

Harlow North Bus Routes

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05/10/2005

About this note

This note describes in brief terms the specification of and demand for bus services in North Harlow, and highlights implications for the design and layout of the new district, and the need for further work on bus routes at the detailed masterplanning stage.

Route descriptions for proposed network serving 10k dwelling North Harlow:

Route 1 From the north eastern edge of the 10k build area, taking a westerly direction passing through the higher density areas to the focal point just north of the river (interchange), and thence via Living Bridge to Harlow station and town centre, and onward to a destination in existing Harlow. The route offers interchange with route 4 near the terminus.

This could take over the existing Harlow route 1 to Sumners in the south west of the town, perhaps rerouted to serve also the Hospital.

The route has 8 stops north of the river, and 4 km length from the station.

Route 2 From central-north development area via the focus (interchange) north of the river, and thence via the north-south spine street and Living Bridge to Harlow station and town centre, and onward to a destination in existing Harlow. The route meets Route 1 at a high density node (offering that location double the service frequency).

The route has 9 stops north of the river, and 4 km length from the station.

Route 3 From the western extremity of the 10k development area, eastwards to meet with routes 1 and 2 at the high density focus north of the river, and thence via Living Bridge to Harlow station and town centre, The route would continue to a destination in existing Harlow. This will therefore be the best served location in North Harlow, probably towards Old Harlow and/or a destination in the south east of the town.

The route has 6 stops north of the river, and 3 km length from the station.

Route 4 From the eastern extremity of the 10k development area, west to meet with Route 1 before turning south across the proposed new river crossing, and then serving the leisure, retail and employment areas along Edinburgh Way, before calling at the railway station, offering interchange with the other 3 routes as well as trains, and then onto the Town centre. This route could take over and form an extension of existing "Metro" quality route 4 to Latton Bush.

The route has 7 stops north of the river, and 3 km length from the station.

Bus and Rail Interchange

The main interchange points are the railway station and the town centre bus station. All four proposed routes call at both.

Daytime frequencies will mean that there is no need to coordinate with individual trains at the railway station. But in the evenings and on Sundays, reduced frequency services ideally should be planned to meet up with trains (arriving at the station 5 minutes before the train arrives, and departing 5 minutes after the train has left. Although such would match European best practice, it rests on the ability to plan services jointly, and on high levels of reliability, neither of which characterise current practice in Harlow.

Integration of North Harlow and existing Harlow

It is proposed that (subject to reliable operating conditions being provided), the four proposed bus routes should serve existing areas as well as North Harlow. This is to achieve higher passenger numbers, but also to assist with the social and economic integration of the new and existing communities.

Two or more of the new routes could take the form of extensions and adaptations of existing high frequency routes (see description of Routes 1 and 4 above). The bus routes together should serve key destinations in existing Harlow. This means that residents of North Harlow will have direct bus access to many of the existing facilities in the town. Although the distribution of routes and destinations cannot be specified without further more detailed investigation, it is suggested that the following destinations should be included:

- The railway station (all routes)
- The town centre bus station (all routes)
- Nearby activities including Harlow College and Sports Centre
- Princess Alexandra hospital
- Pinnacles employment area
- Queensgate Centre and nearby developments and employment
- Secondary schools (depending on North Harlow provision)
- Latton Bush Centre
- Old Harlow (hotels etc)

Further notes and assumptions

1. The specification of four routes with a frequency throughout the day of 6 buses per direction per hour, is based on a mode share assumption of 20% of all trips by public transport. This would produce enough demand to fill all buses from North Harlow by the time they reach the river. A commercial service could be maintained with lower mode shares, with perhaps 10% mode share being the minimum required.
2. **Access to bus stops** is crucial to public transport success. The routes and stops have been planned to ensure that the great majority of the new dwellings and floor area of development in North Harlow will be within 300 metres of a bus stop. Almost no areas will be more than 400 metres from a bus stop, and these areas should be for low density or low trip generating land uses. The detailed street layouts should be planned to ensure that routes to bus stops are direct and convenient.
3. Three of the routes come together to cross the river at the “Living Bridge”. This means that the most heavily used part of the network will have the **extra capacity** offered by the combination of three routes.
4. At two further locations in the network there are two routes offered. These locations are therefore better served and can support higher density development.
5. The proposed bus routes are based on a number of **assumptions**, and measures will be needed to ensure that these are valid before, during and after implementation. These assumptions include:
 - Buses are capable of handling all the demand likely to arise in North Harlow, and other public transport modes can be ruled out;
 - The bus services must be of the highest quality, and an outline specification is appended to this note;
 - The building densities must be high enough to support a commercially viable network of bus services;
 - The street layout must be capable of carrying direct bus routes, without the need for lengthy diversions or loops.
 - The traffic on the network will be managed to ensure that buses are not delayed by other traffic
6. The proposed routes are designed for an initial build-out of **10,000 dwellings** and other uses in North Harlow. These routes could be extended or added to, or both, to serve the full 20,000 dwelling build out as and when that occurs.
7. The **draft bus route** layout raises issues of street pattern and layout, and also traffic management. Further work will be needed at the detailed masterplanning stage to ensure that the street layout and pattern of activities and densities is orientated and optimised for public transport operation and use. For example, the location of a new secondary school should be planned in relation to bus routes, whilst the layout and configuration of local centres needs to incorporate bus stops.

8. **Bus priority** and unhindered operation is an essential component of the bus services, to achieve fast journey speeds, and reliability. Without this, there will be no chance of raising the bus share above the low current figure of around 6-7%.
9. The bus services and Phase 1 development of North Harlow are critically dependent on good accessibility from the start. The “**Living Bridge**” is not considered conducive to high quality bus operation unless the volume of general motor traffic carried on the bridge is constrained to around 20,000 vehicles per day. This is about 40% of estimates given to the North Harlow workshop. This means that a **second bridge** is likely to be essential to enable the Living Bridge to accommodate bus movements with priority over other traffic. There may well be a case also for the second bridge being required to take all traffic while the Living Bridge is constructed.
10. Direct routes are more attractive to passengers and public transport routes that go through a town to serve destinations beyond the centre are better patronised. The proposal therefore is that the bus routes serving North Harlow will be “diameter” or “**cross town**” routes extending into existing Harlow. Two or more will probably be extensions of re-modelled existing town routes, but the substantial additional population may justify wholly new routes. However, the cross-town route proposal is wholly dependent on being able to guarantee comprehensive (whole route) priority for buses over other traffic. If this is not provided, then operationally cross-town routes are more difficult, in which case all the North Harlow routes should terminate at the town centre. For the time being, indicative routes and destinations in existing Harlow are shown.
11. Action may be required to improve bus **access in and out of the bus and rail stations**, ensuring that these movements are not interrupted by other traffic.
12. The aim is to achieve a good network of “**turn up and go**” routes. This means daytime frequencies on each route of at least every 10 minutes. This enables interchange with other routes without excessive time penalty.
13. All bus services should stop at the **railway station** (Harlow Town) and at the **town centre bus station**, to facilitate interchange and to maximise public transport use. This means that the short distance between the town centre and the station will be the most frequented by buses, opening up the possibility of more intensive development in that corridor. This issue has been raised at the workshops.
14. In the evenings (and probably Sundays), frequencies can drop back to 20 or 30 minutes, but should work to “**clockface schedules**”, and be coordinated with each other, and with trains at Harlow station.