

D OVERSHADOWING DIAGRAMS

OVERSHADOWING

A detailed study has been prepared to further assess the overshadowing impact by the proposed development on the neighbouring sites. Overshadowing diagrams have been prepared for the winter solstice (June 21) and the equinox (March/September 21) as well as at other times.

In order to assess the overshadowing impact by the proposed development, sites to the south were inspected to locate private open spaces and living rooms and to assess the local environmental conditions. Photographs of each of the existing buildings have also been provided (CD57-60).

This study has identified that 24 sites (approximately 180 residential dwellings) to the south of the proposed development are potentially affected by overshadowing in the area along Railway Parade between Woids Avenue and Empress Street. Existing buildings in the area are generally 30 or more years old and are oriented away from Railway Parade, away from the Illawarra Rail Corridor to the north. At the winter solstice between 9am - 3pm (CD 40-47), sites between 546 Railway Parade and 522 Railway Parade are potentially overshadowed for 3 hours or more by the proposed development. Of these sites, only 1 site at 522 Railway Parade is impacted by overshadowing to private open space. All other 7 residential sites retain existing or reasonable solar access to principal open spaces or windows to the main living areas.

522 RAILWAY PARADE

The existing building at 522 Railway Parade has a primary frontage to Bellevue Parade and comprises 6 residential dwellings over 2 storeys above ground level garages. These dwellings are accessed by a gallery to the north-west along a common boundary. Living rooms and associated balconies (approximately 1.5m deep) are oriented to the south-west along Bellevue Parade.

Due to the south west orientation, these 6 units currently achieve or have the potential to achieve 1 hour of solar access at the winter solstice between 2pm – 3pm to the principal open space and windows to the main living areas. The proposed development will overshadow the principal open space between 2pm – 3pm for one day of the year at the winter solstice. However, either side of the winter solstice, the overshadowing impact dramatically improves.

At May/July 21, one month either side of the winter solstice (CD 54-55) only 4 of 6 units are overshadowed by the proposed development. At May 10 (CD 52-53), all units receive existing levels of solar access and are not impacted by the proposed development. By April/August 21 (CD 50-51) and at the equinox (CD 48-49) the proposed development does not impact on these units and only overshadows the Rail Corridor.

By extending the hours of solar access at the winter solstice by 1 extra hour to 4pm (CD 47), 2 of the 6 units achieve 1 hour of solar access and are not impacted by the proposed development.

A detailed elevational shadow diagram (CD 56) identifies that all 6 units will receive existing levels of solar access and will not be impacted by the proposed development for 281 of 365 days in a year. Unit 4, 5 and 6 will receive existing levels of solar access and will not be impacted by the proposed development for approximately 305 of 365 days in a year.

Notwithstanding the above, there are existing adverse environmental conditions impacting on these 6 units including, noise from the Illawarra Rail Corridor, noise from the pool plant, servicing and parking movements at the Col Jones Swim and Fitness Centre, noise and privacy from the traffic along Railway Parade and Bellevue Parade. It is noted that there are a number of densely planted and established trees, approximately 20-30 years old along Railway Parade and Bellevue Parade which currently overshadow the principal open spaces and living rooms to 4 of the 6 units. These trees have been deliberately planted to provide residents with visual and acoustic privacy from the adverse environmental conditions in the context.