

**RB2019/0552 - Outline application for the erection of up to 450 No. dwellinghouses including details of access at to the north west of Worry Goose Lane, Whiston**

**Frequently Asked Questions**

**Highways**

**1. Have the agents correctly modelled the impact on Worry Goose Roundabout using accurate traffic data?**

Yes, the roundabout has been modelled using traffic survey data provided by RMBC highways and using industry standard modelling software.

**2. How is a traffic queue defined since the numbers quoted are much less than the numbers seen in reality?**

The modelling software used for junction assessments provides outputs indicating queues/delays over 15-minute periods over the time period analysed and so tends to show a mean maximum queue over this period. There may well be 'spikes' in queueing 'on the ground' that may not be reflected owing to the nature of the model used. These have been observed to occur for short periods in the peak periods, and are not considered to meet the test of 'severe impact' given by NPPF (see FAQ 12).

**3. What mitigation is intended on the approaches to the Roundabout and how will these changes improve traffic flows and reduce queuing?**

The improvements include for localised widening on 3 of the approaches to the roundabout to improve throughput and allow greater stacking space at the roundabout. A new signal controlled pedestrian crossing of the A631 to the NE of the roundabout is also proposed intended to provide additional gaps in traffic flow for vehicles on Worry Goose Lane.

**4. Will the proposed bus lane impact of the existing shared footway/cycleway?**

Appropriate foot/cycle facilities on East Bawtry Road will be retained as part of the improvement.

**5. What will be the benefit of the bus lane in terms of improving capacity at the roundabout?**

There will be no improvement to capacity for general traffic on East Bawtry Road as a result of the proposed bus lane - this is proposed to provide bus priority along the A631 corridor at the junction, to mitigate for peak hour queuing is forecast to remain an issue.

**6. Why does the development only mitigate the impact of the traffic to be generated by the development?**

The NPPF and relevant transport policies requires developments to mitigate their own traffic impact, not to resolve existing issues on the highway network.

**7. How has the trigger point of 111 No. dwellings been arrived at?**

This is based on the level of traffic impact predicted at the Worry Goose roundabout as a result of this scale of development.

**8. How will congestion and delay created by existing traffic, and future growth, be addressed?**

The improvements proposed will benefit all highway users, not just additional traffic generated by the proposed development. The capacity assessments undertaken include for existing traffic, plus an allowance for background traffic growth.

**9. Will the proposed road layout at the site accesses be safe, particularly for children crossing Worry Goose Lane to get to/from the school?**

The site access junctions have been designed in accordance with relevant design guidance and the designs have been subject to an appropriate Stage 1 Road Safety Audit. The accesses will be subject to further detailed design and further safety audits at the appropriate stages in the design process.

**10. What measures are proposed to promote non car modes of travel?**

New bus lane as part of Worry Goose roundabout improvements, financial contribution towards enhanced bus services, improvements to local bus stops and provision of a new shared foot/cycle route on the west side of Worry Goose Lane between the development and Worry Goose roundabout.

**11. Why is there a condition requiring the estate road be built up to the boundary with Shrogswood Road?**

Constructing a prospectively adoptable road up to the boundary with Shrogswood Road would safeguard the potential for the road to be extended at a later date to access the additional allocated site on the opposite side of Shrogswood Road, again in the interests of permeability. The access point would be determined when the detailed layout was being considered

**12. On what traffic/road safety grounds could planning permission be refused**

This is governed by the National Planning Policy Framework, which states –

*“Development should only be prevented or refused on highways grounds if there would be an unacceptable impact on highway safety, or the residual cumulative impacts on the road network would be severe.”*

## Drainage

### 1. What is the purpose of an outline design?

The outline design is required to illustrate the how runoff from the outline planned development can be safely collected and attenuated on the site and to establish the design criteria that any future development will need to comply with to be granted approval by Rotherham Metropolitan Borough Council (RMBC) after detailed design and as part of a submission for Planning Condition Discharge.

The outline design along with the issued flood risk assessment (ref 387391\_R01\_C) establish how the allowable discharge should be calculated and what options are available for a future developer to design a Sustainable Drainage System (SuDS).

The outline design may not be the design that will be delivered in the future by a developer, this will be subject to a detailed design based on the proposed layout of housing, roads and landscaping. This affords the developer multiple opportunities to provide other means of SuDS collection, conveyance and attenuation. All of which will be assessed by RMBC when the developer presents his design as part of the applications for Reserved Matters.

### 2. Will the development generate runoff that will cause flooding in Whiston?

In its present condition the undeveloped site will generate runoff during heavy rainfall this is known as greenfield runoff. This rate of runoff can be estimated using various methods and for various return periods. For the development site this has been estimated using the ICoP Suds method.

The runoff anticipated from the undeveloped site in any year is known as  $Q_{bar}$ , for a 1 in 30 year event this is noted as  $Q_{30}$  and so on.

The proposed development site has a  $Q_{bar}$  rate = 31.1 l/s. This is set as the flow control for all rainfall events on the site for events up to a return period of 100 years plus climate change. For comparison, the runoff from the site if it were not to be developed, noted as  $Q_{100} = 79.8$ l/s and this excludes the potential impacts of climate change.

For any event with a return period greater than 1 in 2 years, the post-development site will discharge at a lower rate than if the site were to remain undeveloped.

### 3. How has the attenuation volume been established?

The volumes of attenuation and the sizes of basins shown on the indicative outline drainage plan have been calculated using the design software that models rainfall events for different return periods and durations. The volume of attenuation is the difference between the volume of rainfall falling on the site

and the volume which is allowed to discharge during the rainfall. Think of a bath with a running tap as the input and the plug hole as the discharge. Where inflow exceeds outflow attenuation is required.

On normal impermeable surfaces such as tarmac and concrete, when rain falls on it not all of that rainfall is converted to runoff, there is a wetting of the surface and small depressions that get filled, there are also natural processes like evaporation that reduce this further.

The detailed design will be refined to a plot level where the roof and drive drainage will be individually modelled, separately to the road drainage. Each one of these features will tend to slow the flow down as it flows from the point it lands to the outfall of the site. This is known as the Time of Concentration and will be increased in the detailed design by using SuDS features like permeable driveways, filter trenches and swales.

#### **4. Will the development generate runoff that may be polluted?**

Any proposed future surface water management system will need to ensure that the runoff from the site is properly treated before being discharged offsite. This is typically done by designing systems in accordance with the CIRIA SuDS manual (C753) which uses a simplified index approach and provides guidance on how suitable water quality improvements can be made as part of the drainage systems. These include the use of SuDS features such as swales, basins and ponds.

At the detailed design stage the developer will be required to demonstrate that the treatment trains within the drainage system provide the required level of pollution control. This would be submitted as part of the reserved matters application for approval by RMBC.