Important Transport Issues in Southern Sydney

The SSROC region is characterised by a relatively high level of accessibility to the rail network. Some Local Government areas (eg. Marrickville, South Sydney) have over 80% of the population living within 15 minutes of a railway station. Randwick, Botany and Waverley have very low levels of accessibility to the rail network (0-15%). Significant new residential growth is occurring within areas accessible to rail stations in almost all Local Government areas.

Further increases are required however to ensure that gains in accessibility are not eroded through State and Federal government spending on road alternatives.

In Southern Sydney there is:

- Increasing VKT per person, despite improvements to public transport.
- Increasing number of cars per person
- Low access to public transport in many areas
- Low urban densities across the outer SSROC region with a high levels of car dependency
- A heavy level of freight transported through high density residential areas
- Major traffic congestion during peak hours
- A latent demand for commuter cycling
- A series of complex transport impacts from recent projects; MS East, Eastern Distributor, Green Square
- A potential impact from proposed projects; F6 corridor, Bondi Junction to Miranda for rail link, Hurstville to Strathfield rail link, East Hills rail line duplication, Baylight Express light rail
- Increasing urban consolidation which has created new transport opportunities and also more problems

Glossary of Transport Jargon

Active transport - refers to the use of human energy in walking, cycling and walking to public transport stops rather than the passivity of driving or being driven.

Busway - a road constructed for the sole use of buses.

Compact city - urban form that aims to maximise efficiency of landuse by containing growth within existing urban areas instead of using green space for new urban development. Urban consolidation is the term used for policy which aims to achieve this urban form.

Connectivity - how easy it is to get from one place to another.

Derived demand - the desire to make a trip which arises from the need to shop, meet friends at the cinema, go to work or school.

HPV (Human-Powered Vehicle) - any vehicle powered directly by human action, including bicycles, scooters, skateboards, in-line skates, roller skates etc.

Integrated Transport Planning - the combination of transport and land use planning decisions to ensure that traffic demand is minimised by use of efficient urban form and subdivision design.

LATM (Local Area Traffic Management) - a process that analyses the traffic conditions within a particular area with an aim of reducing private motor vehicle use, through traffic as improving safety and promoting alternatives to driving.

Light rail - electrically-powered railborne transport operating on street or on a right of way.

Livability - the extent to which elements of home, community and neighbour contribute to safety, economic opportunity, wellbeing, convenience, mobility and recreation.

Metro Rail - type of train used for short quick trips but which have less seating, more doors and thus quicker boarding ability than heavy rail eg London Underground, Paris Metro, New York Subway, Berlin S-Bahn.

Mobility Managers - people who run transport programs for organisations. They champion ‘green modes’ or ‘active transport’, build alliances with transport service providers, develop strategic partnerships with government, grow patronage along transit corridors, and connect with other policy arenas for example, environment, urban planning and health.

Mode - the method of transport chosen (eg. bus, rail, bicycle) for a particular journey.

Modal Split - the percentage of journeys taken by each major method of transport (eg. Private motor vehicles vs public transport) during a given period (also known as Modal Share).

Multi-modal planning - planning highways, streets, transit systems, pedestrian facilities, cycling networks in a co-ordinated manner.

O-Bahn - a guided busway in Adelaide.

Paratransit - transport for personal hire including taxis and minibuses, which give a more personalised service for a higher fare than public transport.

Peak Spreading - by staggering work hours or offering incentives to travel outside peak times, peak spreading aims to reduce the impact of peak flows of traffic on the transport system.

Raised Thresholds - a device (similar to a speed hump) that slows traffic, consisting of a raised platform with ramps at either side and with a different paving treatment, usually placed at the entrance to a street.

Transit-Oriented Development (TOD) - relatively dense housing and employment development close to high-capacity public transport systems.

Transportway - designated route for the exclusive use of public transport.

Travel Demand Management (TDM) - intervention (including provision of major infrastructure) to modify travel decisions so that more desirable transport, social, economic and/or environmental results can be achieved; and the adverse impacts of travel can be reduced.

VKT (Vehicle Kilometres Travelled) - the total kilometres travelled by motor vehicles.

Walking City - a traditional urban form that promotes walking as the primary method of transport by a mixture of land uses including residential and employment within an area at sufficient density that most needs can be met without resorting to private motor vehicles.

Transport Planning in Southern Sydney

Transport planning transcends local government boundaries, requiring a regional perspective. This briefing paper aims to provide non-technical readers with a clear, accessible overview of key transport issues and practical solutions.

Sydney is an important point in its history and development. The historically high levels of population and economic growth experienced since World War Two are likely to continue and the Greater Metropolitan Region is expected to grow by another million people in the next 15 years. A significant proportion of this growth will occur within the SSROC region.

At the same time, greater demands are being placed on the transport system and individual car ownership is growing much faster than population growth. There is no escaping the fact that Sydney’siders will have to use their cars to protect public health and improve livability. To maintain Sydney’s current air quality, the number of car trips need to be reduced 10% by 2010. Instead of driving, people can walk, cycle, or catch public transport, at least for some trips.

A coordinated approach is needed from all levels of government to increase community awareness and raise the profile of this important issue. To help people reduce their need to use their cars, a range of measures are required to improve conditions for walking, cycling and catching public transport. We also need to locate facilities so that they can be accessed by these more sustainable modes of transport.

How is Transport Planning Different from Traffic Management?

Traffic Management focuses primarily on improving traffic flow, reducing traffic impact on amenity and improving safety. It generally focuses on engineering solutions such as intersection design, phasing of lights, ‘traffic calming’, speed humps and road closures to prevent ‘rat running’ of residential streets. Traffic managers also contribute to improving conditions for walking and cycling, such as dealing with awkward intersections, and improving the connectivity of cycling routes.

Transport Planning seeks to influence the underlying cause of these traffic problems. It considers location of land uses that actually generate trips and how this relationship can be improved to reduce distances travelled, time taken, energy used and pollution generated. To achieve these aims it considers the potential contribution of all modes of transport (walking, cycling and other human-powered vehicles, bus, ferry, aircraft, light rail, heavy rail, and motor vehicles) as well as education and other incentives.

This approach, commonly termed Travel Demand Management – or sustainable transport for sustainable cities - is increasingly becoming the central focus for planning in Sydney and has strong community support.

Who’s Got Your Ear?

Policies on urban transport are the subject of extensive debate in cities worldwide. Debate often centres around basic modes, ‘car versus public transport’, ‘bus versus rail’, ‘busways versus light rail’. Powerful lobby groups, usually with a vested economic interest or with expertise in one kind of mode, lend their weight to this debate and often support their arguments by promulgating statements about other modes which are not supported by fact. The fact is that each mode has a different role. The expertise of Transport Planners lies with knowing how to integrate these modes to improve urban livability.
corresponding to a population increase of around 23 million in 1995, an increase of 23.1% that was associated with increased road use. The number of people using motor vehicles (49% of all motor movements in private motor vehicles) has increased by 23% from 1991 to 1995, a significant figure, particularly considering the disproportionate high pollution emissions generated from diesel fuel vehicles.

Common Transport Myths...

"Congestion should be reduced by building more roads." Providing more capacity in response to congestion is a temporary solution whose benefits are wasted by counterproductive road users and communities in the long term. Any increase in road capacity tends to display traffic congestion to other points and to generate more traffic car use.

"People will never leave their cars" Where this opinion is dominant, it shows a failure to grasp the conflict between individual wants and the interests of the community as a whole. As with the 'congestion' argument, creating more parking is a temporary solution which encourages more car movement around the town centre and thus depletes the attractiveness of shopping. Providing car parks actively discourages the use of public transport and conflicts with the human orientation of urban centres.

Services more flexible than rail. This is a true statement used principally by transport providers as an excuse to avoid the expense of rail provision. The flexibility suits their needs for quick responding to transport needs. But it is the needs of the users of the system which should be considered if anyone is to be attracted out of their cars. Public transport users need reliability and efficiency. To the user, a bus is not flexible at all.

"Rail lines are fixed and cannot be adjusted to changing demand." True. This is their major asset. Their permanence attracts development which then supports development along the route. Steady public transport impacts on the city a greater variety of development pattern. This reinforces the demand on the system, causing traffic congestion in the long term. Any increase in road capacity tends to display traffic congestion to other points and to generate more traffic car use.

The town centre needs more parking" Where this opinion is dominant, it shows a failure to grasp the conflict between individual wants and the interests of the community as a whole. As with the 'congestion' argument, creating more parking is a temporary solution which encourages more car movement around the town centre and thus depletes the attractiveness of shopping. Providing car parks actively discourages the use of public transport and conflicts with the human orientation of urban centres.

"Buses are cheaper than rail." This is true if buses run on the streets however this also means that for congested commuter journeys they are much slower than cars as they have to stop and pick up passengers as well as getting stuck in traffic. Such services will never attract people out of their cars. Buses are most useful in low density areas as feeder services to other modes. They require bus priority measures. Operating costs for buses on heavily-travelled lines are much higher than rail due to their labour-intensiveness.

"Cars are more flexible than rail." This is a true statement used principally by transport providers as an excuse to avoid the expense of rail provision. The flexibility suits their needs for quick responding to transport needs. But it is the needs of the users of the system which should be considered if anyone is to be attracted out of their cars. Public transport users need reliability and efficiency. To the user, a bus is not flexible at all.

Lifestyle Choices have Transport Consequences

The type of housing and lifestyle people choose impacts greatly on transport-related emissions. This is in line with other studies (see referenced sources) where mode choice is strongly associated with those needs. Large low-density residential areas limit transport choice and lead to large peak hour commuter movements in private motor vehicles (49% of all journey to work trips in the SSROC region). In these areas private motor vehicles are used for most other trips too, as many daily requirements (e.g. convenience stores, child care, schools, recreation activities, etc.) are not located within easy walking distance of homes. Sydney-wide, the numbers of trips people make are increasing and the distance travelled is also increasing. Now, less than one quarter of all trips are work-related, with leisure related trips becoming dominant as Sydney-siders take advantage of the greater variety of development and entertainment industries. While transportation is central to the urban lifestyle, it also impacts upon the environment. Transport activities are significant contributors to global warming (greenhouse effect), air pollution, stormwater contamination and increased levels of energy consumption. Air quality, which is in danger of declining to levels of pollution experienced in the 1970’s before unleaded petrol was widely used, will continue to decline to unprecedented levels in Australia unless real changes to people’s travel behaviour occur. Approximately 80% of air pollution in Sydney is directly related to motor vehicles.

There are also significant economic and social costs attached to transport. An inefficient transportation system can be a significant contributor to inflation and cost of living in a city. These pressures are more intense in Sydney than in other major cities in Australia.

This is caused by a number of factors specific to Sydney:

• The location of the CBD relative to the centre of the urban area (the ‘demographic centre’ of Sydney is in Croydon, some 13 km west of the CBD).
• The large physical spread of the city. This is due to the historical preference for the quarter acre block, leading to lower densities and therefore unnecessarily great distances travelled from one destination to another.
• Access constraints created by waterways and landform necessitate more circulatory routes.

Relatively low levels of accessibility by public transport when compared to the CBD A dispersed employment pattern across the rest of the city with.

Is there a solution?

While many of these issues impact city-wide, much can still be done at regional and local levels to reduce impacts of transport on cost of living in Sydney, by way of integrated land use and transport planning. No single measure will solve the problem. It is necessary to adopt a package of measures.

Promoting greater variety in land use can increase residents’ access to service stores, child care, schools, entertainment industries. As Sydneysiders take advantage of the greater variety of development and entertainment industries, it is possible to greatly reduce the reliance on motor vehicles. This is because local needs can then be served by walking or by cycling of 30 minutes several times a week, or by train.

Policy which gives priority to public transport, cycling and walking, directly improves the local environment – social, economically and physically – leading to livable, sustainable communities. Brisk walking or cycling of 30 minutes several days per week is advised by Active Australia, so such policies also lead to improvements in the health of our communities.

Start Local...

Some ways which councils can begin to address these issues immediately are:

• Develop a Transport Access Guide for your council and its recreation facilities – these guides show how to come by public transport and cycling
• Develop a Non-motor Access and Mobility Plan (NAMP)
• Develop a cycle network.
• Put up wayfinding signs around town centres for public transport users and pedestrians.
• Make bus stops and entrances to train stations visible, interesting, comfortable and safe.
• Require developers to produce transport access guides which are included with real estate advertising.
• Require managers of community events to produce transport access guides and include them in event advertising.

Recent Publications

• Sustainable Energy Development Authority (2000), Producing and using a transport access guide
• WHO Charter on Transport, Environment and Health (1999)
• National Transport Policy (1999)
• Roads & Traffic Authority Bike Plan 2010 (1999)
• Austraod 1994-2004 Australia Cycling - the National Strategy
• Transport Network Associates St George Regional Transport Study (2001)
• Vuchic, V. Transportation for Livable Cities (2000)