# APPENDIX D RURAL CONNECTIONS

# INTRODUCTION

### Overview

This chapter summarises the Rural Connections workstream that was undertaken alongside the LCWIP and the Strategic Cycle Route workstreams as a standalone exercise to identify rural routes within the study area and help to link up selected villages with the nearest towns and railway stations.

As shown on the diagram opposite, the goal of the Rural Connections workstream was to identify a selection of key and provide routes that would improve connectivity between these villages and the nearest large settlements or public transport hubs.

The brief provided by UDC identified two potential Rural Connections routes which are listed below and shown on the opposite plan:

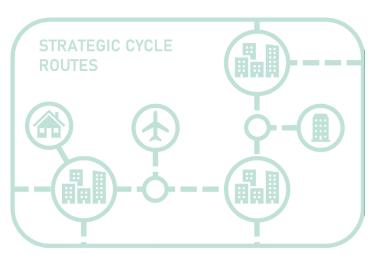
- Clavering to Newport
- Felsted, Flitch Green and Bannister Green

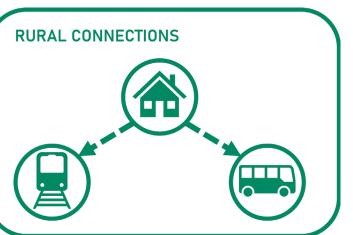
As well as providing connections to and from these villages, the goal of this workstream was to also identify potential improvements within the villages to improve walking and cycling conditions, as well as identifying opportunities for improved public realm.

### Approach

This chapter sets out the network development, route auditing and design development for each Rural Connection. The design recommendations have been supplemented by best practice examples from elsewhere in the UK and beyond to provide inspiration for the types of measures that could be implemented along these routes.





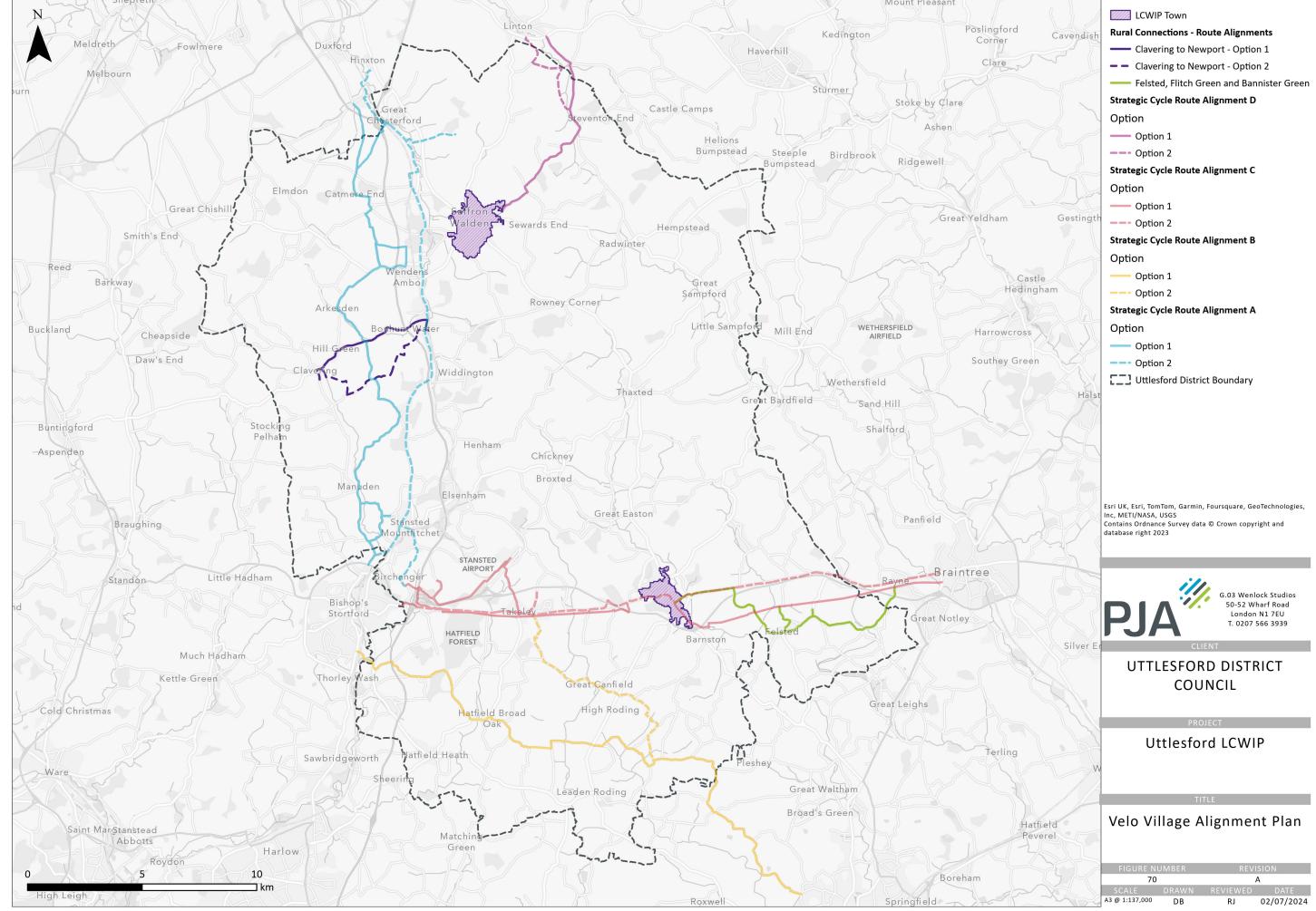


Saint Marstanstead
Abbotts
Harlow
Green

High Leigh

Figure 8.1. Rural Connection Alignments

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# **CLAVERING TO NEWPORT**

### Overview

This route aims to provide a connection between the villages of Clavering and Newport. The most direct route between them (alignment option 1) follows the B1038 through Wicken Bonhunt. Daily traffic volumes are likely to be in the region of 5,000vph along this route and speed limits vary along the route between 30mph through the villages and up to National Speed limit (60mph) in between villages. As such, conditions are not suitable for on-carriageway cycling at present.

Option 2 for this route primarily follows PROWs to provide the connection between the two villages. This route option benefits from mostly being traffic-free, however current surface conditions and widths are not suitable for cycling so various upgrades would be required. This route is also less direct than the main road alignment (Option 1).

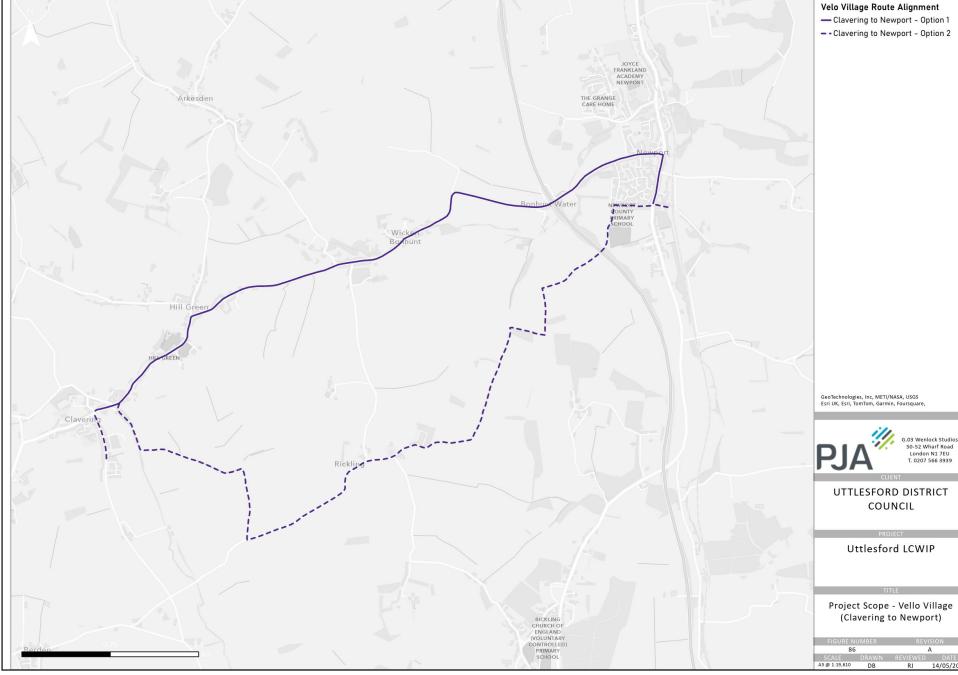


Figure 8.2. Clavering to Newport Alignment Options

# **AUDITING RESULTS**

### RST Commentary

**Directness**: Alignment 1 along the B1038 follows the same route as the equivalent trip by car and therefore this route scores well for directness (100%). As previously mentioned, alignment 2 uses public rights of way and is therefore scores 100% as it is able to provide connections not achievable by car.

**Gradient**: The route scores relatively well for gradient, with alignment 1 scoring 70% and alignment 2 scoring 72%. The majority of gradients along sections of the route are no steeper than 3%, however there are a few sections of steeper gradient over a longer slope which brings down the average score, including the approach to Wicken Bonhunt from Clavering on alignment 1 and some of the public rights of way near Rickling on alignment 2.

Safety: Alignment 1 scores poorly for safety (7%) as it primarily utilises roads with a traffic volume greater than 2,500 AADT and therefore automatically scores 0. The safety score for alignment 2 is higher at 44%, however is this score is mainly brought down by a lack of lighting and natural surveillance.

**Connectivity**: Alignment 1 scores poorly for connectivity, with an average score of 43%. This reflects the isolated and rural nature of the route. alignment 2 also scores low for this category, with a lower score of 28%. This is due to the majority of the route following isolated public rights of way.

Comfort: Alignment 1 scores particularly poorly for comfort, with an average score of 0%. This is primarily due to requiring cycling in mixed traffic streets with an AADT of greater than 2,500. Alignment 2 mainly uses public rights of way, which are unsurfaced which reduces the score for comfort. Notwithstanding this, the overall average comfort score for alignment 2 is 60%, which is higher than alignment 1.

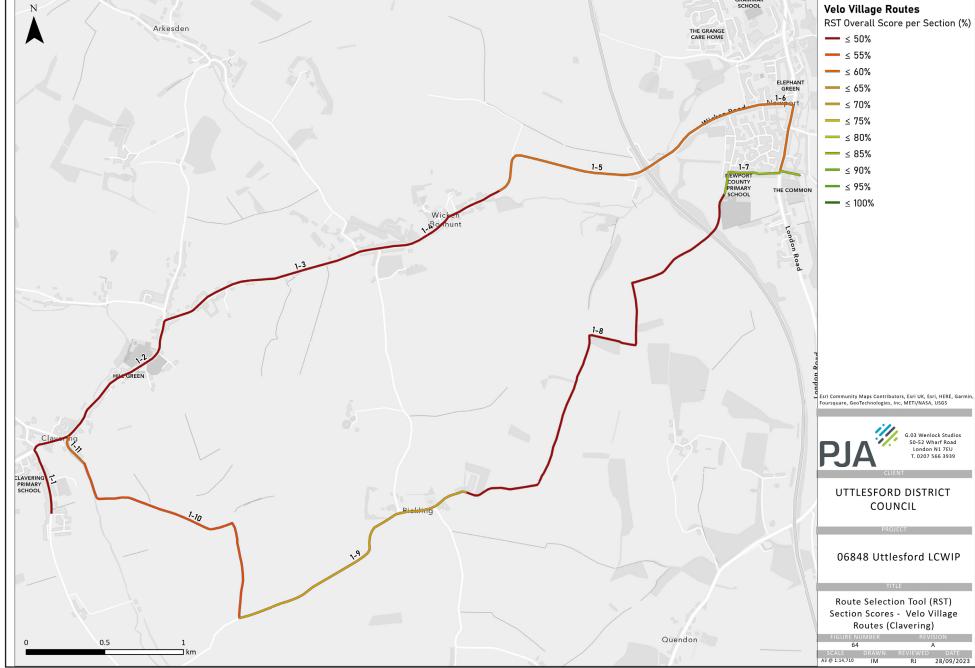


Figure 8.3. Clavering to Newport RST Section Scores

# DESIGN COMMENTARY - CLAVERING TO NEWPORT

### Alignment 1

The most direct route between Clavering and Newport follows the B1038 through Wicken Bonhunt. Daily traffic volumes are likely to be in the region of 5,000vph along this route and speed limits vary along the route between 30mph through the villages and up to National Speed limit (60mph) in between villages. As such, conditions are not suitable for on-carriageway cycling at present.

Segregated cycling infrastructure could be difficult due to carriageway widths and design complexity. Instead, improvements should focus on reducing speed limits along the corridor. The minimum aim should be a consistent 30mph limit to increase compliance. A 20mph zone could be investigated within the villages but would likely need traffic calming to bring vehicle speeds down to a level that facilitates safer cycling.

A corridor-wide scheme could implement a combination of corridor measures and discrete improvements to calm traffic along this route. This could include physical traffic calming (vertical and horizontal), visual narrowing and centre-line removal and footway widening.

Crossings should also be provided on key desire lines within Clavering – including at the village hall, junction with Stortford Road and where the PROW network interfaces with the B1038.

A junction improvement scheme at the High Street / Stortford Road junction would improve pedestrian and cycling conditions on a key route to school. This should focus on improved crossing provision and tightening corner radii which is excessively wide at present.

On Stortford Road, which is a route to school, a scheme could be implemented to widen footways and reduce speeds along this corridor. As part of this, the crossing outside the school should be improved and could be done as part of a build-out to reduce crossing distance and reduce vehicle speeds.

### Alignment 2

The second option for an alignment between Clavering and Newport primarily utilises PROW. It is a less direct route however benefits for mostly being traffic-free

The initial section of the route south from Clavering follows
Chalkpit Lane, which is a designated Byway. To improve
conditions for cycling, it is likely that some resurfacing would
be required, as well as wayfinding to direct cyclists towards
Newport.

The western section of the route through Rickling could be converted to a Quiet Lane due to its low traffic volumes.

The eastern section of the route connects Rickling with Newport via a byway and bridleway. The route would require improvements to ensure it is usable as a utility route and for all bicycle types. This would involve resurfacing to ensure the route is clear of mud and ponding, widening at pinch points, wayfinding for pedestrians and cyclists and investigate whether lighting (likely recessed stud lights to minimise ecological impact and impact on rural setting of the route).

### Design Summary

The plan on the opposite page (Figure 8.4) provides a high level summary of the various design recommendations, specifying a design typology for each link of the route options.









Figure 8.4. Clavering to Newport Design Sun

# FELSTED, FLITCH GREEN & BANNISTER GREEN

### Overview

This route provides a connection between the three villages of Felsted, Flitch Green and Bannister Green. It also connects with the Flitch Way and B1256 to enable connections west to Great Dunmow and east to Rayne and Braintree.

The bulk of the route, although a minor road, feels fairly cardominated due to the character of the road which encourages high vehicle speeds and has limited facilities for pedestrians and cyclists at present. Most of the road is unclassified, apart from the section through Bannister Green and Felsted which is a

The route passes through three village centres. Flitch Green is oriented away from Station Road and therefore there is no active frontage though this village which encourages faster driving speeds. In contrast, Felsted has frontage along its length and is centred around the road, with schools, local amenities, footway provision and crossing points. Likewise, there is frontage along Rayne Road through Bannister Green however there are less local amenities which gives the village more of a residential

The route also includes a short spur along Stebbing Lane which connects to the Flitch Way and is designated as a quiet lane by

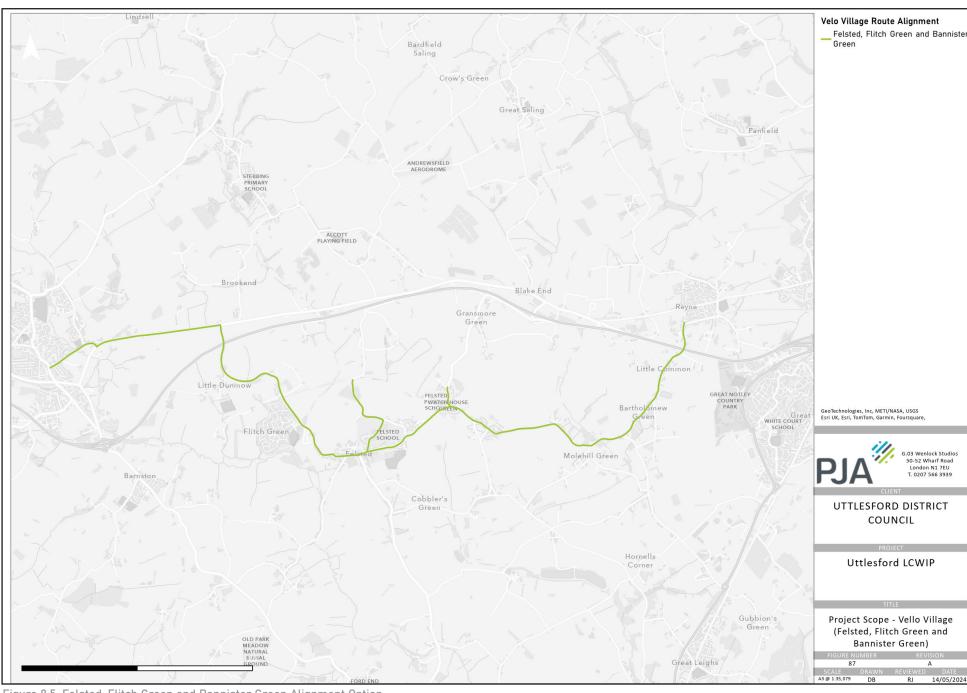


Figure 8.5. Felsted, Flitch Green and Bannister Green Alignment Option

# **AUDITING RESULTS**

### RST Commentary

**Directness**: The route scores highly for directness as it follows the equivalent route if travelled by car.

**Gradient**: The route scores reasonably well for gradient, with an overall score of 79%. The majority of the route is fairly flat, with gradients generally in the region of 0-5%. The only section with a gradient that exceeds 4% is along Braintree Road at the western extents of the route.

Safety: The route scores poorly for safety (8%), with the majority of the route following road sections where flows are in the region of 2500-5000 AADT, with speed limits often higher than 30mph. Moreover, many sections of the route are unlit and/or lack passive surveillance which further brings down the safety score.

**Connectivity**: The route scores relatively poorly for connectivity, with an overall score of 47%. Although there are some connections provided to the Flitch Way and within the villages, there are long sections of the route which are fairly rural in nature.

**Comfort**: The route scores poorly for comfort, with an overall score of 10%. This is primarily due to the route requiring cyclists to mix with traffic volumes greater than 2,500 AADT. There are some short spurs from the route along Quiet Lanes connecting with the Flitch Way which score well and bring up the overall score slightly.

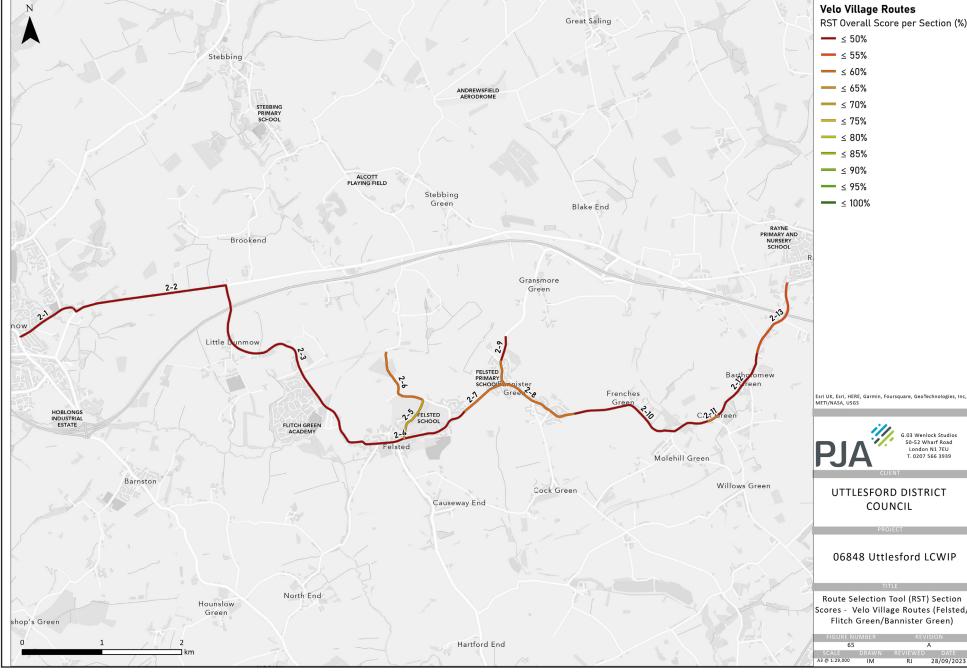


Figure 8.6. Felsted, Flitch Green and Bannister Green RST Section Scores

# DESIGN COMMENTARY - FELSTED, FLITCH GREEN, BANNISTER GREEN

### Design Recommendations

The western section of the route follows the B1256 into Great Dunmow and forms part of the SCR C. Improvements would tie in with the recommendations for this route, which recommends that some form of segregation would likely be required, potentially taking the form of a high quality shared-use route alongside the carriageway given the low pedestrian flow.

The remainder of the route follows the Station Road corridor as it passes through the three villages. The western section of this corridor is unclassified; however the eastern section is a B-road. Vehicle volumes are likely to exceed 2,500vph and the carriageway width lends itself to high vehicle speeds.

The recommended design approach therefore is to aim for a consistent speed and character of road throughout the corridor, acknowledging that there is unlikely design scope for a segregated facility.

As a minimum, a consistent 30mph speed limit could be implemented by extending the existing limits to cover the stretches of road in between villages.

Within Felsted, where there is a cluster of trip attractors, a 20mph zone should be considered to improve road safety. As part of this, the gateway features on the edge of the village could be upgraded to reduce speeds, potentially using build-outs or dragons teeth markings. Within the village, additional crossing points, footway widening and public realm improvements at the focal point of the village would also assist in reducing speeds.

In addition to speed limit changes, other measures to calm traffic along the corridor could be implemented, including changes to road surfacing, new crossing points where road interfaces with PROW, centre line removal and visual narrowing.

The design scope on the eastern section of the corridor is more limited, due to the more isolated and rural nature of the road and lack of frontage or footway. It may therefore be more suitable to

promote the Flitch Way as a traffic-free alternative to connect into Braintree, taking into account the upgrade recommendations for the Flitch Way previously outlined.

There is also a spur along the route from Felsted which connects to the Flitch Way via Stebbing Road. This road already benefits from already being a designated Quiet Lane and therefore the recommendation is that wayfinding is provided to direct users from the rural connection oute and onto the Flitch Way for onward connections to Great Dunmow and Braintree.

### Design Summary

The plan on the opposite page (Figure 8.7) provides a high level summary of the various design recommendations, specifying a design typology for each link of the route options.







