

Charging for Parking

Charging a fee for each private vehicle that parks on-site discourages people to drive to a site alone, when they are provided with alternatives to paying for this service.

Charging for parking of private vehicles on-site will help encourage staff and visitors to use sustainable transport when travelling to and from the site. The cost of travel is one of the key factors in the travel mode decision. Parking pricing is therefore a potential leverage in encouraging more people to use sustainable modes. For instance, increasing parking costs where there is high public transport accessibility makes public transport more attractive, thus encouraging people to use sustainable modes, particularly in congested areas. However this is a longer term strategy at this site, as public transport alternatives need to be developed for this /carrot and stick/ approach to be used.

7.5.3 Conclusions

Providing information on sustainable transport by the means available to the IIHP will encourage staff and visitors to use that transport and result in less single occupancy private car usage. Discouraging driving alone to the IIHP by means of charging for parking is another longer term measure to ensure sustainable transport is used in the future when public transport services are upgraded.

Adequate Travel Demand Management is necessary for the future of the Illawarra community and benefits the IIHP development and its staff and visitors. Using sustainable transport over single occupancy vehicles provides those benefits and should have a large emphasis placed upon it.

8.0 RECOMMENDED PACKAGE OF MEASURES

This section describes the necessary transport measures that are required in order to develop the IIHP site. In order to support the use of more sustainable transport and meet agreed mode share targets, alternative transport provision to private vehicle use is required, including infrastructure and the necessary support, in order to make the alternate modes attractive and usable for the people accessing the site or living there.

Investment is required from state and federal agencies as well as the site developer. Negotiation is required between the relevant agencies and the developer in order to ensure planning and financial responsibility is met for the transport measures to be implemented.

The recommended package of measures addresses the conclusions made in **Section 7**. Unless otherwise indicated, the measures are recommended for provision at full development.

8.1 ROAD NETWORK IMPROVEMENTS

As discussed in **Section 6.6** above, the traffic generated by this development alone will not trigger the need for any additional intersection upgrades or road network improvements that have not already been included in the RTA/Council TRACKS Model. The traffic modelling undertaken indicates that three intersections will require upgrades and/or signalisation based purely on the base background traffic volume growth for 2016 and 2026:

- The intersection of Fowlers Road and Princes Highway when converted to a four way signalised intersection will require additional through lanes and left turn slip lanes starting from 2016;
- The intersection of Princes Highway and Huntley Road will require upgrading from a roundabout intersection to signalisation in 2026;
- The intersection of Avondale Road, Huntley Road and the New Future Road will require upgrading from a roundabout intersection to signalisation in 2026.

Other than these three intersections which require upgrading or signalisation, all other intersections assessed with the study area will operate at satisfactory levels of service.

8.2 PUBLIC TRANSPORT IMPROVEMENTS

The following package of measures has been developed to support a mode share of 25% to public transport for JTW trips at full development.

8.2.1 Bus Network

These measures will also result in modal shift towards public transport for other trip types and origin/destination combinations:

- At least four sets of bus stops should be provided adjacent to the IIHP site:
 - Huntley Road outside the main hospital entrance;
 - Huntley Road at the eastern end of the site;

- Avondale Road, adjacent to the proposed retail centre; and
 - Avondale Road, adjacent to the proposed specialist medical centre.
- Bus access across the rail corridor at Avondale Road should be retained until the link between Avondale and Cleveland Roads across Mullet Creek is constructed;
- The route 33 and 43 services operated by Premier Illawarra be diverted to travel via Avondale Road and Huntley Road once the first stage of the development is operational with the frequency to be increased to provide a minimum of a 20 minute frequency during the AM and PM peak periods, between Dapto station and the IIHP site;
- The route 37 and 57 “Lake Link” services be diverted to travel via Avondale Road and Huntley Road with the frequency increased to 20 minutes during the AM and PM peak periods and a minimum of 30 minutes frequency at other times;
- The existing bus network in the Dapto area should be, in conjunction with the wider Illawarra network, completely redesigned to provide a network of direct routes with a peak period headway of 20 minutes and an off-peak headway of 30 minutes. Bus services should operate for a minimum of 18 hours of the day. This network should facilitate easy interchange between bus and rail services;
- A secondary network of local services should also be provided, providing greater network coverage but with less direct routes and lower frequency to cater for those who are unable or unwilling to walk to the high frequency services. Investigations should be undertaken by the Ministry of Transport and the bus operator to determine the most suitable method of providing these services, with consideration given to minibuss or dial-a-ride operations; and
- An integrated fare structure should be implemented which does not penalise users for intermodal and intra-modal transfers.

8.2.2 Rail Network

These measures will also result in modal shift towards public transport for other trip types and origin/destination combinations.

- Rail services should be operated at a maximum headway of 10 minutes in both directions (i.e. northbound and southbound) between North Wollongong and Oak Flats railway stations for a minimum of 18 hours per day. These services should have completely standardised stopping patterns and travel times;
- Any infrastructure improvements required to achieve the above service standard should be implemented. Railcorp will need to determine what infrastructure amplifications are required;
- A new railway station should be constructed adjacent to the existing Huntley Road overbridge (i.e. the proposed Huntley Railway Station) and convenient bus/rail interchange facilities provided on Huntley Road; and
- An integrated fare structure should be implemented which does not penalise users for intermodal and intra-modal transfers.

8.2.3 Information

It is recommended that:

- All bus stops adjacent to the site should contain, at a minimum, the following travel information:
 - Timetable;
 - List of routes serving the stop with key destinations;
 - Network map.
- Where a bus stop forms part of an interchange, clear signage should be provided to direct users to other stops that are part of the interchange, listing the stop name, bus route numbers and key destinations, and the walking distance. Signage should be followed up at any key decision points between the stops;

- Clear signage should be provided within the IIHP site to direct visitors to and from the bus stops adjacent to the site. The signage should identify the name of the stop (e.g. Avondale Road), bus route numbers and key destinations;
- Clear signage should be provided within, and adjacent to, the IIHP site to direct visitors to and from Huntley Railway Station, with approximate walking distances. Prior to Huntley Station opening, signage should identify the route to Dapto Station via bus services; and
- Public transport travel information should be easily available on site, including locality maps with bus stop and railway station locations, public transport network maps, fare details and timetables. The IIHP should ensure that this information is kept up-to-date and that it is tailored to trips to and from the IIHP site.

8.3 ACTIVE TRANSPORT IMPROVEMENTS

8.3.1 Internal Infrastructure

The following package of measures is recommended to address onsite requirements which equitably address the active transport (walking and cycling) needs:

- The Australian Standard *AS1428.4:2002 Design for Access and Mobility* should guide the key disability design components of the site;
- The road system within the site should have a speed limit of 20km/hr, appropriately signed at all entry points from the public road system with regulatory 20km/hr speed signs;
- A low speed 20km/h internal road environment should be maintained by the use of raised slowing devices such as thresholds or Watts profile speed humps at a 50-80m spacing;
- Kerb side parking should not be permitted, with a minimum of indented car parking bays where drop off/pick up facilities are required;
- Bicycles should share the road space with vehicles and should not be permitted on footpaths;
- The AUSTROADS *Guide to Traffic Engineering Practice – Pedestrians (Part 13)* should guide the mitigating design requirements for special needs pedestrians;
- Paved footpaths should be designed to a minimum of 1800mm to accommodate two wheelchairs abreast in the public circulation areas;
- Pedestrian crossing facilities should be designed as marked foot crossings on raised thresholds to contain vehicle speed at point;
- Signage should direct pedestrian and cyclists to trip ends at all entries points to the IIHP site and at critical decision points throughout the site;
- Shared Zones are appropriate only for those roadways which are away from mobility impaired visitor/patient circulating areas.

8.3.2 External Infrastructure

The following package of measures is recommended to provide adequate pedestrian and cyclist access to and from the IIHP site.

- Footpaths should be provided along the sections of Huntley Road and Avondale Road which border the site;
- A pedestrian and cyclist link should be provided into the site, directly from the intersection of Goolagong Street and Penrose Drive;
- A footpath should be provided along the northern side of Huntley Road, linking the IIHP site with the existing footpath at Penrose Drive;
- Cyclist facilities, e.g. a shared path, should be provided along Huntley Road between Avondale Road and Princes Highway;

- Pedestrian and cyclist facilities (e.g. a shared path) should be provided along Avondale Road between Huntley Road and Marshall Street;
- Pedestrian and cyclist access along Avondale Road across the railway line should be retained if the level crossing is closed;
- If Avondale Road remains open to all vehicles, improved pedestrian and cyclist facilities should be provided;
- Cyclist facilities should be provided along Marshall Street, as per the *Wollongong Bike Plan 2006-2011*;
- Pedestrian facilities should be provided along both sides of the road carriageway as part of the construction of the primary movement corridors in the West Dapto Urban Release Area to reduce the barrier effect of these roads;
- Cyclist facilities, e.g. a shared path, should be provided along at least one side of each primary movement corridor in the West Dapto Urban Release Area;
- The intersections of Avondale Road/Fowlers Road Extension and Avondale Road/Huntley Road/Huntley Road Extension should be signalised and pedestrian crossing phases provided on each leg of the intersection; and
- A signalised pedestrian crossing should be provided across Huntley Road adjacent to the front entrance to the hospital, to serve the bus stops and future development on the southern side of Huntley Road. A zebra crossing is not favoured due to the future function of Huntley Road in the road hierarchy.

8.4 TRAVEL DEMAND MANAGEMENT

It is recommended that:

- A Work Place Travel Plan should be developed in accordance with the *Healthy Workplace Policy – C2007-39* (NSW Health), and appropriate Guidelines such as the Western Australian or the Victorian state government TravelSmart programmes, and implemented to encourage the use of sustainable transport modes for journey to work trips;
- A Transport Access Guide (TAG) should be prepared in accordance with *Producing and using Transport Access Guides* (RTA) for the IIHP site;
- The TAG should be made available at convenient locations within the IIHP site, and also distributed to potential future visitors.