SHAPING OUR FUTURE
‘Our challenge is to become a leading global university.’
Professor David Eastwood, Vice-Chancellor
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1.0 Introduction

1.1 Purpose of Report

This report forms part of the University of Birmingham’s Hybrid Planning Application. The project for the Grange Road Bridge Crossing (Project 5 in the Hybrid Application) is submitted in Outline with all Matters Reserved. This Design and Access Statement includes parameter plans in Appendix 1, which form part of the technical application. The project consists of two elements: a new road bridge across the Bourn Brook and a ramp from the north side of the Bourn Brook down into the Brook to provide for maintenance access for Environment Agency vehicles.

This document should be read in conjunction with the other documents which make up the Hybrid Planning Application, in particular:

• Edgbaston Central Campus Masterplan.
• Transport Assessment.
• Floor Risk Assessment.

2.0 The Site

2.1 Site Description

The site lies at the south-east edge of the University’s Edgbaston Campus. The University service buildings directly to the north of the site are industrial in character, and include fuel stores and the University’s CHP station. The area to the south of the site includes the 4 to 10 storey Victoria Halls Ltd development, and the proposed residences and sports pavilion which form a separate project (Project 6) within the Hybrid Planning Application.
3.1 Bridge Layout
The new access road from SONR leads to a new bridge crossing the Bourn Brook into the campus. The bridge is intended to be for service vehicles only and not for pedestrian access. Barriers will control access for vehicles and the bridge will not form an open through route to the campus. The proposed bridge is part of the University’s wider transport plan, and giving direct access to the University’s service area/back of house. This reduces service vehicles moving round the rest of the campus and pressure on the other entrances, helping to deliver a more pedestrian friendly environment.

The bridge is positioned at an angle to the Brook to connect to the University’s existing road on the north bank and to accommodate the sweeps required by large vehicles. The University intend to take CHP mains across the Brook at the new bridge, potentially incorporating services into the bridge construction, and helping to reduce the University’s carbon footprint by connecting to properties to the south of the brook, including the proposed residences and pavilion.

The layout of the bridge has been designed in discussion with the Environment Agency (EA) who require that the shape of the bridge should not restrict the flow of the Bourn Brook, and that there is clearance of 3m below the bridge for maintenance vehicles working in the Brook. In order to achieve this clearance, the roadway will be elevated by gentle ramped approaches to either side of the bridge.
3.2 Access

A Transport Assessment has been carried out and has considered the level of traffic likely to use the access road off SONR to access the new service route across the bridge and the residences and pavilion.

The road off SONR leading to the bridge provides drop-off, disabled parking, access for service vehicles and also access for the Environment Agency along the Bourn Brook. Access to the proposed vehicle bridge will be controlled by barrier.

3.3 Ramp Layout

The EA have requested a ramp to give access into the Brook itself for maintenance and this is proposed to as an independent structure to the west of the bridge. This 3m wide 1:5 maximum ramp will allow the EA easy vehicular access to the brook, allowing them to clear and maintain it, and thereby reduce the risk of flooding. A ramp integrated with the bridge was considered, however vehicular swept path analyses demonstrated that this location was not possible.
4.0 Landscape

4.1 Flood Wall and Road
It is intended that the new access road between the University and Victoria Hall sites could also be paved to have the character of a shared surface (rather than a car park/service road) forming a visual link between the two sites.

A 850mm high wall is proposed along the edge of the Brook across both the University and Victoria Halls sites providing a floor defence and a consistent boundary treatment. This wall will be integrated with the new bridge crossing.

4.2 Flooding and EA Requirements
The proposed road bridge into the campus has been laid out to ensure that it does not restrict flow or increase the risk of flooding. A joint strategy for flood risk has been developed for the University and Victoria Halls projects by Royal Haskoning, including flood modelling and mitigation measures. A separate flood risk assessment, as part of the Hybrid Planning Application document, has been issued (Dale Road, Selly Oak, Flood Risk Assessment). A number of meetings have been held with the Environment Agency to discuss the strategy and address their requirements. The flood strategy includes a continuous wall, 850mm high, along the edge of the Brook, and the road surface level of the bridge structure maintains this level to reduce the risk of flooding.

4.3 Ecology
RPS have carried out an ecological assessment of the site, which has been issued as part of the Edgbaston Central Campus Development Hybrid Application. The bridge is located in a section of the north bank where there is an existing break in the trees, and therefore few trees will need to be removed as part of the development (see Appendix 1 to this document). We believe the trees to be removed are of lower and moderate quality, and a tree survey of the proposed ramp site will be carried out to ascertain the number of trees lost in this part of the development. All trees removed will be replaced with trees of equal or better quality as part of the Hybrid Planning Application Project.
Appendix 1: Parameters Plans
SPECIFIC NOTES:

GENERAL NOTES

Rev | Date | Description | By | Chk | App
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Key

Client

Project

Title

Scale

Date

Issue Status

Zone

Rev

Disc

Serial

Drg Set

Project No.

Job No.

DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.

REPORTED IMMEDIATELY TO THE ARCHITECT

ALL DIMENSIONS TO BE CHECKED ON SITE

DISCREPANCIES TO BE REPORTED IMMEDIATELY TO THE STRUCTURAL ENGINEERS

DRAWINGS FOR STRUCTURAL DIMENSIONS AND SETTING OUT SEE

BEING OBTAINED

ALL INFORMATION SUBJECT TO STATUTORY APPROVAL

THE DRAWING STATUS INFORMATION NOT TO BE USED OTHER THAN AS DEFINED BY

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REDLINE APPLICATION BOUNDARY

University of Birmingham

Edgbaston Campus

Grange Road Bridge Project

Location Plan

Issued for planning
Exact location of trees in this area to be confirmed.
University of Birmingham

Edgbaston Campus
Grange Road Bridge Project

Proposed Bridge Section
Parameters Plan

Scale: 1:100@A1 / 1:200@A3

PLANNING

003 A
0504
05
B
01/03/2012
Issued for planning

RB
GF
RS

08/03/2012
Re-issued for planning

TF
GF
RS

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