

PARKi

HOSPITAL CASE STUDY



Cabrini Hospital

MALVERN, VICTORIA

An integrated multi-zone Hospital carpark solution, where the needs of doctors, staff and casual users are met with controlled egress, from distributed, remote, multiple entry and exit points.



ENVIRONMENT

- Main car park is divided into casual area and staff area, with multiple entry points.
- Additional Car Park across the road to be used for staff only

ISSUES

- Staff parking in Casual spaces, due to limited staff spaces
- Casual users not finding sufficient parking, due to staff parking in casual spaces
- High levels of congestion within the casual car park. Many available spaces throughout the basement area were not known to drivers who would circle around the ground floor waiting for another user to leave
- Not enough adequate parking for Doctors. Other staff members would park in reserved doctors spaces and areas.
- Carpark across the road was being used by all public and staff without permission or payment. No access control was implemented here due to this car park being open air and not connected to any hospital infrastructure.
- Congestion at one of the staff exits at the end of shifts

PLAN

- Create separated areas within the main car park and allow parking privileges to certain staff only
- Allow staff to drive through all areas so that they can access their specified car park from all entries
- Create restrictions on staff access cards so that they can drive through an unauthorised area but not park there.
- Add dynamic signage for the public carpark to inform drivers of available spaces on lower levels
- Integrate the car park across the road with the access control system
- Implement Licence Plate Recognition (LPR) facility at staff exit to ensure faster egress

SOLUTIONS

Completely remove all car parking infrastructure and replace with CDS iPark system.

Install casual entry and exit lanes for the casual car park with integration for staff access cards

For all crossing points to the staff only areas, we installed custom access controllers with an included intercom system.

Custom software was compiled to monitor staff movements throughout the car park. Each staff member was allocated an access card and its programming can be updated at any time either on site or remotely. The programming specifies which car park the staff member can park in.

The staff member is allowed to drive through all other areas, but if they exceed 20 minutes in this area then the operator will be alerted. This had led to the operator following up with the staff member with either a warning or a card suspension for breaking the rules.

LPR integration at the staff exit was established by having all staff members provide their vehicle registration plates to the site operator. When a vehicle approaches this particular exit, the LPR cameras identify the licence plate and cross reference it to the staff access database. When a positive match is found, the boom gate opens automatically and marks the transaction in the exact same way as it would if the staff member swiped their access card.

Public Car Park was broken down into levels. Sensors between each level were installed to detect vehicles entering and leaving each level. A sign at the entry to the car park displays in real-time the total number of available spaces in the casual car park.



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Once inside the car park, additional dynamic signage was installed in locations that are easy to see by drivers stating in real-time the number of available spaces on each other level, giving the driver a clear view of where the most available spaces are and how to get there.

To include the open air car park across the road with the car park system, two sets of wireless transmitters and receivers were installed between a light pole in the car park and the hospital façade. These allow for car park data, CCTV and intercom communications to be sent and received without fail. Boom gates were installed and this car park was designated as another staff parking area.

OUTCOMES

Within the first few weeks on the system being live, there were many staff members parking in the wrong areas and this was made clear to the operator. Warnings were sent out and in a few cases, some staff members were temporarily suspended. By the time the system was running for a few months, there were no staff cars parked in the casual area, and the doctors were provided adequate parking in their nominated area.

PARKi SOLUTIONS



APS with LPR



Tickets issued



LPR Cameras



Dynamic signage



PARKi Mobile App



PARKi Permits



Fleet vehicle integration

Revenue from the casual car park increased due to the fact that the public could no longer park in the outdoor car park as well as there being more space made available due to the staff members no longer parking in the casual area.

Congestion in the casual car park was significantly reduced as vehicles are now easily directed to the level with the most spaces

End of shift waiting time at the staff exit has been reduced by 5-10 seconds per vehicle with cars barely needing to stop to be granted exit via the LPR intervention.

By restricting certain staff to certain areas, there is a larger proportion of available spaces for them. This includes the newly controlled open air car park.

FEATURES

- LPR Integration for staff exit
- Wireless connectivity for open air car park
- Smart access system to monitor and notify incorrect staff movements
- Internal parking guidance system for casual users

