Busways ... a trojan horse?
... an excuse for more road lanes?

Michael Yeates
BArch MEnvirEd MScEnvMan
Convenor, Bicycle User Research Group

7 Marston Avenue Indooroopilly 4068
Telephone 07 33719355

14 May 1996

[Note that in the period since this article was written, promoters of use of HOV lanes have introduced a range of other terms for what is basically the same thing. So “transit lanes”, T2, T3 etc are forms of HOV lane. “Bus lanes” are fundamentally different.]

1 Introduction

Brisbane metropolitan region is facing the consequences of excessive use of cars for access to the widely dispersed facilities which have resulted from low density car based planning. Air pollution, noise, congestion, and minimum use of and demand for public transport, cycling and walking are among the outcomes of such strategies. High vehicular traffic speed limits and high rates of cycling and pedestrian casualties are symptoms of such car based planning strategies.

In 1995, Brisbane City Council released ***TravelSmart*** (BCC undated), a traffic reduction strategy for Brisbane in the form of a high quality public information booklet. However, TravelSmart provides very little evidence of a commitment to actual traffic reduction which is the only way that the effects of excessive car use can be reduced. The Lord Mayor confirms the lack of commitment in his statement that "this document is not 'anti-car'. But it does aim to reduce car travel, encourage more walking and increase the use of public transport and bicycles" (p3).

The "aim" is clearly commendable. But because it lacks demonstrated commitment to implementation on a broad and integrated basis, TravelSmart is too easily able to be viewed as a 'do nothing' policy with political aims but with little or no commitment to implementation. This brief review considers some key indicators which support this view.

2 Need

BCC has provided very little commitment to demonstrating the need for a shift from cars to other modes. Recent reviews of the town plan and in particular the local area plans completed to date demonstrate that car travel is assumed to remain strongly embedded in the minds of the whole community. Brisbane is a car based city! The city knows no other alternatives. Without a commitment to demonstrating the need and the possibilities of alternatives, Brisbane will remain a car based city.

All of the activities undertaken in recent times by BCC have been internally developed and policy or planning oriented with very little needs analysis and public participation. The outcomes are inevitably conservative precisely because there is no adequate public research to demonstrate the need for the proposals. As 'occurred' with the Bicycle Brisbane Plan (Yeates,1993), TravelSmart is another "top down" policy with little evidence of established need and no evidence of adequately considered strategies for or commitment to implementing the proposal.

3 Strategy

Assuming that the "aim" of TravelSmart is to effectively improve environmental conditions in the Brisbane metropolitan and SEQ region, "environmental" indicators need to be determined and agreed.

Primarily these are of two types, the first being economic and including efficiency, congestion, costs (both internalised and externalised), development and growth imperatives and the second being environmental including air pollution, noise, danger and secondary effects of urban form and urban development like gentrification.

When considering traffic reduction, it is therefore extremely misleading to consider congestion as a 'negative' (BCC undated:7). More wider roads continue to be a BCC solution to congestion. BCC continues to justify more road capacity on this basis eg Kelvin Grove Road, Coronation Drive overpass, Gilcrest Avenue and Bowen Hills bypass and to accommodate rather than reject Queensland Transport proposals for even more road capacity. Alternatively, congestion is essential to traffic reduction, modal shift and trip reduction - basic supply and demand.

Critical analysis of TravelSmart suggests that the reality of traffic reduction actually achieving improved environmental conditions has deliberately been avoided. TravelSmart is a very early public awareness exercise (BCC undated;23) to 'test the waters'. It is not a commitment to implementation which will improve environmental outcomes.

4 Integrated incremental implementation

BCC is unique in Australian local government due mainly to its size. It acts as both a 'regional' and a 'local' authority. This has benefits and disbenefits. The benefits include the opportunity for coordinated regional planning of roads and transport. The disbenefits include the inability to address local needs when they conflict with regional interests. The recent local area plans are illustrative (Yeates 1995). Conflicts between the needs for local access and regional traffic inevitably are determined by the broader community interest determined by traffic engineering 'imperatives' as in Sandgate and Coorparoo.

If a policy shift in favour of non-car transit had occurred in BCC, this shift could be easily detected and its effects assessed by considering current projects. Local area plans, cycling facilities, increased public transport, road 'improvements', LAP's and other planning implementation provide the opportunity for incremental implementation, integrated by application of prevailing policy. From this perspective, every dollar spent can be assessed for conformity with new or old policies. There appear to be no projects which demonstrate the effectiveness of any new policy shift.

Being a large organisation, BCC has a preference for large scale projects. This is a logical outcome of the prevailing management structure. Small projects are internalised and therefore tend to be very conservative to avoid risk to the proponents. There is therefore little or no incentive to experiment with alternatives.

This has been particularly obvious with attempts by BCC to begin to address the appalling cycling conditions provided by BCC by the dominance of traffic engineering. Due to the internalised management of BCC, any real improvements for cyclists remain highly improbable (Yeates,1993; Yeates, 1994; Yeates, 1995) as dominant groups are most unlikely to address problems they have contributed to or caused.

5 Busways

BCC has been developing a 'busways' project first released to the public in some detail in August 1995. Strategy one of TravelSmart puts "public transport first" (BCC undated:15). However, if air pollution levels caused by motor vehicles in the Brisbane region are to be reduced, 'busways' must be implemented by utilising existing roadway such that trip replacement by modal shifts at very small cost can be demonstrated. Waterworks Road provides an outstanding opportunity (Yeates 1994).

This strategy, comprising both the 'carrot' of much improved public transport and cycling conditions and the 'stick' of increased congestion for other than public transport passengers, pedestrians and cyclists, requires political commitment not yet demonstrated at any level of implementation by BCC. Currently, public transport appears to still depend on 'required' destructive road widenings as in Kelvin Grove.

By choosing to rely on the 'carrot' without the 'stick', BCC has deliberately chosen a highly expensive and, in many areas, destructive solution which will actually reduce and delay the necessity for modal shift. There is no need for a $600 million 'busway' system if traffic reduction and air pollution reduction are to be achieved. Groningen like many other cities in Europe has demonstrated that the 'stick' is essential and not a political difficulty if the 'carrot' is good enough to encourage the modal shift.

Rather than increased integration and co-ordination of existing non-car modes, the 'busways' proposal confirms increased competition between Brisbane Transport and Queensland Rail as recently demonstrated by changed services to Sandgate. Public transit systems must be designed to support the other non-car modes, maximise interchange potential, provide maximum restriction of car based travel and avoid competition with other non-car modes (Yencken,1996).

Accordingly, the 'busways' proposal represents a typical 'big picture' response to the wrong problems. It fails to support the existing bus and rail network, discourages multimodal travel, competes with the existing heavy Citytrain network and increases rather than reduces the available 'roadspace' in each of the corridors thus encouraging increased car use. Where it is being implemented on road, it is potentially destructive of existing urban activities and in particular many optimum cycling routes.

6 HOV lanes are not busways

If BCC is serious in its very positive decision to put "public transport first" (BCC undated;15), then recognition of the damaging effects of promotion of high occupancy vehicles (HOV's) by providing additional HOV lanes must be accepted and understood. If building additional lanes for public transport rather than reducing the existing capacity of the road system to accommodate single vehicle trips is recognised as counterproductive to traffic reduction strategies, additional lanes for HOV's make no sense at all and can be viewed only as political expediency.

TravelSmart includes HOV's with 'busways' (BCC undated;15). TravelSmart therefore reinforces and encourages the use of even more cars in competition with public transport, walking and cycling yet supposedly, the "aim" is to reduce traffic and air pollution. Clearly, conversion of existing lanes to 'busways' and/or cycling facilities is a high order solution. Conversion to HOV lanes is a much lower order solution because it impacts so heavily on the competitive potential of public transport and cycling as well as encouraging even more vehicles.

Provision of new lanes for HOV's is road widening in disguise. World renowned transportation authorities have shown that road building authorities are now using HOV lanes as a "trojan horse" strategy "to build what is promised to be an HOV facility but then allow more and more vehicle categories into it" (Vuchic 1995). This is exactly what happened with the limited "Transit Lanes" in Brisbane.

The definition and capacity of an HOV in the 'busways' proposal is a measure of the commitment to public transport. "The trend of changing busways into HOV and then from 4+ to 3+ and 2+ HOV facilities is a clear case of backsliding of bus priorities" (Vuchic et al, undated;85). The tendency "to change to the least favourable priority for transit" (p86) must be strongly resisted. Buses must be separate from all other motor traffic to maximise competitiveness and to avoid encouraging the 'opposition'.

Wherever there is present or potential bus ridership, buses should be given exclusive priority over all other vehicles not only because they are public rather than private service, but also because of their far greater physical productivity than all other highway passenger vehicles.

In the example from Dallas, the introduction of an HOV lane increased the volume of HOV's by 45 percent but it also increased the SOV (single occupancy vehicle) volume by 29 percent ... Thus, although HOV's (excluding buses) have an average occupancy of 2.15, approximately two times greater than vehicles in general purpose lanes, buses have an average occupancy of 28, or approximately 11 times greater than the HOV.

It would be logical to give full preference to buses, which have a far greater productivity. (Vuchic et al, undated;85).

6 Other modes

Rail, local buses, walking and cycling must also always be beneficiaries of an integrated approach to traffic reduction. Priority to improve local cycling and walking conditions encourages transfer to public transport as well as reduction in car use for local trips eg to the shops or the station or bus stop. Local traffic speed reduction is essential, not only to increase the safety of cyclists and pedestrians, but also to increase the relative competitiveness of public transport which is already by far the safest mode of urban transport. However, without competitiveness advantages and safety improvements in getting to and from public transport, car use will continue at high levels until congestion effects encourage modal shifts due to necessity.

Interchange facilities are also needed. All stops must be secure, well lit, well patronised and very regularly and frequently serviced if 'transit' rather than 'commuter transit' status is sought. Facilities for interchanges include fully weatherproof waiting and transfer, secure locking facilities for bicycles, current trip information and cost and source of tickets.

The extent of introduction of these essentials illustrates the commitment to transit status for the bus system and the 'busways' proposal.

7 Urban planning

The potential damage of cars has long been recognised. In 1907, cars were described as "a luxury that is apt to degenerate into a nuisance" (Elsworth,1991;5) and that was from a politician. Much of the "nuisance" is generated by how cars are used. Reliance on public transport to do the same role generates exactly the same problems of excessive trips, excessive trip length, danger, congestion, urban quality destruction, air pollution and noise as does reliance on cars. Predictably public transport is also "a luxury that is apt to degenerate into a nuisance".

If indeed there is serious concern about encouraging more sustainable urban forms while reducing air pollution and noise in Brisbane, the potential benefits of public transport must be accepted as very limited. Priority funding of public transport only encourages more and longer trips while failing to encourage cycling and walking (Hillman 1995).

Thus to begin to implement more sustainable goals and traffic reduction, walking and cycling conditions must be given first priority over all other modes. Accordingly for example, bus stops on busy roads are of little use if the road is regarded as too dangerous to cross on one of the legs of the journey. In such instances, priority to pedestrians benefits public transport by providing a pedestrian crossing which delays motorised traffic whenever it is used. Many more convenient pedestrian crossings are essential for increased public transport, cycling and walking.

The extent that such facilities for cyclists and pedestrians are not provided or are removed is a measure of the extent existing traffic priority continues to contradict the commitment to the "aim" of TravelSmart.

Sustainable environmental goals require priority for local centre policies which utilise opportunities to restrict traffic flow. This is the antithesis of the anti ribbon development planning policies of BCC over the last 20 or more years. Obviously, external community living areas as they are described in the Netherlands, should provide priority for local pedestrian and cycling traffic, encourage public transport interchanges such as our old tram stop shopping centres, and restrict through traffic to speeds which are both safe and pleasant for the users of these areas. These are the existing transit oriented villages of Brisbane - the existing suburban centres which require only protection from through traffic (Yeates 1995).

Rather than destroying such tram stop shopping centres as has been so well demonstrated by BCC in Kelvin Grove, commitment to preservation and enhancement of these areas will be reflected in planning solutions and approvals which preserve the urban fabric, encourage and prioritise cycling and pedestrian movement through and to these areas and provide transit standard public transport services to and through them.

8 Implementation

From the above analysis, TravelSmart can be viewed as the very early and tentative issue raising stage of policy formation and adoption. However, it presently represents a very conservative and poorly considered strategy for adoption and commitment if it aims to maintain or reduce air pollution and traffic. As has been demonstrated by examples, the strategies proposed are expensive, require external funding, encourage more car use, compete with and fail to integrate with existing rail services and reduce cycling and walking amenity and safety.

There is little evidence of understanding of the needs of potential users as demonstrated by the reluctance of BCC to provide 'accessible' public transport, reduced speed limits, high quality cycling facilities and safe, convenient road crossings. These shortcomings can be viewed as the inevitable outcome of a continuing car based city planning system.

Support for TravelSmart requires confirmation that the city planning structures have indeed changed and that TravelSmart represents more than a political statement prepared for the next election. There is little if any evidence that integrated intermodal planning techniques have been adopted or even understood by BCC given current implementation of the new high speed ferry system and cycling facilities to name two examples. There are no examples of integrated traffic reduction schemes which prioritise benefits for cyclists and pedestrians.

While "46km of dedicated busways' may be appropriate, "46km of busways and high occupancy vehicle lanes being built over the next 15 years" (BCC undated;15) is clearly not. That is only 3km per year! Dilution of the Bicycle Plan for Brisbane and lack of funding support for useful on road cycling facilities despite continued funding of 'traffic flow improvement' schemes like the Coronation Drive overpass, confirm that BCC, despite the good intent of TravelSmart, has failed to sufficiently establish the need for change and accordingly has failed to produce and demonstrate a substantial commitment to non car modes in Brisbane.

BCC could demonstrate its commitment to TravelSmart by incremental adoption of priority for non car transit in all projects whenever it wishes. But until it does so, TravelSmart and 'busways' should be regarded primarily as rhetoric, a "trojan horse" which seeks to encourage a shift to public transport while continuing to improve traffic conditions for cars.

References

Brisbane City Council (undated) "TravelSmart. A traffic reduction strategy for Brisbane" Brisbane City Council, Brisbane.

Elsworth, S (ed) (1991) "The Environmental Impact of the Car" Greenpeace International, Amsterdam.

Hillman M (1995) "Cycling as the realistic substitute for the car: burying the conventional urban myth about public transport" in Proceedings of the 8th Velo-City Conference, Basle 1995;47-49.

Vuchic V (1995) "Bring I-95 extra-lanes plan to a screeching halt" The Philadelphia Inquirer, January 8,1995.

Vuchic V, Kikuchi S, Krstanoski N and Shin, YE (undated) "Negative Impacts of Busway and Bus Lane Conversions into High-Occupancy Vehicle Facilities" in Transportation Research Record No 1496;75-86.

Yeates M (1993) "The Bicycle Brisbane Plan. An opportunity for integration of impact assessment, planning and community participation and education?" submission to BCC.

Yeates M (1994) "Roads and Cycling in Brisbane" submission to BCC.

Yeates M (1995) "Saving the suburbs by bicycle. Coorparoo as a transit oriented village" submission to BCC LAP.

Yencken D (1996) "Moving pictures: Transport research, policies and assumptions" in Urban Futures Journal No 21;29-38, Department of Transport and Regional Development, Canberra.