Essex Highways

Barrack Lane j/w Cherry Garden Road, Great Waltham

2022/2023 Technical Note
17 October 2022

RINGWAY JACOBS | Essex County Council

Document Control Sheet

Document prepared by:

Highways
Floor 2, Seax House,
Victoria Road South,
Chelmsford,
Essex
CM1 1QH

T 0345 603 7631
E Chiara.romairone@essexhighways.org
W www.essex.gov.uk/highways

Table of revisions

Original Version Produced	30 August 2022	Chiara Romairone (Design Engineer)	Issue 1
Reviewed	14 October 2022	Catherine Bottoms (Principal Designer)	
Published			

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1. Introduction

1.1 Project Background

Through the Chelmsford Local Highway Panel, Great Waltham Parish Council reports that the footway at Barrack Lane j/w Cherry Garden Road is very steep and the surface is in a poor condition. The footpath is extremely well used to access the Village Shop and Post Office. The Parish Council would like measures to improve the accessibility for all pedestrians, especially the less able bodied.
This scheme is supported by Councillor John Aldridge and Councillor Mike Steel.

1 Existing conditions

1.1 Location

The area of interest is in Great Waltham located at Barrack Lane junction with Cherry Garden Road, nearest postcode is CM3 1ES.
Footpath splits at Barrack Lane into two different footways:

- ***Footway n.1*** represents the only frontage access to properties n.60,62,64,66 and 7, starts north of property 7 and follows south until merging with Cherry Garden Road, and this is the one we are considering.
- ***Footway n.2*** which runs along west side of the verge.

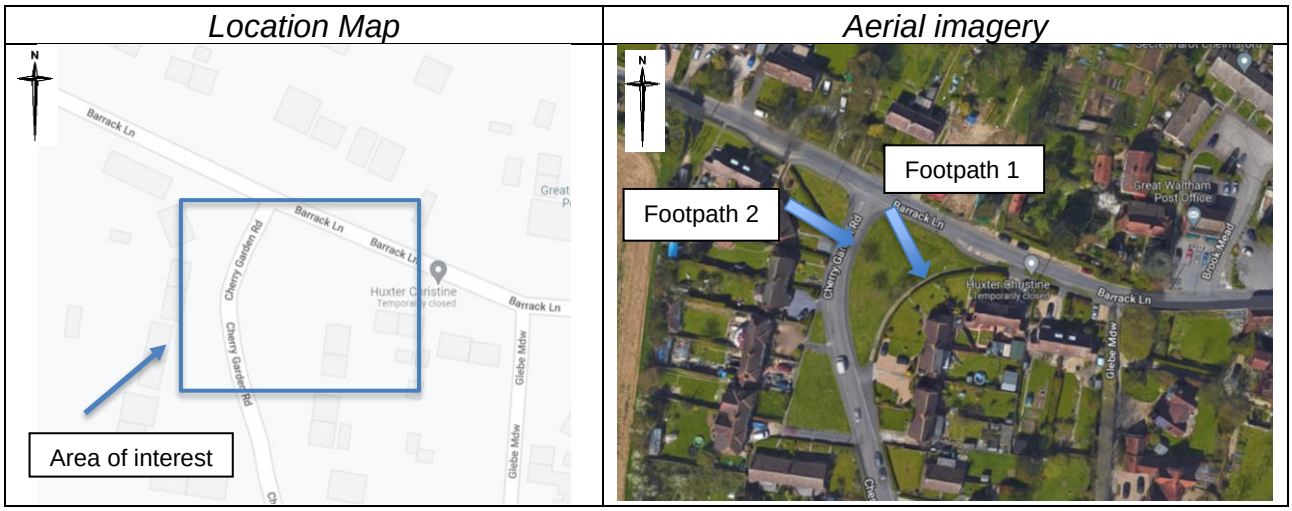

Fig. 1.1 The location map and aerial imagery Barrack Lane junction with Cherry Garden Road, Great Waltham

1.2 Site Observations

Looking at the altimetric profile, this area of interest has a difference in height of 2m.

- ***Footway n.1*** (55m total length) For the first 54.1m of its length the slope is acceptable but on the last 0.9m the slope becomes very steep, around 21.6%. The surface has been made with concrete slabs that currently are in a poor condition, making it difficult to use for all pedestrians, especially for less able-bodied users.

- ***Footway n.2*** (58m total length) For the entire length the slope is acceptable, providing a more practicable way for all pedestrian use. The surface is constructed of asphalt concrete and is in a good condition.

1.3 Collision data

There have been no collisions at this location in the last 3 years.

1.4 Statutory Undertakers Plant

There are known to be a number of statutory plant located at this location, these include:

- Telecom
- Electricity
- Water
- Other unknown services which need to be detected by trial holes.

UST photos and report are attached to this technical note.

1.5 Photographs

Fig. 1.5.1 Looking south of Footway n.1 showing the poor condition of the concrete slabs and of the existing pedestrian guardrail, also the profile pictures showing the variable slope along it.

2 Design Options

2.1 Re-grading the footway slope – Option 1

To guarantee a reasonable slope (the desirable maximum gradient on any shared-use road, footway, or other paved area that is likely to be walked on is 5% (1 in 20) in any direction), we proposed to re-grade all of the footway so the slope could be spread along its length achieving a slope of 3.63%.
Unfortunately, after obtaining the underground services report, we realised that, especially at the end of the footway where the surface is very steep, some utilities are extremely shallow, making any excavation difficult. To proceed with this option, it would be necessary to undertake a study of the underground utilities and consider whether it is possible to relocate them. Potentially these costs could be substantial.
Another aspect to consider is the time that the concrete needs cure, which typically takes 24 to 48 hours, and during this time the existing property gates could not be used.

2.2 Providing a new pedestrian guardrail – Option 2

As shown in the images above, currently there is an old pedestrian guardrail that just covers the steeper section of the footway. This proposal is to provide a new pedestrian guardrail and extend its length for a minimum of 20m or the entire length of the footway. This could be a support for all the pedestrians and which costs would be reasonable.

Any design would be subject to the full design process including a Road Safety Audit.

3 Cost Estimate

This cost estimate has been prepared as a guide only, there are several factors that could increase/decrease this estimate and it should not be used as an actual cost.

Option 1– £24k including design and supervision (cost does not include any stats relocation or similar enabling works)

Assumptions

- Temporary footway closure
- Delivered by SCP
- Design time allowed
- Excavation and footway restatement

Option 2– £9.5k including design and supervision (20m pedestrian guardrails)

Assumptions

- Temporary footway closure
- Delivered by Direct Delivery
- Design time allowed
- Pedestrian guardrails provision and installation costs

4 Recommendation

Given the complexity of Option 1 described above and the substantial costs required, my recommendation is to progress with Option 2.