



## **Parking is Destiny: A Smart Parking Primer**

**Rail~Volution  
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# Regional Parking Strategies: Outline

1. Why is parking so important?
2. Flaws of existing parking policies
3. Local parking reforms



# Parking Wastes Money



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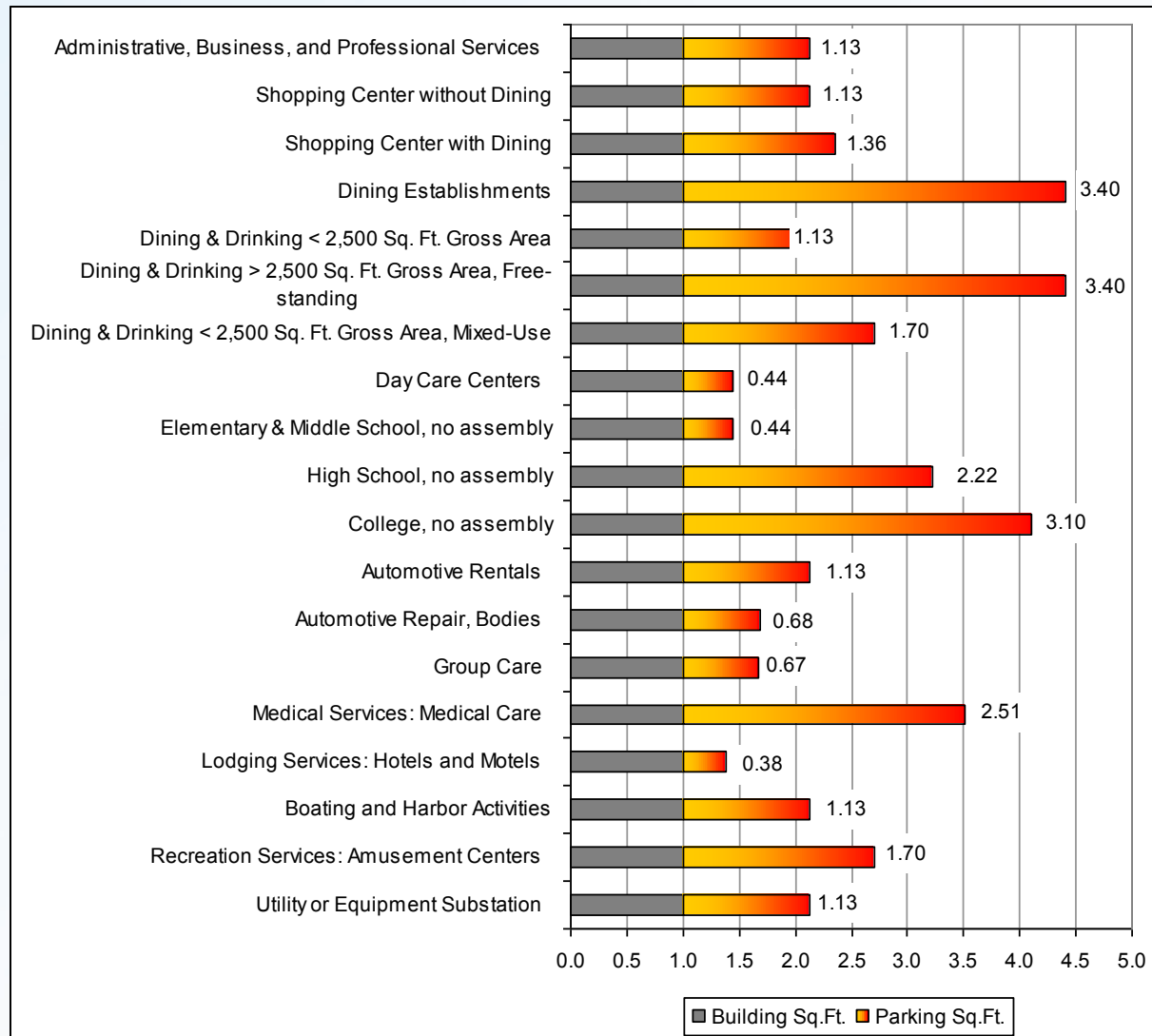
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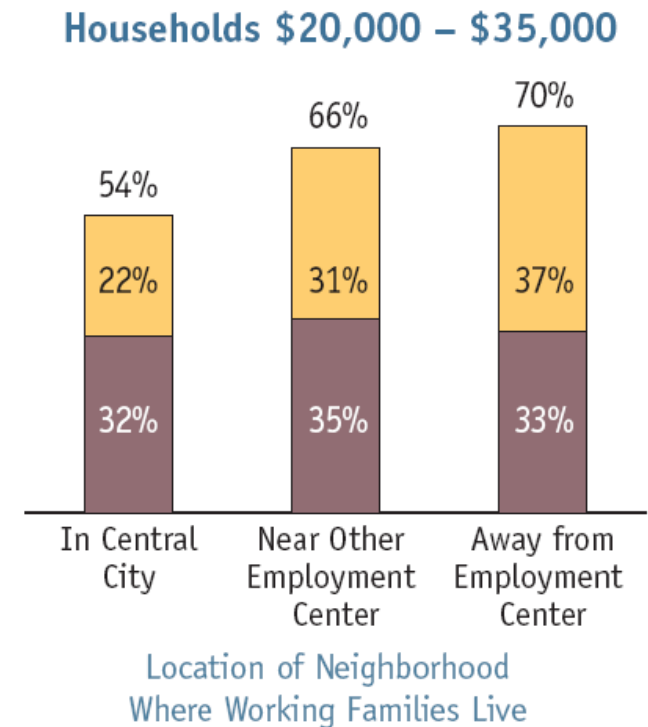
# Parking Wastes Land

- If you require more than 3 spaces per 1,000 sq ft, you're requiring more parking than land use



# Parking Worsens Housing Affordability

- For each parking space required in a residential unit:
  - Price of unit increases 15-30%
  - Number of units that can be built on typical parcel decreases 15-25%
- Working families spend more on transportation than housing in auto-oriented suburbs.
- No accommodation for car-free households: Getting rid of a car = extra \$100,000 in mortgage
- At >300 sq ft, each parking space consumes more space than an efficiency apartment

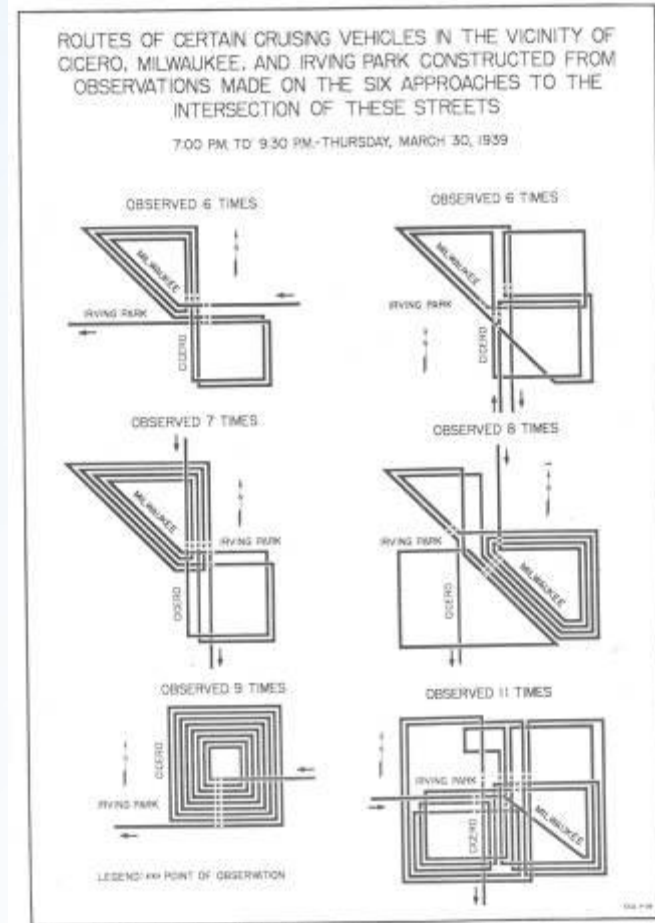


Source: Center for Neighborhood Technology calculations.

Sources: "A Heavy Load: The Combined Housing and Transportation Burdens of Working Families," Center for Neighborhood Technology, 2006. "The Affordability Index: A New Tool for Measuring the True Affordability of a Housing Choice," Center for Neighborhood Technology, 2008. Sedway Cook studies of parking and housing costs in San Francisco and Oakland.

# Parking Produces Traffic Congestion

- Every parking space is a magnet for cars. Why provide more parking than you have traffic capacity to access that parking?
- Poorly managed parking results in motorists circling for a parking space, from 8 to 74% of traffic in many downtowns.
- Eliminating just 10% of vehicles from any congested location makes traffic free flowing.



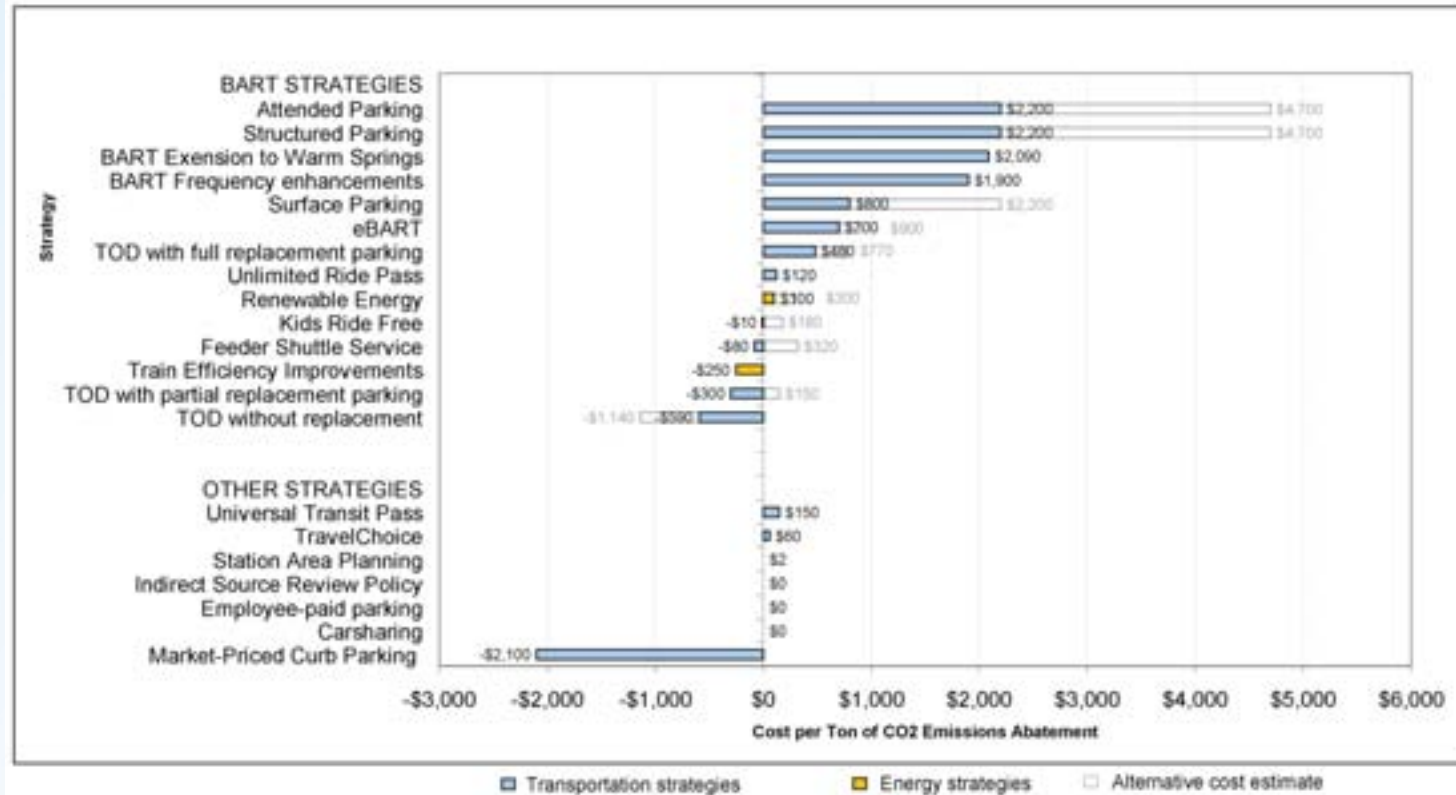
From the Report: "A Plan to Relieve Traffic Congestion in the Portage Park Retail Shopping Center." A Survey by City of Chicago, Chicago Motor Club, Chicago Surface Lines, April 1939

FIGURE 4—Observed Routes of Cruising Vehicles

Sources: "Cruising for Parking," Don Shoup, 2006.

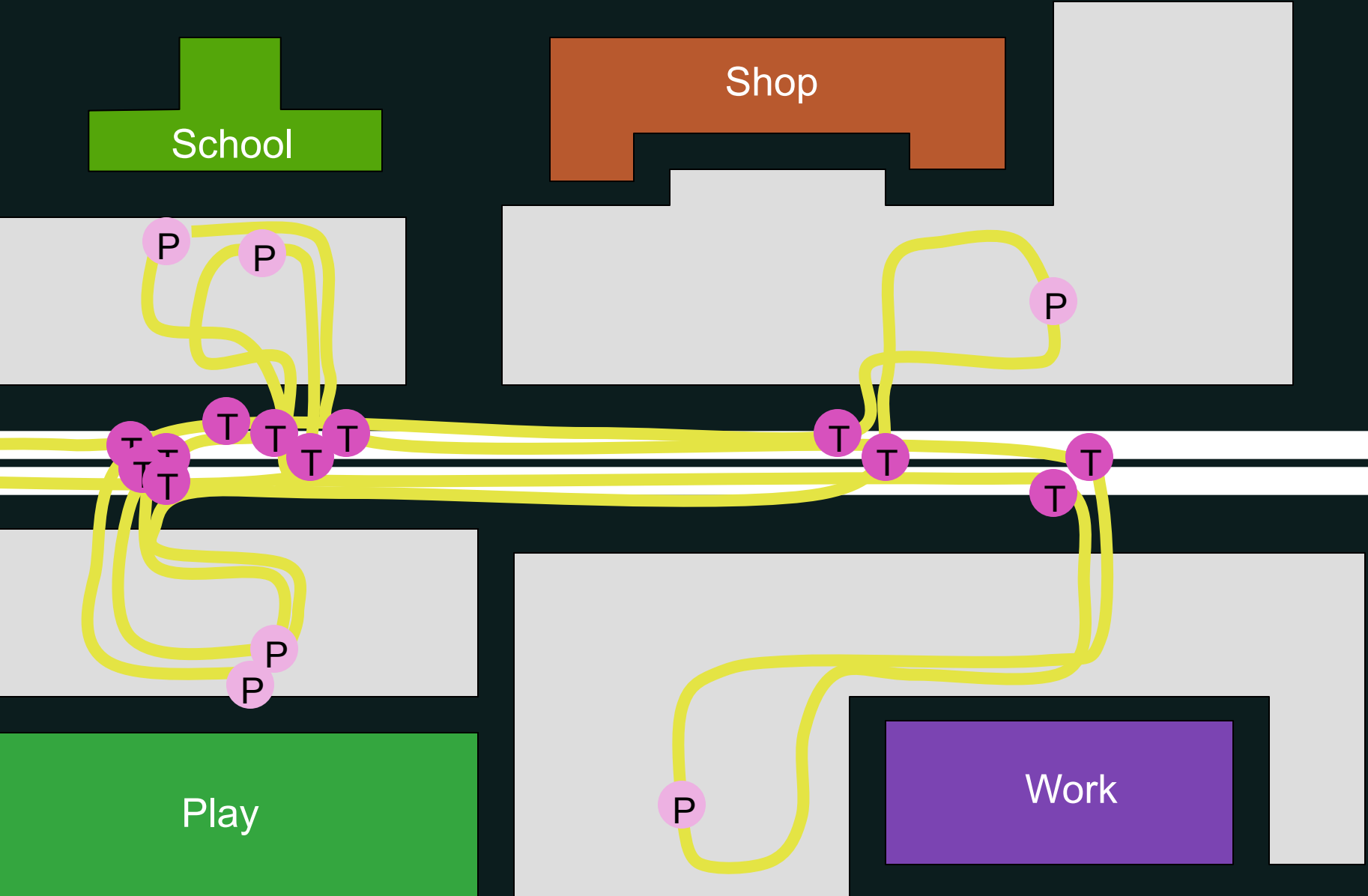
# Parking Reform Makes Money while Reducing CO2

- New parking at rail stations: Cost \$2,200-\$4,700 per ton of CO2 removed
- TOD without replacement parking: Earns \$590 - \$1,140 per ton CO2
- Market priced curb parking: Earns \$2,100 per ton CO2 removed



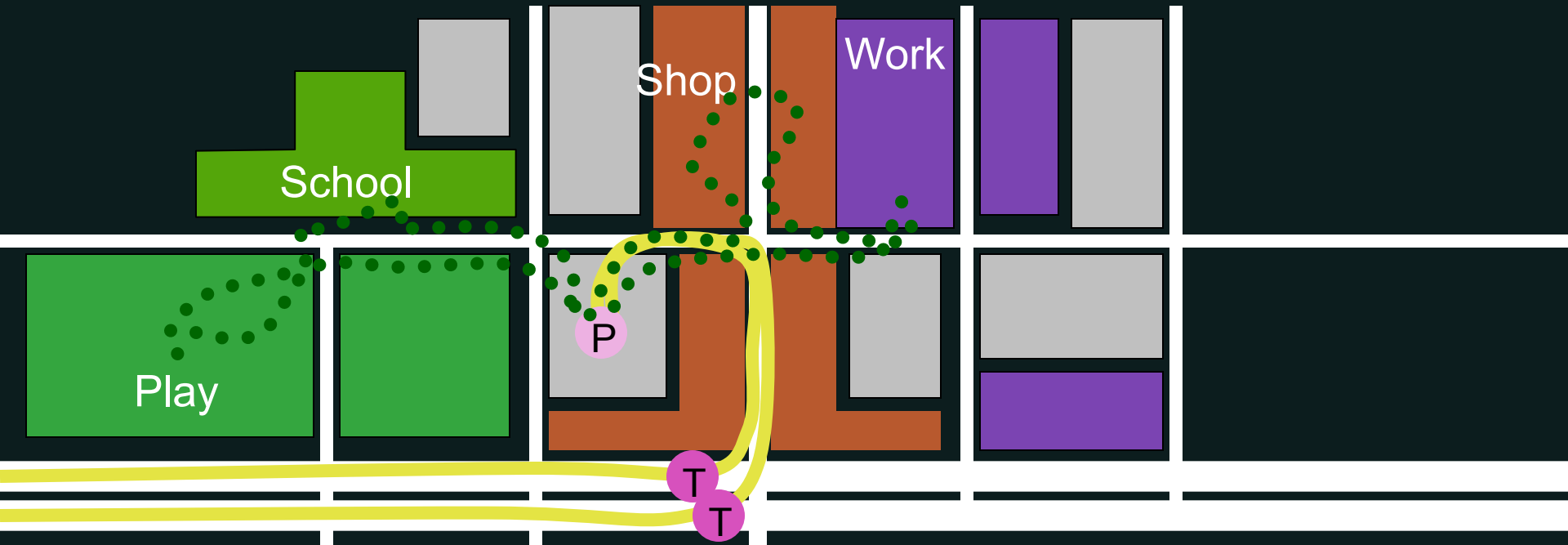
Source: "Greenhouse Gas Emissions Strategies for BART," Nelson\Nygaard 2008.

# Conventional Development





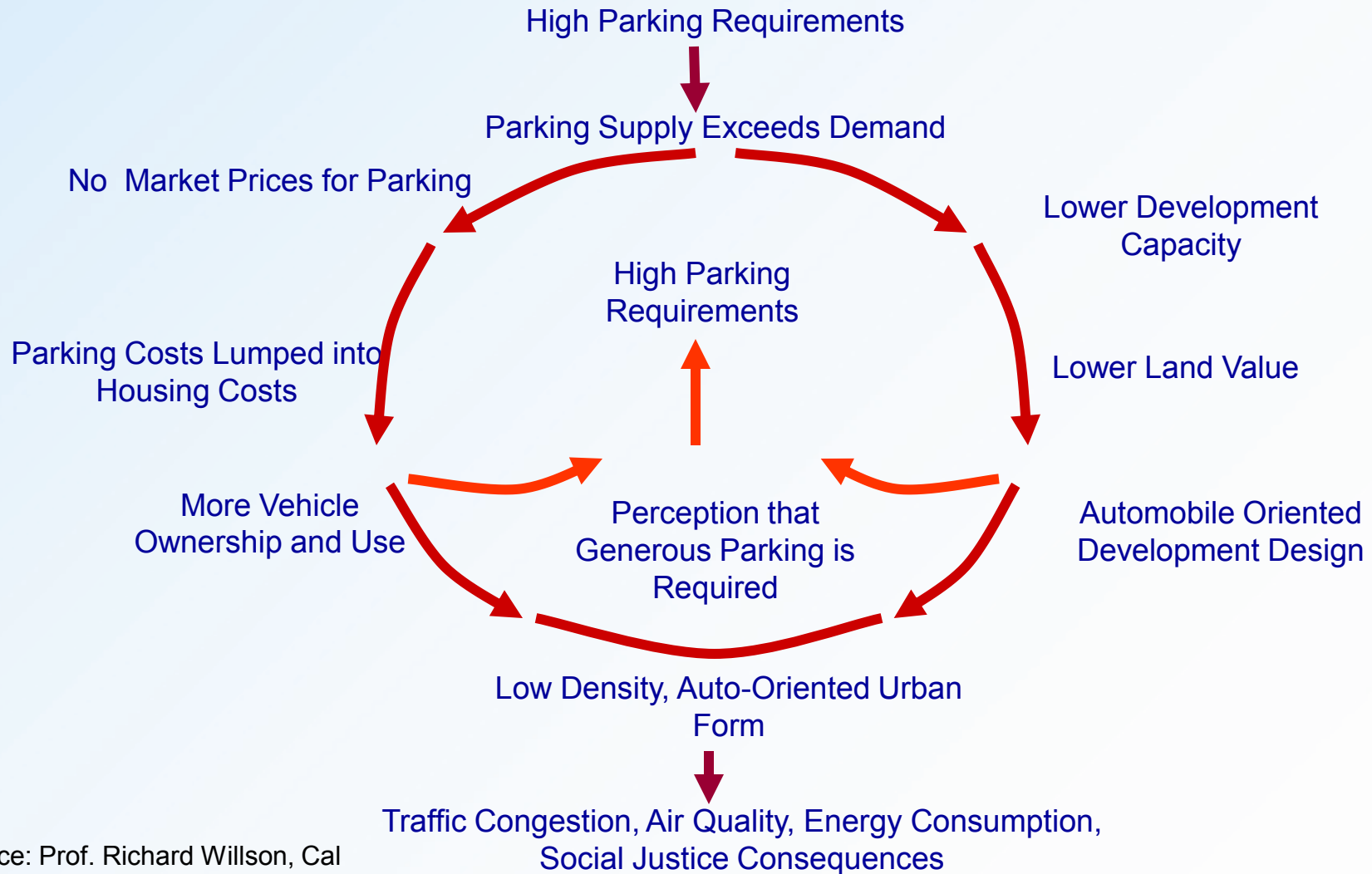
# Mixed Use, Park Once District



## Results:

- $< \frac{1}{2}$  the parking
- $< \frac{1}{2}$  the land area
- $\frac{1}{4}$  the arterial trips
- $\frac{1}{6}$ <sup>th</sup> the arterial turning movements
- $< \frac{1}{4}$  the vehicle miles traveled

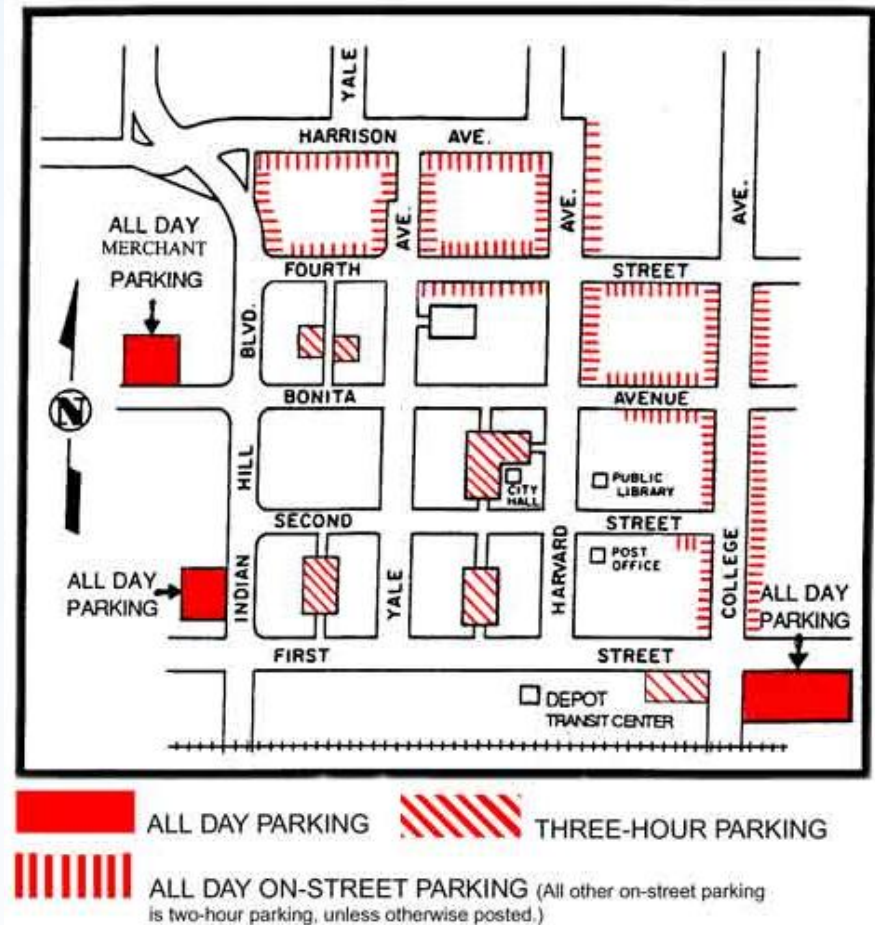
# Parking Demand: The Vicious Cycle



Source: Prof. Richard Willson, Cal Poly Pomona

# General Parking Management Goals

1. Involve the business community – Retailers need to be involved in order to reach consensus
2. Put customers first – Business owners and employees must give up premier parking spaces to customers and park in less attractive lots and structures
3. Focus on parking availability, not supply – don't build your way out of the situation, provide options to driving. Often much cheaper than building new parking.



Claremont Village, CA puts customers first: employees park on the periphery

# General Parking Management Goals – Cont'd

4. Establish a market for parking – Businesses, residents and visitors can choose where to park and how much (or how little) to pay
5. Create a Park Once environment – Parking must be managed as a public entity, just like streets and sewers
6. Pay attention to your city's own strengths
7. Invest in all transportation modes
8. Choose your city's future deliberately!



Claremont's parking district uses common signage to direct shoppers

# Parking Recommendations

- ❖ Implement Residential Permits as necessary to eliminate fear of spillover.
- ❖ Replace meters with pay-and-display stations in order to improve customer acceptance
  - ❖ Credit/debit cards
  - ❖ Bills
  - ❖ Pay-by-cellphone



# Parking Recommendations

- ❖ Grant staff authority to adjust parking prices to ensure 15% availability in all lots, garages and block faces.
- ❖ Eliminate time limits – use price to ensure employees park at edge of downtown.
- ❖ Extend meter hours when demand exceeds 85% on evenings, Sundays
- ❖ Use discount monthly permits to fill otherwise vacant spaces, but phase out as short-term demand increases



# Parking Recommendations

- ❖ User-friendly signage explaining meter operation, rates, and hours/days of operation
- ❖ Extensive community outreach & education prior to launch
- ❖ “Mobility Ambassadors” assisting with meters during the first few weeks/months of implementation & during peak visitor demand periods
- ❖ One-month grace period after installation of meters (issue an informational notice instead of citation)
- ❖ Create a mechanism for soliciting ongoing input from businesses, visitors, and other key stakeholders and for resolving customer service issues and stakeholder concerns
- ❖ Create a “Parking Website”

# Information technology



- Sensors
- Web-based
- Handheld
- Street-level
- Open XML feed





# For More Information

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