## 5.6 Parking

There are approximately 2,000 parking spaces currently provided on the USC campus<sup>1</sup>. Because overflow areas are not formally line marked or signed, this figure can fluctuate by up to five percent.

There is considerable parking pressure for staff and students accessing the campus. A strategic approach is therefore recommended for the staged rollout of additional parking areas, in such a way that the two areas flagged for multi-level car parking are preserved and available at an appropriate time.

In keeping with the University's existing approach, areas for further at-grade parking have been identified, some already under construction. A staged approach is recommended in line with population growth on campus. Parking regulation and cost recovery are likely to be important strategies for longer term demand management. It is also recognised that some at-grade parking areas may become redundant as building work proceeds.

If parking is provided on campus simply to service the trending mode split and population projection to 2016, a significant deficit of over 800 spaces would still occur, based on the space available.

Conversely the fifty-five percent vehicle trip mode share as posited in the 2012 Campus Master Plan would cause a surplus of approximately 400 spaces at 2016.

Periodic events significantly influence the operation of parking on the campus. Among the most significant are the Voices on the Coast, World Environment Day and USC Open Day.

Sports based events will exert further parking influence as use of the University's 50m Olympic pool and athletics track gains momentum. The 2012 Campus Master Plan identifies potential management measures.

Of these spaces, 210 are restricted to staff use only and are controlled by boom gate and permit, 74 spaces are designated T2 (transit with two vehicle occupants), and 48 spaces are designated T3 (transit with three vehicle occupants). A security guard, on duty during the AM peak period, monitors compliance with the T2 and T3 areas. Generally the uptake of the T2 area is quite high; however the T3 area is not well used.

Because of the dispersed nature of the parking, and the restrictions noted above, drivers circulate on the access roads during the AM peak, seeking to park as close as possible to the main campus. Because the overflow parking extends south along the eastern access road, close to the sheltered main entrance into the Chancellery and Student Central building, this road is subject to a great deal of circulating traffic.

Aside from the 'car park full' signs on the entrances to the staff car parking areas, there is no further advanced VMS on campus for parking. Overflow parking is provided to the sides of the eastern and western access roads, impacting on the visual amenity of the campus. Areas identified in the 2012 Campus Master Plan with high environmental value, particularly to the north of the campus, are taken up by large unsealed at-grade parking lots.

The challenge is not only to engender mode shift but to accommodate sufficient parking on campus in such a way that environmental impacts, and parking footprints are minimised.

<sup>&</sup>lt;sup>1</sup>Includes all overflow parking areas and new western parking lot (under construction at the time of writing) adjacent the Child Care Centre

## **Car Parking Options**

The University is already advancing a number of initiatives to cater for future parking demand. These include an option for a 900 space car park on the eastern edge of the campus at Claymore Road, and a 300 space car park on the western access road. These areas are recognised in the proposed car parking options, catering for demand to 2016 and beyond, after the University has reached its target population.

The proposed car parking options consolidate car parking away from high value environmental areas to the north of the campus, and eliminate overflow parking from the eastern access road to allow for walking and cycling provision in this area.

Car parking options which should be considered include the relocation of existing at-grade car parking to those areas nominated as future building sites. This would balance parking demand with the needs of the campus' natural environment in the short term. In addition to the relocation at-grade parking, an additional at-grade 900 space car park should be considered for the east side of campus, accessed via Claymore Road, and utilising the existing Energex easement running north-south. As part of this project a shuttle bus service will need to run between the new car park and the main campus, as the distance is approximately 1km. Particular attention will need to be paid to CPTED principles in the design of this remote facility. Some overflow parking could be retained on grade elsewhere on campus, if necessary. A re-assessment of mode share should be undertaken at this time.

Additional parking measures should include the development of undercroft car parking, and the commencement of structured parking on the two sites, identified in previous Campus Master Plans, and re-iterated in the 2012 Campus Master Plan. The structured car parks have a nominal capacity of four decks per site. A staged approach is recommended to build decks as funding is available, with additional levels constructed over time to respond to demand. A staged approach to a multi-deck car park is structurally feasible whether in concrete or steel. Issues to be managed include the need for larger columns and footings required initially and therefore disproportionate up-front cost, the impact to car parking during construction of subsequent decks and the visual impact of stub columns from the first deck. These issues can be managed through the design of the car park, and the later introduction of 'user pays' areas within the structures to accelerate cost recovery.

After 2016, with all stages complete, there would be provision for well over 3,000 parking spaces, with the access roads and northern area of the campus free of open car parking.

In the absence of reduced vehicle mode share, demand would still exceed supply. If mode shift to fifty-five percent private vehicle use were to be achieved, a surplus would exist, meaning that the Claymore Road car park could be decommissioned at this time. Future upgrades to the Energex lines or Claymore Road itself may necessitate this in any case.

The inherent layout of the campus dictates that parking areas will still be dispersed along the eastern and western access roads, and to the east near Claymore Road. To manage this, the introduction of variable message signage is considered essential on decision points on the approach roads to the campus, including Sippy Downs Drive from the east and west, Stringybark Road from the north, Claymore Road from the south and Dixon Road from the north. Depending on the success of the University's trial of car pooling software, the T2 and T3 car parking areas could be expanded, and spaces for single occupant vehicles reduced accordingly.

Refer Diagram 5.6.1

## Regulation

Blanket pricing of car parking may be necessary, provided the pricing is reasonable. The convenient location of the two structured car parking stations relative to campus buildings will ensure their use is favoured over more remote areas. The prospect of "pay and display" parking close to the campus centre should be considered as a precursor to a more widespread 'user pays' system implemented in both structured car parks. This system could be trialled as a timed visitor car park, but available to staff and students prepared to pay for conveniently sited parking. In the interim, and as a short term measure, the University website could host public consultation on the measures to gauge reaction and guide the trial.

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