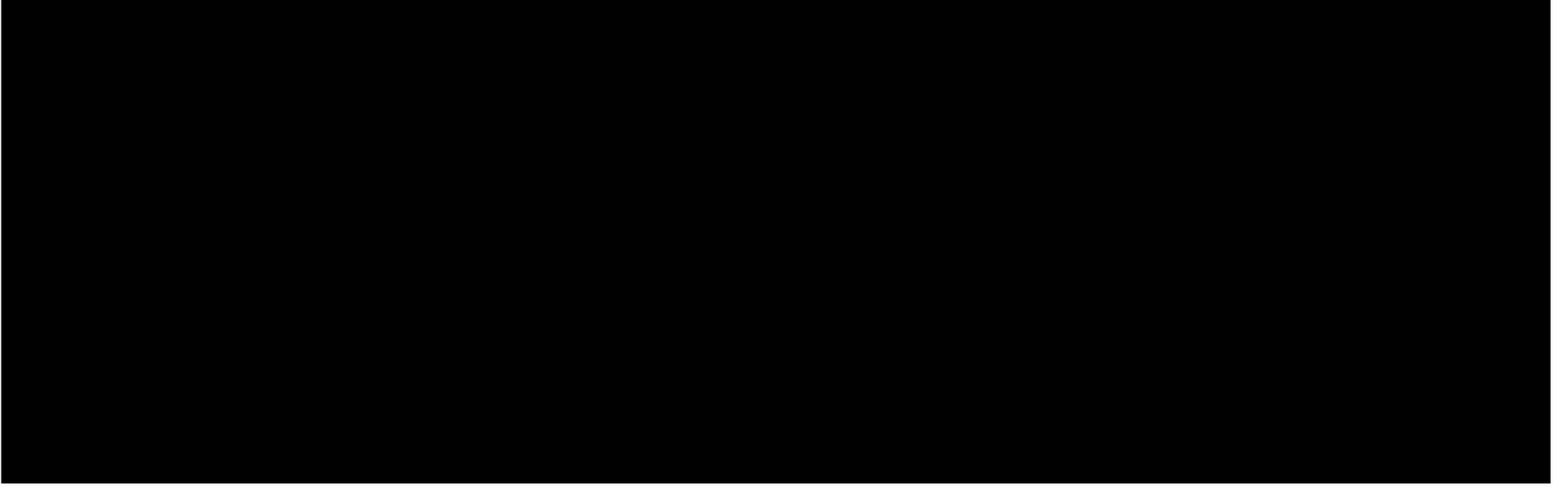


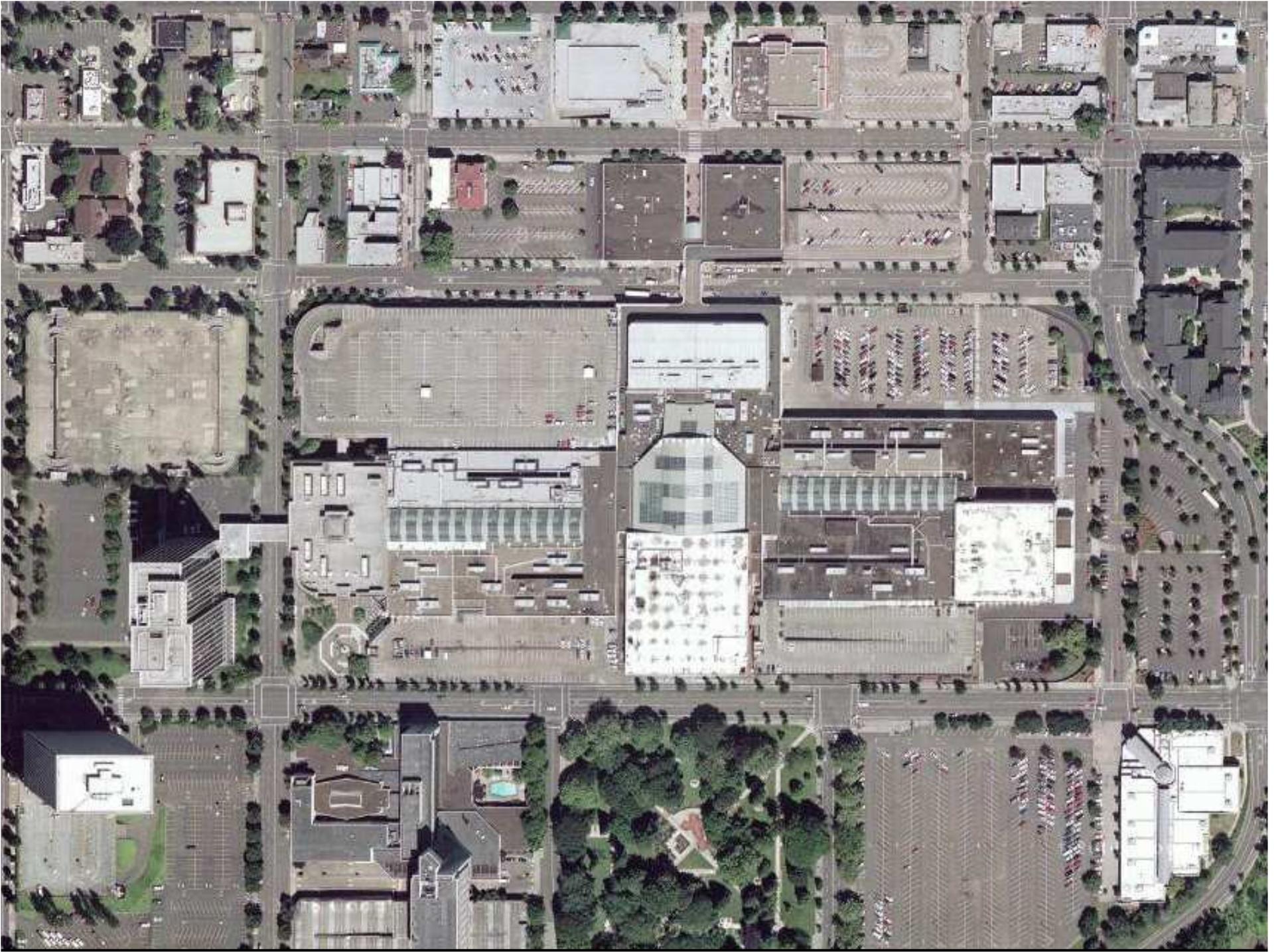


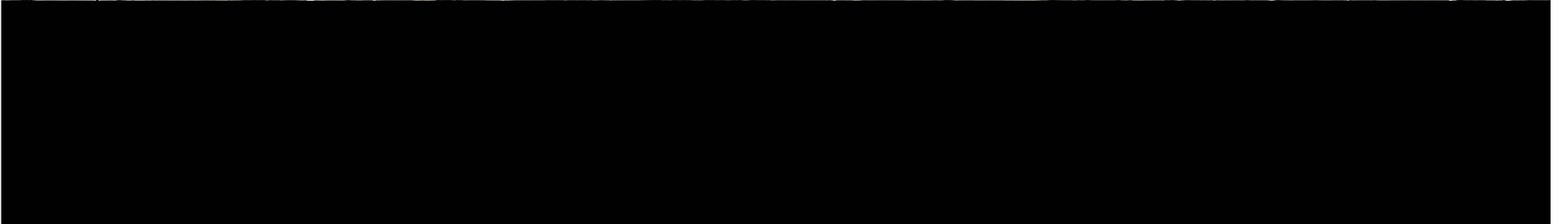
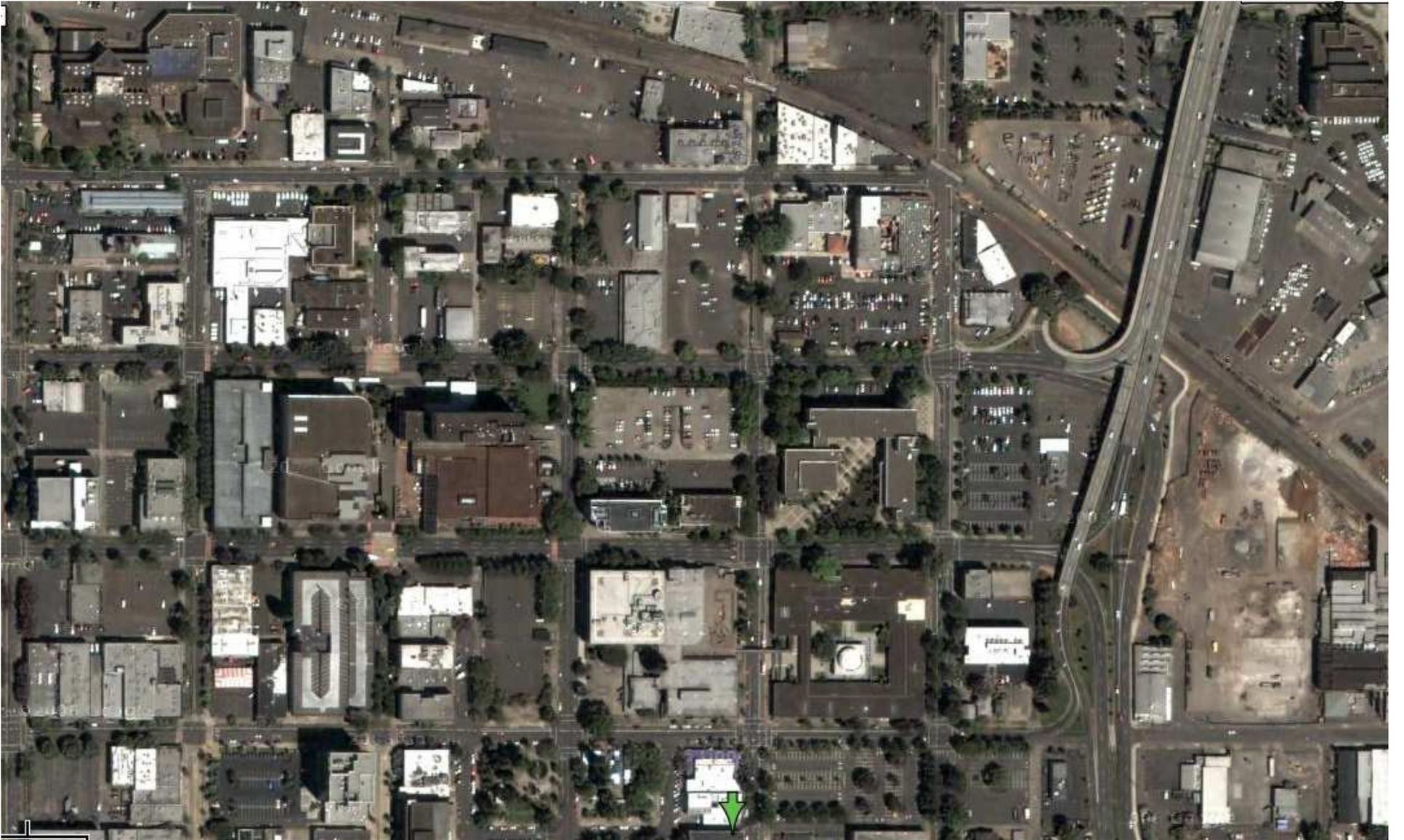
# The High Cost of Free Parking

DONALD SHOUP

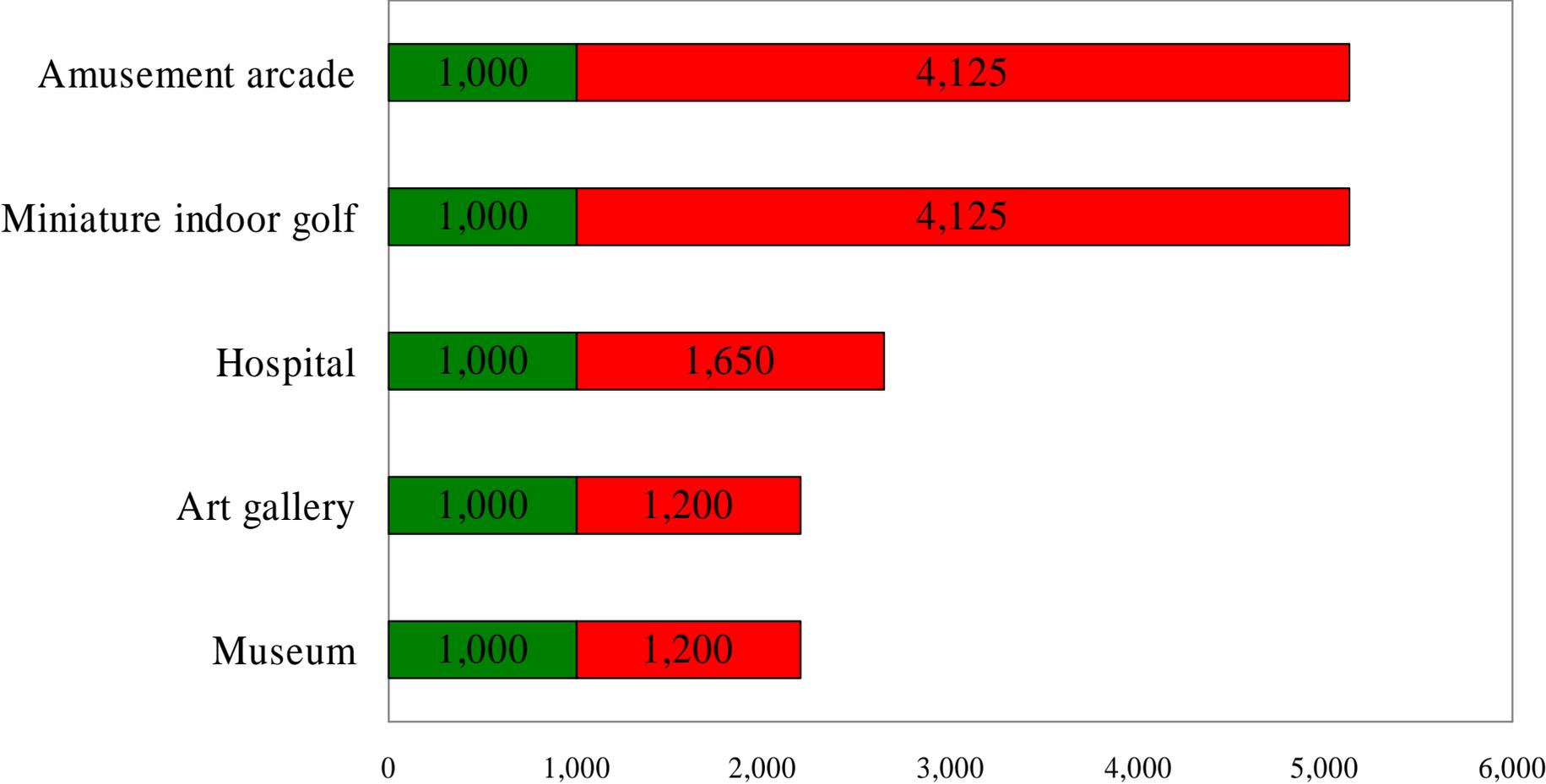








# Eugene's minimum parking requirements



Square feet of building and required parking

■ Building area ■ Parking area

**Table 9.6410 Required Off-Street  
Motor Vehicle Parking**

<b>Uses</b>	<b>Minimum Number of Required Off-Street Parking Spaces</b>
<b>Agricultural, Resource Production and Extraction</b>	
Agricultural Use and Community and Allotment Garden	-0-
Display and Sale of Agricultural Products, primarily based on products raised or grown on the premises	1 per each 660 square feet of floor area.
Horticultural Uses. <u>Examples</u> include field crops, orchards, berries, and nursery or flower stock.	1 per each 660 square feet of floor area.
<b>Eating and Drinking Establishments</b>	
Bar and Tavern	1 per each 66 square feet of seating floor area plus 1 for each 440 square feet of non-seating floor area.
Delicatessen	1 per each 66 square feet of seating floor area plus 1 for each 440 square feet of non-seating floor area.
Restaurant	1 per each 66 square feet of seating floor area plus 1 for each 440 square feet of non-seating floor area.
Specialty Food and Beverage. <u>Examples</u> include a bagel, candy, coffee, donut, and ice cream store. Products manufactured on-site shall comply with manufacturing allowances for food and beverage products.	1 per each 66 square feet of seating floor area plus 1 for each 440 square feet of non-seating floor area.
<b>Education, Cultural, Religious, Social and Fraternal</b>	
Artist Gallery/Studio	1 per each 275 square feet of floor area.
Ballet, Martial Arts, Dance and Gymnastics School/Academy/Studio	1 per each 80 square feet of dance area.

Eugene Code

Table 9.6105(4) Minimum Required Bicycle Parking Spaces		
Uses	Required Bicycle Parking (Minimum 4 bicycle spaces required unless -0- is indicated)	Type and % of Bicycle Parking
Artist Gallery/Studio	1 per each 500 square feet of floor area	25% long term 75% short term
Ballet, Dance, Martial Arts, and Gymnastic School/Academy/Studio	1 per each 400 square feet of floor area	25% long term 75% short term
Church, Synagogue, and Temple, including associated residential structures for religious personnel	1 per 20 fixed seats or 40 feet of bench length or every 200 square feet in main auditorium where no permanent seats or benches are maintained (sanctuary or place of worship).	100% short term
Club and Lodge of State or National Organization	1 per 20 fixed seats or 40 feet of bench length or every 200 square feet where no permanent seats or benches are maintained in main auditorium.	100% short term
Library	1 per each 500 square feet of floor area	25% long term 75% short term
Museum	1 per each 500 square feet of floor area	25% long term 75% short term
School, Business or Specialized Educational Training (excludes driving instruction)	1 per 5 full-time students.	25% long term 75% short term
School, Driving (including use of motor vehicles)	1 per each 3000 square feet of floor area.	25% long term 75% short term
School, Public or Private (Elementary through High School)	1 per 8 students.	25% long term 75% short term
University or College	1 per 5 full-time students.	25% long term 75% short term
<b>Entertainment and Recreation</b>		
Amusement Center (Arcade, pool tables, etc.)	1 per each 400 square feet of floor area.	25% long term 75% short term
Arena (Both indoors and outdoors)	1 per 20 seats.	25% long term 75% short term
<b>Athletic Facilities and Sports Clubs</b>		
- Playing Court	1 per 5 courts.	25% long term 75% short term
- Viewing Area	1 per each 200 square feet of floor area.	25% long term 75% short term
- Locker Room, Sauna, Whirlpool, Weight Room, or Gymnasium	1 per each 750 square feet of floor area.	25% long term 75% short term
- Lounge or Snack Bar Area	1 per each 600 square feet of floor area.	25% long term 75% short term
- Pro Shops or Sales Area	1 per each 3000 square feet of floor area.	25% long term 75% short term
- Swimming Pool	1 per each 2000 square feet of floor area.	25% long term 75% short term
Athletic Field, Outdoor	4 per each athletic field	100% short term
Bowling Alley	1 per each lane.	25% long term 75% short term

# Cruising for Parking

Suppose you want to park for 1 hour

Curb parking is 50¢ an hour.

Off-street parking is \$4.50 an hour.

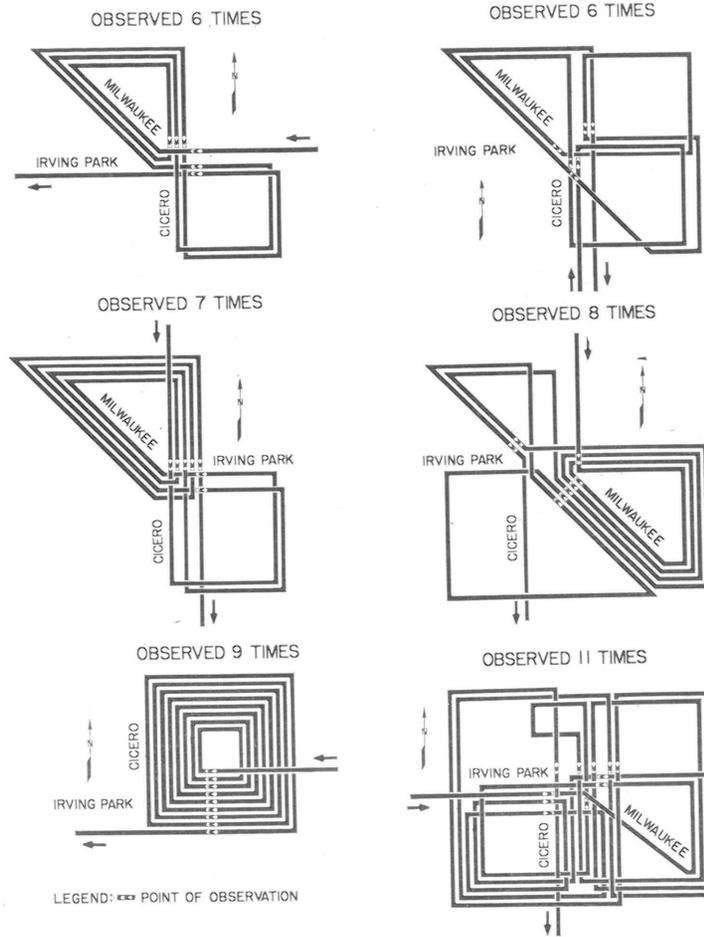
How long would you be willing to cruise for curb parking rather than pay the higher price for off-street parking?

TWENTIETH CENTURY CRUISING

<u>Year</u>	<u>City</u>	<u>Share of traffic cruising</u> (percent)	<u>Average search time</u> (minutes)
1927	Detroit (1)	19%	
1927	Detroit (2)	34%	
1933	Washington		8.0
1960	New Haven	17%	
1965	London (1)		6.1
1965	London (2)		3.5
1965	London (3)		3.6
1977	Freiburg	74%	6.0
1984	Jerusalem		9.0
1985	Cambridge	30%	11.5
1993	Cape Town		12.2
1993	New York (1)	8%	7.9
1993	New York (2)		10.2
1993	New York (3)		13.9
1997	San Francisco		6.5
2001	Sydney		6.5
<b>Average</b>		<b>30%</b>	<b>8.1</b>

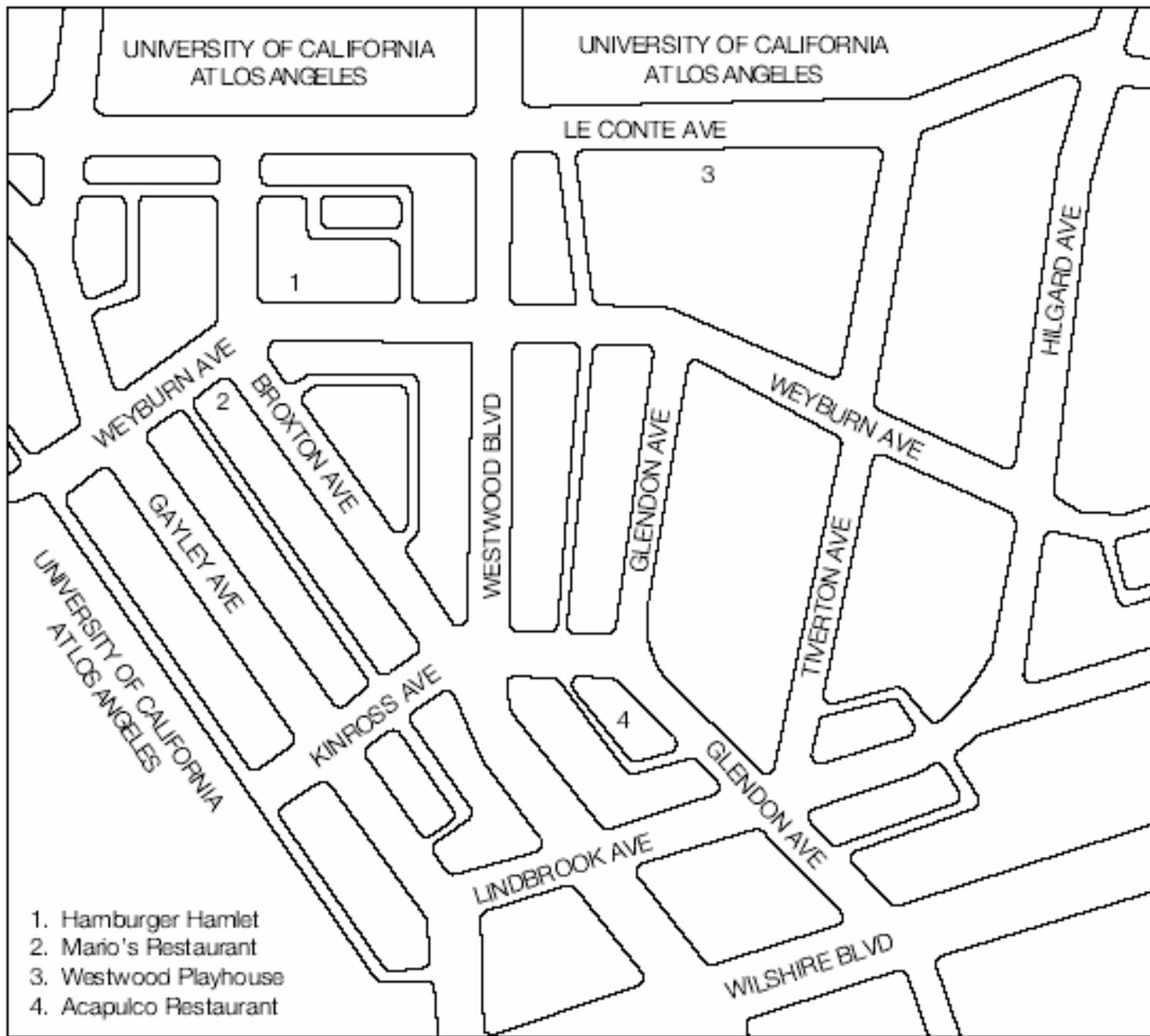
ROUTES OF CERTAIN CRUISING VEHICLES IN THE VICINITY OF  
CICERO, MILWAUKEE, AND IRVING PARK CONSTRUCTED FROM  
OBSERVATIONS MADE ON THE SIX APPROACHES TO THE  
INTERSECTION OF THESE STREETS

7:00 P.M. TO 9:30 P.M.-THURSDAY, MARCH 30, 1939



From the Report: "A Plan to Relieve Traffic Congestion in the Portage Park Retail Shopping Center." A Survey by City of Chicago, Chicago Motor Club, Chicago Surface Lines, April 1939

FIGURE 4—Observed Routes of Cruising Vehicles



UNIVERSITY OF CALIFORNIA  
AT LOS ANGELES

UNIVERSITY OF CALIFORNIA  
AT LOS ANGELES

LE CONTE AVE

3

1

WEYBURN AVE

2

BROXTON AVE

WESTWOOD BLVD

GLENDON AVE

WEYBURN AVE

HILGARD AVE

GAYLEY AVE

UNIVERSITY OF CALIFORNIA  
AT LOS ANGELES

KINROSS AVE

TIVERTON AVE

4

GLENDON AVE

LINDBROOK AVE

WILSHIRE BLVD

- 1. Hamburger Hamlet
- 2. Mario's Restaurant
- 3. Westwood Playhouse
- 4. Acapulco Restaurant

# PUBLIC AUTO PARK

**\$1.50** First 20 Min. \$2.00  
Ea. 20 Min.  
**\$8.00** Maximum

**\$4.00** Flat rate  
After 5 pm

(Plus 10% City Parking Tax)



VALET PARKING SERVICE  
(800) 794-PARK



TABLE 14-1  
SEARCH TIME FOR CURB PARKING IN WESTWOOD VILLAGE

Hour	Price of curb parking	Search time (minutes)				Average
		Acapulco Restaurant	Hamburger Hamlet	Mario's Restaurant	Westwood Playhouse	
4pm-5pm	\$0.50	6.6	5.7	5.4	7.2	6.2
5pm-6pm	\$0.50	7.6	6.8	7.6	9.0	7.8
6pm-7pm	\$0.00	8.7	9.8	8.5	10.6	9.4
7pm-8pm	\$0.00	8.3	9.2	10.0	11.1	9.7
Average		7.8	7.9	7.9	9.5	8.3

Note: Cruising times are the average of 10 observations at each site during each hour  
 The price of curb parking was 50 cents per hour before 6pm, and free after 6pm.  
 The price of off-street parking was \$1 per hour before 6pm, and \$2 per entry after 6pm.

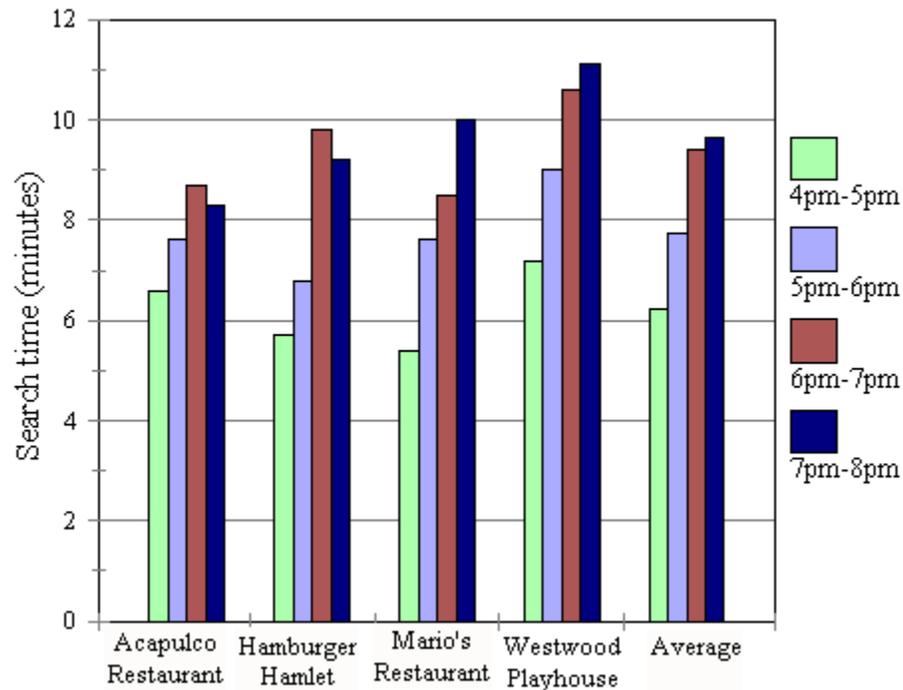


Figure 14-2  
Curb Space Occupancy Rates  
and Search Times

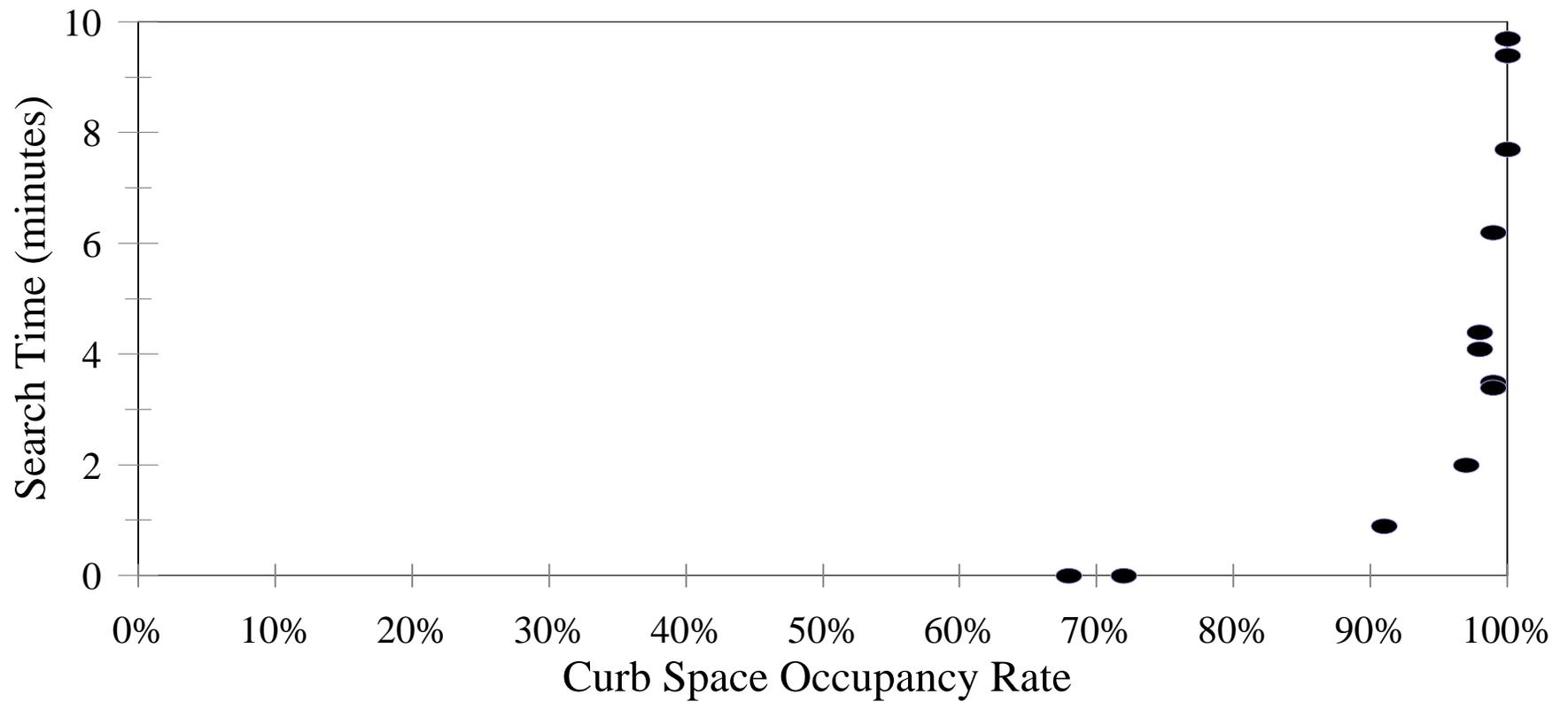


Figure 14-3  
Curb Space Occupancy Rates  
and Share of Traffic Cruising

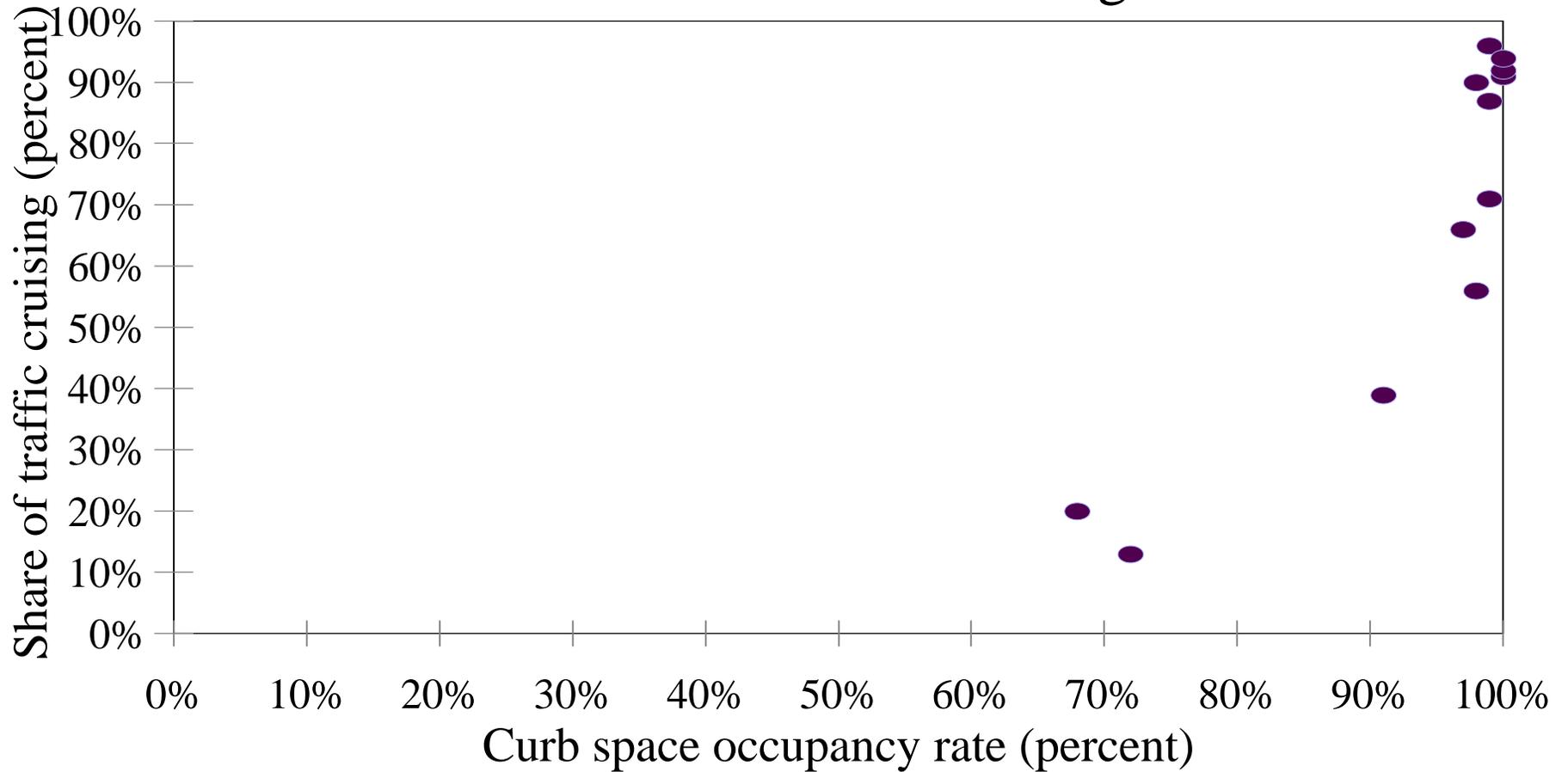


TABLE 14-2

## A DAY OF CRUISING IN WESTWOOD VILLAGE

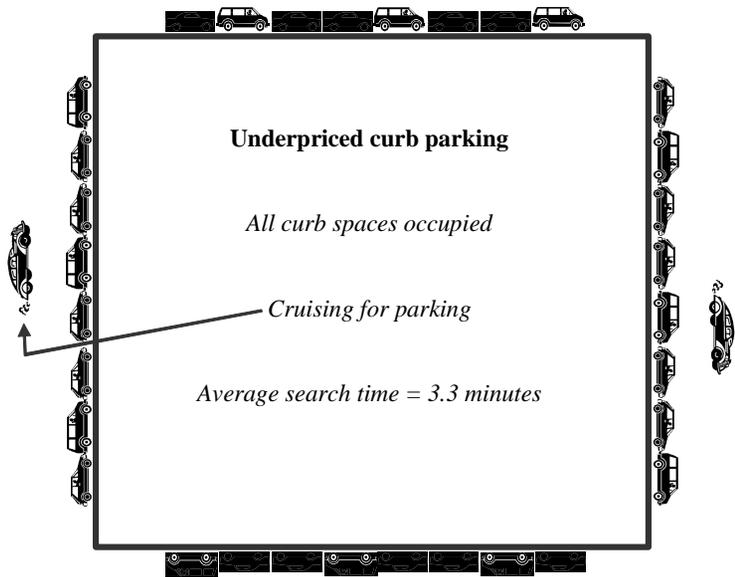
Hour	Average search time (minutes)	Parking turnover per meter (cars)	Search time per meter (minutes)	Total search time (hours)	Cruising distance per parking (VMT)	Cruising distance per meter (VMT)	Total cruising distance (VMT)
(1)	(2)	(3)	(4)=(2)x(3)	(5)	(6)	(7)=(3)x(6)	(8)=(7)x470
8am-9am	0.0	1.9	0.0	0	0.0	0.0	0
9am-10am	0.0	2.3	0.0	0	0.0	0.0	0
10am-11am	0.9	1.2	1.1	8	0.2	0.2	113
11am-noon	2.0	2.1	4.2	33	0.3	0.6	296
noon-1pm	4.4	1.5	6.6	52	0.6	0.9	423
1pm-2pm	3.5	1.8	6.3	49	0.4	0.7	338
2pm-3pm	4.1	1.4	5.7	45	0.5	0.7	329
3pm-4pm	3.4	1.0	3.4	27	0.5	0.5	235
4pm-5pm	6.2	1.2	7.4	58	0.9	1.1	508
5pm-6pm	7.7	1.3	10.0	78	1.2	1.6	733
6pm-7pm	9.4	0.3	2.8	22	1.4	0.4	197
7pm-8pm	9.7	0.7	6.8	53	1.4	1.0	461
<b>Average</b>	<b>3.3</b>	<b>1.4</b>	<b>4.5</b>	<b>35</b>	<b>0.5</b>	<b>0.6</b>	<b>303</b>
<b>Total</b>	<b>--</b>	<b>17</b>	<b>54</b>	<b>426</b>	<b>--</b>	<b>7.7</b>	<b>3,633</b>

# Cruising creates excess vehicle travel

1. It takes 3 minutes to find a curb space, and the turnover rate is 10 cars per space per day.
2. Cruising 3 minutes for parking at a curb space 10 times a day creates 30 vehicle-minutes of travel per curb space per day.
3. Cruising for 30 minutes at 10 miles an hour creates 5 VMT per curb space per day.
4. Cruising 5 VMT a day for 500 spaces creates 2,500VMT per day.
5. Cruising 2,500 VMT a day for 365 days creates 912,500 VMT per year.

# How far is 912,500 VMT?

- 36 trips around the earth (25,000 miles)
- 2 round trips to the moon (239,000 miles)
- At 10 miles an hour, it would take one person 10 years, 24 hours a day, to drive 912,500 miles.







In-vehicle  
parking meter



# Parking occupancy sensors



# Redwood City parking ordinance

To accomplish the goal of managing the supply of parking and to make it reasonably available when and where needed, a target occupancy rate of eighty-five percent (85%) is hereby established.

The Parking Manager shall survey the average occupancy for each parking area in the Downtown Meter Zone that has parking meters. Based on the survey results, the Parking Manager shall adjust the rates up or down in twenty-five cent (\$0.25) intervals to seek to achieve the target occupancy rate.

Revenues generated from on-street and off-street parking within the Downtown Meter Zone boundaries shall be accounted for separately from other City funds and may be used only . . . within or for the benefit of the Downtown Core Meter Zone.



# Toll schedule on SR 91 Express Lanes in Orange County



## Toll Schedule Westbound Effective August 29, 2005 Riverside Co. Line to 55

	Sun	M	Tu	W	Th	F	Sat
Midnight							
1:00 am							
2:00 am			1.10				
3:00 am							
4:00 am			2.10				
5:00 am		3.45				3.35	
6:00 am		3.55				3.45	
7:00 am		3.90				3.80	1.55
8:00 am	1.55	3.55				3.45	1.80
9:00 am		2.85					2.20
10:00 am							
11:00 am	2.20						
Noon							
1:00 pm			1.80				2.50
2:00 pm	2.50						
3:00 pm							
4:00 pm						2.20	2.65
5:00 pm	2.65						
6:00 pm						2.60	2.20
7:00 pm						1.80	
8:00 pm	2.20						
9:00 pm			1.10				
10:00 pm							
11:00 pm							



## Toll Schedule Eastbound Effective August 29, 2005 55 to Riverside Co. Line

	Sun	M	Tu	W	Th	F	Sat
Midnight							
1:00 am							
2:00 am							
3:00 am			1.10				
4:00 am							
5:00 am							
6:00 am							
7:00 am							
8:00 am	1.45		1.80				
9:00 am							
10:00 am	2.20						2.20
11:00 am							
Noon						2.70	
1:00 pm	2.60		2.45		2.70	4.20	2.60
2:00 pm			3.55		3.65	4.20	
3:00 pm			3.80		4.05	7.75	
4:00 pm			5.90	6.50	7.00	7.75	
5:00 pm	2.20	5.70		7.00	7.75	7.00	
6:00 pm		3.80	3.95	4.05	4.25	4.60	2.20
7:00 pm			2.70		3.85	4.25	
8:00 pm					2.45	3.85	1.80
9:00 pm			1.80			2.45	
10:00 pm			1.10			1.80	
11:00 pm							

# Turning Small Change into Big Changes



# 1978 Plan for Old Pasadena

“The area’s been going downhill for years.”

“It’s a bunch of dirty old buildings.”

“It’s filthy.”

“It’s Pasadena’s sick child.”

“The area is unsafe.”



