

Shopping Center Parking Problems

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The Shopping Center Complex

Development. The development of shopping centers as we know them today is an extremely recent phenomenon. From the period of the early 1920's up to and including the early 1940's shopping centers of one type or another have sprung up in various sections of the country. The first large center, Northgate, was opened in Seattle, Washington in 1950. The real impetus, then, to planned shopping centers has been felt mainly since the late 1940's and might properly be noted as a phenomenon associated with the last decade.

Definition. A shopping center has been very clearly defined as "A group of commercial establishments, planned, developed, owned, and managed as a unit, with off-street parking provided on the property (in direct ratio to the building area) and related in location, size (gross floor area), and types of shops to the trade area that the unit serves — generally in an outlying or suburban territory." (McKeever, 1953). It is essentially this definition which is implied in this paper with the use of the term "shopping centers" or in more abbreviated form, "centers".

Raison d'être. The shopping center has come into being within the last decade as a response to several forces which have interacted to make such a venture not only plausible but also a financially profitable undertaking. Some of the forces worth mentioning appear to be: (1) a need for the provision of shopping areas which are convenient to the increased number of home owners who have moved to suburban locations, (2) a response to the limited availability, and high price for rental and/or ownership, of land within the already established central business district, and (3) an opportunity for large scale integrated and planned development and occupancy of areas by merchants desirous of additional space in another region.

Parking and Shopping Centers

The shopping center's very existence has been brought about through the advent of the popular use of the automobile. Hence a fundamental principle which underlies the planning and development of all shopping centers is that of providing adequate parking facilities. This philosophy was certainly stated most emphatically and perhaps most clearly by Mr. Harry E. Martin who remarked, "Ultimate success and continued customer-growth of a shopping center, in the final analysis, depend upon the convenience and the extent of its parking facilities." (Martin, 1954).

Any consideration of the total parking complex within shopping center development must include an analysis of several factors of the parking complex which directly or indirectly contribute to the utilization and subsequent success of any individual center.

Some of the factors to be analyzed are:

(1) *Total Quantity of Parking.* The total amount of parking which must be provided for any shopping center must necessarily depend, of course, upon the size of the shopping center and the number and type of tenants within the center. The proportion of the amount of land devoted to parking increases with the size of the center. This increase continues to an undetermined point where an inverse ratio prevails with an increase in the size of the center. Attempts should be made to discover the limits or ranges at which these relationships prevail.

(2) *Size of the Parking Area.* The size of the area devoted to parking is in reality the total quantity of parking translated into area rather than numbers of cars. Although this translation appears to be a simple mathematical one, this is not actually the case. Current studies have revealed that the estimated amount of square footage necessary for each car is a fluctuating figure. These changes have come about as a result of technological changes involving the increased width and increased length of modern cars.

(3) *Parking Area Location.* The location of the parking area is perhaps equally as vital for success in a shopping center as is the total amount of parking area available. The positioning of the parking area, to a great extent, will depend upon the shape of the shopping center itself. Those centers whose designs are primarily strip, L-shaped, and U-shaped are, for all practical purposes, restricted to having parking areas in front of the shops. This brings up a question often posed by various authors. It concerns the psychological effect of a parking area which either (1) appears empty, therefore the shopper reasons that the center is not being patronized and thereby is influenced not to patronize it himself, or (2) appears crowded, thereby creating the effect that parking is either unavailable or will be a chore. Quantitative studies on customer impressions would add much toward the understanding of one of the less tangible quantities of shopping centers.

(4) *Single or Multiple-Level Parking.* Very few centers have employed multiple-level parking. The reason for this is that adequate parking was planned for initially or was included in plans for future expansion of the parking area. However, some few shopping centers now find themselves completely encircled by new housing subdivisions and other developments. In the future these centers will probably have to resort to multiple-level parking to maintain the original parking advantages. Detailed studies of areas where this has taken place should provide a fund of knowledge enabling other shopping centers to avoid this costly pitfall.

(5) *Walking Distance.* Past studies have revealed that shopping center customers avail themselves of the goods and services of the various shops only if they can park their automobiles at a distance which they deem reasonable. The average estimated walking distance which a customer will traverse is approximately 300-400 feet. This factor is a significant one in estimating the total parking needs. Walking distance is a planning estimate which can be used in determining the total size and shape of any parking area. Once again studies evaluating that intangible quantity known as public opinion could provide definite figures for walking distances to various types of establishments.

(6) *Parking Patterns.* The geometric design in which parking areas are laid out vary from center to center. Essentially the parking pattern adopted by any given center will be either 90°, i.e., head-on parking, or at some angle less than the 90° figure. Parking attitude studies have revealed preferences for both types of design. This preference persists even though it is an acknowledged fact that more cars can be parked if the 90° pattern is used. Hence, each individual center, while in the planning stage, would probably profit by a user preference study within the area to be served by the shopping center.

(7) *Employee Parking.* Until the more recent shopping centers were developed no provision was made for separate employee parking facilities. This led to serious false impressions when evaluating the total parking available for customer use. In many cases not only was parking usurped by employees, but the parking areas so used were those which were considered the most advantageous spaces available in the eyes of the merchants. "At one of the J. C. Nichols Company's shopping areas, 700 em-

ployee cars were found occupying off-street parking space for an eight-hour period, thus losing a turnover of space for 3,500 to 5,600 drive-in customers." (*The Community Builders Handbook*, 1954). Although this particular situation has been rectified, valuable information could probably be ascertained about the effect of employee parking within other shopping centers where the infraction is not as obvious.

(8) *Parking Turnover*. An analysis of the parking turnover, i.e., the number of automobiles which occupy any one space over a given period of time, is highly essential to any competent shopping center parking survey. The parking turnover will fluctuate greatly depending upon the type of store to which the parker has come to shop. It has been estimated that the supermarket shopper usurps a space for a period of time which ranges between half an hour and an hour. Yet, the same space would be occupied by the same shopper visiting the department store for a period of approximately two hours. Hence, the total number of cars parked in any area has to be analyzed on the basis of type of stores present.

(9) *Delivery and Service Functions*. Adequate provision for planned delivery and service functions is a necessity to any well operated shopping center. The magnitude of this problem usually varies with the size of the center. But in all cases the goal is to keep these functions from interfering with customer utilization of the shopping center facilities. In the past this has been accomplished by the utilization of the rear areas of the individual shops. In some large centers the implementation of route-ways, sometimes underground, has accommodated this need. Studies evaluating the effect of interrupted shopping activities due to delivery and service activities should be conducted within all size shopping centers.

(10) *Parking Ratio*. The parking ratio is that term which has been used to designate the areal relationship which exists between the actual parking area and a second areal figure, e.g., gross floor area. The utilization of an absolute value, i.e., the parking ratio, in planning activities for providing the necessary parking for an individual center is a well established fact. Although almost all concerned with shopping center analysis regard the ratio as a "rule of the thumb" method in planning operations, many false impressions are left with the public. Studies which will analyze how the parking ratio is attained by means of specific case studies, the fluctuation of the ratio, and the desirable ratios for shopping centers which occur within arbitrary size groups are all in need of being accomplished.

Summary

Because the development of shopping centers is in reality in its infancy, many of the concepts have been and still are being refined through experiences of actual operations of the centers. These experiences have been noted by those concerned with shopping center development as guides for further planning and development in shopping center activities.

Within the shopping center complex there are several factors, one of which, the parking complex, was singled out and afforded a more detailed observation. Ten facets of the parking complex were recognized and suggested problems for study noted in an attempt to bring to light some of the major difficulties associated with shopping center parking problems.

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