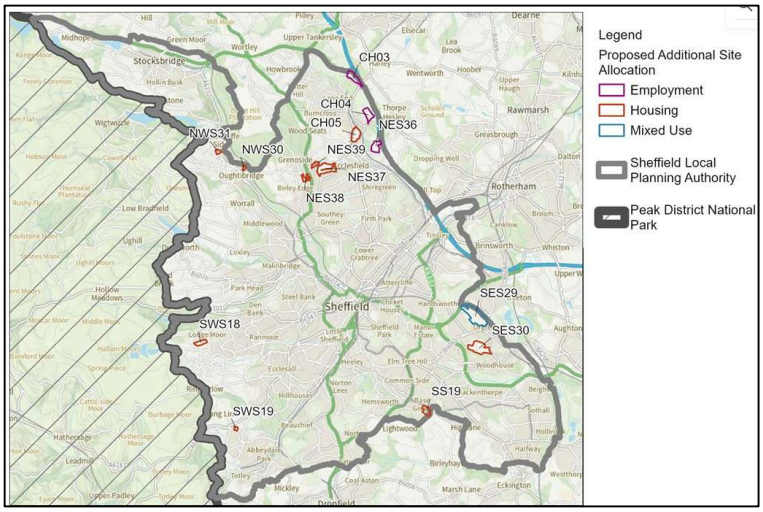
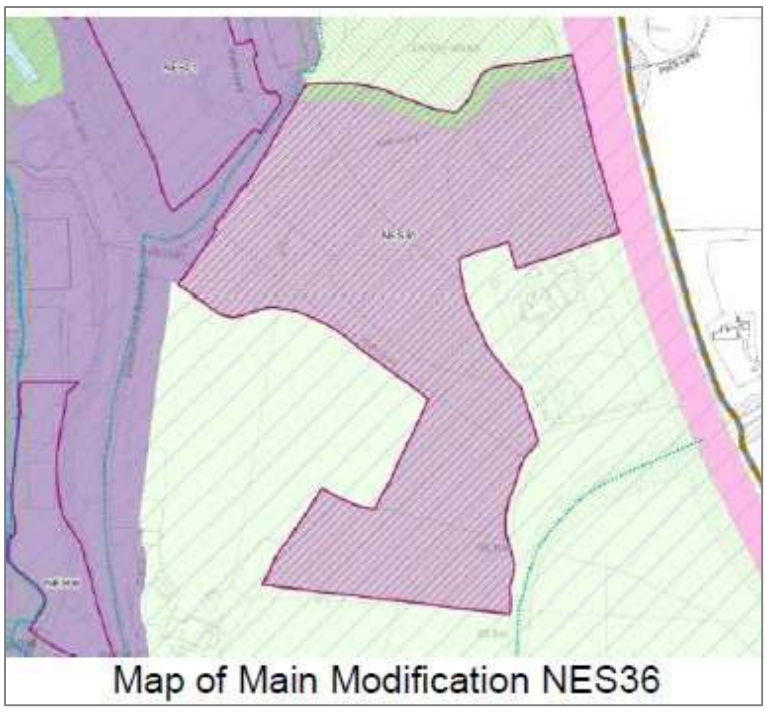
“The Sheffield Plan”

Review of Proposed Access Arrangements for Site NES36 ‘Land to the south of the M1 Motorway Junction 35, S35 1QP’

(also previously referred to by Sheffield City Council as Site S04101)



Map of Sites – SCC



NES36 Site Boundary – SCC

April 2026

1 TERMS OF REFERENCE

Aprica ltd has been commissioned by a local interest group to comment on the highway implications for the proposed access arrangements for Site NES36 'Land to the South of the M1 Motorway Junction 35, S35 1QP' hereafter referred to as 'NES36', one of the sites identified in the proposed 'Sheffield Plan' ('the Plan') Consultation Documents.

The purpose of this report to is assess the transport and traffic implications of the current proposal. It is intended that this report be considered by the interest 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' for the Sheffield Plan (the Plan), for site NES36, a site of 11.15 hectares, proposed for logistics and warehousing. The intention is to offer expert comments on the site's safe and practical useability by the travelling public, and the impact on the highway network.

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

1 Terms of Reference

2 Introduction and Executive Summary

3 Background

4 Assessment of Highway Proposals

5 Sustainability

6 Trip Generation and TRICS

7 Injury Collision Record

8 Other Factors to Consider

9 Conclusions and Recommendations

EXECUTIVE SUMMARY

This report assesses the highways, traffic, road safety, and sustainable travel implications of the proposed 'Main Modifications' to the Sheffield Plan regarding site NES36 (Land to the south of the M1 Motorway Junction 35). The site is proposed as a 16-hectare allocation strictly for large-scale logistics and warehousing (Use Class B8), including a recently proposed heavy vehicle refuelling hub.

Following a comprehensive review of available indicative proposals, transport modelling, and prevailing local conditions, this assessment concludes that the allocation presents fundamental, potentially unmitigable risks to both the Strategic Road Network (SRN) and the local highway infrastructure. The current proposals fail to demonstrate how the intense, 24/7 operational demands of a modern logistics hub can be safely absorbed by a network that is already operating over capacity.

Key Findings:

- **Flawed Baseline Data (TRICS):** The developer's reliance on standard, historic TRICS averages fundamentally misrepresents the likely traffic generation of this site. It fails to account for the massive volume of "last-mile" LGV (van) deliveries and smooths over the severe congestion spikes caused by concentrated 24/7 shift changeovers.
- **The Geographic Routing Trap:** The strategic transport modelling overlooks a critical local constraint: M1 Junction 35A is a restricted junction offering no northbound entry or southbound exit. Consequently, the motorway cannot act as a local bypass. This structural limitation guarantees that westbound commercial traffic, heading for Thorncliffe etc., will be forced directly through the residential centre of Chapeltown, overwhelmingly burdening the already failing Warren Lane/Thorncliffe Road junction.
- **Hostility to Active and Sustainable Travel:** Claims of sustainable accessibility are highly misleading. The site is physically severed by steep gradients and a hostile freight environment. The primary public transport link (the M35 bus) operates on an hourly basis with no late-evening or Sunday service, rendering it entirely useless for 24/7 logistics shift workers and guaranteeing absolute car dependency.
- **Severe Road Safety Risks:** Any proposed or modelled reliance on secondary local routes, such as Jumble Lane or Loicher Lane, introduces unacceptable safety hazards. These semi-rural lanes possess narrow carriageways, blind bends, and a complete absence of pedestrian footways, making them fundamentally incapable of safely mixing with high-frequency industrial traffic.
- **Ecological and Air Quality Threats:** Adding heavy logistics traffic to the M1 J35 corridor - a known air quality hotspot - threatens to reverse pollution reduction trends in the S35 postcode, whilst simultaneously degrading the ‘Very High’ ecological value of the adjacent ancient woodlands through increased nitrogen deposition.

Overall Recommendation: On the basis of current information, the allocation of NES36 is not demonstrated to be safe, sustainable, or consistent with national planning policy. Unless a robust, independently audited micro-simulation transport model is provided, accompanied by a fully funded, pre-commencement mitigation package that physically prevents rat-running and solves the Chapeltown routing conflict, the site should be removed from the Sheffield Plan. If the allocation is forced through, strict Grampian-style conditions must be applied to prevent any development until all necessary off-site highway and active travel infrastructure is complete.

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 NES36, 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, for example, precise details of site use (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 Ecclesfield, Grenoside and Chapeltown, for example those in Oughtibridge, Deepcar, Thorpe Hesley, Hoyland and other nearby settlements. Several are either committed or already in construction in and around Ecclesfield, Chapeltown and Oughtibridge alone. It does not seem that the overall traffic impacts of these 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, and local employment opportunities, this should only be considered over Brownfield/urban development where it can be achieved without significant impact at the proposed site 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, these 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 strategic and 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 comprise a combination of strategic Motorway interventions (M1 junction 35) and localised infrastructure upgrades on Cowley Hill/Cowley Way. Active sustainable travel improvements would be required to meet current standards.

In the previous review of the proposed Sheffield Plan (July 2025) Aprica assessed site NES36 (known then as site S0141). At that time no access arrangements were available. The earlier assessment is shown below along with the Council's assessment of suitability. Aprica's comments follow and largely still stand other than the collision statistics which have been updated, and the now identified proposed site accesses.

Green Belt site allocation appraisal (Employment)

Site Reference: S04101

Address: Land to the south of the M1 Motorway Junction 35, S35 1QP

Gross site area (Site allocation): 16.37 Hectares

Net housing area: 0.00 Hectares

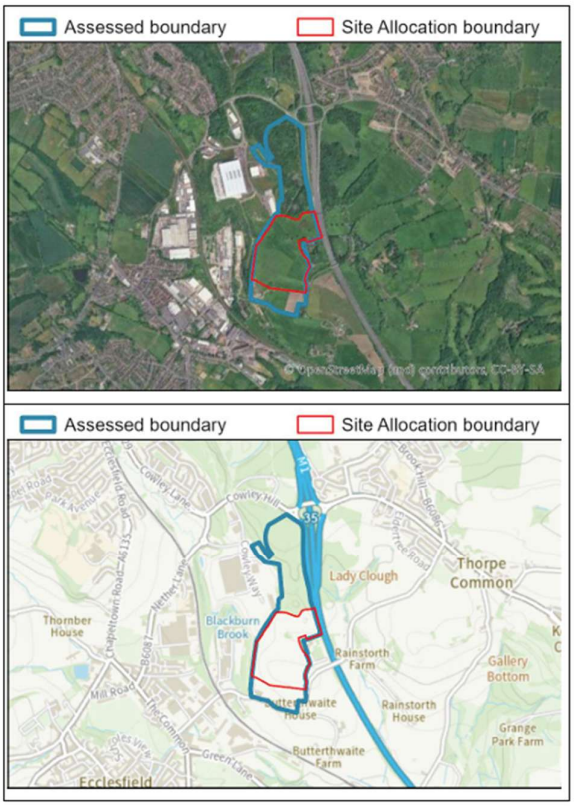
Estimated housing capacity: 0 homes

Net employment area: 15.94 Hectares

Ward: East Ecclesfield Ward

Housing Market Area: Chapeltown & Ecclesfield

Ownership: Private



Distance to core public transport network (CPTN)	NN	Site more than 1200m from the Core Public Transport Network
Access to active travel/cycle network	YY	Site within 400m of an existing or proposed route which is at LTN1/20 standard
Potential to increase the viability of public transport or support investment in new public transport infrastructure	-	Site is beyond 400m of planned bus network improvement or 800m of planned tram/rail network improvement

- Site is within 400m of an active travel/cycle network. Footpaths on site should be retained.

- Whole site is more than 400m from the Core Bus Network (as of December 2023) and more than 800m from a railway station or a tram stop (around 2km to Chapeltown Railway Station).
- Potential capacity issues previously identified at junctions (roundabouts) of Burncross Road/Lound Side and Ecclesfield Road/Cowley Lane in Chapeltown town centre (within 2km). Contributions may be required to local highway improvements identified through the additional transport modelling and/or Infrastructure Delivery Plan.
- Site is within 5km of an M1 junction – Contributions may be required to strategic highways improvements at junctions on the M1..
- Adds further development in a ward where there are already other employment sites.

- Contributions may be required to strategic highways improvements at junctions on the M1 and the local road network.

Aprica comment:

- This site is rated double-negative (NN) for public transport, being over 1200m from the core public transport network
- The double-green (YY) rating for proximity to (within 400m) an active travel network is questionable, as it probably refers to the circular Route 67, more of a leisure loop around High Green, Wentworth, Thorpe Hesley and Parson Cross. Commuter cyclists are unlikely to find this loop beneficial, attractive, or of use to commute
- Bus travel enhancement is unlikely to be viable, with an unrated score (yellow) for proximity to planned improvements. The nearest bus stops are likely to be those on The

Common, which is over 800m away as the crow flies, and for some it would be over 1000m away. It is also across a railway line and, at present, inaccessible

- Capacity issues have been identified at Burncross Road/Lound Side and Ecclesfield Road/Cowley Lane. Contributions to local highway improvements are mentioned and this should be clarified and confirmed should this proposed site be progressed
- ~~There have been two serious injury collisions (three casualties) and six slight injury collisions (nine casualties) on the roads in question, specifically parts of Cowley Hill and Cowley Way, part of Loicher Lane and Jumble Lane, and the M1 offslip (CrashMap 2019-2023)~~
- ~~Access appears to be proposed from Cowley Way but could include Loicher Lane and Jumble Lane. Access suitability would need to be considered further should this proposed site be progressed~~

4 ASSESSMENT OF HIGHWAY PROPOSALS FOR SITE NES36

Surrounding Network

Of significant concern at proposed site NES36 is the proximity to the M1 which is only around 400 metres away. The M1 Junction 35 (known as the Thorpe Hesley junction) is regularly congested, particularly the northbound offslip for traffic exiting toward Cowley Hill and Nether Lane (A629), the Smithy Wood Business Park (Cowley Way) and Thorpe Hesley. There is a bottleneck at the M! roundabout which meets Cowley Hill. During morning peak hours, particularly, traffic exiting the motorway exceeds the capacity of the roundabout, causing vehicles to queue back onto the main M1. Cowley Hill and Nether Lane are heavily used by local traffic and when these roads are slow, the roundabout can't clear.

The offers no practical mitigation for the local network. Because the primary local destinations such as the Thorncliffe corridor sit geographically south of the A616 (J35A), utilising the motorway requires a substantial detour. Commercial sat-nav routing and natural commuter behaviour will always default to the path of least resistance which, in this case, is the more direct route straight through the residential centre of Chapeltown, directly impacting the Warren Lane bottleneck.

The Smithy Wood Business Park/Cowley Way already adds HGV's and LGV's to the mix, thereby further slowing the flow of traffic. It is understood that SCC has recently granted permission for a charging station for electric HGV's and LGV's on the Smithy Wood site. Whilst this is commendable in terms of the environment it could add hundreds of additional slow-moving vehicle movements around this already congested junction. More commercial development is also said to be in the pipeline for the location, which would add even more slow-moving goods vehicles.

There is frequent congestion beyond Cowley Hill and Nether Lane, along the notorious 'rat run' of Cowley Hill/Nether Lane/Mill Lane/Church Street/Town End Road/The Wheel/Wheel Lane. This is a heavily used route between the M1 and Grenoside, Oughtibridge and Bradfield, on which the collision record is particularly poor. Several junctions all the way from the M1 to Grenoside regularly become congested. The Common/Chapeltown Road/Ecclesfield Road also suffers regular congestion and is one of the most notorious bottlenecks in North Sheffield. New homes, supermarkets and other new amenities have in recent years all exacerbated the long-standing traffic problems in and around Ecclesfield, Chapeltown and Grenoside. This is discussed in more detail below.

Many of the proposed sites are geographically well-located for access to the strategic road network (M1/A616/A6135/A629), not least site NES36 for which the proposed access is from Cowley Way, just 400 metres from the M1 slip road at junction 35. The Strategic Route Network (SRN) seems to have been prioritised in the traffic assessments, suggesting that the sites would generate longer distance journeys rather than sustainable travel modes. The local network's traffic and safety has been largely overlooked. 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 that local and national Policy and objectives, such as active and sustainable travel, could be achieved.

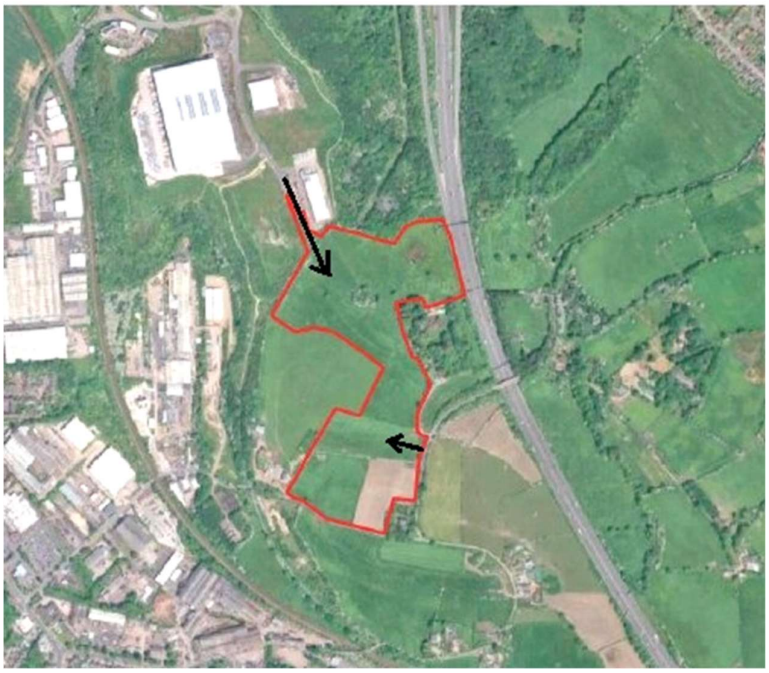
Over the years SCC has carried out several feasibility studies for the area and some traffic management schemes have been introduced. For example High Street/St Michael's Road/Wordsworth Avenue traffic calming and improvements for pedestrians. Other studies have not resulted in any improvement schemes being taken forward. These include the High St/Yew Lane/Stocks Hill/Town End Road/Church Street loop, where narrow streets, parking, visibility, pedestrian safety and parking have long been a serious concern and remain so. This is partly due to the physical inability to introduce measures due to narrow roads, restricted visibility, tight

In addition to local roads being heavily congested at peak periods, the situation is greatly exacerbated by the school run, which is a variable in the localised congestion patterns in this topographically constrained area. The existing traffic associated with Ecclesfield Primary School, located in immediate proximity to the site, creates a concentrated volume of movement which clashes with commuter flows and commercial/HGV traffic utilising the nearby industrial estates.

Proposed Accesses

Access Off Cowley Way

The currently proposed CH04 site access is off Cowley Way, a signalised junction. As mentioned above, the junction is less only 400 metres from the M1. The junction is regularly gridlocked and additional traffic here, including slow moving goods vehicles, would be sure to add to congestion. There is an absence of realistic sustainable travel alternatives to the private car. This is discussed later under Sustainability. Residents are concerned that another access is being suggested from Jumble Lane. Both are shown by the black arrows on the map below.

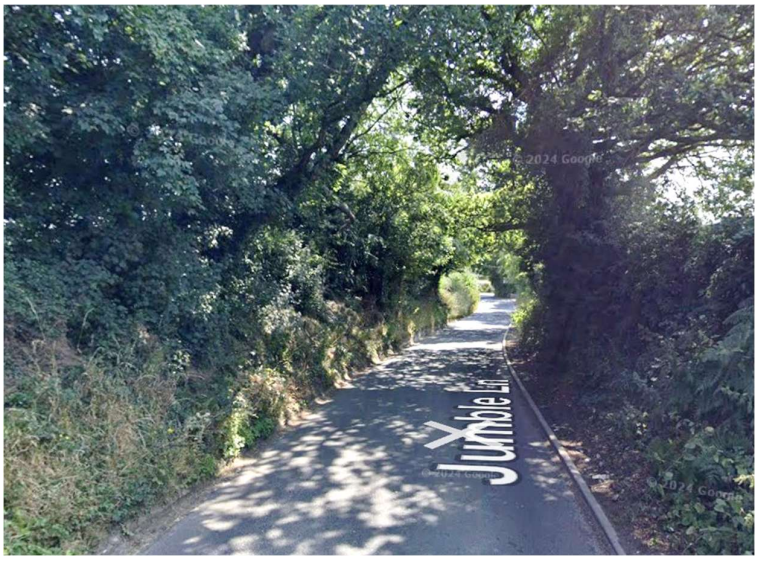


Smeedon Foreman Site Boundary Plan Annotated to Show Suggested and Possible Accesses

In recent years, National Highways and local Councils have implemented schemes to try and mitigate congestion and M1 tailbacks. Smart Motorway Monitoring has been introduced so that if slip road congestion reaches a certain level, overhead gantries on the M1 trigger speed reductions to manage the flow approaching J35. Improvements such as MOVA (Microprocessor Optimised Vehicle Actuation) have arguably helped to regulate the flow of traffic, but they have not resolved the problems because sheer volumes of traffic ‘saturate’ the junctions. Before any development is approved a full assessment should be carried out to determine what, if anything, can be done to sufficiently mitigate the known traffic problems.

Possible Access Off Jumble Lane

The potential use of Jumble Lane as an access or routing corridor for NES36 presents severe road safety and sustainability conflicts. Jumble Lane has the geometry of a rural route; it is narrow all the way to Thorpe Hesley, has sharp ‘blind’ bends, and no footways. It is fundamentally incapable of safely absorbing high-frequency logistics and commuter traffic. The adjacent Loicher Lane, the route to Ecclesfield, is the same if not worse, as it has a low bridge. The absence of segregated cycle infrastructure with no possibility of introducing any, and no adequate street lighting renders the route hostile to pedestrians and cyclists. Any reliance on Jumble Lane, or Loicher Lane, to satisfy the development's 'active travel' obligations is, therefore, critically flawed as it would force vulnerable road users into direct, dangerous conflict with 24/7 industrial vehicles.



Jumble Lane In The Vicinity Of The Rumoured Access - Google

The Low Bridge On The Narrow Loicher Lane - Google

5 SUSTAINABILITY

For site NES36 the hierarchy of travel modes – 1. Walking, 2. Cycling & wheeling, 3. Public transport, 4. Private car – needs more consideration and more detail provided on how active and sustainable travel can genuinely be achieved, before the site progresses. This is explored in more detail below.

Sustainable Travel Modes

1. Walking: Footways on Cowley Hill and Nether Lane lack connection, are non-existent in many places, and are very unattractive for walking up and down the steep Cowley Hill. It is highly unlikely that anyone would walk to the new site even if multi-million pound highway improvements could physically be introduced.

Cowley Hill Narrow/Non-Existent Footway Example – Google

Cowley Hill Overgrown Footway - Google

2. Cycling: Much as for walking, the roads are steep in places and there are no cycle friendly measures other than a short, worn out and, more importantly, outdated section of shared use cycleway, which is now not permitted under LTN 1/20. Only the most serious cyclists would be likely to cycle to site NES36 and back. The claim that the site is 'within 400 metres of an active travel network' is very misleading as it can only be referring to the circular NCN Route 67, which is a leisure loop around High Green, Wentworth, Thorpe Hesley and Parson Cross. Commuter cyclists are unlikely to find this loop useful.

Approximately 100m of Worn Shared Use Cycle Lane on Cowley Hill - Google

3. Public Transport: Again SCC's site assessment is misleading. Those walking from the new site for the 135, 635 or M35 on Cowley Hill would have a walk of at least 1km either all uphill or up to Cowley Hill then down to Cowley Lane. Whilst the 135 is a half-hourly service, and there are local infrequent services (the 635 and M35), the bus stops are woefully poor. The nearest stop would be the one on Smithy Wood Drive, a walk of at least 600 metres to an infrequent M35 service.

Current requirements for bus stops are for raised bus boarder kerbs, tactile paving for partially sighted users, bus stop clearway markings, and preferably shelters. There are none of these at any of the bus stops in question other than an old damaged shelter on Cowley Lane.

Chapeltown Railway Station is at least a 30 minute walk (over 2km) along a busy unattractive walking route.

4. Private Car: This is highly likely to be the mode of choice for most people accessing the proposed site. It is very close to the Motorway, users could be travelling long distances and at unsociable hours, and other travel modes are poor, unattractive or non-existent.

6 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 would put on the highway network. Because the development doesn't yet exist, the developer uses TRICS and its database of like-for-like sample sites 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 are often controversial and have been strongly challenged for site NES36. Developers naturally want to demonstrate the minimum impact on the highway network and might therefore choose a site that is not entirely comparable. The Transport Assessment's (TA's) reliance on

TRICS data fails to provide a credible forecast of the traffic impact from NES36. It is contested that the baseline parameters used appear to rely on traditional ‘B8 storage’ data rather than reflecting the intense 24/7 reality of a modern logistics and a recently approved refuelling hub. By failing to accurately account for the proportion of HGV and LGV movements and masking the severe congestion spikes caused by concentrated 24/7 shift changeovers, the TRICS outputs artificially dilute the perceived impact on the local network. Consequently, any proposed mitigation based on these flawed TRICS averages is inherently inadequate. 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) to make the impact look lower. Thus, in real-world terms, actual traffic volumes and impacts are very often significantly worse. Driver and other road user behaviour in ‘the real world’ is not like a computer model in any case. A regular 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, thereby impacting on dozens of following main road vehicles.

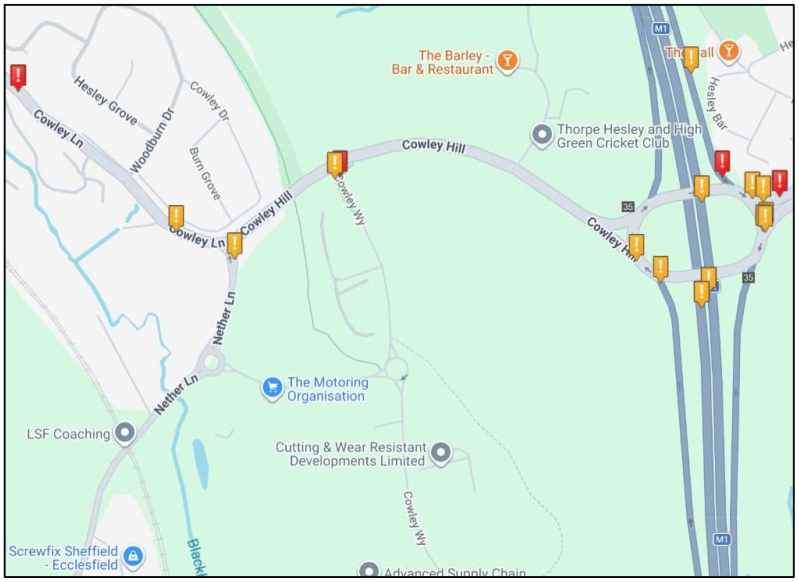
Whilst Aprica does not have the software or expertise to challenge TRICS, and to do so would take many hours, the core issue for Site NES36 is the discrepancy between the theoretical model used by SCC and the physical reality of modern logistics. Skewed TRICS figures can also make sites appear more sustainable than they actually are. Site NES36 is on a steep, semi-rural edge with limited walking and no real cycling facilities, and inconvenient out of date bus facilities. Using dissimilar samples constitutes data error. If traditional 8am to 5pm patterns have been used, again this would skew traffic volumes and modes of travel.

The data should be closely checked to ensure its soundness and if necessary re-run. TRICS is, in any case, just a library of numbers and predicts trip numbers based on existing, similar, sample sites. It cannot model the cumulative impact of development on, say, nearby major junctions. A full micro-simulation model should be built, using software such as VISSIM (“Verkehr In Städten SIMulationsmodell” - which translates to "Traffic in Cities - Simulation Model”) to show actual traffic modelling for the wider area rather than just numbers for a ‘site’.

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.

According to ‘CrashMap’, for the latest verified five-year period (2020 to 2024 inclusive) there have been two serious (six casualties) and five slight (eight casualties) injury collisions on Cowley Hill and the top of the M1 slip road. Downstream, further along Nether Lane and in & around Ecclesfield and Chapeltown, there have been dozens of recorded injury collisions including a fatality on Nether Lane. Some of these will no doubt be because of the traffic volume and congestion on physically constrained roads.
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.



Cowley Lane, Cowley Way and Surrounding Area Injury Record – CrashMap

8 OTHER FACTORS TO CONSIDER

The Preliminary Ecological Appraisal (PEA) for 'Smithywood Business Park Phase 2' demonstrates strengths in its approach to highways, traffic, transport, road safety, and sustainable travel by recognising the importance of maintaining and enhancing green infrastructure, such as the Strategic Green Network along Blackburn Brook, and recommends integrating footpaths and cycle routes into the development. It also proposes mitigation measures such as buffer zones, sympathetic lighting, and Sustainable Urban Drainage Systems (SUDS), which can benefit both ecological integrity and road safety. The appraisal has notable limitations, however, that should be addressed. There is little assessment of how increased vehicle movements or changes to road layouts might affect pedestrian and cyclist safety, nor does it evaluate the capacity of existing transport infrastructure. Whilst the report mentions integrating active travel routes, it does not specify how these will connect to wider networks or address barriers such as the M1 motorway. Furthermore, the potential for increased traffic to cause indirect ecological impacts - such as air pollution, noise, or roadkill - is not explored. The appraisal also misses opportunities to promote a modal shift away from car dependency or to set measurable targets for sustainable travel and road safety improvements.

The Statement of Common Ground (SOGC) between SCC and St Paul's/Smithywood Business Parks Developments ltd causes concerns about traffic, road safety, and the lack of commitment to sustainable travel. The current plans admit that the development will increase vehicle trips and may require improvements at already busy junctions, but these vital decisions are being postponed until after planning permission is granted. This approach risks worsening congestion and road safety for local residents, with no guarantees that necessary upgrades will be delivered in time or at all. There is no clear agreed plan for safe walking, cycling/wheeling, or public transport access to the site. The SOGC only confirms that these issues will be looked at later, rather than making them a priority from the start. Without firm commitments to sustainable and active travel, this development could lock in more car dependency and undermine efforts to create a healthier, safer community. Planners should demand clear, up-front solutions for traffic, road safety, and sustainable transport before allowing this development to proceed.

The Sheffield Plan Proposed Additional Site Allocations document for NES36 specifies that contributions may be required to strategic highways improvements at M1 junctions and the local road network, but it does not detail the scale or nature of these improvements. There is a general requirement for a comprehensive environmental assessment and for offsetting adverse impacts

through compensatory improvements to the Green Belt, but explicit mitigation measures for transport or road safety are not set out at this stage. More broadly, the Plan relies on updated infrastructure and transport assessments, which suggest that existing mitigation schemes are generally sufficient for the additional sites, though some further upgrades may be needed at specific junctions. However, the document defers most site-specific sustainable travel and road safety measures to later planning stages, such as masterplanning and planning applications. This approach means that while the need for infrastructure improvements is acknowledged, there is a lack of detailed, up-front commitments to sustainable travel options (such as walking, cycling/wheeling or public transport or cycling enhancements) and road safety interventions for NES36. This could present risks in terms of ensuring that new developments are well-integrated with sustainable transport networks and do not exacerbate existing road safety or congestion issues.

A local campaign group submission on Main Modification MM350 (NES36) argues that the allocation remains unsound because the site boundary changed materially during examination (following removal of land not in the landowner's control) without any corresponding update to the evidence base or re-comparison with alternatives. It contends that key constraints, including transport, air quality, noise, landscape etc, are being inappropriately deferred to the planning application stage, undermining deliverability and effectiveness. It also claims cumulative impacts (including from a recently approved HGV refuelling hub) have not been assessed and that realistic buffering significantly reduces the developable area, leading to an overstatement of site capacity; the group therefore concludes NES36 should be removed from the plan. This is in line with Aprica's assessment and view.

Campaigners have also formally objected to the refuelling hub, stating that it duplicates existing/approved motorway service provision while also causing material planning harm including highway safety/congestion and extra air/noise/light pollution.

Other local objectors have confirmed the above views, by formally arguing to Planners/SCC that the proposed NES36 development risks causing traffic congestion and environmental harm because key road safety and infrastructure impacts have not been properly assessed. The lack of technical studies on access and layout is raised, warning that increased traffic could damage nearby woodlands and does not safeguard sustainable movement and protection of the community.

In the 2025 Air Quality Annual Status Report (ASR) the area around the M1 Junction J35 remains a hotspot of concern. Air quality at the location heavily dictated by motorway congestion. When the M1 backs up, air quality on Cowley Hill becomes significantly worse. Adding the new commercial development at site NES36 would introduce a significant risk of reversing the downward trend in pollution for the S35 postcode.

9 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The information currently available does not demonstrate that the proposed access arrangements for site NES36 would be safe, operationally effective, or capable of supporting the proposed logistics/warehousing use without unacceptable impacts on the Strategic Road Network (M1 Junction 35) and the already failing local network. The site's immediate proximity to a junction that is already prone to severe congestion, combined with the continuous, 24/7 nature of modern HGV and LGV movements, creates an unmitigable risk of exacerbating local gridlock. Furthermore, realistic scope for inclusive active travel and public transport access is virtually non-existent due to severance, steep gradients, and hostile freight environments.

In relation to the Regulation 19 'tests of soundness', the following conclusions are drawn for site NES36:

- **Positively Prepared:** The proposals do not meet objectively assessed infrastructure requirements. The indicative material prioritises strategic motorway assumptions while offering zero assurance that the already constrained local road network - specifically the well-documented bottlenecks at Cowley Hill, Cowley Way, the Warren Lane/Thorncliffe Road junction, and indeed in Ecclesfield itself, can accommodate the development. Furthermore, the consultation material lacks a funded, pre-commencement mitigation package.
- **Justified:** The allocation is not supported by proportionate or transparent evidence. The developer's reliance on standard TRICS averages is fundamentally flawed; it relies on traditional 'B8 storage' data that fails to reflect the hyper-intensive, 24/7 reality of a modern logistics and refuelling hub, severely underestimating "last-mile" LGV (van) movements and shift-change traffic spikes. Furthermore, the assessments ignore the geographic reality that M1 Junction 35A is a restricted junction. Because it offers no northbound entry or southbound exit, it cannot function as a local bypass, guaranteeing that westbound commercial traffic will be structurally forced through the residential centre of Chapeltown.
- **Effective:** Deliverability over the plan period is not demonstrated. Deferring key access design and capacity mitigation to the planning application stage creates an unacceptable risk. Furthermore, any reliance on Jumble Lane or Loicher Lane for secondary, emergency, or active travel access is critically unsafe. These routes possess semi-rural geometry, blind bends, and lack continuous footways, rendering them fundamentally incapable of safely absorbing high-frequency logistics or commuter traffic.
- **Consistent with National Policy:** Consistency with national sustainability policies is not demonstrated. Claims regarding public transport accessibility are entirely unrealistic. The primary local bus route (the M35) operates on a limited hourly frequency with no Sunday or late-evening service, making it completely incompatible with the 24/7 shift patterns of a logistics hub. Consequently, the site guarantees heavy reliance on private car usage, directly conflicting with national policies on sustainable transport and air quality improvement, particularly given the existing pollution concerns at the M1 J35 hotspot.

Recommendations

- **Reconsideration and Removal:** The allocation of site NES36 should be seriously reconsidered. Unless safe access, accurate network impact modelling, and genuine sustainable travel deliverability can be proven prior to adoption, the site must be removed from the Sheffield Plan due to unresolved highway safety hazards and severe residual network impacts.

- **Grampian-Style Conditions:** If the allocation is progressed against these objections, strict Grampian-style conditions (or equivalent plan policy wording) must prevent commencement until the following are agreed, fully funded, and completed:
    - Detailed access designs independently audited for heavy HGV/LGV demand
    - A defined package of strategic mitigation at M1 J35 (agreed with National Highways) and local junctions
    - Physical, engineered measures that actively prevent commercial rat-running through constrained residential areas and strictly prohibit commercial routing via Jumble Lane or Loicher Lane.

- **Mandatory Sustainability Strategy:** A robust Sustainability Strategy must be tested for deliverability at the allocation stage, not deferred. It must explicitly address how the site will secure 24/7 public transport provision that aligns with shift patterns (beyond the inadequate M35 service) and demonstrate how LTN 1/20 compliant cycling provision can physically be achieved within existing, constrained highway limits. Where these are undeliverable, the scale of the development must be permanently reduced or refused.

- **Robust Transport Re-assessment:** A comprehensive micro-simulation model (e.g., VISSIM) must be mandated to capture the true cumulative impact of NES36 alongside all other committed S35 developments. This assessment must abandon generic TRICS averages in favour of 'busy day' (85th percentile) sensitivity testing that accurately accounts for modern e-commerce LGV volumes, strict shift changeover spikes, and the routing restrictions imposed by M1 Junction 35A.