Design and Access Statement

For

Bradley Mills Road Highway Improvements, Dalton

Project No: 25/64863
Date: September 2024

Directorate of Environment & Climate Change
Highways and Streetscene
Civic Centre 1
High Street
Huddersfield
HD1 2NF

1.0 INTRODUCTION

This document supports a planning application for highway improvement works at Bradley Mills Road in the Dalton area of Huddersfield. The proposed works comprise carriageway and footway widening along with a new kerb line and pedestrian barrier on the north side of the highway, between Kilner Bank and Brown Royd Avenue. The proposed works will include areas of new wildflower planting and sections of new hedgerow on the northern land boundary, to replace the existing chain link fence.

The site area and woodland to the south is owned by Kirklees Council. The land to the north of the site is owned by others.

Plate 1: Looking west down Bradley Mills Road. Erosion on north side of highway is causing a safety issue to road users.

2.0 BACKGROUND

The existing highway and footway are too narrow by current standards and the highway surfacing is in a poor state of repair. The narrow footway is a particular concern due to the high volume of pedestrian traffic during Stadium events. There is also inadequate edge restraint on the north side of the highway which allows vehicles to over-run the highway edge,

causing erosion and a safety issue to road users. Additionally there is inadequate surface water drainage and uncontrolled surface water run-off is contributing to erosion on the north side of the highway.

Two phases of ground investigation were carried out in 2019 and 2021 to inform the design. Various design options were considered, and the proposed scheme was identified as the most appropriate solution. Following development of the proposed scheme an Approval in Principle for design of the proposed soil nailed slope was agreed with the Kirklees Bridges and Structures Manager in March 2022.

3.0 PUBLIC AND STAKEHOLDER ENGAGEMENT

The duration of the proposed works is 6 months and, due to working space restrictions, the works must be carried out under a full road closure although pedestrian access will be maintained at all times. Due to the anticipated disruption this will cause for local residents and businesses, on the 26th May 2023, Kirklees Highways attended the John Smith's Stadium Events Panel Meeting to share the proposals and discuss any concerns. A subsequent public engagement period was then held between 26th June and 17th July 2023.

On the 26th June 2023, details of the proposed scheme were circulated to various statutory consultees. No adverse comments have been received to date.

The public engagement period also included a drop-in event on 5th July 2023 at the John Smith's Stadium where local residents and business owners were invited to meet the project team and discuss the proposed works in more detail. The event was well attended including local Councillors. Generally, there was widespread support for the scheme.

4.0 THE PROPOSAL

The proposed scheme would increase the width of the highway to 6.0m minimum and increase the width of the footway to 1.5m minimum. This would significantly improve access and safety for both road users and pedestrians. The proposed works include a new trief kerb to prevent vehicles leaving the highway and to manage surface water run-off. This will significantly improve safety for road users.

To accommodate the proposed highway widening, it is necessary to excavate into the slope face on the uphill (south) side of the road. The slope face will be excavated at 50 degrees and supported using soil nails and rockfall netting. A new stone wall with a maximum retained height of 1.2m will be constructed at the base of the newly formed slope with no-fines concrete backing for drainage. Above the new stone wall, the soil nails and rockfall netting on the upper part of the newly formed slope will be covered with a cellular topsoil containment system and erosion control matting to provide a 'green' finish. The design life for the new structure is 120 years.

On the north side of the highway, a raised (trief) kerb will be provided above a reinforced concrete ground beam which also supports a 1.2m high pedestrian parapet.

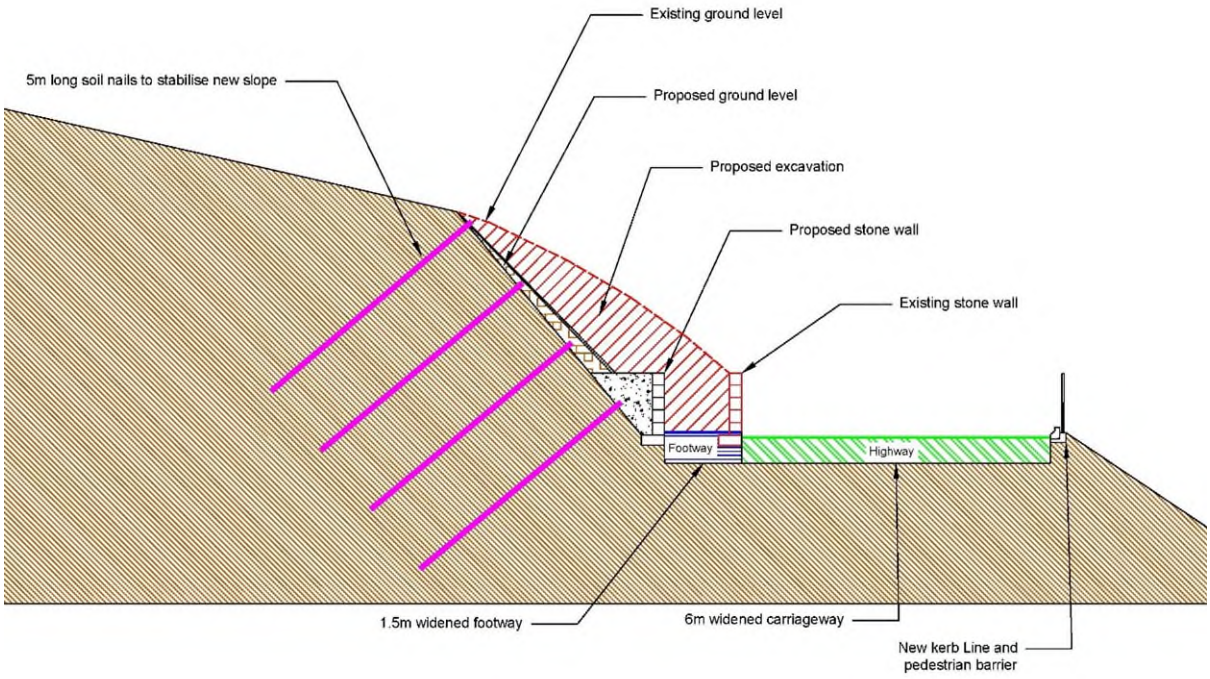


Plate 2: Cross-section through proposed construction.

The proposed new slope will have a visually similar appearance to the existing slope as the soil nails and rockfall netting will be covered by the cellular topsoil containment system. The existing stone wall will be re-constructed at the toe of the new slope using the same facing materials, at a similar retained height. The new slope above the stone wall will be planted with native wildflowers to maintain the existing character of the woodland. New sections of Hawthorn hedgerow are proposed on the north side of the highway to infill gaps in the existing vegetation and promote biodiversity.

The proposed works have been designed in accordance with:

- BS EN 14490:2010 Execution of Special Geotechnical Works – Soil Nails.
- CIRIA C637:2005 Soil Nailing Best Practice Guidance.
- BS 8006-1:2010+A1:2016 Code of practice for strengthened/reinforced soils and other fills.
- BS 8006-2:2011+A1:2017 Code of practice for strengthened/reinforced soils – Part 2: Soil Nail Design.
- The Manual Contract Document for Highway Works Volume 1: 2020 Specification for Highway Works.
- Design Manual for Roads and Bridges CG 300 Technical Approval of Highway Structures.
- Design Manual for Roads and Bridges CD 622 Managing geotechnical risk.
- Department for Transport Inclusive Mobility: A Guide to Best Practice on Access to Pedestrian and Transport Infrastructure, 2021.

The existing street lighting columns are present on both the north and south sides of the highway. The proposed works will remove 9 no. lighting columns from the north side of the highway and replace with new street lighting columns on the south side of the highway, retaining the existing LED lanterns where possible. A lighting assessment for ecological impacts is provided under separate cover.

5.0 THE EXISTING PUBLIC RIGHT OF WAY

An existing Public Right of Way (PRoW ref: HUD/79/20) traverses the site and links Bradley Mills Road with Brown Royd Avenue to the south. The proposed works will impact on the PRoW steps adjacent to Bradley Mills Road and the steps will need to be reconstructed on completion of the new reinforced slope.

Plate 3: Existing steep PRoW steps adjacent to Bradley Mills Road, looking south.

The new steps will be constructed on the same alignment as the existing PRoW, using the same materials, at a similar gradient but with the addition of new handrails on both sides of the steps and a 1m landing space at the bottom. These additions will improve access and safety without substantially altering the character of the PRoW.

6.0 ACCESS

Tree clearance work, excavation of the new slope and installation of the soil nails will be carried out from Bradley Mills Road under a full highway closure due to working space restrictions. The anticipated duration of the proposed works is 6 months, and no vehicular access will be available during the works between Kilner Bank and Brown Royd Avenue.

The proposed works also require the temporary closure of the PRoW to allow vegetation clearance, installation of soil nails and re-construction of the steps.

Pedestrian access will be maintained at all times along Bradley Mills Road via a secure fenced 1.5m width corridor adjacent to the work area with physical barriers protecting pedestrians from any moving plant.

7.0 PROPOSED TEMPORARY CONSTRUCTION COMPOUND

To ensure pedestrian access is not compromised, a temporary construction compound is required off the existing highway footprint for plant, materials and welfare facilities. There is considered insufficient room within the existing highway footprint for these purposes without further compromising access or parking for local residents.

We have agreed with the adjacent private landowner for the use of a linear parcel of land immediately north of Kilner Bank as a temporary construction compound. This location is shown on the Site Location Plan; see Appendix A. This parcel of land is currently overgrown and will require some temporary work to bring into use. This is expected to generally comprise vegetation clearance, placement of a separator fabric (e.g. Terram 1000 or similar approved) over existing ground and then placement of 150mm of imported clean granular fill.

Trees are present on the margins of the proposed compound area therefore, tree protection barriers will be installed prior to setting up the compound in accordance with the Arboricultural Planning Statement. No tree removals will be carried out in this location.

8.0 DRAINAGE AND FLOOD RISK

A drainage strategy is provided under separate cover. The proposed scheme will introduce additional impermeable hardstanding areas and therefore has the potential to increase flood risk. The existing area of impermeable hardstanding is calculated to be 2,170m^2 and the proposed area of impermeable hardstanding is calculated to be 2,600m^2.

The existing highway gullies will be reconstructed at the new kerb lines with extensions added to the existing connections where necessary. No new highway gullies are proposed.

Unfortunately, the site constraints do not allow traditional attenuation features to be incorporated. However, Planning require that surface water run-off has negligible

consequence on downstream areas so some mitigation is required. It is therefore proposed that the new footway is constructed with a cross-fall towards the soil nail slope rather than towards the highway as would be more usual. This would remove the proposed footway area (515m^2) from the drainage system and results in a net decrease in impermeable area of 85m^2 draining to the sewer when compared to the existing condition. This represents an approximately 4% reduction in surface water runoff input to the drainage network.

9.0 BIODIVERSITY CONCERNS AND ENHACEMENTS

The proposed scheme will require the removal of a significant number of trees adjacent to Bradley Mills Road. The details of this are presented in the Arboricultural Planning Statement report provided under separate cover. It is noted that the site is designated as Priority Deciduous Woodland, in the Priority Habitats Inventory by Natural England, and is also within the Kirklees Wildlife Habitat Network. Woodland is considered as irreplaceable habitat due to its priority status and bespoke off-site compensation is required.

The proposed development will require the permanent removal of 1,500m^2 of existing woodland canopy to the south of Bradley Mills Road. As compensation, 1,650m^2 of new woodland canopy will be planted to infill gaps in the existing woodland to the south and south-west of the site.

In order to achieve the Biodiversity Net Gain required by Planning, enhancement of the existing woodland is also required. This will be achieved by the removal of the invasive non-native species (e.g. Rhododendron, Cotoneaster etc) recorded during the site surveys. During the tree clearance works it is proposed to retain log piles in suitable locations to provide additional natural refugia for wildlife. Bat and bird boxes will also be installed throughout the site on completion of the works to provide additional roosting and nesting opportunities.

Biodiversity Metric calculations have been carried out and are presented under separate cover.

As recommended by the Construction Environment Management Plan, an appropriately qualified ecologist will be appointed in an Ecological Clark of Works (ECoW) role. The ECoW will attend site to carry out surveys prior to vegetation clearance, supervise night working (if required), supervise the removal of any invasive species and identify suitable locations for log piles, bat and bird boxes.

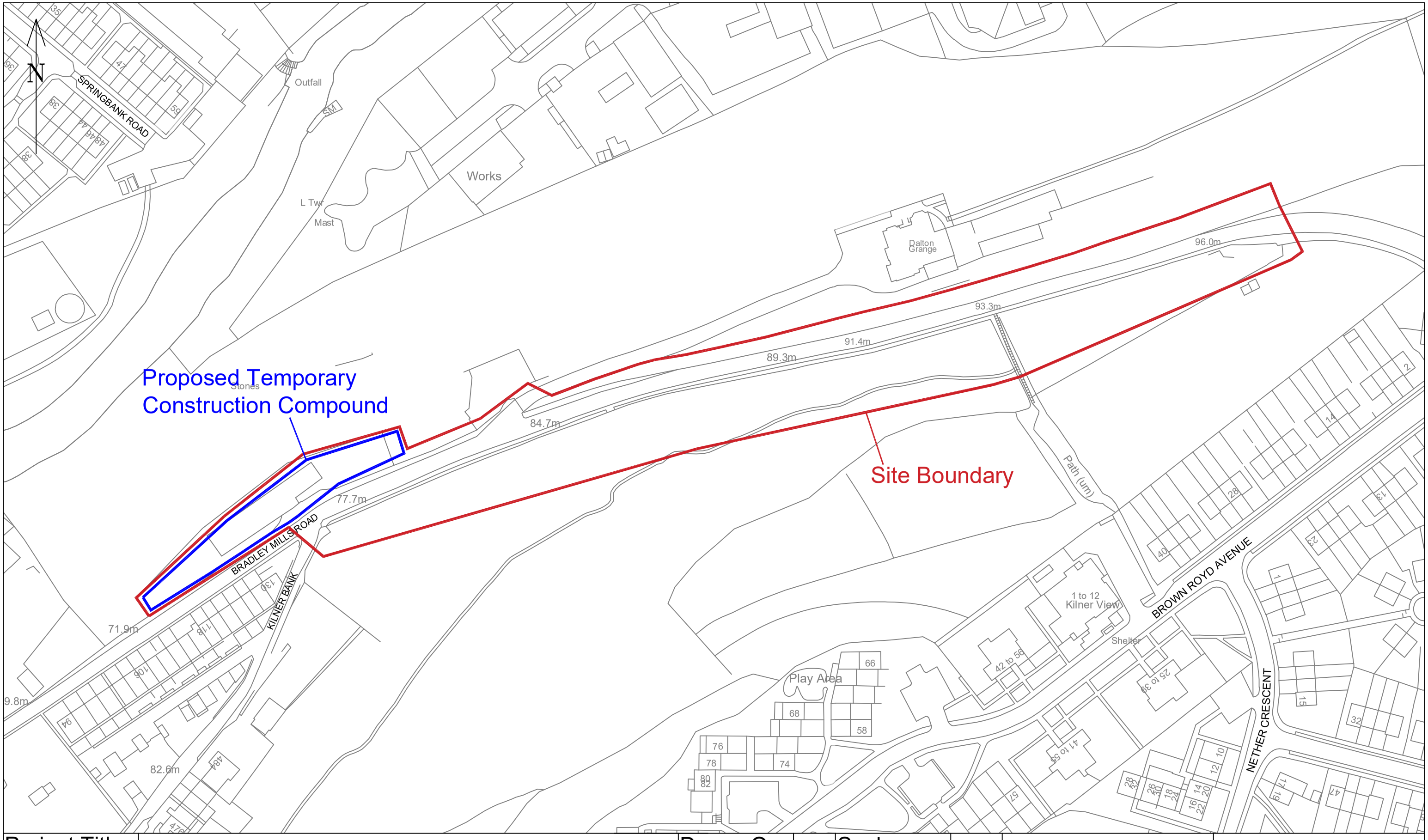
Report prepared by: R Barson
Issued: 13/09/2024

Attachments:

Appendix A Site Location Plan

APPENDIX A

SITE LOCATION PLAN



Project Title Bradley Mills Road, Huddersfield	Drawn On April 2024	Scale 1:1250	Kirklees Council	© Crown Copyright and database right 2019. Ordnance Survey 100019241
Drawing Title Site Location Plan			Drawn LE	Checked RB
			Project No. 25/66083	Drawing No. HD25/66083/PA/01/A