

## Abridgment

# Parking Management Study for Lancaster, Pennsylvania

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The results of a parking study conducted for Lancaster, Pennsylvania, are summarized. There were two primary reasons for the study: (a) Residents were concerned about the preemption of curb spaces in residential areas by long-term, nonresidential parkers, and (b) in recent years, the city has been required to subsidize the operation of the Lancaster Parking Authority because a decline in the use of the authority's facilities has created a gap between revenues and expenses. The study included a review of existing information on parking problems in Lancaster and several surveys designed to provide data on parking characteristics. The existing parking system is described in terms of facility type and occupancy. The central area of Lancaster was divided into subareas, and an analysis of the problems of each subarea is presented. Issues of ineffective enforcement and the poor financial condition of the municipal revenue parking system are reviewed. The recommended program consists of several strong measures for controlling parking space and stabilizing finances. Stricter control of curb space is suggested, including a residential parking-permit system. Several enforcement-related actions are proposed, such as revision of the meter system, increased fines, and improved equipment for controlling garage revenue. Finally, moderate increases in municipal parking rates, along with increased garage use, can eliminate the parking authority's revenue shortfall over the next five years.

In their efforts to preserve and revitalize the historic and compact central area of Lancaster, Pennsylvania, city officials have constantly had to deal with the conflict over accommodating the automobile and its large space requirements versus the narrow streets and historic nature of the downtown and its environs. This conflict has become most evident in the competition for use of on-street parking space in residential areas.

Lancaster has a population of 56 000. Its central area is characterized by houses tightly clustered on small blocks and by a mixture of private and semiprivate institutions, commercial establishments, and other land uses. This pattern of mixed development creates conflicting parking demands among employees, shoppers, and residents. The areas of greatest conflict are located adjacent to the major activity centers--hospitals, colleges, and industrial facilities.

Another major concern is the fact that the city has provided three major parking garages in the heart of the central business district (CBD). Downtown Lancaster has traditionally been the center of commercial and retail activity in the region, but recent economic conditions have caused a decline in downtown activity. This has resulted in a reduction in parking demand and revenues that has adversely affected the city's finances.

## EXISTING PARKING SYSTEM

The parking system under study consists of approximately 13 600 spaces. Peak parking occupancy within the study area is 8950 spaces, or 66 percent of available space. Peak parking occupancy in the study area between 10:00 a.m. and 12:00 noon on survey days is categorized below by type of parking facility (alley parking and illegal parking are not counted):

Type of Facility	No. of Spaces		Occupancy (%)
	Available	Used	
Metered curb space	652	413	63
Nonmetered curb space	3 038	2193	72
Municipal lots	124	96	77
Municipal garages	2 078	1139	55

Type of Facility	No. of Spaces		Occupancy (%)
	Available	Used	
Commercial lots	1 668	1302	78
Special use (private)	6 014	3807	63
Total	13 574	8950	66

As the table indicates, a large part of the system is privately owned and cannot be directly affected by public parking policy. Overall, occupancy is moderately high except for the municipal garages. Within the study area, the areas of highest occupancy are near the CBD and around the two hospitals.

The central area of Lancaster was divided into subareas (see Figure 1). The specific problems of these subareas can be summarized as follows:

1. CBD core--Available space in the CBD core is underused. Furthermore, there is sufficient space available to accommodate the total projected parking needs of the downtown area, based on demand in the peak shopping season and foreseeable CBD core "in-fill" development.

2. Downtown fringe area--The major problems of the downtown fringe area are the preemption of free on-street space by parkers destined for the CBD, a shortage of designated short-term space for the patrons of retail establishments, and a lack of convenient curb space for residents on many blocks. A windshield postcard survey and a license-plate survey verified the use of curb spaces by commuters in residential areas.

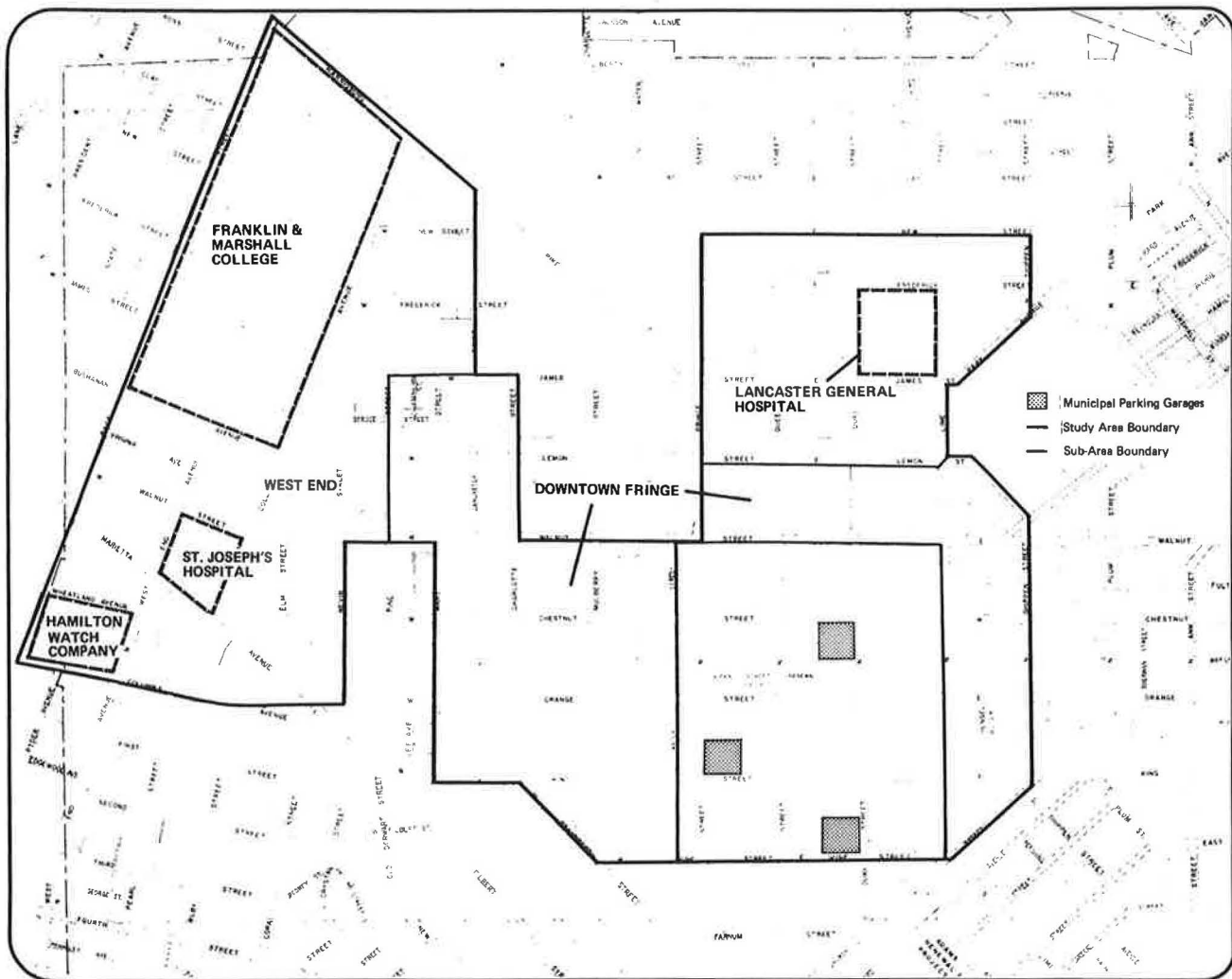
3. General Hospital area--The major problem in the area around Lancaster General Hospital is that curb space that should be available to residents is preempted by hospital, clinic, and other nonresidential parkers to a degree that constitutes a nuisance to residents. In addition, there is a shortage of designated short-term space for patrons of commercial establishments, since many of the short-term curb meters are being used by long-term parkers. Data on parking location and walking destination indicate that there is a pattern of people parking on the fringes of downtown and the neighborhoods near St. Joseph's Hospital and walking three or more blocks to their final destinations.

4. West End area--The basic problem in the West End is that St. John's Hospital does not provide sufficient off-street parking space and this results in preemption of residential parking spaces by visitors and employees. Other parking generators, including Franklin and Marshall College and the Hamilton Watch Company, are not able to prevent their parkers from using residential curb space.

## Enforcement

The current level of parking enforcement does not appear to be effective in discouraging illegal parking, especially given the low fine structure for parking violations. For example, the fine for parking overtime at a meter is \$1.00, and the cost to park in a municipal garage for 8 h is \$2.80. A fine structure that is lower than parking fees does not encourage the proper use of the revenue parking system.

Figure 1. Lancaster study area including subareas that have specific parking problems.



It was also noted that many meters do not function properly, which results in improper use of space (i.e., long-term parkers using short-term spaces) and lost revenue. In addition, under the current system for controlling municipal garage revenue, parkers can cheat the system without being caught.

The local towing ordinance is very restrictive about the conditions under which a vehicle, no matter how illegally parked, may be towed. The city is not authorized to impound vehicles.

Parking enforcement should serve two primary purposes: to ensure the proper use of available municipally controlled space and to ensure that the parking system generates the proper level of revenues. The problem in Lancaster is that current enforcement efforts do not act as a deterrent to the misuse of the parking system.

#### Financial Status of the Parking System

The financial status of the Lancaster Parking Authority is determined in large part by the use of the three downtown municipal garages owned and operated by the authority. In recent years, the loss of retail activity from the downtown has contributed to a decline in the use of all three garages. Construction and acquisition of these

garages were financed by the use of revenue bonds issued by the authority, which is an autonomous agency. However, the bonding arrangements are such that the city government is legally obligated to make up any differences between expenses and revenues. In the past few years, a large gap between expenses and revenues has developed.

The current rate structure of the Lancaster Parking Authority is such that meter parking is less expensive per hour than garage parking. Motorists therefore tend to use meter spaces more frequently and for longer periods than garage spaces. In other words, parkers (logically) take advantage of less expensive space where possible. Convenient access to final destination is the major motivation for garage use, whereas the cost and availability of alternative spaces are important factors motivating nonuse of the garages.

#### PARKING PRINCIPLES

A number of parking principles and objectives were derived from discussions with citizens and city officials. These principles and the experience of other cities provided the basis for analyzing the parking needs of the city of Lancaster and developing a responsive program. Among these principles are the need for (a) control of all

public parking in the central area, (b) revision of rate and fine structures to influence the proper use of parking space, (c) increased enforcement, (d) more stringent parking-space requirements in the zoning ordinance, and (e) giving residents high priority in the allocation of and control over limited curb space.

#### RECOMMENDATIONS

Based on an examination of existing parking characteristics, applicable principles and strategies used in other areas, and input from citizens and elected officials, this study developed the parking management recommendations discussed below.

#### Control of Parking Supply

##### CBD Core

The basic strategy in the CBD core is to improve the on-street meter system. This involves eliminating unproductive meters, relocating some meters to areas that require increased short-term parking supply, and installing new meters in some areas. In addition, all unregulated curb space in the core would be eliminated.

##### Outside CBD Core

The city should implement a residential parking-permit program for the entire central area outside the core. The city would define eligible areas, but it would be left to the residents of each block to request implementation of the permit system on their block. Without a permit, curb parking on blocks where the system is implemented would be limited to 2 h (from 7:00 a.m. to 6:00 p.m. weekdays). Only residents of the block could get an annual permit. Residents could obtain a temporary permit for visitors. Service vehicles would be excluded from the permit requirement. Residents would be assessed an annual permit fee of \$10 to defray the continuing administrative and capital costs of the program. However, the city would need to subsidize program implementation for the first year.

Other recommendations for the area outside the CBD core include selective use of long-term meters near major parking generators, an expanded program of city assistance to residents who wish to construct off-street spaces on private property, and a review of the parking requirements in the zoning ordinance.

#### Enforcement

The Lancaster Parking Authority should immediately replace its entire meter system with a combination of short- and long-term meters. The existing system for controlling garage revenue also requires replacement in order to reduce the potential for fraud and misuse.

Fines for parking violations in the city should be increased according to the principle that fines should exceed normal daily parking costs. This would involve an increase of \$2 for most violations so that the minimum fine would be \$3 and the majority of parking fines would be \$5 or \$6.

A stronger city towing ordinance is needed to ease the process of towing cars illegally parked at off-street spaces and in parking-authority lots as well as cars parked illegally on public or private property.

#### Finances

Increases in the revenues of the parking authority will come from greater use of revenue-producing parking spaces and increased parking rates. The controls imposed by the adjustment of the meter system and the proposed ban on long-term parking in residential areas will reduce the attractiveness of alternative spaces for many parkers. The destinations of most of the parkers whose spaces would be eliminated are convenient to one of the municipal garages. Increased use of the garages will also result from increased development activity downtown and improved use of existing vacant floor space.

The last parking-rate increase occurred in February 1977, when the \$0.35/h rate for the garages was put into effect. An analysis of alternative rate schedules shows that meter and garage operating revenues can be expected to increase by as much as 80 percent based on the highest alternative rate schedule and the demand resulting from the on-street control program and near-term CBD development.

Since the opportunity for the authority to reduce operating and debt service costs is not great, this study assumed that the only change in expenditures is that operating expenses will increase by 6 percent/year. A comparison of projected costs and revenues indicates that the authority will not become financially self-sufficient unless parking rates are increased and maximum use is made of available space as a result of the parking regulation program and projected development.

#### CONCLUSIONS

The study discussed in this paper was unique in that it was more concerned with parking management than with supply. This study has shown that even a city the size of Lancaster can have many of the same parking problems as larger cities. The issues of commuter parking in neighborhoods, insufficient spaces for hospital and college parkers, and changing land uses are just as real in a small city as in a larger one.

Many of these problems have resulted from a piecemeal approach to parking needs. In the past, problems were attended to as they arose in specific locations instead of on a neighborhood or an areawide basis. The fact that almost all of the parking problems are related to each other and must be solved by using a systematic approach is also characteristic of large cities.

A noteworthy aspect of the study was the high degree of citizen input. Citizen complaints were the main reason for performing the study, and various mechanisms of citizen participation (key-person interviews, a postcard survey, and public meetings) were helpful in guiding the entire study process. Parking is often an emotional and politically sensitive issue, and the ability to involve citizens, elected officials, and other civic and business leaders in the study process is vital to a successful study.

The recommendations of this study are consistent with the transportation system management philosophy of implementing a series of mutually supportive actions that result in a synergistic effect. Some of the proposed strategies are rather forceful for a city like Lancaster but are necessary to solve the mix of problems that was identified. It is to Lancaster's credit that city officials are now actively engaged in implementing the recommendations of the study in a systematic attack on the parking management problems of the area.