

# Appendix A - Concepts for Road Management Strategy



## **Appendix A – Concepts for Road Management Strategy**

### **Forward**

Committed and proposed new residential development within the Parish and from developments identified in the emerging Ashfield District Council Local Plan will inevitably result in an increase in traffic and travel movements. This document describes concepts and principles for a Road Management Strategy, in line with specific Policies and wider aspirations of the Neighbourhood Plan.

The concepts and principles have been devised to complement the Linby Neighbourhood Plan. It should however be noted that traffic and transport issues have been considered in tandem with issues within the neighbouring Parish of Papplewick as the routes considered and the effects of development are common to both. Similar concepts for a road management strategy are also included in the Papplewick Neighbourhood Plan.

The combined Road Management Strategies aim to provide a consistent set of principles that can be applied in the design of highway measures, which may be delivered through developer and other funding streams, across both Parishes.

The strategy has been informed by a study of historic and existing road safety, the likely effects of development and the sensitive nature of the highway environment in and around the Parishes of Linby and Papplewick; specifically, the B6011 and B683 routes through the villages. Within the Parish of Linby, the following issues have been identified:

- The B6011 layout, as a main road route, increases severance within residential areas and the village centre;
- The B6011 through Linby and Papplewick has a historically poor highway safety record. This may have been partially addressed by changes in the speed limits around 2014;
- HGV weight restrictions for through traffic between the A611, A60 and B683 (south of Papplewick) are not fully effective;
- A conventional approach to highway scheme design does not compliment the Village/conservation area setting.

Based on observations, research and the results of the Neighbourhood Plan public consultations undertaken by the Parish Council, it has been concluded that heightening awareness of the speed limits and changes in highway environment within the residential/village environments could influence driver attitudes towards speed. Effective measures should aim to:

- Reduce speed and improve road safety for all users;
- Reduce the number of HGV drivers contravening the existing vehicle weight restrictions;
- Improve the balance between the needs of drivers/motorised traffic, pedestrians and cyclists;

- Conserve and enhance the character of the villages.

***The highway authority has been consulted during the drafting of this strategy and the transport section of the Neighbourhood Plan. Some of the ideas and concept set out in this strategy have been accepted by the authority, either in principle or as worthy of further consideration. It is anticipated that a regular dialogue can be established between the highway and planning authorities and the Parish Council, to the mutual benefit of all parties in developing specific measures schemes for implementation.***

***Further public consultation should be undertaken at the preliminary and detailed design stage of schemes within the village.***

***Note that all illustrations are intended as a guide only to developing a more detailed strategy/schemes; the illustrations do not represent a scheme design. Any dimensions provided are indicative and must be checked; detailed topographic surveys will be required for detailed design. Vehicle swept path analysis must also be considered in the design of all schemes.***

## Principles

Within conservation areas, materials and street furniture should be chosen to reflect the warm tones of the local stone and to be sympathetic to the conservation area. Where possible traditional stone kerbs and paving should be used in areas used by pedestrians/cyclists and where occasional use by light vehicles is anticipated.

Schemes within the main carriageways should utilise modern durable materials to reduce maintenance; however, these materials should also be chosen to complement the local setting.

As an example, Figure 1 shows a section of the access road parallel to Main Street, and the Quarry Lane junction; the surface materials that have been chosen to complement the setting of the conservation area and village environment.



Figure 1 – Existing carriageway/footway surfaces within Linby

The choice of materials and the design of highway features should aim for consistency throughout.

## **B6011 Wighay Road from A611 to Waterloo Road (Ref NP Policies T5 T6 & T9)**

It is acknowledged that Wighay Road marks the boundary between Linby in the Borough of Gedling, and Hucknall North, in the neighbouring District of Ashfield. However, the highway authority has stated that it is appropriate to include Wighay Road in the consideration of traffic and transport issues associated with the Linby Neighbourhood Plan

**Weight Restriction** – Specific measures within the Parish should include consideration of the following:

- At the roundabout exit from Annesley Road to Wighay Road, renewal of weight restriction signage and increase size and prominence of signs to include “Lorry Watch” signs;
- Further reinforce weight restriction by adding additional signage on the exit from Waterloo Road/Main Street roundabout into Main Street.

An area wide review of the condition and location of all associated signage should be carried out and, although outside of the scope of this strategy (see Papplewick Neighbourhood Plan), installation of “Lorry Watch” signs should also be considered at the B6011 and B683 junctions with the A60 to the east and north, respectively.

Further measures could include the installation of an automated vehicle/registration number recognition system to reduce the administration and improve the detection rate of vehicles contravening the restrictions.

**Speed Reduction Measures** - During the preparation of this strategy accidents occurred on the B6011; one on Wighay Road and two within Linby. It is understood that (at the time of writing), a reduction in the speed limit on Wighay Road, from 40 to 30-mph is being considered by the highway authority; this measure is supported by the Parish Council.

In view of the future increases in traffic and pedestrian activity resulting from development the following measures should also be considered:

- Existing footways on the northern side of Wighay Road are narrow in places (variable). Some improvements have been carried out as part of recent residential development. There may be opportunity to provide additional width in some locations by utilising space between the back of the footway and the existing highway boundary.
- In addition to the above, consideration should be given to providing new shared footway/cycleway along the northern side of the road as part of future development proposals, consistent with the requirements of the Top Wighay Farm Development Brief;

- Facilities to assist pedestrians to cross the road should be provided. Refuges or similar, located close to bus stops and future pedestrian/cycle access to development sites would be appropriate;
- Provision of formal pedestrian crossings at the western end of Wighay Road is also sought by the Parish Council; Proposal for an extension to the Strata Homes development (at the time of writing) includes a pedestrian link to Wighay Road, to the west of Ward Avenue. It appears feasible to locate a signal controlled crossing at this location;
- In tandem with the proposed reduction of the speed limit from 40 to 30-mph, the installation of formal traffic calming/speed reducing devices should also be considered to enforce the speed limit.

**New Pedestrian/Cycle Route Linking to NCN Route 6 Towards Hucknall** – There is an existing pedestrian desire line/footpath across open space bounded by Waterloo Road, Wighay Road and the railway line. The path aligns with the existing segregated pedestrian/cycle route which is part of the National Cycle Network (NCN) Route 6 to the east of Waterloo Road and meets Wighay Road adjacent to bus stops.

Roundabouts are widely acknowledged as hazardous junctions for cyclists and one accident involving a cyclist has occurred within the five years considered in devising this strategy (Ref Accident 13). There is also anecdotal information of an accident in January 2017, involving a cyclist crossing Waterloo Road.

The existing footpath across the open space presents an opportunity to provide a formal shared footpath/cycle path. This would provide a convenient cycle/pedestrian link for residents of new and proposed development north of Wighay Road, to routes south to employment and transport links in Hucknall.

The following schemes should be considered:

- Improvements to the existing footpath to provide shared pedestrian/cycle route;
- Installation of a TOUCAN crossing on Waterloo Road to link with the existing NCN Route 6 to Hucknall and residential/employment developments along Waterloo Road;
- The feasibility of installing a TOUCAN crossing on Wighay Road to the west of the junction with Ward Avenue;
- Widening of the existing footway on the northern side of Wighay Road to provide a shared pedestrian/cycle path linking to NCN Route 6 east of Wighay Road.

## **Main Street and Linby Village (Ref NP Policy T7)**

**Wighay Road/Waterloo Road/Main Street Roundabout** – The exit from the roundabout into Main Street is currently marked as two lanes. An informal crossing is also located over the splitter island on this arm of the roundabout, linking pedestrian routes and the National Cycle Route 6 from Waterloo Road to the off-highway route north towards Newstead Village.

The two-lane exit is short but the width and alignment could encourage some drivers to exit the roundabout at high speed and may also encourage some overtaking of slower vehicles.

The exit could be reduced to a single lane. This may be achieved by road marking or preferably, by realigning exit geometry. Vehicle swept path analysis should be carried out to determine the extent of any realignment.

Modifications to the roundabout exit should define the change in character of Main Street with a theme of visual narrowing of the carriageway through the use of edge and surfacing in contrasting materials. The width of Main Street on exit from the roundabout is approximately 8 metres, narrowing to around 7metres at the started of the current 30-mph speed limit.

Figures 2 & 3 below show the existing layout of the roundabout exit to main Street and an illustration of the simple concept for reducing the exit width by enlarging the existing splitter island and further visual narrowing using a contrasting surfacing material.



Figure 2 – Existing exit to Main Street from the Wighay Road roundabout



Figure 3 – Concept for speed reducing measures at exit to Main Street from the Wighay Road roundabout

Research has shown that removal of carriageway centre lines can influence driver attitudes towards speed; as part of these measures it is recommended that consideration be given to the removal of centre line through Linby.

**Gateway Treatment, Eastbound Approach** – At the time of writing the highway authority has indicated that consideration is being given to extending the 30-mph limit to include Wighay Road. However, if this change is not implemented the following measures should be considered:

- Integrated Installation of “count-down” road marking marks at the change from the 40 to 30-mph speed limit. These features could be similar to as those on the B683 Moor Lane northbound approach to Papplewick or based on the example shown in Figure 4, which has a stronger visual appearance. Note that as an alternative to the red surfacing, contrasting surface materials should reflect the conservation area status of the village;
- Installation of visually prominent speed limit signs incorporating the village name to reinforce the change in highway environment; examples shown in Figure 5. The highway authority has commented that this type of sign is not currently part of Nottinghamshire highways standards. They are however commonplace in the UK. Future discussions should seek to agree acceptability of similar high-profile signage that clearly defines the speed limits and entry to the village.



Figure 4: Example of ‘countdown’ approach to 30 mph speed limit



Figure 5: Typical speed limit / gateway treatment

**Entry into Linby Village Central Area** – At the exit from the Wighay Road roundabout the B6011 Main Street is around 8-metres wide. The width tapers to around 7-metres at the change in speed limit. This width along with the standard ‘main highway’ may encourage some drivers to drive at speeds inappropriate to the residential/village environment.

Continuing the visual narrowing from the roundabout further measures could include slightly raised central features (for example, similar to speed cushions) to further emphasise the traffic calming effects. Provided a minimum physical width of 6-metres, (appropriate for bus route), can be maintained it may be feasible to install a splitter islands. Figures 6 & 7 show the existing situation and an illustration of traffic calming measures respectively.



Figure 6 – Existing (2016) west approach to Linby Village within the 30-mph speed limit zone



Figure 7 – Concept scheme to emphasise informal crossing and encourage lower speed approaching Linby Village centre

Physical narrowing of the carriageway could be continued to the east of this feature by widening the existing narrow footway on the southeast side of the B6011, maintaining a carriageway width of no less than 6-metres (achievable width with narrowing is estimated as 6.5 metres).

**Church Lane and the West Cross** – The visual carriageway narrowing on Main Street should be continued through the junction with Church Lane. To emphasise the junction, subtly contrasting surface materials could be introduced. Consideration should also be given to the removal of the centreline through the junction.

The Church Lane junction geometry is wide relative to the status of the road and the type of vehicles using it. Reduction of the exit radii and the B6011 carriageway width at the mouth of the junction would also provide a marginal improvement in visibility at the junction, the narrower carriageway width and wider footways would improve pedestrian amenity and the overall effect would reduce the current ‘major road’ perception of Main Street.

The access points to the parallel service road should also be incorporated into the scheme and it is suggested that the current white ‘edge of carriageway’ lines across these accesses are replaced with setts or similar contrasting surfacing acceptable to the highway authority, to create a clear demarcation between the main carriageway and side roads. Larger vehicles accessing the farm to the north of Main Street use this junction and vehicle swept path analysis on an accurate topographical survey is required to determine the extent and feasibility of any changes to the geometry of the junction.

Figures 8 & 9 show the existing junction and an illustration of a possible scheme; realignment of the Church Street geometry to bring the give-way line forward, corresponding widening of footway and reduction in carriageway space, contrasting road surfacing either side of the B6011 Main Street/Church Street junction.



*Figure 8 – Existing (2016) Main Street / Church Street junction*



*Figure 9 – Concept scheme highlighting Main Street / Church Street junction approaching Linby Docks*

**Linby Docks** – During the preparation of the plan it was observed that the road marking through the Docks had been worn away for some time providing a good example of how the road could be visually changed to provide a degree of physiological traffic calming. The carriageway is narrower at this point and the wooden rails along the edge of the carriageway make the Docks a distinctive feature of Linby and Main Street; any further treatment must be carefully designed so as not to detract from this.

Permanent removal of the carriageway centre line combined with a high friction surface and contrasting edge strips would bring a more ‘village-street’ feel to the highway environment with a visually narrower carriageway. This should encourage lower vehicle speeds and resurfacing with high friction material will further improve safety of the B6011 through the Docks, especially in poor weather conditions.

Figures 10 and 11 are a drivers-eye view of a concept scheme showing how the appearance of the road can become more a rural village street rather than a major through-traffic route.



Figure 10 – ‘Street’ Concept – B6011 Main Street through Linby Docks



Figure 11 – ‘Street’ Concept - B6011 Main Street west bound approach to Church Street junction

**Linby Central Area** – The area between Linby Docks and the West Cross defines the active centre of Linby. Pedestrian crossing, especially crossing activity associated with the school near west Cross, Brook Farm and at the Horse and Groom pub/tea rooms is a key consideration, along with large parking area adjacent to the pub, bus stops and loading/parking areas.

The B6011 Main Street between Linby Docks and East Cross should be ‘re-engineered’. The following elements should be considered:

- Removal of the carriageway centre line;

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- Visual narrowing of the carriageway by using flush edge strip in a subtly contrasting material;
- Bus/loading bays incorporated into footway (separated by a low kerb) with complimentary surfacing material, to further reduce the area of 'roadway' surface.
- Wide median strip in a flush or semi-flush contrasting material
- Provision of a centrally located informal pedestrian crossing

The Horse & Groom Public House and coffee shop, Brook Farm and the adjacent bus stops define the busy heart of the village. The public consultation has highlighted the difficulties in crossing Main Street especially in busy periods. As part of a scheme for the central area an informal pedestrian crossing with a refuge incorporated into a flush median strip would compliment other speed reducing measures. Figure 13 shows the existing situation at the possible location for a crossing and Figure 14 is an illustration of the concept.

The western access to the public parking area has been narrowed slightly to accommodate the crossing, which would also cross the existing parking bay/bus layby opposite. The carriageway at this point is around 7.4 metres wide. Assuming a minimum refuge width of 1.2 metres and carriageway widths either side of 3.1 metres such a scheme may not require any realignment of Main Street.

The narrower carriageways would serve as a further speed reducing device at the crossing; however, if the highway authority requires a 3.5 metre carriageway either side of the refuge then symmetrical widening of the B6011 through the crossing (0.4 metres either side) would also provide a slight deviation in the traffic lanes which would also compliment the overall traffic calming effect. Note that the style of bollards shown in the Figure 13 are for illustration of the concept only; all street furniture should be chosen to compliment the conservation area setting.



*Figure 12 – Existing (2016) B6011 Main Street adjacent to Horse and Groom Public House and bus stops*



*Figure 13 - Illustration of a concept for an informal pedestrian crossing within a scheme for village central area*

The following Figures 14 & 15 show the existing layout of the B6011 Main Street adjacent to the Horse and Groom pub and an illustration of a conceptual scheme as described above.



*Figure 14 – Existing (2016) Main Street, Linby*



*Figure 15 – Illustration of Main Street with shared footway/loading/parking areas and ‘re-engineered’ carriageway*

Many of the existing vehicle access points within the central area are very wide. Subject to swept path analysis of the largest vehicles expected to use these, narrowing the multiple wide access to the pub car park and the access road that runs parallel to Main Street. The entries could be defined by using rows of setts (for example) or a suitably contrasting textured surface material acceptable to the highway authority-

## **Linby Lane Between East Cross and change in speed limit**

The section of Linby Lane between the start of the 30-mph limit and suggested scheme within the village centre would benefit from the introduction of features within the highway corridor that highlight the change to an edge-of-village residential area, but which do not detract from the semi rural feel of the road. These could be similar to those illustrated Figure 7.

Approaching Linby from the east there is no perceptible change in the appearance of the highway as the speed limit changes from 50-mph to 30-mph. The following measures could be considered: Install ‘countdown’ markings on the approach to the 30-mph speed limit (see Figure 4).

Visual narrowing of the carriageway by installing a ‘gateway’ feature at the edge of carriageway to incorporate 30 mph signs would also be effective in highlighting the change in speed limit and change in highway environment. An example is shown in Figure 5.

## **Linby Lane Approach to Papplewick**

The speed limit on Linby Lane was reduced to 50-mph around 2014 in response to road safety concerns. However, the same situation exists at the change from the 50-mph to 30-mph speed limit; there is no perceptible difference in the highway environment on the

approach to Papplewick and the Griffins Head junction. Gateway treatments similar to those described above should be considered. Similar examples are also included in the Papplewick Neighbourhood Plan.

### **References and Further Guidance:**

*TAL 1/00 Traffic calming in villages on major roads*

*TAL 1/13 Reducing Sign Clutter*

*LTN1/08 Traffic Management and Streetscape*

*Manual for Streets 2 (Wider Application of the Principles)*

*Hamilton Ballie Associates Traffic in Villages (1 & 2)*

*TRL641 Psychological Traffic Calming*