Integrated Landuse and Transportation

Policy Position Statement
Planning Institute of Australia, South Australian Division

There has been substantial comment on the needs, advantages and opportunities presented by integrating land use and transport planning. Decisions regarding transport investment, mode and location have had a huge impact upon the development of Australia’s regions and cities. Yet in many instances land use planning and decision making has occurred with little or no regard for resultant impacts on transport and movement, funding or investment. Importantly, transport planning and investment decisions continue to occur with an inadequate understanding of the land use and development consequences for more sustainable and equitable urban and regional settlements.

(PIA National).

Definition

Integrated land use and transport planning in SA involves (1) aligning transport infrastructure and services with land uses in ways that reduce private vehicle kilometres travelled/auto- dependency, increases mass transit usage and supports freight logistics, (2) co-locating compatible land uses and higher densities in accessible locations and (3) prioritising resourcing for ‘public transportation’ over new road construction and making it central to spatial planning and design at all physical scales.

Rationale

- Predominant urban settlement trends, associated movement patterns and transport modes in Adelaide are considered unsustainable for a number of reasons (e.g. low density fringe expansion; auto dependency). A key action for redressing this is to ensure that spatial planning and transport planning are supportive of the same strategic objectives through integrated decision making and physical implementation.
- Integration of land use and transport planning is dependent upon an Urban Management capacity that consciously plans for mutually reinforcing land-use and transport systems (e.g. movement related infrastructure, traffic and mode management) from regional to walkable local scales.
- Achieving integration involves making trade-offs based on long-term social objectives, not by offering unlimited transport and land use options that are mutually negating and fundamentally in competition with one another for resources.
- Integrated land use and transportation planning can assist in delivering a sustainable city by providing equitable and accessible urban transport and lower greenhouse gas production.
- Achieving a travel mode shift away from single occupant, auto-dependency and reducing the need to travel requires a shift to more intensive and mixed-use land uses that are physically accessible to local services, social facilities, shops, jobs and to other metropolitan locations via walking, cycling and mass transit.

PIA SA Policy Position

- PIA SA strongly advocates for the preparation of a long-term Integrated Land Use and Transport Plan by the State Government in meaningful participation with the public and local authorities. This should clearly detail future transport and public transport initiatives including extension to public transport networks, with a particular focus on promoting sustainable transport and built forms. The Plan should be developed at the metropolitan scale as an integrated land use and transport exercise that provides policy direction to local authorities at a more detailed scale.
- Many cities have progressed the above integrated approach through ‘future scenario’ exercises by developing
options and selecting Metropolitan Spatial Development Frameworks as tools that clearly integrate strategic land use, transport and infrastructure intentions. The current Metropolitan Spatial Framework (MSF) in the Planning Strategy is an excellent base to begin with but requires renewed emphasis and change in order to provide stronger and clearer direction. (By way of example, the attached PERTH ‘activity corridors’ option has similarities with South Australia’s evolving MSF).

- Professional integration: an important aspect for integrated land use and transport planning is developing a common understanding of strategic urban outcomes by traffic / road engineering professionals and land-use planning professionals in particular.
- Institutional integration: it is essential that all modes of transportation, their infrastructure and respective hierarchical levels are managed by a unified transportation authority with effective operational control over levers like funding/subsidies which are rationally allocated to promote sustainable mode outcomes and based spatially on land use considerations.
- Mobility and Accessibility: PIA understands that achieving physical integration of land use and transportation often revolves around a compromise between maximising car mobility (ability for traffic to move quickly) versus maximising accessibility (ability to gain physical access to transport and to social and economic opportunities abutting routes with a minimum of travel). Rapid and un-impeded mobility is important for moving people to work and back, or freight export/import in particular. However, for many people and businesses a key issue is accessibility. Many ‘car-based’ cities promoting sustainable, human scale environments and urban opportunities are actively prioritising pedestrian and mass transit ‘access’ over auto-mobility ‘access’ in order to regain an optimal mode balance.
- Metropolitan Adelaide does not have a developed ‘freeway’ system offering, for example, unimpeded and fast, north–south mobility. However, it arguably has an established road system vitally important to its economy in its ‘arterial’ and ‘sub-arterial’ routes such as South Road, Main North Road, Marion Road, Goodwood Road etc. The social and economic value and potential of such roads is immense as they:
  - promote a fair, equitable, decentralised, linear activity distribution across the urban surface which can assist reducing overall need to travel
  - as mixed use activity corridors’ they physically integrate local abutting areas and more distant parts of the city
  - they accommodate both large and small businesses
  - play an important role in balancing both ‘accessibility’ and ‘mobility’ within the movement hierarchy.

In maintaining and improving this existing integrated land use and transport infrastructure, PIA would caution against attempts to convert these roads/reserves and their characteristics to ‘limited access routes’ based primarily on mobility criteria, without taking into account their overall function and value which depends on physical ‘kerbside access’, side-street connection and permitting ‘stop-start’ traffic movements.

- Standardised demand-based, ‘predict and provide’ transportation/traffic modelling can reinforce auto-scaled and auto-dependent urban patterns and stifle new ones emerging, however, PIA recognises that such models and their assumptions take a significant direction from, and are reinforced by the nature of the state’s planning policies and development outcomes such as: continuing residential fringe expansion; under investment in public transport systems; unnecessary separation of land-uses and low density bias; inwardly focussed neighbourhood cells and lack of variety in the general housing market etc.

- The development of mixed use, higher density TODs (Transit Oriented Developments) at nodes and within/along corridors is supported as a specific initiative to improve the integration of transport and urban development, to reduce car dependency and promote sustainable urban development.

Support for “SAFETY IN NUMBERS, A CYCLING STRATEGY FOR SOUTH AUSTRALIA” which outlines ‘Green Travel Corridors’ that are ‘dedicated walking
and cycling corridors along existing rail corridors to improve access to activity centres, public transport nodes and local walking and cycling routes:

- As a component of TODs, there is a need to provide support for more employment opportunities in activity centres / hubs (i.e. mixed-use).
- The electrification of the metropolitan rail system is supported as a specific initiative to improve air quality, reduce noise adjacent rail corridors and improve comfort and attractiveness of the rail system. This should be coupled with TOD development principles in greenfields locations.
- Programs to extend the electrified rail system to additional suburban locations within the Growth Boundary to Seaford and Aldinga would be supported subject to these areas including significant proportions of mixed-use, higher density development capable of supporting TODs.
- All significant extensions to urban areas should be supported by railway or an alternate mass transit system.
- Investigations are required into the need for a purpose built public transport interchange in central Adelaide in close proximity to the railway station.
- Significant increases are required in the regularity of public transport services supported by increasing the density of residential development (including TODs) in close proximity to public transport routes.
- Location Efficient Mortgage options need to be tied to TOD developments to assist affordable housing provision.
- To better match the spatial location of industrial and commercial land development with the freight traffic demand so as to improve sustainable levels of economic competitiveness.

Contact Details
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Sources:
1. Greater Perth Integrating Land Use and Transport Discussion Paper No. 5. State of Western Australia, August 2003. Published by the Western Australian Planning Commission
4. "The spatial organization of cities: Deliberate outcome or unforeseen consequence? “ Revised May 2004, By Alain Bertaud
5. 2007 Public Transport Users Association Inc. (PTUA), Victoria, Australia. ABN 83 801 487 611.

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ATTACHMENT 1 - An example of Metro Scale Spatial Plan for Integrating land use and transport, Source: Curtis, 2001

Figure 15: Integrated Activity Network City

Integrated Activity Network City - Characteristics
- Selective urban intensification along activity corridors.
- Mixed-use development (employment, commercial, housing, leisure) at activity nodes.
- Major activity centres focus on rail
- Major activity node at each end of corridor to support equal patronage in both directions
- Urban form capable of meeting complexity of individual’s journey purposes
- Limit peripheral expansion of urban area
- Mobility corridors cater for strategic freight routes, high-speed bus and intersuburban car travel
- Activity corridors cater for walking, cycling, local buses, and local car traffic
- Robust - capable of evolving to mode switching over time

Source: Curtis, 2001