



The basement carpark at Tropicana City Mall is well-lit with the 'epoxy' flooring

Evolution of shopping mall car parks

From being unwelcoming, they are now bright, shopper-friendly and safe



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GONE are the days when shopping mall car parks were seen as a place that's dark, wet or even smelly.

Modern day ones are designed and built to some of the highest standards in the region, or perhaps even the world.

In the mall business, the car park is a basic need. It is an essential facility and a vital requirement.

We can safely say that 10-30% of shoppers generally drive to the mall. And there are malls that rely 100% on drive-in shoppers.

One of the obvious reasons is that we drive a lot, and as the saying goes "everyone in the house has a car". It comes as no surprise that our country has one of the highest vehicles per capita in Asia, ranking 46th out of 192 countries.

Requirements

Like anything else in the construction business, complying with the authorities' requirements is fundamental.

Car parks are part of the council's requirement for a shopping mall, and the number is spelt out in the development order or building plan calculation.

Different local councils or authorities adopt different methods to calculate the minimum number of car parks required.

Therefore, mall designers would rationalise the projected number of cars and decide to maintain or increase the number of parking bays.

Financial viability

We often hear shoppers or developers make casual statements that "car parks make lots of money, so we should have more". Unfortunately, this is furthest from the truth.

In fact, based on the return on investment (ROI), owners are unable to rationalise the construction costs invested in a car park with the fee that malls usually charge.



Travelators and car parks go hand in hand to give shoppers easy access to the various floors at mall car parks

Feedback from member malls indicates that it usually costs between RM20,000 and RM30,000 to build a single parking bay at a modern shopping mall. So if you consider a fee of RM2 per entry, the amount is pathetic.

Therefore, the rationalisation process is often justified by the potential spending of drive-in shoppers.

The fact is, few would go to your mall if you don't have ample parking. So, to some extent, it is not just about ROI but fulfilling a need, just like toilets and air conditioning.

Deciding on the number of car parks that are sufficient and how many to build for a particular mall depends entirely on how deep your pockets are.

Placement of car parks

When possible, it is best to have a combination of elevated, basement, and surface car parks in a development.

Elevated car parks help spread the footfall at a mall to the various levels. By gravitational pull, it assists the footfall of tenants on the higher floors. Basement traffic is served by the footfall on the lower car parking floors.

In cities like Kuala Lumpur where land is scarce, surface car parks are considered premium options for drivers who opt for valet services. Such a configuration is common in most large malls.

Escalators and car parks go hand in hand. Malls that depend on large anchors such as supermarket or furniture shops need travelators to connect shoppers between the retail outlets and the car park at every floor.

The absence of travelators must be compensated with an adequate number of lifts. Since a conventional lift can fit



Ladies' parking, panic buttons and CCTV cameras are among the security features at Mid Valley Mega Mall

only a couple of trolleys, the queue would be horrifying if this is not accounted for.

Traffic flow and technology

Many may not realise that the shape of the columns and spacing are the very first design criteria for a mall car park. The columns come in all shapes and sizes, with some having three or four bays between them.

Car park designers see things from a driver's perspective, and hence have to predetermine the blind spots, potential cross flow collision spots, possible congestion and so forth to ensure smooth traffic flow.

In the early days of car park design, reference was made to some construction codes that call for 50 lux (measurement for light intensity) brightness which is good enough to find your car.

These days, design requirements have raised the bar to 100-150 lux, which is close to office brightness.

As the brightness increases, so does the cost and maintenance of tubes and energy consumption. With energy saving tubes, car parks are phasing out conventional T12 and T7 tubes in favour of T5 fluorescent and LED lighting.

Car parks used to be moist, mouldy and hot. This is not something that has been eliminated entirely, but with dual speed and variable speed fans, and a combination of jet fans or centrifugal types of fans, ventilation in car parks has vastly improved.

In modern buildings, the natural draught from wall openings in elevated car parks helps eliminate the large ventilation fans which are sources of noise and wasted energy.

Decades ago, buildings such as Ikano

and Genting Highlands Resort introduced the vehicle counter at the entrance to their parking areas. This gives an indication of available parking spaces at the different levels.

This further evolved into the idea of "effective bay finding" and in 2008, Sunway Pyramid Shopping Mall introduced the vacant bay finder at its car park. Now, millions of ringgit are being invested in this technology which is not rare but very effective.

Some malls are even turning to GPS cell phone apps to find their vehicles. Last year, IOI City Mall introduced a vehicle finding system with the help of CCTV. Using a screen, it allows shoppers to see where their cars are parked.

Maintenance, security and safety

The brightness of a car park also depends on the surface materials that are used. During its upgrading initiative, Suria KLCC greatly improved the brightness of its parking bays by using gloss paint on the columns and ceilings.

Mall operators are now introducing epoxy flooring to car parks too. This was a wow factor when Ikano and The Curve first did it.

This type of flooring is not just popular, but shoppers find it pleasing to the eyes. Who would have thought such flooring technology which was previously used in the medical and pharmaceutical sectors only, will help to provide a better parking experience?

As much as mall operators attempt to improve car parks, we do not want shoppers to spend too much time there. Hence, it is important to shorten the walking distance between shopping floors and their vehicles.

Various initiatives have been put in place over the years to improve mall security too. This includes installing CCTVs and panic buttons, having security patrols, and even buggy services.

What next?

While driving and parking are problems for the country to tackle, not the shopping malls, it is also true that condominiums, apartments, and offices also need more car parks.

Since malls are inevitably larger and attract more traffic, it is normal to expect them to have a larger number of car parking bays and more sophisticated facilities.

We have seen how the parking systems have improved over the last two decades, and we certainly would expect them to evolve further.

Now that we have the technology and high specifications, what can we expect in the years to come?

Rest assured, shopping malls are all out to put a smile on your faces and sometimes it can be a shock to your life ideas too. All that remains is to wait and see. [FocusM](#)

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