



TRAFFIC ADVISORY LEAFLET ITS 12/03

Lincoln – InterConnect Flexible Bus Services

This leaflet is a case study into the application of an Intelligent Transport System (ITS) by a Local Authority. It is one of a series of documents from the ITS Assist Project. ITS Assist is a Department for Transport (DfT) initiative that aims to encourage and promote the use of ITS solutions as tools to achieve Local Transport Policy Objectives.

ITS Assist will provide advice, guidance and information to local authorities on developing and deploying ITS solutions. As part of this process, the Project Team has produced a series of Advisory Leaflets as well as Technical Papers and Case Studies. These documents are available via the Internet, and on request from the DfT or the ITS Assist Team.

This leaflet is a study of the InterConnect system; InterConnect is a high quality bus service for the rural communities of Lincolnshire. The service is supported by Intelligent Transport Systems.

InterConnect provides modern low-floor buses running at a minimum hourly frequency on routes between the major towns of the county. Rural communities off the main routes are provided with 'CallConnect' feeder buses that have flexible routes and have guaranteed connections with InterConnect services at high quality interchange points.





PHOTO COURTESY OF LINCOLNSHIRE COUNTY COUNCIL

Interconnect Bus

BACKGROUND

Lincolnshire is a sparsely populated county where a large proportion of the population (30%) live in communities of less than 3000 people. Provision of frequent commercial bus services for all these communities is very difficult and, as a result, car ownership levels in rural Lincolnshire are very high (82%) when compared to the national average (67%). Many of these small communities have lost much of their basic services (shops, schools, buses), which means that people without access to a car can suffer social exclusion.

In order to reduce social exclusion in rural areas, the Government's Transport Policy Document "The 10 Year Plan" has set a target for a 30% increase in the proportion of rural households living within a 10 minute walk of an hourly bus service.

Lincolnshire County Council commissioned a study that found that 51% of its population did not have this level of service. So in 1998, it adopted a strategy to address social exclusion based on:

- Working with bus operators to provide a commercial 'primary' interurban network with a minimum hourly frequency using quality low floor buses

- Channelling demands from the wider rural areas into key managed interchanges on the primary network
- Providing high quality stops and interchanges to ensure a high level of accessibility and security
- Providing access to quality information in the home and at stops

Following a successful bid in the Government's Rural Bus Challenge combined with grants from the Countryside Agency and the European Union, funding for a trial was obtained in 1999. This trial provided an interurban route from Lincoln to Skegness, with twelve fixed feeder routes from the surrounding rural areas. The interurban route frequency was increased from a two hourly six days a week service, to hourly services seven days a week extending into the evenings.

In 2001, the fixed feeder routes were replaced with demand responsive services operating on flexible routes using a pre-booking telephone service. These flexible services have reduced unmet travel needs in the county by 90%, and the use of smaller minibuses has made the services more affordable.

Following the success of the trial, the services have been extended to four other corridors.

FOUNDATIONS OF THE PROJECT

The initial Interconnect project was run by Lincolnshire County Council and local bus operators, Lincolnshire RoadCar, Appleby Coaches, Hunts Coaches and Translinc, with all parties signed up to a Quality Bus Partnership (QBP).

The four operators provided a combination of commercial and supported fixed route services. Subsequent re-tendering and the development from fixed route to demand responsive rural feeder services has resulted in Lincolnshire RoadCar and Translinc being the current operators of services within the current project area.



PHOTO COURTESY OF LINCOLNSHIRE COUNTY COUNCIL

Rural bus shelter

SYSTEM COMPONENTS

The interurban buses are required to run at least hourly. New buses have been purchased for these routes to improve accessibility, fleet reliability and passenger perception. These had to have modern features such as:

- 'Access for all' including those with mobility problems
- CCTV cameras for security
- Computers with GPS (Global Positioning Satellite) technology for real time bus passenger information and route scheduling

The feeder buses come in two forms:

- The 'CallConnect' buses - 16 seat minibuses with tail lifting for people with mobility problems operating to semi fixed routes
- The 'CallConnect Plus' buses - 8 seat minibuses with a ramp for people with mobility problems operating to fully flexible routes

The CallConnect buses are used on routes where there is a regular, but low, demand for a bus service. Its semi-flexible route caters for the surrounding areas. The more rural and sparsely populated areas are covered by the CallConnect Plus service.

Passengers can pre-book journeys up to a week in advance through direct contact with the driver or a dedicated telephone booking service. All requests are dealt with by the Matrix Transport Operations Centre, which uses a route-scheduling computer package to dynamically allocate vehicles and to automatically notify the driver of journey details via an in-vehicle display. The feeder buses guarantee the connection to the interurban bus. Drivers of all the InterConnect services can be contacted and instructed as appropriate to wait at the interchanges.

The interchanges have been designed to meet the needs of the passengers with:

- New, comfortable shelters with protection from the weather
- Real time bus information on LED text displays
- Interactive touch screen timetable displays
- CCTV cameras for security.

The project is also planned to include the restoration or replacement of all or many of the older bus stops and bus shelters around the county.

TURNING THE PROJECT INTO REALITY

Funding

The Lincoln-Skegness trial projects for InterConnect attracted total funding of £2.4 million. The Council obtained this from four main sources:

- £1.22 million grant from the Government's 1998 Rural Bus Challenge
- £0.92 million from the Rural Bus Grant
- £0.16 million from the European Regional Development Fund
- £0.10 million from the Countryside Agency

Support services

The project required two main support services: the facility to book the places on the CallConnect buses and the bus monitoring systems. The bus monitoring systems are required for the passenger information services at the interchanges and route scheduling package.

The central control of the InterConnect project is the Matrix Operations centre, which:

- Receives the CallConnect bookings
- Plans the routes for the CallConnect buses
- Monitors the positions of the interurban buses
- Sends data to the passenger information services at the interchanges
- Ensures that the interchange buses do not leave without picking up their relevant CallConnect connections

PROGRESS TO DATE AND FUTURE PLANS

The scheme was successfully piloted on the InterConnect 6 Lincoln to Skegness corridor. The number of passengers using the InterConnect 6 service has grown by 30% – equivalent

to an additional 200,000 passengers per year. This was the interurban service, with feeder routes going to many of the smaller towns along this corridor.

Although a heavy subsidy was required for the first two years, the Interconnect service is now run commercially by Lincolnshire RoadCar from 0600-2355 Monday to Saturday, and offers 3 full return journeys on Sundays. The company have also invested in new double deckers for the corridor to accommodate the growth in demand.

Ridership of the feeder services grew by 25% in the second year of operation and continued to increase with the introduction of the CallConnect Plus Services. The demand responsive services have been very effective in addressing the issue of social exclusion within rural areas.

Passenger feedback has been very positive and demand for the services continues to grow.

As a result of this success, it was decided that the scheme should be extended to routes across the county. So far the Interconnect service is available on five routes:

- InterConnect 6 from Lincoln to Skegness
- InterConnect 5 from Lincoln to Boston
- InterConnect 505 from Spalding to King's Lynn
- InterConnect 1 from Lincoln to Grantham
- InterConnect 3 from Lincoln to Grimsby

All of the links between the major towns will eventually become InterConnect services with related feeder CallConnect services.

Through the proposed network illustrated on the diagram below, the company has an aspiration to link all its market towns and service centres. Full implementation of the InterConnect strategy across Lincolnshire will enable this to happen.

MAP OF INTERCONNECT SERVICES



- CURRENT ROUTES
- PROPOSED ROUTES

IMPORTANT POINTS LEARNED

The following are a summary of the lessons learned from the project:

- A step change in the use of and attitudes to bus services can be made through a strategy that addresses the barriers deterring bus travel
- Co-operation of bus operators has been vital to ensure integrated operation of the network
- Demand responsive services can be highly effective in addressing rural social exclusion
- Strong branding and marketing is essential
- The CallConnect services will always require some level of subsidy due to the low population density within the areas they serve

The route scheduling and real-time information systems are essential components of the service. Route scheduling reduces costs by allowing more flexible routing, while real-time information helps to increase passenger confidence in the service.

FURTHER INFORMATION

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The Interconnect website can be found at: <http://www.lincsinterconnect.com/>

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www.its-assist.org.uk

To find out more about the wide range of ITS-related initiatives and projects supported by the DfT, and the development of ITS policies to encourage and promote greater deployment of ITS, please contact the Department for Transport's Transport Technology and Telematics Division at: its@dft.gsi.gov.uk

DfT WEBSITE www.dft.gov.uk

Details of Traffic Advisory Leaflets available on the DfT website can be accessed as follows:

From the DfT homepage, click on the Local Transport icon and then on Traffic Advisory Leaflets. Lastly, click on one of the themes to view material.

The Department for Transport sponsors a wide range of research into traffic management issues. The results published in Traffic Advisory Leaflets are applicable to England, Wales and Scotland. Attention is drawn to variations in statutory provisions or administrative practices between the countries.

The Traffic Advisory Unit (TAU) is a multi-disciplinary group working within the Department for Transport. The TAU seeks to promote the most effective traffic management and parking techniques for the benefit, safety and convenience of all road users.

Department for Transport

Requests for unpriced TAU publications to:
Charging and Local Transport Division,
Zone 3/23, Great Minster House
76 Marsham Street, London, SW1P 4DR.
Telephone 020 7944 2478
e-mail: tal@dft.gsi.gov.uk

Scottish Executive

Within Scotland enquiries should be made to:
Neil Weston, Scottish Executive, Development
Department, Transport Division 3, Zone 2-F,
Victoria Quay, Edinburgh, EH6 6QQ,
Telephone 0131 244 0847
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Llywodrath Cynulliad Cymru Welsh Assembly Government

Within Wales, enquiries should be made to:
Welsh Assembly Government,
Transport Directorate, 2nd Floor, Cathays Park,
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