

that lacks any vital, living link with the surrounding urban tissue and remains forever a void." ♦

Calgary beats traffic with express bus lanes

Calgary, the oil and cattle city in the province of Alberta, has had considerable success in tackling traffic congestion — not by the more usual method of widening streets and building freeways, but by giving road space to a speeded-up bus service.

It is a case of putting into practice that familiar poster which advertises public transport in Britain: a road full of people in cars can become an empty road, with all those people riding on a bus.

Calgary has not outlawed cars. It has made over two out of four traffic lanes in one of the city's busiest main streets for the exclusive use of express buses, leaving only two lanes open to use by regular traffic.

The result has been a spectacular increase in the numbers of people using buses — and this in a city where public transport has never boasted very high patronage. The Blue Arrow Bus Express System, which owns most of the buses on the route, almost quadrupled its passengers in the first 21 months, when numbers rose from 2,800 to 10,000 a day.

The volume of non-bus traffic on the street declined by only 4 per cent, but its average speed is lower than it was before the change — a disincentive which, while not actually forcing the private motorists off the road, must have some effect in encouraging him towards use of the buses.

Most impressive of all, a survey by the Blue Arrow people reveals that 60 per cent of their passengers use the buses by choice: that is, they could drive a car to work or to the shops but prefer to go by express bus.

Because the scheme has been so successful, Calgary is now planning to run a rapid transit line along the 10-mile express bus route. As a forerunner, they are already treating the bus service as if it were a subway or transit rail system, stepping up the frequency of service to one bus every seven minutes at rush hours. Eventually, they plan to give over the whole street to public transport, so that the city will have at least one fast-moving artery through the centre of it throughout the day.

The change has not been made without problems. At the start, businessmen complained that they would be seriously affected, especially as the scheme did away

with parking space on the street. Taxis complained they would not be able to get into hotel driveways. Trucks complained they would not be able to load and unload in front of stores.

The businessmen, however, have been pleasantly surprised. So many more people ride the bus now that trade has actually increased as they stop in to shop before going home. Trucks are forced to load and unload in the middle of the night, unless they are prepared to apply for a special \$20 permit each time they want to unload in daylight hours. Taxis have been accommodated by moving the reserve bus lane to the middle of the street for the length of one block where three large hotels are situated.

Before the special bus routes were created, 7th Avenue was a one-way street, so that today one bus lane runs against the traffic flow in the other three lanes. This has the advantage that buses in the reverse lane move even faster, since they don't get held up behind cars making right turns — and left turns are forbidden.

To encourage suburbanites on to the buses, commuter parking lots for 200 and 300 cars have been established at strategic points. A huge parking lot adjoining the McMahon Stadium is also used by commuters. A dial-a-bus service has been instituted in a suburban community of 11,000 people which connects with the Blue Arrow express buses: within a few months it was being used by 1,100 people a day. ♦

And they climb right over the dam

For years, conservationists agreed there was no way to raise the thousands of young migrating American eels 100 feet over the huge Robert Saunders dam below Lake Ontario, to continue on their journey from spawning grounds in the Sargasso sea. Some were getting through the nearby shipping locks, but the rest were apparently doomed to end their journey at the foot of the dam.

The sight of man-made concrete frustrating the migrating instincts of creatures that had already swum 2,000 miles from south of Bermuda was too much for Russ Whitfield, a biologist working for the Ontario government. He proceeded to make a study of eel ladders in other parts of the world. The result is the highest eel ladder ever built and it works. In its first week, tens of thousands of eels, between eight and 30 inches long, wiggled up the 500 feet of switchback trough and went safely on their way to Lake Ontario.

The ladder consists of a series of wooden

troughs resting on steel angles bolted to the wall of an ice sluice underneath the dam. The troughs are watered by hoses and criss-cross the dam face many times in order to maintain a 12-degree slope of ascent. The flow of water down the trough is slowed by wooden baffles and willow cuttings. The eels entangle themselves in the cuttings to rest and to get leverage. Mr. Whitfield estimates that it takes an eel at least 90 minutes to make the ascent, during which it will rest several times in deep-water troughs at the ends of the switchbacks.

Giving the eels free access to their natural migratory range not only satisfies a sense of fair play — it is also a benefit to commercial eel fishing on Lake Ontario. Before the ladder was erected, there was evidence that eels in the lake were decreasing, endangering the industry which exports 250,000 pounds of smoked eels to Europe each year.

After spawning in the Sargasso sea, the young eels move north into the Gulf Stream and enter fresh water streams and rivers all along the eastern part of North America, but principally the St. Lawrence River. Most are able to get by the Beauharnois Dam further down river because the flood control gates in the shipping canal there are open from the end of November until the beginning of May each year. Only the female eels migrate inland, where they live possibly eight to ten years to maturity, growing to a length of three to four feet. Then they return downstream. ♦

Musk Ox ranch

A long-term experiment in musk-ox ranching has been launched by the government of the Northwest Territories, after some eight years of consideration. The question to be studied in the course of this project is whether keeping these huge, shaggy animals on ranches and shearing their valuable quiviats, or wool, can form the basis of a profit-making industry.

The territorial council has approved the establishment of a privately owned, government-subsidised ranch and the initiation of a "cottage" knitting industry attached to it. Starting with 30 calves, captured on Banks Island and flown to a suitable site on the mainland, it is expected to take eight years before the industry will become self-supporting and show a profit.

The Economic Development Department have undertaken to subsidise the ranch's operation over the first few years as well as the initial cost of setting it up. Critics have called the project uneconomic and suggested that instead the government