

Technical Memo

Project Name	Boothroyden Road FRA	Project No:
Task	EA comments FRA submission – UU responses	

Prepared:	Paul Roberts	Date:	14 th October 2024
Review/approval:		Date:	

The Boothroyden Flood Risk assessment (March 2024) was produced for UU by Jacobs and submitted by UU as part of the planning application for the proposed works to the CSO at Boothroyden Road.

The EA response dated 5th June raised an objection on the following grounds:

Environment Agency position

Our objection is focused on the soffit level, which is below the 1 in 100 year, and does not include any freeboard. There are properties, which are potentially at risk should the bridge surcharge, and whilst the works are temporary, 11 months would not be an acceptable timeframe for a soffit level below 1 in 100-year level.

Additionally, the welfare facilities look to be within the 100-year level, we would ask for a redesign of the site, to locate this further north towards the muster point on document reference "Proposed Compound Area". Whilst this will still be within the 100-year level, there would be less risk to people and property.

UU response

We note that in the fluvial flood risk section of the FRA report the following recommendation is made:

“The proposed temporary bridge soffit would be built no lower than 68.63mAOD. Although this level is below the 68.88mAOD peak flood level for the 1% AEP event (middle node in Table 2), it means the proposed bridge would be built no lower than the existing bridge just upstream, so would be anticipated to have a negligible impact on flows.”

UU remains confident that so long as this criterion is met the temp bridge will not affect flood levels.

However, inspection of the bridge design drawing from the FRA shows that the soffit level is at approximately 69.56mAOD, this is above the 1%AEP flood level by more than 0.6m and the open area of the temp bridge is approximately 50% greater than the upstream footbridge. See marked up version of the drawing below. These points should have been highlighted more clearly in the FRA report.

We also note that the 1%AEP flood level of 68.88mAOD was obtained by linear interpolation between the river section data provided by the EA. This level is therefore conservative as there will certainly be head loss across the existing footbridge which will surcharged under these river conditions.

It is proposed that with this information the design of the temp bridge is of a suitable standard to satisfy EA requirements for flood risk assessment.

The suggested relocation of the welfare units will be amended on the site layout.

