



Turning Your Parking Lot into a Pot o' Gold

Rethinking Shopping Center Parking Ratios to Reflect New Realities

Hermann J. Kircher*

Abstract: *Concerns about relatively high fuel costs are likely to result in changes in driving patterns, and a shift to compact cars requiring less space to park will have a significant influence on the demand for parking areas at regional malls. Surplus parking should be identified as early as possible and alternative land uses investigated. "Free" land can be a huge incentive to intensify existing centers.*

Parking lots are a great waste of resource. The vast sea of one-level parking is not only so "yesterday" it is also "anti-green"! However, without adequate parking, no suburban shopping center can function. Solving this conundrum should be a priority for the shopping-center industry.

A likely long-term shift in the size and use of the automobile, reflecting concerns about higher fuel costs and the effect on the environment, will lead to a decline in the demand for parking space. Although there will be short-term fluctuations due to the economic cycle, it is clear that the major car manufacturers will promote smaller, fuel-efficient vehicles in the future. While it may take time for this shift to smaller cars to significantly change the stock of existing cars, multi-car families are in the meantime likely to make greater use of their smaller cars due to current economic conditions.

Compact cars obviously consume less space than standard cars, whether expressed on a cubic foot basis or a square foot basis.¹ The standard size car stall measures 9x18 feet or 162 square feet (sq ft), compared to a compact space requiring 7.5x16 feet or 120 sq ft, or some 35% less space.² Depending on the manufacturer, the measurements of different car-size categories fluctuate but the fundamental fact that compact cars require less space than traditional "regular" cars, not to mention minivans, sports utility vehicles (SUV) and recreational vehicles (RV) is a given.

Even in urban areas, the supply of more than minimal parking space is being questioned. In Toronto, for example, RioCan REIT President Edward Sonshine one day passed one of his properties when the stores were closed and noticed that the parking area was nonetheless full. "I thought to myself, there has to be a better use for that lot than to provide free parking for the neighborhood," he commented. Subsequently he

partnered with a home builder to construct a mixed-use development on that lot.³

This article will focus on the "broad" picture rather than on technical details. Its purpose is to encourage some original thinking about the use of parking space. The prime targets for this discussion are regional and superregional malls, particularly those whose trade areas have evolved over the years from outlying suburbs to urban areas. Although these comments apply to a great number of centers, there are obviously exceptions for many different reasons.

New Driving Patterns

The rapid increase in the cost of fuel since the late 1990s has led to a decrease in driving, in general. According to a recent press report, Americans reduced their driving by 4-5% during the first half of 2008.⁴ The sharp decline in gas prices in the second half of 2008 is not expected to reverse this trend. Demand for more fuel-efficient compact vehicles will continue to increase and will result in a decline in parking area requirements. Assuming that the current trend continues, there will be surplus parking at most regional malls, as well as at community, neighborhood and convenience shopping centers, in the very near future.

It is unlikely that bicycles will play a major role in transportation related to regional malls in the near future but any visitor to Europe will appreciate the extent to which bicycle usage can help to offset high fuel costs.⁵ Nevertheless, bicycle racks can already be found at some North American malls and are now essential in downtown retail developments.

A 1981 report by the U.S. Department of Transportation predicted that by 1990 the most likely proportion of compact cars to other vehicles would be somewhere between 70% and 80%.⁶ Of course this

* President, Kircher Research Associates, Ltd.

¹ U.S. Department of Energy at "www.fueleconomy.gov," *Frequently Asked Questions*, p. 2.

² Centre for Transportation Research and Education, Iowa State University, *Urban Design Standards Manual*, Chapter 12, Section 3, p.10, October 16, 2007.

³ Terrence Belford, "More Bang for Buck, and Bucking a Trend," *The Globe and Mail*, Toronto, Ontario, July 29, 2008.

⁴ *USA Today*, August 13, 2008.

⁵ J. Harry Wray, *Pedal Power: The Quiet Rise of the Bicycle in American Public Life*, Paradigm Publishers, Boulder, Colo., 2008 abstract.

⁶ "The U.S. Automobile Industry, 1980," Report to the President from the Secretary of Transportation, Office of the Assistant Secretary for Policy and International Affairs, January 1981.



prediction turned out to be wrong as a result of the rapid growth in popularity of minivans, SUVs and RVs, which were made affordable because of inexpensive gas. The expectations of the 1980s regarding the size of cars can now be resurrected with a greater degree of certainty during the next five to 10 years.

Table 11-1
Recommended Parking Ratios^a

Center Size (GLA in Sq Ft)	Percentage of GLA in Restaurant, Entertainment, and/or Cinema Space		
	0-10%	11-20% ^b	>20%
Less than 400,000	4.0	4.0	Shared Parking ^d
400,000-599,999	4.0-4.5 sliding scale ^c	4.0-4.5 sliding scale ^c	Shared Parking ^d
600,000 and over	4.5	4.5	Shared Parking ^d

Source: ULI/ICSC *Parking Requirements for Shopping Centers*, 1999

^a Parked cars per 1,000 sq ft of GLA.

^b For each percent above 10%, a linear increase of 0.03 spaces per 1,000 sq ft.

^c Recommended parking ratio increases/decreases proportionally with center's square footage.

^d Shared parking is defined as parking spaces that can be used to serve two or more individual land.

The Meaning of Ratios

The 1999 Urban Land Institute/International Council of Shopping Centers (ULI/ICSC) study *Parking Requirements for Shopping Centers* recommended parking ratios for shopping centers in the U.S., based upon observations of parking at existing centers (see Table 11-1).⁷ These ratios have been universally adopted by the industry, but their application to almost every development has not necessarily resulted in the optimum solution for specific centers.

This study also calculated parking supply ratios for centers with accumulation counts based on the number of parking spaces per 1,000 sq ft.⁸ As Table 11-2 shows, parking supply exceeded demand in the survey period for all center sizes. The simple reason for this is the fact that a full parking lot was not acceptable to regional mall owners. This point of view may no longer make sense, particularly for centers where additional overflow parking is available nearby or can be secured on

a seasonal basis as necessary. In few economic endeavors are demand and supply that far apart!

Some of the historic ULI/ICSC guidelines for providing adequate parking, such as gearing the parking ratio to the 20th busiest hour of the year,⁹ are not only arbitrary, but may not be applicable to a typical center.

The theoretical calculation is based on the premise that there is surplus parking for all but 19 hours of the average 3,000 hours that malls operate per year. In other words, the generally accepted design criteria assume that for 99.4% of opening hours, a mall will have surplus parking! Clearly, in today's environment, that may require some rethinking.

It is time for shopping-center owners and managers to review current and near-term parking requirements, including an analysis of changes in customers'

driving patterns. There should be a "real-time" parking (computer) model in constant operation at a major mall, in order to review, change and revise parking supply at the earliest possible time. At what land cost does it become cost-effective to revisit structured parking requirements, while taking into account the return from complementary land uses for additional retail space, as well as for office, hotel, high density residential and institutional properties? This is a moving target and needs frequent reanalysis.

In Canada, Ivanhoe Cambridge was able to reduce parking ratios quite effectively when expanding regional malls. For example, the parking ratio at Upper Canada Mall, an enclosed regional mall in Newmarket, Ontario

Table 11-2
Parking Supply and Demand Ratios for Centers with Car Counts

Center Size (GLA in Sq Ft)	Number of Responses	Parking Ratio (Parking Spaces per 1,000 Sq Ft of Occupied GLA)	
		Supply	Demand
Less than 400,000	49	5.8	3.7
400,000-599,999	15	5.6	4
600,000-1,499,999	96	5.8	4.5
1,500,000-2,500,000	9	4.7	3.8
Total	169		

Source: ULI/ICSC *Parking Requirements for Shopping Centers*, 1999

⁷ Urban Land Institute/International Council of Shopping Centers, *Parking Requirements for Shopping Centers*, Second Edition, Washington D.C., 1999, p. 4.

⁸ Ibid., p. 4.

⁹ Ibid., p. 7.



was reduced by 10% from 5.0 to 4.5 through an improved layout. Similar reductions were achieved by Ivanhoe Cambridge in other locations. An urban multi-level retail center, under development in Toronto by Riotrin Properties (Weston) will have an average parking ratio of 3.25 cars per 1,000 sq ft. These reductions in parking ratios occurred prior to the rise in fuel costs and a greater shift to compact cars.

Besides the expected reduction in driving due to higher fuel costs, consumers are likely to car-pool more often on shopping trips, thus reducing parking demand even further.¹⁰ Shopping-center developers and owners should also review public transit options and encourage public transit agencies, vigorously if necessary, to serve the mall because that, too, would lead to a reduction in parking requirements.

Employee parking needs to be re-evaluated regularly. Can it be reduced through incentives such as public transit subsidies for employees? In some cases transit passes have proven to be an economic alternative to employee parking.¹¹ Can it be relocated to cheaper premises? Is there effective control on employee parking? These “old chestnuts” need to be reviewed periodically.

Based on Kircher Research Associates’ experience with major retail developments, the number of parking spaces per 1,000 sq ft of gross leasable area (GLA) decreased from 5.0-5.5 to 4.0-4.5 between 1980 and 1998. Dramatic recent economic changes make further declines inevitable. In many cases, parking ratios can likely be reduced to below the current “standard” ratio without a loss of customers. How far below is the challenge for individual centers. Centers should encourage maximum use of complementary land uses such as a limited amount of office and hotel space that can be supported by shared parking.

Monetizing Surplus Parking Space

Any surplus parking space identified represents free land—the real “pot o’ gold”—that can be employed to

increase economic return and asset value through some alternative use. Depending on local zoning ordinances, alternative uses may require a change in zoning to increase permitted densities. Although persuading the authorities to approve a zoning change is always a challenge, it may be easier in the case of parking space than it used to be. Many municipalities recognize the need to increase densification and have adopted greater urbanization as a goal.

Nevertheless, the complexity surrounding parking requirements is well expressed by Ted Williams, Director Operational Project Planning of Ivanhoe Cambridge. “Municipalities are willing to look at reasonable arguments. However in practical terms existing centers with long-term department store leases can prove more difficult. The issue becomes a negotiating point as these department stores have parking stipulations in their leases with higher ratios than are sometimes stipulated by the municipalities.”¹²

The era of absolutely free parking at suburban regional malls may be coming to an end in the near future. Any controlled-parking system can still provide free parking for real customers, for a specific number of hours, but such a system can also provide an opportunity for much greater direction of parking-space allocation, particularly by limiting employee parking, optimizing the use of prime spots and discouraging long-term parkers who are not shoppers. Furthermore, at a controlled entrance, different-sized cars can be channeled to different parking areas, thus minimizing conflicts between compact vehicles and large cars.

In the recent past, reductions in parking ratios have been achieved through the implementation of shared parking between land uses with different peak demands, such as with office space and hotels. In the future, the expected changes in travel patterns and a general reduction of vehicle sizes will create additional opportunities to revise parking standards and generate additional values through increased densities.

Hermann J. Kircher is President of Kircher Research Associates Ltd., specializing in highest and best land use analyses and research for retail developments, in North America and internationally, for more than 40 years. For additional information, please visit www.kircherresearch.com.

¹⁰ U.S. Environmental Protection Agency, Development, Community, and Environment Division (1807T), *Parking Spaces/Community Places, Finding the Balance through Smart Growth Solutions*, Washington D.C., January 2006, pp. 24-25.

¹¹ *Ibid.*, pp. 24-25.

¹² Communication (e-mail) from Robert Boyle of Ivanhoe Cambridge to Hermann Kircher, October 29, 2008.