DESIGN AND ACCESS STATEMENT

GRANGE LANE, STAIRFOOT
PROPOSED LINK ROAD

Application for the construction of a new link road.

Applicant: Barnsley Metropolitan Borough Council.

Statement prepared by: Gary Jones, Senior Engineer, Highway Design Group

Context and Site Use

This design and access statement is submitted in support of the application for planning permission to construct a new link road on land currently owned by the Council at Grange Lane, Stairfoot.

The location of the proposed link road is shown on drawing number HD/712214/C/PA1. The site to be developed is the existing embankment opposite 1 – 39 Grange Lane, Stairfoot. The embankment itself is predominantly grassed with isolated landscape areas containing mature shrubs situated at its toe and the Trans Pennine Trail running at the top. The site can be accessed from either Grange Lane or Doncaster Road. Both roads are public highway.

This design and access statement relates to a full planning application for the construction of the link road. The proposed layout is shown on HD/712214/C/PA3 submitted as part of the planning application.

The Design of the Scheme

To the west of the site are the properties of 1 – 39 Grange Lane, to the east are 2 – 14 Oxford Place, to the south is Doncaster Road and the north Grange Lane. The scheme will involve cutting into the existing embankment between 2 Oxford Place and the old Doncaster Road which is approximately 4.5m high with an average gradient of 1 in 4.

The proposals form part of a larger traffic strategy to reduce journey times for both vehicles and buses travelling through Stairfoot Roundabout as described in the Siemens Bus Priority Investigation titled Stairfoot Roundabout Paramics Modelling. A copy of this is included in the planning application package. Although other improvement works have taken place on the approaches to Stairfoot Roundabout, the proposed link road will result in a significant decrease in journey times. It is proposed to allow cars and light goods only to utilise the new link load, therefore bypassing the traffic signals on Stairfoot Roundabout. All HGV's and buses will still have to utilise Stairfoot Roundabout.

The report concludes that once the Grange Lane works are complete journey times along Grange Lane will decrease by about 25% when compared to the base model.

The proposals which are the subject of the planning application are the conclusion of a design process considering several layouts. Below is a summary of each layout considered, stating the reasoning behind the logic and the reason the layout was discounted.

Option 1 – Link road independent of existing highway boundary

This option is detailed on plan HD/712214/C/OPTION 1 as shown in appendix A. The option was for an independent link road to be constructed through the existing embankment. Although this option would satisfy the requirements of the traffic strategy it would result in a significant loss of green space as well as the potential conflict with the Trans Pennine Trail. A balanced decision was therefore taken to look at alternate options which didn't result in such significant impact.

Option 2 – Widening existing carriageway to incorporate new running lane

This option is detailed on plan HD/712214/C/OPT 2 as shown in appendix B.
This option involves widening Grange Lane to incorporate a new running lane. Although this option has the least impact on the existing green space and Trans Pennine Trail, significant cost was evident when speaking to statutory undertakers as a result of diversions required for their apparatus contained within the existing footway. The level of funding available meant that this scheme was not viable.

Option 3 – New carriageway running lane adjacent the existing highway

This option is the subject of the planning application and detailed on plan HD/712214/C/PA3 as shown in appendix C.
This option involves leaving the existing footway in place therefore negating the need for costly diversions. Although increasing the effect on the green space from that in Option 2, the effect is still minimal. The potential impact shall be reduced by the proposed landscape scheme that shall follow upon completion of the civil's works.

All options have been designed in accordance with the 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 will be incorporated to deal with the surface water run off and will be connected to the existing drainage system. New street lighting will be provided along with new traffic signs and road markings.

Access

At present there is no access from Grange Lane to the old alignment of Doncaster Road unless traffic negotiates Stairfoot Roundabout. This is causing excessive delays for all vehicle users. The proposals which are the subject of the planning application will allow vehicles to leave Grange Lane and exit onto Doncaster Road, therefore bypassing the traffic signals and the inherent delays. As detailed in the Siemens Bus Priority Investigation the proposed link road will result in a significant reduction in journey times.

Access will be gained from Grange Lane and will be one way to Doncaster Road. The carriageway width is to be sufficient to allow for vehicles to pass should there be a breakdown. As previously stated the new road will be for cars and light vehicles only. HGV's and buses will still have to utilise Stairfoot Roundabout. This will be controlled by implementing a 7.5T weight limit on the new link road.

N

NEW STREET

OXFORD STREET

DONCASTER ROAD

Build out to aid deflection around junction

Kerb line pulled back to aid movement around new junction

Kerb line built out to aid movement around new junction

Footway extended around junction to provide crossing point

GRANGE LANE

BANK STREET

Dismantled Railway

Track

Path

PH

El Sub Sta

52.1m

LP

SS

Rev.	By	Amendments	Date

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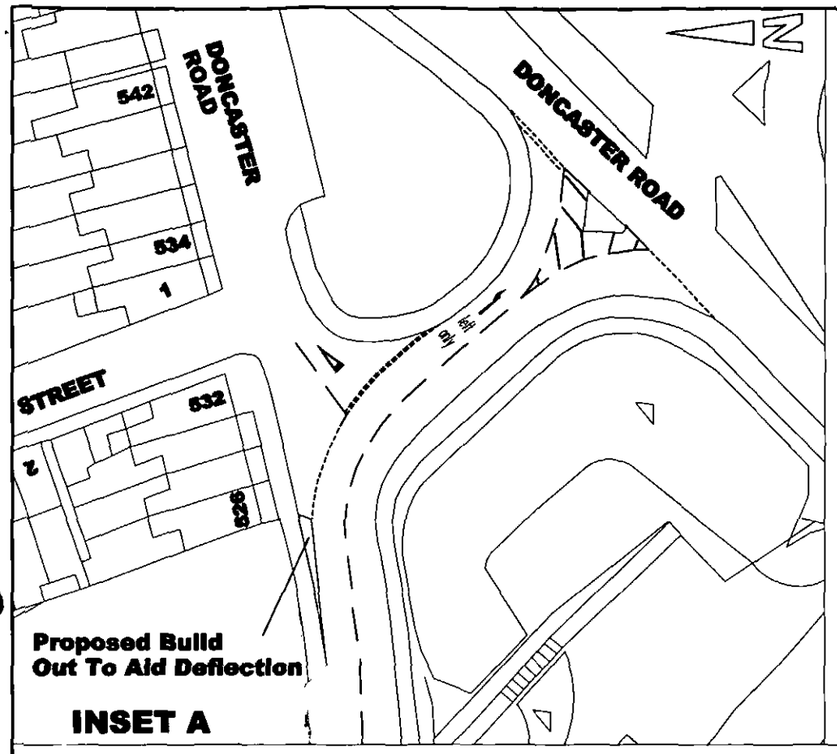
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GRANGE LANE
LINK ROAD

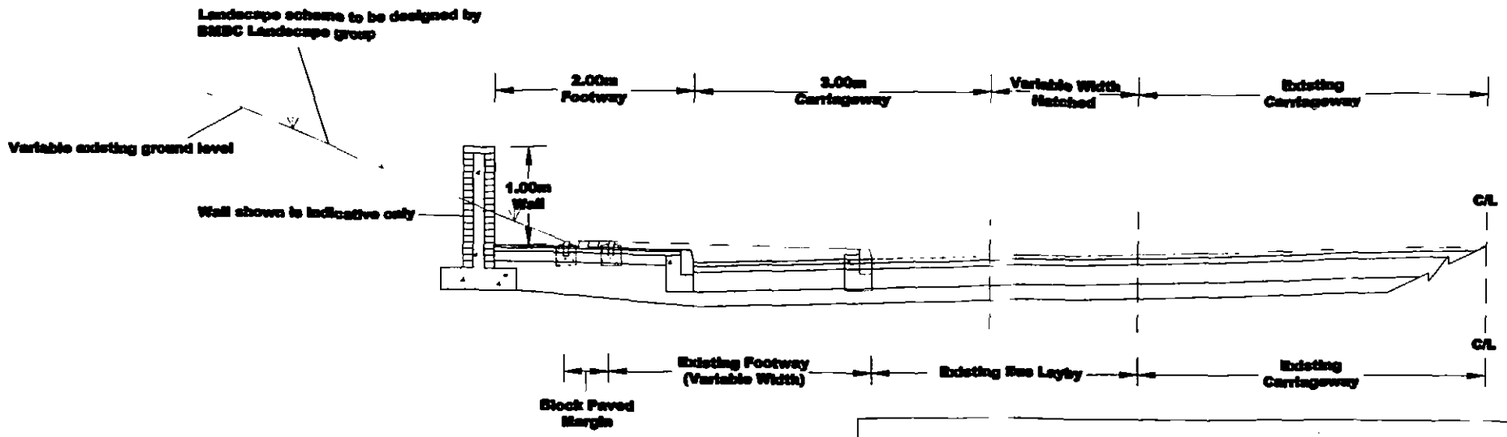
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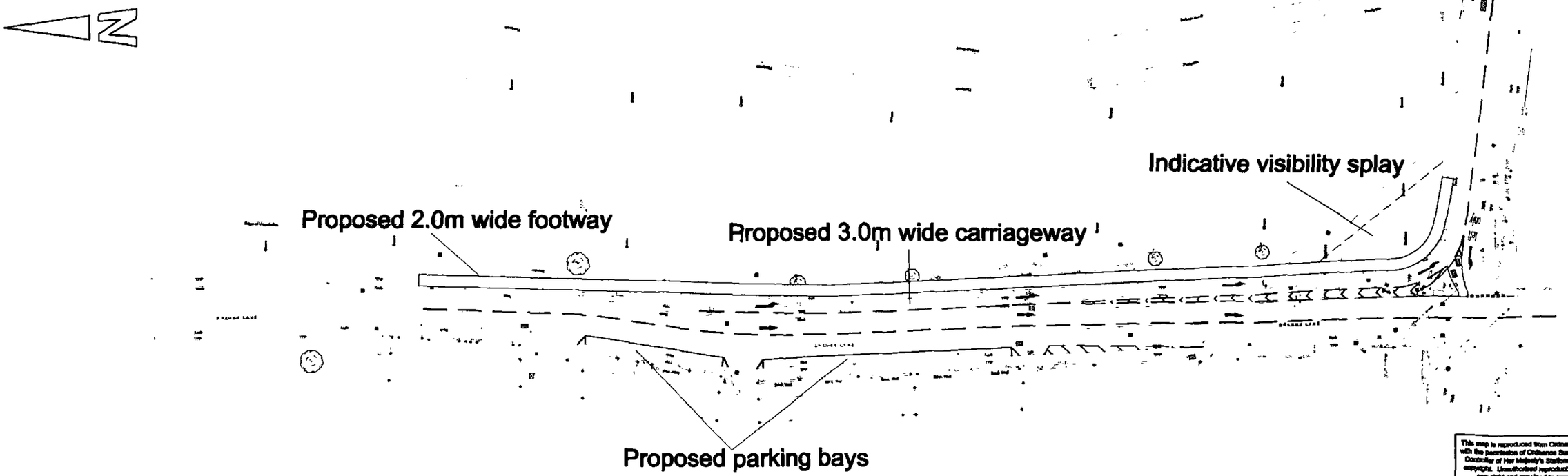
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Drawing No. HD/712214/C/OPTION 1 File

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GRANGE LANE CARRIAGEWAY WIDENING

OPTION 2

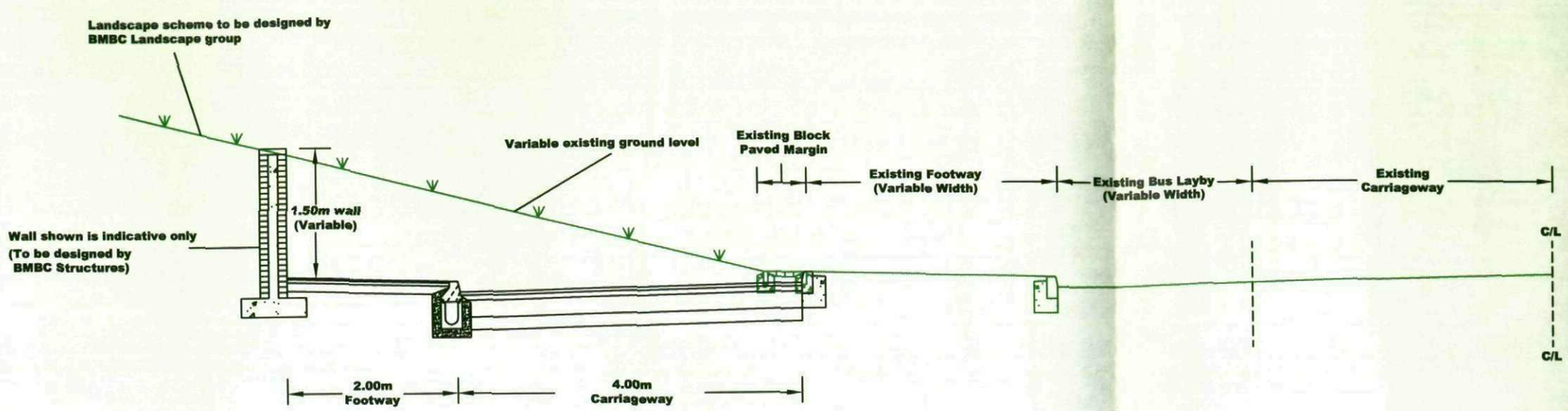
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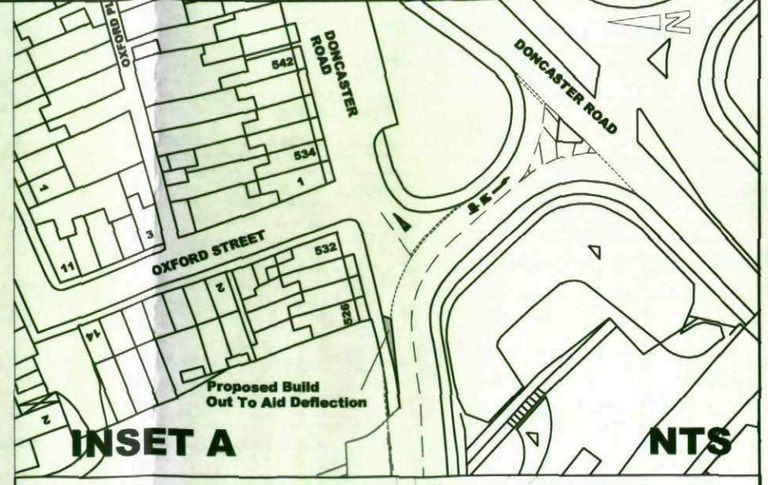
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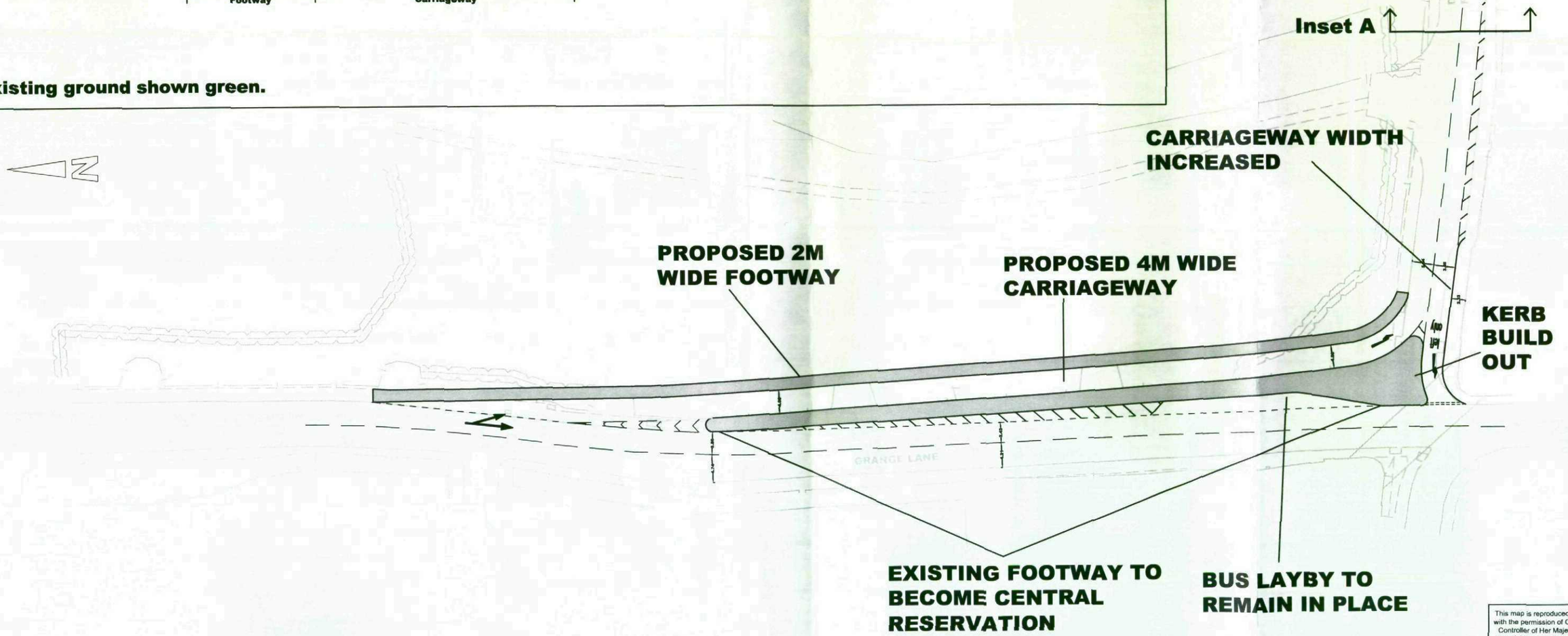
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HD/712214/C/OPT 2

TYPICAL SECTION



Existing ground shown green.





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GRANGE LANE CARRIAGEWAY WIDENING

SCHEME PROPOSALS

By	No.	Date	Amendments

Scale: 1:500

Drawn: GSJ — Date: JAN 09

Checked — File

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Drawing No. HD/712214/C/PA3