2. Cycling & wheeling, 3. Public transport, 4. Private car – needs much more consideration, more detail provided on how active and sustainable travel can genuinely be achieved, and more comfort that the measures would be guaranteed to be delivered prior to development.

The TA: Public Transport & Active Travel and Appendix cites improvements to bus stops, good connections to the proposed railway station, and better connectivity and sustainable transport options for the local community'. This is very ambitious and even if it could be delivered, the fact remains that the local highways are unattractive to pedestrians and cyclists, and are divided by busy, noisy and air-polluted B roads.

## **Sustainable Travel Modes**

**1. Walking:** The local footways between and around sites SES29 and SES30 are not overly wide but have scope to be widened by the removal of grass verges and clearance of foliage. Notwithstanding, they are bordered along their entire lengths by busy B roads with heavy traffic, noise and poor air quality. To encourage people to walk requires much more than wide continuous footways. The environment and local topography would be a strong limiting factor in people choosing to walk. Beaver Hill Road, for example, is particularly steep. ATE's recommended maximum gradient is 1 in 20 (5%). Beaver Hill Road is typically at least 1 in 14 (~7%) and in places 1 in 7 (~14%) which is over ATE's 'critical' maximum of 8%.

**2. Cycling:** As above, ATE's recommended gradients are far exceeded on Beaver Hill Road. Furthermore to introduce cycling infrastructure to LTN 1/20 standards would be difficult if not impossible. Constrained highway widths and heavy volumes of traffic would be sure to deter all but the most serious of cyclists.

**3. Public Transport:** Bus services in the area are regular it seems, but buses can be held up amongst all the other congestion, particularly during the school run period. Not all the bus stops are to current standards, which require raised bus boarder kerbs, tactile paving for partially sighted users, bus stop clearway markings, and preferably shelters unless the stops are 'alighting only'. There would need to be bus stop provision within the developments to make bus travel attractive and to bring bus stops within the widely accepted 400 metre maximum walk away.

The nearest railway station to the sites, currently, is the Woodhouse Station, some 1.5km or so away. This is close to or beyond (adding possible walking distances within the sites) ATE's 'last mile'. There have been long-discussed proposals for a station at Waverley and it is mentioned in the Sheffield Plan proposals, but according to Network Rail "*the project remains in the development phase, timescales are under review and no formal milestones or delivery timetable have been finalised*". That is: it is still only in discussion and is by no means a certainty. Even if this new station were built it would be a minimum 1.25km from the closest point of SES30, and 1.7km from its furthest point, making Woodhouse station still the more practical station.

**4. Private Car:** In the absence of guaranteed, suitable and attractive sustainable travel modes, the car is highly likely to be the main mode of transport for people living in or visiting the houses on the proposed sites.

## **Trip Generation and TRICS**

TRICS is the 'Trip Rate Information Computer System'. It is effectively an industry-standard historical library of traffic figures. When developers want to build something new – such as housing or commercial space – they must demonstrate how much extra traffic the development will put on the highway network. Because the development doesn't yet exist the developer uses TRICS and its database to assess and demonstrate what has happened at similar sites in the past.

Whilst TRICS contains thousands of real-world traffic counts from across the UK and Ireland, its outputs have been controversial for the Sheffield Plan assessments. ATE has challenged TRICS numbers on the grounds of sites not being as sustainable as the 'test' sites (with major tram and bus hubs etc) do not reflect the reality of the sites under consideration. Developers naturally want to demonstrate the minimum impact on the highway network and might therefore cherry pick test sites. Critics argue that Planners should design for a typical busy day (called the 85th percentile), whilst Developers prefer to use the average day (the mean) which makes the impact look smaller. Thus, in real-world terms actual traffic volumes and impacts are very often significantly worse than those modelled. Driver and other road user behaviour in 'the real world' is not like a computer model in any case. A common example would be where drivers stop in long lines of slow-moving main road traffic to let single vehicles in or out of minor junctions or driveways, thereby impacting on dozens of following main road vehicles. Sites SES29 and particularly SES30 will be severely affected by 'the school run' on B roads, so not a typical (average) am or pm peak. In terms of the proposed burial ground it is not known whether or not there are any comparable housing/burial ground TRICS examples, and therefore output data could suggest lower traffic figures than would be the case.

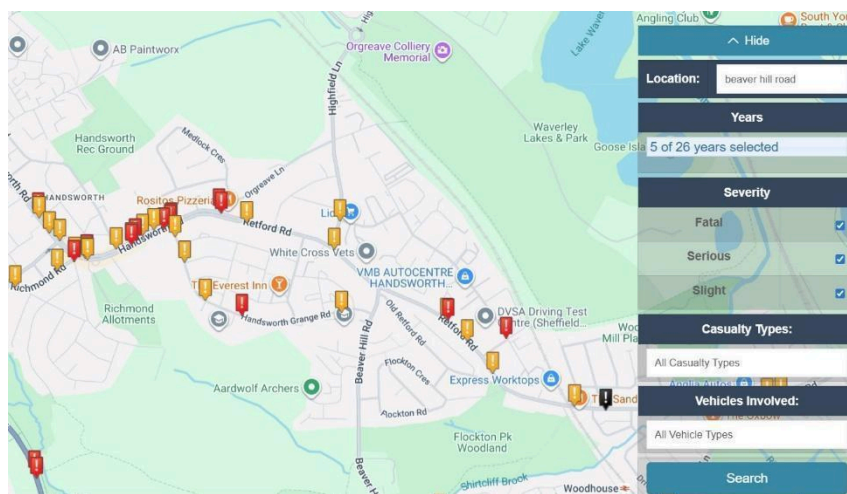
Aprica does not have the software or expertise to challenge TRICS and to do so would take many hours. It is therefore beyond the remit of this report but the core issue seems to be the discrepancy between the theoretical model used by SCC and the likely reality of modal transport choice.

The data should be closely checked to ensure its soundness and, if necessary, re-run using data appropriate for busy, congested, vehicle-dominant roads such as those around sites SES29 and SES30. As mentioned above, experience has shown that in practice actual trip numbers (especially for private vehicles) are very often higher than those suggested in Transport Assessments (TA's). Software can easily be used to manipulate and 'adjust' modelled outcomes, whereas in real-world circumstances, people's behaviour and choices dictate what actually happens.

## 7 INJURY COLLISION RECORD

'CrashMap' is a website that uses official government data (the STATS19 database) collected by police forces across the country, to allow users to see where, when, and (for a fee) how road traffic collisions (RTC's) are occurring in their local area.

For the latest verified five-year period (2020 to 2024 inclusive) CrashMap shows a high number of injury collisions in the area, particularly on Handsworth Road/Retford Road, several of which resulted in serious injuries and a fatality. In terms of the number of injury collisions, it should be noted that although there is little published data on unreported collisions, the Department for Transport (DfT) suggests that *'for every reported and recorded injury collision there could be as many as 5 unreported injury collisions and 20 damage-only collisions'*. Near misses could be as many as 300 per recorded injury collision.



*Injury Collisions in the Area Around Sites SES29 and SES30 - CrashMap*

## 8 OTHER FACTORS TO CONSIDER

Handsworth Hall Farm is within 250 metres of a historic landfill area and near Environment Agency waste permit sites. Development would therefore involve remediation.

Bramley Lane is of archaeological interest including cropmark features. Current activity includes archaeological trenching and surveys to ensure that historical assets are protected before development takes place. SCC confirms that *'Development would reduce openness and alter landscape function, with complete mitigation difficult to achieve'*.

The B6066 between Handsworth and Woodhouse is prone to flooding. The culvert beneath the road often blocks, or lacks sufficient capacity to accommodate flows from the watercourse on SES30 and Shirtcliffe Brook, causing the road to flood and cutting off access to Woodhouse.



*Flooding on Beaver Hill Road – Resident Photo*



*Flooding on Beaver Hill Road near the Proposed Access to SES30 – Resident Photo*

## 9 POTENTIAL CUMULATIVE IMPACT OF BOTH SITES BEING DEVELOPED

Together, the two sites SES29 and SES30 would provide around 1700 new homes, a secondary school, a burial ground and significant employment space. Adding the likely volumes of traffic associated with these proposed developments, and the additional 2,200 homes at Waverley yet to be built, to the traffic already using the B6066, B6020 and other local and distributor roads would increase the existing, known and proven, traffic problems in the area. The wider highway network already struggles because of significant levels of local and commuter traffic, and heavy vehicles associated with the existing commercial sites. The issues affect local roads as well as the A630 Sheffield Parkway, A57 Aston Bypass and the M1 Motorway.

The individual Transport Assessments (TA's) for these sites are already in question over their accuracy, due to the alleged cherry-picking of sample sites to make outputs look more favourable for the developers. Moreover, there is very little to offer confidence that the cumulative impacts have been given due consideration and proposed mitigation. Some of the wider proposals for mitigation are just 'ideas' with no secure funding. Without significant investment in sustainable measures and traffic interventions to reduce current levels of congestion and car-dependency, things could only get worse if the sites were developed, particularly if both sites successfully go through planning.

Safety concerns on local roads would again be exacerbated by additional traffic, most likely to be made up of private cars. Pedestrian severance, by the B6020 and B6066, would remain whatever measures were introduced. The same goes for cyclists, who would arguably be even more poorly accommodated than pedestrians since suitable cycle measures would be more difficult to introduce, if not impossible. Adding multiple controlled crossings, to attract pedestrians, would no doubt slow down traffic, leading to even more congestion. School parking is already causing chaos at school run times and providing another school would only add to these school-related issues.

There is conflicting argument in SCC's assessments, in that on the one hand they state that the sites have been selected based on manageable traffic issues, yet the Transport Assessment suggests that problems will not be solved, or will worsen.

Given the strong evidence of significant local constraints affecting both sites, development of either site, or both together, is likely to create further highway impacts that cannot be satisfactorily mitigated. Each site has separate yet similar issues, such as severance and the lack of opportunity to address their unattractiveness for sustainable travel. To consider delivering both, in such close proximity such that they would create compounded issues, seems completely inappropriate.

## 10 CONCLUSIONS AND RECOMMENDATIONS

### **Conclusions**

There is strong evidence that significant traffic issues exist throughout the area of the two sites, SES29 and SES30. SCC has stated that the likely further significant impact requires mitigation. A sufficient level of mitigation, to address traffic capacity issues, congestion, severance and sustainable travel, seems highly unlikely if not impossible.

The TRICS modelling is questionable and it has been suggested that sample sites have been cherry-picked to show much lower traffic impact and higher likelihood of sustainable travel. The cumulative, further-reaching impacts have been largely overlooked and in any case TRICS is not necessarily the right tool for the job. A full area-wide model, produced via 'dynamic simulation' would be more appropriate and is in any case the next logical step.

Road safety is a proven concern in the area and any proposals should be scrutinised under the Road Safety Audit (RSA) process. The RSA is separated into 4 parts: Stage 1 - Completion of Preliminary Design; Stage 2 - Completion of Detailed Design; Stage 3 - Completion of Construction; Stage 4 - Post Opening Monitoring 12 months after opening.

Of the 'Four Tests' mentioned in Section 3 above, the Inspectors should note the following:

**Positively Prepared:** The proposals do not currently meet 'objectively assessed development' or 'infrastructure requirements':

- The assessments appear to have been rushed in effort to meet SCC's deadlines and seem optimistically in favour of the proposed developments.
- The Strategic Highway Network (SRN) seems to have been prioritised over the local network's already significant traffic and safety issues.
- The consultation documents provide no confidence that the local highway network would be able to cope with the increase in traffic demand. Neither is there anything to offer confidence that local and national policy and objectives, such as active and sustainable travel, could be achieved.

**Justified:** The proposals are not based on proportionate evidence:

- The allocation of sites SES29 and SES30 are not currently supported by proportionate or complete transport evidence. The cumulative impacts of the sites, alongside major neighbouring developments in an already badly congested area, is concerning. TRICS data is questionable and it is possible that the sites would generate significantly higher traffic movements, particularly by private car.
- If TRICS outputs are not based on like-for-like sites the projected sustainable travel figures are likely to be far too optimistic. A full micro-simulation model now needs to be built in any case, using software such as VISSIM ("Verkehr In Städten SIMulationsmodell" - which translates to "Traffic in Cities - Simulation Model") to show actual traffic modelling rather than just numbers.

**Effective:** Deliverable over the plan period:

- The sites cannot be made safe and sound without major external highway works and even then would be likely to still present additional hazards and congestion, compounding

existing known traffic problems. It is therefore unlikely that acceptable proposals, in terms of Policy etc, could be delivered within an agreed period, if at all.

**Consistent with National Policy:** The proposals are not consistent with Policy such as the NPPF.

- The proposals do not offer viable sustainable transport improvements in an area where they are inadequate at present.
- The proposals would have an unacceptable impact on traffic and road safety for the local highway network and its residents.
- In terms of sustainability, walking to and from the sites is unlikely due to the unattractive footways where significant traffic volumes pass close-by to those on foot. There is no cycle infrastructure at all and no evidence is provided to demonstrate how LTN 1/20-compliant cycle infrastructure could be delivered within the existing highway boundaries.
- Bus services are not infrequent but not all bus stops are to an acceptable standard.
- Rail access is currently impractical at 1.5km away. The new proposed Waverley Station, if built, would be a minimum of 1.25km away (up to 1.7km from its furthest point). Woodhouse Station would therefore remain the closest station for many, leaving rail travel impractical and unattractive.
- Active Travel England (ATE) requires developments to enable at least 50% of short trips by sustainable modes by 2030. There is no likelihood of this being achieved.
- The sites would, as things stand, be overwhelmingly car-dependent adding unacceptably to the known issues that already exist in the area.
- The current mitigation proposals seem reactive rather than proactive.

## **Recommendations**

An area-wide traffic simulation model now needs to be produced to show dynamic simulation of traffic movement. A VISSIM micro-simulation might be appropriate.

The allocation of sites SES29 and SES30 should be very carefully assessed for safe and sustainable travel to be a completely realistic proposition. If no such proof can be provided, the sites should be removed from the Sheffield Plan due to likely road safety hazards, unmitigable constraints on the local highway network, and failure to be able to meet sustainability requirements.

Should any development go ahead, Grampian-style Conditions need to be imposed such that no development can commence until the issues of safety, traffic impact, sustainability and other concerns have been fully addressed and works completed, including suitable measures in the wider local highway network area. If this is not possible the site should not proceed.

If sustainability aims are to be anywhere near successful, a robust Sustainability Strategy must be prepared in order to provide direct safe walking and cycling links not just to locations around the sites (schools, supermarkets, shops, medical facilities and commuter destinations etc) but in the wider areas of Handsworth, Woodhouse and the proposed railway station. Such measures need to be LTN 1/20-compliant (fully segregated cycle infrastructure and improved bus infrastructure for instance). These measures should also be enshrined in Grampian Planning Conditions.