RESUME OF FRINGE PARKING PRACTICE

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At the 27th Annual Meeting of the Highway Research Board, held in Washington, D. C., December 2, 1947, the author discussed "Fringe Parking in Relation to Traffic Congestion" and Mr. Adrian Hughes discussed "Fringe Parking in Relation to Transit Operations." As a result of the discussion on the papers, the Committee included an item in its 1948 program of activity to develop a resume of fringe parking practice and any trends in its use.

The American Transit Association had obtained reports on the operation of transit companies with respect to fringe parking in 16 cities. To this Mr. I. S. Shattuck added information from three more cities. A questionnaire designed to obtain information relative to the operation of fringe parking operations was distributed by the committee to traffic engineers in 25 other cities. Replies were received from 19 of these. The coverage of this review includes 42 of the largest cities in this country and one large Canadian city.

The Committee acknowledges the cooperation extended to it by the American Transit Association and by Mr. I. S. Shattuck in making much of the information available. The replies received from individuals are also appreciated even where there was no fringe parking experience to report. The helpful comments, and opinions of those who discussed situations where fringe parking had been started and abandonded or where it is still being used are also appreciated.

FRINGE PARKING

Admittedly there is no generally accepted designation of what constitutes a Fringe Parking Facility. Perhaps, however, it could be considered that the most important characteristic of a fringe facility is its coordination with transit or mass transportation operations.

Function

Like all urban off-street parking facilities, fringe lots should function to relieve street traffic congestion, especially in the business sections. The development of such facilities must be coordinated with transit operations if automobiles are to be kept off the downtown streets.

Ordinarily, however, the expectation is that fringe parking in combination with transit will furnish a more or less satisfactory substitute for the privilege of driving a car downtown, and parking it there, at not too much expense.

It is possible to recognize some conditions which have been present in the operation of each fringe parking facility which has been abandonded. It is also possible to recognize some of the conditions which are present in those facilities which are continuing to operate as a fringe parking facility.

A resume by cities of the data collected follows:

DISCONTINUED FRINGE PARKING EFFORTS

City	Population
Denver, Colorado	322,412
Grand Rapids, Michigan	164,292
Pittsburgh, Pa.	671,659
Atlanta, Ga.	302,288
Norfolk, Va.	144,332
Richmond, Va.	193,042
Paterson, N. J.	139,656
Washington, D. C.	663,091
Hartford, Conn.	166,267

Pittsburgh, Pa. - Information from this city is not strictly comparable. The location was unfavorable (across a river) and the attempt was made several years ago before the last war.

Washington, D. C. - A shuttle service between two lots was discontinued March 31, 1949. Rates were relatively high - 25 cents, a token or 13 cents cash fare for bus ride each way. Downtown parking rates for two hours didn't exceed 50 cents at many locations and unrestricted curb parking was available near one lot at one end of the route.

Hartford, Conn. - Even with 5 cents parking and regular token fare with transfer privileges on regular transit busses, the attempt to develop a second fringe lot was discontinued. The first fringe parking lot is continuing to operate.

Certain generalizations are apparent in the remaining six cities. Fringe parking has been discontinued after attempts to install such operations in cities of less than 350,000 population. The maximum distances to be travelled in the smaller cities are not great enough to make two types of transportation to reach the downtown area sufficiently appealing.

Records of turnover in the use of space are low, slightly over 1.0. Most of the parkers who use these fringe facilities are all-day parkers, indicating few shoppers. It would seem that even with free parking at these fringe facilities shoppers having bundles to carry prefer parking closer to stores or if they must use a bus from the fringe, they may as well make the whole trip by bus.

CONTINUING FRINGE PARKING OPERATIONS*

Baltimore, Md.	(1)	Hartford, Conn.	(1)
Boston, Mass.	(28)	Philadelphia, Pa.	(2)
Chicago, Ill.	(2)	St. Louis, Mo.	(5)
Cleveland, Ohio	(2)	Toronto, Canada	(3)
Dallas, Texas	(1)	New York, N.Y.	(2)

*Number of fringe facilities in parentheses.

Baltimore, Md. - (Capacity 206 cars) 1940 population 1,046,692.

Lot operated by Baltimore Transit Company, which also furnished a loop bus service into the downtown area. The parking rate is 45 cents for all-day, including rides both ways on the loop buses.

The lot is 0.75 - 1.0 mile out, the bus headways 5 minutes on peak, 7.5 minutes on base day, the space turnover on the lot is 1.31.

Boston, Mass. - (Capacity 5,131 cars) 1940 population 2,350,514.

Twenty-eight lots, some operated by Metropolitan Transit Authority, some privately, some with parking fee, others without fee, all located along the transit lines.

Chicago, Ill. - 1940 population 4,499,126.

Monroe Street Lot - (Capacity 3,500 cars).

Lot operated by State Street Council, with loop bus service furnished by Chicago Motor Coach Company. The parking rate is 35 cents for all day, the bus fare 5 cents each way.

Practically any section of shopping district is less than a mile from the lot, which means a fairly short bus ride. Nevertheless, while the lot is usually pretty full, the space turnover is less than 1.0.

Soldiers Field Lot - (Capacity 6,000 cars).

Lot operated by State Street Council, with shuttle bus service furnished by Chicago Motor Coach Company. The parking rate is 25 cents for all day, the bus fare 5 cents each way. The lot is 1.5 miles outside the Loop, is used by only 400-500 parkers daily.

In both instances the payment of expense for operation of these lots is guaranteed by the State Street Council.

Cleveland, Ohio. - (Capacity 2,490 cars). 1940 population 1,214,943.

Private Lots - (Capacity 990 cars).

Two adjoining lots served by two bus lines to business district. Parking rates 25 cents and 35 cents all day, respectively, bus fare 5 cents each way.

The lots are 0.75 mile out, buses on 6-minute headway.

Municipal Lot - (Capacity 1,500 cars) Operated by City of Cleveland on Lake

Front 0.67 mile from business district, and served by two bus lines. No parking fee, bus fare 5 cents in each direction. Information concerning turnover is lacking.

Dallas, Texas - (Capacity 350 cars) 1940 population 376,548.

Lot owned and operated by a department store shuttle bus transportation downtown furnished by Dallas Railway and Terminal Company. The parking rates are 35 cents for three hours, 50 cents for all day.

The lot is 0.50 to 0.75 mile from downtown, while the buses run on a 6-minute headway, so the lot shows a space turnover of 1.57.

Hartford, Conn. - (Capacity 800 cars) 1940 population 502,193.

Lot operated by the Connecticut Company, which also furnishes loop bus service to downtown area. The parking rate is 5 cents for all day, the bus ride 10 cents in each direction.

The lot is 1.2 miles outside the business and shopping district, and the bus headway is 10 minutes.

New York, N. Y. - 1940 population 11,690,520.

Flushing Meadow (Capacity 3,000 cars)

Owned and operated by New York City at the terminus of subway to Grand Central Station. Parking is free. Subway fare is 10 cents. Lot is open 6 a.m. to 12 midnight. 7.8 miles to Grand Central Station. No attempt is made to make site self-supporting, costs of operation, including policing, are borne by the city.

Camden Plaza - (Capacity 700 cars)

Owned and operated by New York City at the Brooklyn end of the Brooklyn Bridge. Parking is free. Frequent trolley service across bridge, 1.5 miles to the City Hall. Fare is 7 cents. Short-time or all-day parkers no restrictions. City bears all costs of operation including policing.

Philadelphia, Penn. - 1940 population 2,898,644.

69th and Market Street Lot (Capacity 330).

Lot operated by Philadelphia Transportation Company, which also furnishes elevated and subway ride downtown. The parking rate, including subway ride in both directions, is 30 cents for all day.

The lot is 5 miles from downtown, but because of cheap combined rate for parking and subway ride, has a space turnover of 1.5 including some demand from local shopping center and movie.

Frankford Avenue and Bridge Street Lot - (Capacity 310 cars)

Lot operated by Philadelphia Transportation Company, which also furnishes elevated and subway ride downtown. The parking rate including subway ride in both directions is 30 cents for all day.

The lot is 7 miles from downtown, but because of cheap combined rate for parking and subway ride, has a space turnover of 1.22.

St. Louis, Mo. - 1940 population 1,367,977

Five lots in all, one municipally, four privately owned. St. Louis Public Service Corporation operates buses through the downtown area between these parking lots on the fringe. Parking rates vary from 15 cents all day to 25 cents first hour, some lots not being convenient to buses. Bus fares 5 cents each way.

The east and west fringe lots are 0.25 to 1.0 mile out, those on north and south fringes from 0.33 to 1.50 miles out.

Toronto, Canada - (Capacity 1,560 cars) population 667,457.

Three lots operated by the Toronto Transportation Commission, with bus loop into shopping district. Parking rates 15 cents all day, bus fare 5 cents each way.

The lots are 0.7 mile from downtown, the bus headway from 6 to 7.5 minutes, so the lots show a turnover of 1.31.

CONCLUSIONS

It appears that St. Louis has the best pattern of fringe parking facilities coordinated with transit. The lots are on all sides of the central business district, and serviced by buses running between them through the downtown section. Daytime curb parking is prohibited on a considerable proportion of downtown streets. The economics of the fringe lot service does not appear, however, nor the actual effect it has had in reducing downtown congestion, although the advantageous pattern of lot locations should permit important savings

in bus operations, and avoidance of too much traversing of the business center by cars seeking to park in fringe lots.

From this group of cities it appears that the operation of fringe parking facilities is continued even though the revenues from parkers, if any, are insufficient to finance necessary additional transit services.

In general the larger cities seem to accept fringe parking even at the expense of subsidizing transit service or of furnishing the parking facilities.

In general, however, the following conditions appear to be in common in cities where these fringe facilities are being conducted:

Large population centered in the area.

Large storage capacities in the lots.

Lot locations along arterial streets and at termini of express or rapid transit service.

Frequent transit service in rush hours (5 minute headway).

Purpose or Function

Fringe parking facilities may sometimes be provided at a railhead or bus terminus, for the accommodation of those driving cars in from outlying areas, then finishing their trips downtown by mass transportation. These fringe facilities may be at any reasonable distance from the center of town.

Location

Pattern: Where the size and shape of a city warrant it, there should be a complete pattern of fringe parking facilities surrounding the business and shopping center, so as to intercept parkers at the fringe, thus preventing the driving of some cars through the center to a facility perhaps on the far side.

Distance out: In this case, the distance of the fringe facility from the business district is of great importance. The distance from the center at which a fringe facility will best attract and serve the parker depends somewhat upon the parker's purpose in making his trip. If the parker has a job in town, for example, and wants to park all day, he can be served acceptably by a fringe facility a mile or so from downtown, or even further in some cases. But if the parker is a shopper or is making a business or professional call, he will want a fringe facility closer to his ultimate destination.

Transit

The proper coordination of transit with fringe parking is essential, most of all when the service accommodates the short time shopper or business parker. Headways then should preferably not be longer than 5 minutes right through the day. Indicentally, the fringe facility for the shopper and business parker should be so managed as to avoid the blocking out of short-time by too many all-day parkers.

Economics

The real over all economy of fringe lot operation is difficult to evaluate because of the tendency of transit to overlook losses for the sake of improved public relations, and more understandingly because of expected although not always apparent reduction of traffic on downtown streets, so buses and street cars can get through faster. This last again would tend toward improved public relations for transit.

Data should be obtained for making accurate determinations of over-all fringe facility economics, as well as a gauge of effects upon downtown traffic.