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**BARFORD RESIDENTS' ASSOCIATION**

**WASPERTON QUARRY**

**TRANSPORT ASSESSMENT REVIEW**

**JANUARY 2024**

**DATE ISSUED:** JANUARY 2024  
**JOB NUMBER:** ST20089  
**REPORT NUMBER:** 0001  
**VERSION:** V1.0  
**STATUS:** FINAL

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**JANUARY 2024**

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## **1 INTRODUCTION**

### **1.1 Overview**

1.1.1 Wardell Armstrong LLP are appointed by Barford Residents Association to undertake a Technical Review of the Transport Statement (TS) submitted in support of planning application ref WDC/22CM008 regarding proposed quarrying at Wasperton.

1.1.2 The planning application was submitted to Warwickshire County Council (WCC) on behalf of Smiths Concrete Ltd, and proposes a sand and gravel quarry, ancillary offices, buildings, processing plant, and a new access road, with restoration using imported inert materials to recreate agricultural land and biodiversity enhancement works. The supporting TS was prepared by Tetra Tech and is dated 15 August 2022.

### **1.2 Report Structure**

1.2.1 This report provides an objective technical review of the methodology and content of the Tetra Tech TS.

1.2.2 Section 2 assesses whether the relevant transport planning policy and design guidance has been considered.

1.2.3 Section 3 reviews the existing conditions including committed developments in the surrounding area. Section 4 reviews the traffic impact assessment.

1.2.4 A summary of the report is at Section 5, along with recommendations of any further actions that should be undertaken by the applicant's consultants.

## 2 POLICY CONTEXT

### 2.1 Policy Documents

2.1.1 The TS states that consideration has been given to the following policy documents.

- National Planning Policy Framework [NPPF] (MHCLG, 2021);
- Warwickshire Minerals Plan 2018-2032 (WCC, 2022);
- Council Plan 2020-2025 (WCC, 2020);
- Warwickshire Local Transport Plan (WCC,2011).

2.1.2 The policies of the local planning authority, Warwick District Council (which now works with Stratford on Avon District Council on an alliance basis) are not addressed.

### 2.2 Guidance Documents

2.2.1 National Highway's Design Manual for Roads and Bridges (DMRB) is used as the highway design reference in the TS. DMRB is primarily for the design, assessment and operation of the Strategic Highway Network (of which the A429 does not form a part). It is recognised that some DMRB standards are suitable for the highway context of the proposed site location, being a high-speed road that is assumed to carry a high proportion of through traffic.

2.2.2 For local roads such as the A429 the Department for Transport's Manual for Streets is a useful design reference, which is not explicitly considered in the TS. The Manual for Streets gives consideration of inclusive approaches to design and quality of streetscape, acknowledging the hierarchy of road users. Manual for Streets 2 states:

*"It is clear ... that most MfS advice can be applied to a highway regardless of speed limit. It is therefore recommended that as a starting point for any scheme affecting non-trunk roads, designers should start with MfS.*

*Where designers do refer to DMRB for detailed guidance on specific aspects, for example strategic inter-urban non-trunk roads, it is recommended that they bear in mind the key principles of MfS, and apply DMRB in a way that respects local context. It is further recommended that DMRB or other standards and guidance is only used where the guidance contained in MfS is not sufficient or where particular evidence lead a designer to conclude that MfS is not applicable."* (Para 1.3.2 and 1.3.3)

2.2.3 The TS also states that it has been prepared in line with the Department for Transport's Planning Practice Guidance. This Guidance states: *"The transport evidence base should identify the opportunities for encouraging a shift to more sustainable transport*

*usage, where reasonable to do so” and that “Transport ... Statements can positively contribute to:*

- *encouraging sustainable travel; ...*
- *creating accessible, connected, inclusive communities”*

2.2.4 However, the TS does not address how to positively contribute a shift to more sustainable transport usage or to creating accessible, connected, inclusive communities. Existing pedestrian, cycling and public transport conditions are described, but measures to encourage these forms of transport and to better connect local communities with the development site are not addressed. Realistically in this location most travel to the site for operational purposes will be by car or suitable goods vehicle. However, more sustainable local connections, primarily to work on site, or between villages of Waspington and Barford, are not properly assessed. Up to 10 new jobs are proposed on site. Moreover, the development will add substantial additional HGV traffic to the local highway network, so mitigation to address potential impacts on vulnerable road users are required.

### 3 EXISTING CONDITIONS

#### 3.1 Pedestrian Accessibility

- 3.1.1 The TS states that there is an existing pedestrian refuge island on A429 circa 80m north of the access to Wasperton Farm. There is no existing pedestrian refuge in this location. The island shown on Photograph 5 of the TS is to ensure that vehicles pass a ghost island right-turn lane on the correct side of the carriageway, and therefore provides protection for right-turning vehicles. The island shown has no dropped kerbs or tactile paving, no space for a pedestrians or cyclist to wait, and is separated from footway/cycleway by grass verge.
- 3.1.2 The actual location of the pedestrian refuge is circa 120m further north on A429 and is circa 600m north of the proposed site access location. The implications of this are discussed further in the access design section.
- 3.1.3 The TS refers to CIHT guidance which states that 2000m presents a suitable walking commute distance. The TS presents a 2km catchment plan to demonstrate locations that may be within a commutable walking distance of the site. This catchment is a 2km radius circle drawn around the site and does not provide a suitable or reliable way to assess locations that may be commutable from the site. It does not take account of actual walk distances or existing infrastructure, and therefore significantly over-estimates the residential catchment within a 2km walk of the site.
- 3.1.4 It is noted for example, that all of the built-up area of Barford is shown as being within a 2km walk of the site, and the report states that Barford is within 2km of the site. When measured from the assumed location of site office and welfare facilities, at the eastern end of the access road, much of the north-eastern part of Barford is beyond a 2km walk of the site. A more conventional and accurate way to measure residential catchment is to display isochrones measured from the office/welfare facilities, which take account of the site access location, and the walk infrastructure available.
- 3.1.5 The Department for Transport's Manual for Streets guidance provides clarification that "*propensity to walk is influenced not only by distance but also by the quality of the walking experience.*" The existing walking infrastructure does not safely connect the site to neighbouring villages (Barford or Wasperton) which are wholly or in part within convenient walking distance. Moreover, walking infrastructure in the immediate vicinity of the site is not continuous or lit and does not include safe crossing

facilities. This makes walking less attractive and safe as an option for accessing the site.

3.1.6 Appendix E appears to show no pedestrian crossing facilities and no footway on the Eastern side of the carriageway, which should be required for safety purposes. As a minimum, pedestrian crossing facilities, and a short length footway in the vicinity of the site access should be provided, to enable pedestrians to cross before entering the site. Widening of very narrow footway on the western side of the carriageway, which is immediately adjacent to the site access junction carriageway should also be assessed.

3.1.7 The TS states that on site transport infrastructure will be in accordance with good practice set out in the Department for Transport's Inclusive Mobility document. However, this is inconsistent without safe crossing facilities at the site access junction. It could also be argued that pedestrian segregation would also be appropriate on the site access road, but failing this, safe crossing facilities and a suitable footway on A429 to allow pedestrians to access a shared surface site access road should be provided for safety.

## 3.2 Cycle Accessibility

3.2.1 A 5km cycle distance is identified within the TS as being a suitable commuting distance. A 5km cycle catchment is presented. As with the walk catchment, the cycle catchment is a uniform circle around the site with a 5km radius. This substantially overestimates the actual locations which are within a 5km cycle journey of the site.

3.2.2 Based on the simplistic cycle catchment presented, the TS concludes that parts of Bishops Tachbrook, and part of Warwick are within a 5km cycle of the site. None of Bishops Tachbrook is within a 5km cycle of the site when taking account of site access location and the road route. Parts of the village are greater than 7km from the site.

3.2.3 Similarly, whilst the very southern fringe of Warwick is within a 5km cycle, the built up area of Warwick that is within a 5km cycle is very much smaller than the catchment presented in the TS. The actual cycle catchment comprises a substantially commercial area of Warwick, and only includes a very small number of residential dwellings.

3.2.4 Quality of existing cycling infrastructure is not addressed in the TS. Notably, cycle facilities are not high quality, continuous or lit, which would suppress potential use. Additionally, no provision for cyclists appears to be included in the Appendix E proposed junction layout.



3.2.5 It is acknowledged that provision of off-site cycle infrastructure, beyond the site access junction, may not be proportionate mitigation for a development of this type. However, the TS should acknowledge potential impacts of the development on use of local cycle infrastructure, and in particular links between Wasperton and Barford, which will be significantly impacted by the proposed site access arrangements, and no mitigation offered as part of the proposed development.

### 3.3 Bus Accessibility

3.3.1 The TS report states: *“The bus stops on the A429 are located adjacent to the western site boundary approximately 300m south of the proposed site access and therefore travel by bus is a genuine alternative to the private car and should assist in encouraging a modal shift away from the private car.”*

3.3.2 The level of bus accessibility in the context of a particular development is determined by the combination of timing and frequency of service, and connectivity between the site and waiting facilities.

3.3.3 The timing and frequency of service is reasonable in the context of the proposed use of the site, with buses in both directions calling near the site prior to proposed opening times, and hourly throughout the day. The final bus in each direction is marginally before the proposed cease of operations at 1900, although the report does state that typically the site will close by 1700.

3.3.4 However, the proposed site access, which is a new junction, provides very poor linkage for pedestrians between the site and the bus stops. No pedestrian footway is proposed on the site access road, or between the junction and the southbound bus stop. There is no shelter at the southbound stop. No pedestrian crossing facilities at the junction are proposed to link the site with the northbound bus stop.

3.3.5 The existing footway on the western side of the A429, between the proposed site access and the northbound bus stop is narrow (circa 1.2m wide), directly adjacent to a high-speed carriageway with no verge separation and has no street lighting. Therefore, the current footway provision would be unattractive to users, particularly during hours of darkness.

## **4 TRAFFIC IMPACT ASSESSMENT**

### **4.1 Committed Developments**

- 4.1.1 The TS states that there are no committed developments that could have an impact on local traffic conditions. It states that a search of WCC's planning website was undertaken to establish whether there are any significant highway schemes or committed developments in the vicinity of the site that could have an impact on local traffic conditions. However, this would only reveal applications for waste, minerals or County Council developments. A full search of the Warwick and Stratford-on-Avon District Council websites would reveal if there are other types of committed development that may have an impact on traffic flows on A429.
- 4.1.2 Furthermore, the planning application proposes a traffic signal-controlled junction on the A429. Where a new junction is proposed that has potential to introduce delay to traffic flow on an A-road, it is also reasonable that traffic impact assessment should consider the potential cumulative impact of Local Plan allocations which is accepted best practice. Whilst some background traffic growth, derived from the Department for Transport's TEMPRO model, has been assumed as part of the future year scenarios, it is not clear whether this is sufficient to include potential traffic demand generated by those allocations for development.
- 4.1.3 The quarry site is within the emerging South Warwickshire Local Plan area (a joint plan for the Warwick and Stratford-on-Avon Districts). The Scoping Report of May 2021 shows a Major Investment Site at Wellesbourne also located off the A429 and within 3 miles to the South of the quarry site. The Wellesbourne Innovation Campus site masterplan was approved by Stratford-on-Avon district Council in July 2023. Around 440ha of mixed-use development is shown in this location in the South Warwickshire 'Call for Sites' Plan map<sup>1</sup>. There are further potential development sites also promoted in the emerging South Warwickshire Local Plan at Wellesbourne Mountford Airfield and within 1km of the site at Glebe Farm (13.7ha mixed development to immediate south of the quarry) and in Barford (35ha of housing at Elliotts Farm and 4ha of mixed development at Long Meadow).
- 4.1.4 Committed developments in the vicinity of the site, such as at Wellesbourne should be incorporated into traffic growth forecasts and junction capacity assessments as part of the Transport Statement preparation and approval processes. Including traffic

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<sup>1</sup> <https://www.southwarwickshire.org.uk/swlp/call-for-sites.cfm>

from the Wellesbourne site would clearly have adverse impacts on the capacity and therefore queuing and delay for the new signal crossing into the site detailed within the TS. Therefore, the statement at paragraph 1.2.4 “The TS report demonstrates that the site can be accessed in a safe and suitable manner and that access can be achieved in accordance with appropriate design standards” is not supported by a full and appropriate assessment.

- 4.1.5 It is noted in correspondence appended to the TS that a roundabout site access junction option has previously been considered. It is not set out why this type of junction is no longer proposed. It is likely that a roundabout option would reduce delay for general traffic on A429, particularly at times when the quarry is generating little or no traffic, with green signals for the site access would still have to be incorporated into the signal cycle.

## 4.2 Traffic Distribution

- 4.2.1 The TS states: *“All traffic associated with the proposed quarry has been distributed based on the proportional split of background traffic on the A429 as recorded in the full traffic count.”*
- 4.2.2 This is not a suitable basis for estimating the distribution of traffic associated with the development. Using as proportional split of background traffic is sometimes a suitable basis to estimating the distribution of traffic associated with residential development within a larger residential estate, or pass-by traffic associated with a commercial use. However, in this case it is difficult to see what relevance the existing background traffic, which will be related to a variety of traffic types and journey purposes, has in forecasting the distribution of traffic associated with the proposed development. The resultant distribution is broadly a 50/50 split of traffic between north and south in the AM peak hour, and a 60/40 split in favour of arrivals to/from the south in the PM peak hour. This is a highly simplistic scenario.
- 4.2.3 It is likely that the distribution of traffic associated with the proposed development will vary depending throughout its operational life depending on sources of demand for material – ‘the market’. Whilst there may be some very localised demand for material, for example associated with developments set out above, it seems likely that the majority of export of material will be directed towards larger urban settlements such as Warwick, Leamington Spa, Coventry, and the West Midlands conurbation as assessed in the adopted Mineral Local Plan. Furthermore, major infrastructure projects such as HS2 are also likely to generate significant demand for sand and gravel.

Vehicles associated with export of material for these potential significant sources of demand are more likely to arrive and depart via the north.

- 4.2.4 It is also likely that export of material further afield will utilise M40 for distribution via the Strategic Road Network (SRN).
- 4.2.5 The traffic distribution should be checked against assumptions in the Minerals Plan regarding where demand for material is likely to be derived. It is highly likely that this may result in a traffic distribution that is much more heavily weighted towards trips to/from the north.
- 4.2.6 Following this, further analysis of the development impact on the SRN may well be required, with further consultation with National Highways on the development impact on M40, Junction 15.
- 4.2.7 It is also possible that an amended distribution may have an impact on site access design and capacity analysis.

#### 4.3 **Proposed Site Access Junction Capacity Assessment**

- 4.3.1 A new access to the site is proposed, along with a signalised junction. The performance of the junction is modelled and assessed in the TS. Base traffic, traffic growth, site related traffic generation and distribution data are detailed. The junction model shows that there will be vehicles queueing at the new proposed junction, particularly on the south arm in the evening peak, but that the junction would operate within capacity. This assessment does however exclude potential traffic generated by committed developments for example the Wellesbourne Innovation Campus. This additional traffic is very likely to have an impact on the proposed junction capacity in relation to traffic demand, particularly given that it is located within 3 miles south of the proposed quarry.
- 4.3.2 There is lack of clarity from the National Highways letter at Appendix B of the TS dated 16 February 2022 which refers to a new roundabout (rather than signalised 3 arm junction as assessed) providing access to the site from the A429. It also sets out that their requirement for not requiring further assessment of the SRN is based on Tetra Techs forecasts, which as set out above should be revised. Therefore, National Highways should be reconsulted about the application once distribution assumptions have been revised and justified.

## **5 SUMMARY AND RECOMMENDATIONS**

### **5.1 Summary**

- 5.1.1 Wardell Armstrong has been commissioned by Barford Residents Association to undertake a Technical Review of the Transport Statement (TS) submitted in support of planning application concerning a proposed quarry at Wasperton.
- 5.1.2 Our review of planning policy and guidance found that local planning policies (of Warwick District Council) were not addressed. Guidance from National Highways' Design Manual for Roads and Bridges was used as primary guidance, but no reference is made to Manual for Streets, which should be the starting point for scheme designers. Moreover, national guidance which seeks to encourage inclusive approaches to accessibility and more use of sustainable modes where possible - walking, cycling, public transport, and this is not satisfactorily addressed.
- 5.1.3 The assessment of existing conditions in the TS gives insufficient consideration to the quality of facilities for pedestrians, cyclists and bus users. The catchment plans provided to demonstrate locations that may be within a commutable walking or cycling distance of the site are not suitable for the purpose. Some existing infrastructure is inaccurately described, for example, there is no existing pedestrian crossing provision on the A429 near the site. Moreover, the proposed new junction providing access to the site does not include facilities for pedestrians, cyclists or people walking to catch the bus. Better connectivity to local communities in Wasperton and Barford would facilitate access to new jobs at the quarry.
- 5.1.4 In terms of the development impact, major committed development at Wellesbourne has not been incorporated into the background traffic flows. This site was identified as a major growth centre in the emerging South Warwickshire Local Plan in 2021 and a Masterplan was approved by Stratford on Avon District Council in July 2023. Given the scale and proximity of this development, its exclusion has an impact on traffic flows on the A429 and capacity of the proposed junction with the quarry site.
- 5.1.5 Distribution assumptions do not appear consistent with the likely destinations of material exported from the site. Therefore, the information provided to National Highways on which they produced their consultation response, is highly likely to underestimate the development impact on the SRN.

### **5.2 Recommendations**

- 5.2.1 A review of the TS is promoted in order to further address:

- Review of traffic growth assumptions to ensure they fully account of for traffic growth related to development at Wellesbourne and other sites allocated in the local plan;
- Full assessment of Warwick and Stratford-on-Avon district council committed developments that may have an impact on traffic flows on A429 and M40 Junction 15, and inclusion of these within capacity assessment;
- Review of traffic distribution assumptions against the adopted Minerals Plan, and likely destinations of outgoing material;
- Reconsult with National Highways regarding development traffic impact on M40 J15 and the wider SRN;
- Review consequent impacts on capacity of the proposed site access junction, and whether the junction configuration and/or form of control, is sufficient;
- A review of the new junction design to accommodate street lighting and provision for pedestrians, cyclists and public transport users, both accessing the site, and using existing facilities that may be impacted by traffic generated by the development.

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