7 BEST PRACTICES

City-Based Transportation Demand Management Strategies

BOULDER AND CAMBRIDGE

WHAT IS IT?

A number of cities have implemented transportation demand management (TDM) ordinances that use regulatory and incentive-based strategies to reduce impacts from drive-alone auto trips. TDM strategies are an important compliment to transit service and can help to generate ridership by: subsidizing transit passes, increasing transit pass distribution through employers, improving access to information about transit services, and implementing parking management and pricing programs that discourage drive-alone travel.

WHY DO IT?

TDM strategies are inexpensive relative to infrastructure investments. Comprehensive ordinances can result in significant reductions in drive-alone mode share, traffic congestion, emissions, and collision rates, as well as in demand for parking, thereby allowing valuable space to be transferred to other uses.

HOW WELL DOES IT WORK?

Boulder, Colorado

Between 1995 and 2005, the drive-alone rate for Downtown Boulder workers fell by more than one-third, while the mode share for transit more than doubled.

Boulder's experience with TDM dates back to 1970, when the Central Area General Improvement District (CAGID) was established. The CAGID is a 30-block district in downtown Boulder that operates nine off-street parking facilities and 875 on-street metered parking spaces. In coordination with the Downtown Management Commission, CAGID offers all full-time employees in downtown Boulder an EcoPass, which allows unlimited use of local transit. Subsidy for the EcoPass program comes from parking meter revenues. Boulder's downtown parking policies are premised on the notion that "park-once" spaces should be provided around the periphery of downtown, rather than spaces attached to individual businesses.

The city of Boulder employs a number of TDM strategies within the CAGID area:

- There are no minimum parking requirements for non-residential developments. Developers who choose to build little or no parking can purchase permits for spaces in public lots for resale to employees. As of 2006, these permits cost $852 per year for garage spaces and $536 per year for spaces in surface lots, representing a substantial discount over construction costs for structured parking. Parking meter revenue is used to provide employee benefits including free universal transit passes, or Eco-Passes, available to all downtown employees (which CAGID is able to purchase in bulk at deep discount from RTD), a guaranteed ride home program, ride-matching services, bicycle parking and other amenities.
- Because meter revenue is reserved for use by CAGID, there is a strong incentive to provide additional curbside metered spaces, which offer valuable short-term parking for retail customers. Downtown businesses can bulk-purchase meter tokens or validated stamps for their customers.

Additionally, the city has experimented with reduced and more flexible parking requirements for new developments in mixed-use districts outside of the CAGID area. A single parking requirement for all non-residential uses offers flexibility for office space to be converted to use as a restaurant, for an example, without triggering requirements for additional parking.

The success of Boulder's approach to TDM is reflected in the growth of downtown's centerpiece, the Pearl Street pedestrian mall, which has been significantly expanded in recent years. A mixed-use area adjacent to the Mall was established in the 1980s but did not experience significant development until parking requirements were reduced in 1997.

The success of the policies is also reflected in the steep reduction in rates of driving downtown, accompanied by a major increase in transit use. City staff have noted the development of an Eco-Pass "culture," with close to five in six downtown workers participating in the program and transit mode share among participants of 40%, which is higher than the mode split for solo driving. About half of downtown employees now live within two blocks of a transit stop, and the additional parking that would be required to accommodate all transit users has been estimated at close to 4,400 spaces.

SKIP is one of several branded frequent bus lines operating in Boulder.

Source: Nelson\Nygaard

Cambridge, Massachusetts

Cambridge's Parking and Transportation Demand Management (PTDM) Ordinance, adopted in 1998, requires that developers reduce the drive-alone rates for new developments to 10% below the average for the census tract in which their project is located. Within two years of adoption, citywide drive-alone rates had declined even as the state of Massachusetts experienced an increase in solo driving.

The ordinance applies to new and expanding commercial, educational, and religious developments with more than five parking spaces. Developments with 5 to 20 spaces must apply three trip reduction measures. Developments with more than 20 spaces must complete a TDM plan to be reviewed annually. All developments subject to annual review must reserve 10% of parking spaces for high-occupancy vehicles and must construct parking for bicycles equivalent to 10% of the parking supply for autos. Developers who fail to implement these measures can be fined; in a worst-case scenario, their parking facilities may be shut down by the city.

National data and logic would suggest that in a more or less built-out city, an ordinance that addresses only new developments would have limited effectiveness. However, between 1990 and 2000, Cambridge experienced a reduction in its drive-alone rate of approximately 6% for residents, 1% for employees, and 23% for those who both live and work locally. Over the same period, the state saw a 2% increase in its drive-alone mode share.

Cambridge has many more cyclists than other parts of the Boston metro area.

Source: Nelson\Nygaard

Bike infrastructure such s this planned separated bike lane in Cambridge complement its PTDM ordinance by providing safe and reliable alternatives to driving.

Source: Nelson\Nygaard