BARNSLEY
Metropolitan Borough Council

A61 BIRDWELL JUNCTION IMPROVEMENT

DESIGN AND ACCESS STATEMENT

NOVEMBER 2014

Introduction

This design and access statement is submitted in support of the application for planning permission to promote better quality and more sustainable design. It is proposed to construct a new signalised gyratory roundabout, two major priority roundabouts and a link road on land currently owned by the Homes & Communities Agency and Wentworth Estates. The site is located adjacent A6195 Dearne Valley Parkway, A61 and A6135 Birdwell close to M1 J36. The Planning Application covers an area of 19.5 acres (7.9 hectares) including the existing Junction 36 of the M1 motorway.

Context and Site Use

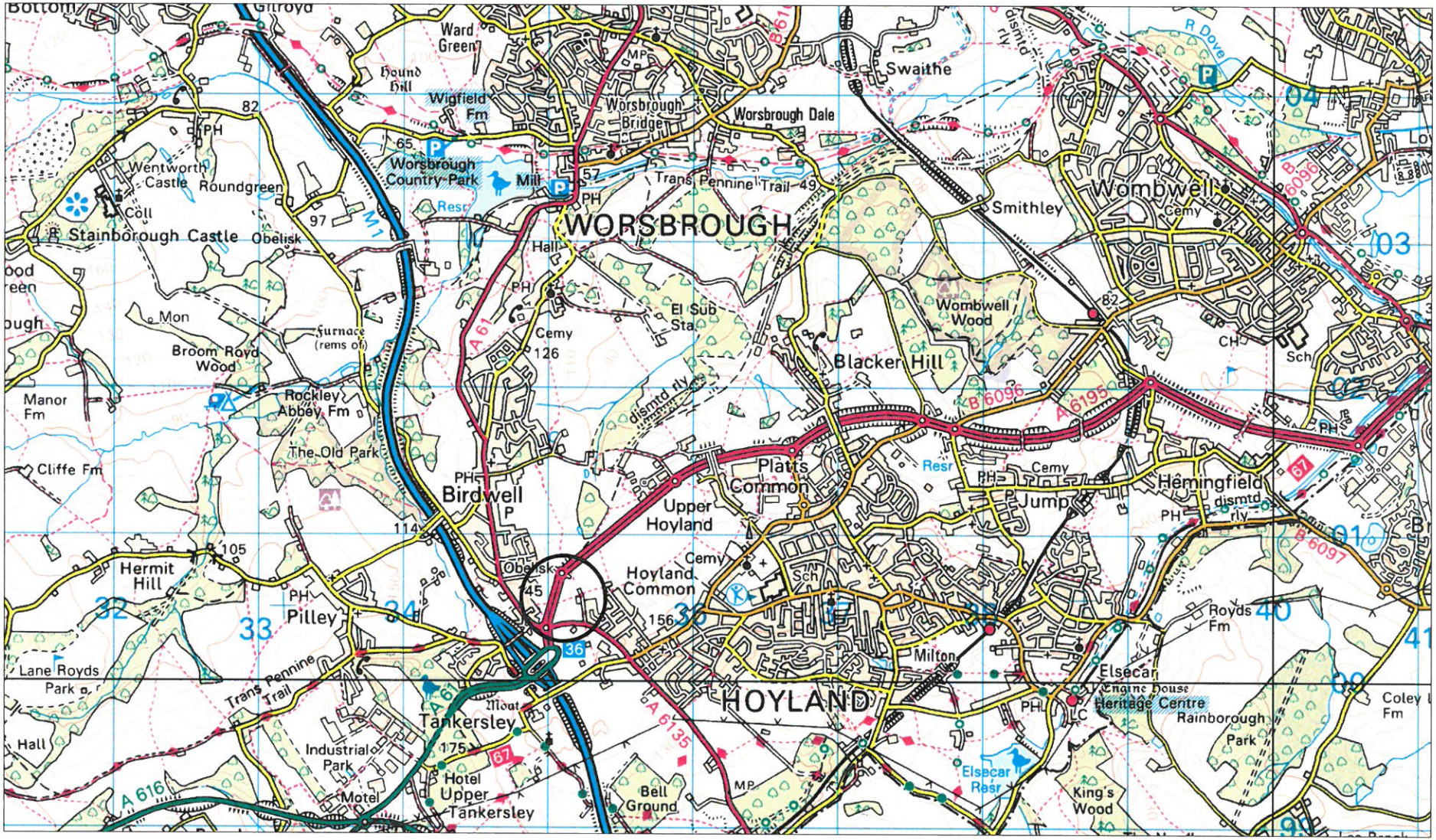
The location of the site is approximately 6 miles south of Barnsley Town Centre adjacent M1 J36 as shown on drawing Fig.1. The scheme is to be constructed on land situated adjacent the existing Jctn.36 roundabout and east of the A6195 Dearne Valley Parkway on the junction of the A6135 and A61. The area of land formed part of the former Rockingham Colliery and was used for open cast mining until 1995 and is now predominantly grassed land with isolated landscape areas containing trees and shrubs around the perimeter adjacent the existing public highway. A detailed appraisal of ground conditions and mining review has been submitted with this planning application.

The site boundary to the west is demarcated by a timber post and rail fence on the A6195 highway boundary. The site is bisected by the A6135 Sheffield Road and the southern boundary extends to encompass the M1 junction 36. To the east the site boundary terminates at an area of trees and shrubs approximately 90m from Cross Keys Lane. The northern boundary extends to a large area of grassed land.

Two existing public rights of way traverse the site west to east which shall be attended to in the associated Side Roads Order.

The site level rises from Rockingham roundabout, in the north east corner, 11m to a high point at Cross Keys Lane.

Overhead power lines enter the site from junction 36 of the M1 and pass through the south west corner of the site before crossing the A6195 Dearne Valley Parkway heading north west.



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BARNSLEY
Metropolitan Borough Council
Highways & Engineering

A61 BIRDWELL JUNCTION IMPROVEMEWNT
LOCATION PLAN

Scale	nts
Drawn	AJ
Date	11/2014
Checked	
File	A61.69.1

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Drawing No. Fig.1

Ecology

Following an Extended Phase 1 Habitat Survey it is acknowledged that the site has little ecological value. Notwithstanding this, a full range of studies have been undertaken. The findings of which are contained in the Environmental Assessment submitted with the Planning Application.

The value and sensitivity of ecological features present on site were determined based on the guidance in 'Guidelines on Ecological Impact assessment' (IEEM, 2006)

The diversity of the site was considered to be moderate to species poor due to the area being mainly semi-improved neutral grassland.

Within the gyratory roundabout it is proposed to construct an attenuation feature in the form of a balancing pond ultimately providing enhanced habitat and landscaping to the area.

The Design of the Scheme

The Dearne Valley Parkway at Hoyland was completed in 1998 and forms a strategic link connecting the M1 to the Dearne Towns at Goldthorpe and is an essential part of BMBC's Strategy to regenerate the Dearne Valley. Hoyland contains the section of the road linking to the M1 Motorway.

Congestion relief along the A6195 Dearne Valley Parkway was identified as a key scheme in the Local Transport Plan (South Yorkshire LTP3 Implementation Plan 2011 – 2015).

The Department of Transport has recently undertaken work to try and increase highway capacity and manage traffic flows from the M1 junction 36. This involved increasing the number of lanes and signalising the M1 Junction 36 roundabout and approaches, but the existing junction layout (A61 Birdwell Roundabout) is still unable to cope with the traffic volume generated during peak times.

Scheme Options Reviewed.

The Highways Agency promoted a scheme for Pinch Point funding in 2012, the scheme layout was a complex signalised junction contained within the current highway boundary. The scheme was put forward but was not successful in gaining pinch point funding.

BMBC at this point then began to look at alternative options to relieve traffic congestion and promote better economic regeneration access.
Barnsley Metropolitan Borough Council commissioned AECOM transport consultants to evaluate the options.

The 3 scheme layout options were:

1. Increasing the size of the existing A61 Birdwell roundabout (basically the existing layout enlarged and signalised)

2. An elliptical signalised layout with additional roundabouts and new link road to Rockingham roundabout. (A medium gyratory)

3. An increased elliptical signalised version of option 2 allowing for more vehicle stacking space at traffic signals and providing controlled pedestrian crossings to improve pedestrian and cycling safety etc. (Large gyratory)

The rational for the above options was to allow easy access from all sources to all destinations and to avoid making traffic take long detours e.g. around J36 roundabout to go east along Dearne Valley Parkway.

All three options were modelled by BMBC's Transport Consultant and success was determined by the capacity of the new junction to accommodate existing and development generated traffic and also on the modelled journey times and delay data for current and future growth years.

Based on these results Option 3 (preferred option) was the scheme which met the requirements of the traffic modelling outcomes and forms the basis of this Planning Application.

Design Principles:

The scheme will involve the provision of an elongated signalised gyratory roundabout encompassing the existing Birdwell roundabout. A major priority roundabout will be included to the east adjacent the A6135 which will enable the inclusion of a link road to an additional second major roundabout adjacent the existing Rockingham roundabout. This link to Rockingham roundabout will adopt a balanced cut and fill through Tankersley common between the A6195 Dearne Valley Parkway and the A6135 Sheffield Road. The additional major priority roundabout adjacent Rockingham roundabout is required to enable safe access to existing highway network and provide access to an area allocated for future development. A key consideration during the design process was the need to minimise disruption to the existing highway network during the phased construction.
All footways have been designed on the basis of shared usage in order to comply with guidance within Local Transport Note 2/08.

The proposed layout is shown on drawing HD/A61.69.1/PA/1 submitted as part of the planning application.

The Scheme has been designed in accordance with the D.f.T. Design Manual for Roads and Bridges. It is proposed that the new link road will be constructed to Council standards and will be surfaced with bituminous material. Combined kerb drainage units and road gullies will be incorporated to deal with the surface water run off and will be connected to an attenuated drainage system. New street lighting will be provided along with new traffic signals, traffic signs and road markings.

These proposals form part of a larger traffic strategy to reduce journey times in the Birdwell area, reduce congestion at M1 junction 36, and to provide additional capacity for the future development in the Dearne Valley corridor.
A copy of the Traffic Assessment is included in the planning application package.
Other minor alterations will be made to the immediate approaches of the A6135, A61, and A6195 to accommodate the design.

Access

To the west of the site are Rockingham Business Park, the Highways Agency Depot and properties of 1 – 33 Sheffield Road, to the east are the Cross Keys Inn (PH), Cross Keys Lane and properties 1 – 33 Regent Court. To the south are the A6135 and Rockingham Community Hall and cricket ground.

At present there is an existing priority roundabout at the junction of the A61, A6195, and A6135. This is causing excessive delays for all vehicle users including bus services along both the A61 and A6135.

Conclusion

The proposals which are the subject of the planning application will provide efficient traffic management thereby allowing vehicles travelling to all routes to negotiate the junction with minimum delay and significant reduction in journey times.