Abridgment

Using Trip Reduction and Growth Management to Provide Affordable Housing

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Several methods exist to both provide affordable housing and reduce single-occupant vehicle trips. Trip reduction measures can reduce the need for parking, and free up land from surface parking for new development opportunities. That land could be used for both market rate and affordable housing. Second-car ownership costs about $3,000 per year. By giving up a second car and using public transportation, a household could save $150 to $250 a month, which could be spent on either rental or owned housing. Local governments could require that parking costs in rental housing be separated from housing costs. This would mean that tenants would save about $40 per month for each car they gave up.

A review of transportation demand management for the FHWA estimates that area trip reduction figures as high as 40 percent may be achievable (*1*). Vehicle trip reductions on this scale obviously reduce the need for parking. TDM not only gets vehicles off the road, it also is a means of freeing up land in existing office and research park developments from surface parking. That land could be used for housing. Providing housing close to jobs should reduce average trip length and congestion.

RECYCLING OF LAND

An analysis of a typical 13-acre office development in Montgomery County, Maryland, indicates that approximately 22 percent of the site could be made available for housing. This recycling would require few changes to the zoning ordinance.

First, parking that exceeds ordinance requirements would be eliminated. Second, parking reduction provisions currently in the zoning ordinance for share-a-ride and shuttle-bus programs would be used. These would provide space for approximately 88 units in an apartment building. An additional 9 units of housing would be provided through a zoning amendment permitting a 10 percent parking credit in residential zones in return for providing shuttlebus service to transit. A similar credit is already in place for office developments in Montgomery County. Another 4 units could be provided through a zoning amendment that provided a 5 percent parking credit for charging tenants separately for apartments and parking spaces. Estimated operating and amortization costs for surface parking, according to adjustments made for residential parking, on the basis of a recent study completed by the Eno Foundation, are $480 per year, or $40 per month (*2*). The incentive of saving $40 a month per car should be high enough to reduce car ownership by 5 percent in all but the most expensive apartment complexes.

Finally, a zoning amendment to permit shared parking between office and residential uses would permit an additional 23 units. Demand for parking near jobs peaks when demand for parking near homes is lowest. On the basis of the Parking Policies Study for Montgomery County, Maryland, and the ratio of housing units to office workers on the site, 40 percent of the parking for housing could be provided through shared parking with the office complex. Before calculating the number of spaces that could be saved through shared parking, 30 percent of the spaces required by the housing were set aside for reserved parking for tenants who wanted their own individually marked space available to them at all times. In total, land freed up from surface parking could provide space for 124 residential units.

OWNER-TENANT AGREEMENTS

If the occupant of the office, research, or light industrial space is not the property owner, he or she would not directly profit from the housing development, and there may be little or no incentive to reduce surface parking or to provide housing. Some kind of financial gain must be provided to tenants. One method would be for a building owner to provide a reduction in rent to tenants who reduced their parking requirements. The tenant in turn could pass on some of the rent reduction to its employees who gave up free parking.

A second possibility would be for a local government to pass legislation requiring an equalization of commuter subsidies. Under such a law, employers would be required to offer all employees the same dollar amount in transportation subsidy, regardless of their means of commuting. Where parking was worth $5 a day, employees who did not use it would get $5 a day, or $1,250 a year to use for transit. If they walked or carpooled, they could keep nearly all of it as extra income.

FORMER SITES

When creating housing on former parking sites, it would be important to ensure that the housing was not isolated from

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neighborhood amenities, such as schools, parks, and local shopping. Providing local shopping may not be a problem. In fact, it might be wise to require local convenience shopping and day care as part of the residential complex with the intention of having it serve adjacent office buildings as well.

HOUSING REQUIREMENTS

Landowners may say that they have a right to use land freed up from surface parking for commercial or industrial uses because the land is zoned for those uses. For those sites in which zoned development has a vertical cap, the issues of housing versus other, more profitable, uses may not arise. In such cases, local jurisdictions can make housing development the owner's only option for land freed up from surface parking. In other cases, where zoning capacity for office or industrial development remains, the local jurisdiction should consider passing a zoning amendment that required the development of housing on some percentage of land freed from parking before any development of office or industrial buildings on that land. Owners who did not want to develop housing, or who could only free up enough surface parking for a small project, could be allowed to develop nonresidential buildings in return for a contribution to a housing development fund.

CAR OWNERSHIP AND HOUSING

It is a surprise to most people that 20 percent of the average household budget is spent for transportation, and that the percentage varies little with income. It is less surprising that almost all the household income spent for transportation goes for travel by car. If people could spend less on cars, they could spend more on housing. The result would be less congestion, less pollution, less greenhousing, and more affordable housing.

How much can an entry-level, two-worker household save and apply to housing costs by living where the household could give up one car and still walk, bike, or take transit to work? A 1984 FHWA report, *Cost of Owning and Operating a Car* (*3*), indicates that giving up a 7-year-old compact car, a typical second car, would save $3,118 a year. To be conservative, a figure of $3,000 is used in this analysis, even though the figure has increased since 1984.

Many households that give up a second car will have increased transit expenses. Allowing $5 a day for transit fares for 250 working days a year, or $1,250, a household's net gain will be $1,750 ($3,000 − $1,250) per year, or $146 per month. This amount can make a significant difference in whether or not a rental unit is affordable. It can also make homeownership more affordable. At 12 percent interest over 30 years, each $1,000 in the cost of a home requires $10.29 a month in payments. An additional $146 means a household can purchase a home that costs $14,189 more. That is a significant jump in affordability.

If a household is within walking or biking distance of work, it could keep the total $3,000 saved annually by giving up the second car. Some bicycles are expensive, but they are typically owned for recreation anyway. The costs of keeping a utilitarian three-speed bicycle for commuting are negligible. However, saving $3,000 a year, or $250 a month, means a household could purchase a home that costs over $24,400 more, or rent an apartment for $250 more per month.

LIVING NEAR TRANSIT

There is a great deal of information available to people searching for a home to buy. Little of it, however, addresses the fact that homes on the exurban fringe may be affordable housing but they lock households into the expense of owning two or more cars. A locally published brochure could emphasize other key points in addition to those mentioned earlier:

1. Cars depreciate every year, meaning the owner loses roughly $3,000 each year. After 5 years, the car owner would lose $15,000. However, after 5 years a house or condominium could appreciate by 10 percent, providing a homeowner who invested the $1,750 per month in housing, rather than a car, with an additional $7,500 in appreciation.
2. Bicycle commuting allows commuters to live further from a transit stop than is possible if the commuter walks to transit. A typical cyclist covers 2 mi in the same time a typical pedestrian covers ⅓ mi (Figure 1). (Seasonal variations in bicycle use tend to vary from 60 to 140 percent of the annual mean in many temperate-climate areas with significant bicycle travel.) From the point of view of the home buyer, willingness to use a bicycle results in a much better choice of homes and prices.
3. Choosing a home on the outskirts of a metropolitan area affects career mobility. A person's opportunity to change jobs within a metropolitan region is limited if he or she lives so far on an edge of the region that many commutes will be impractical without relocating. This problem is compounded for a two-worker household. In contrast, a home with good access to a region's transit system means good access to a large proportion of the region's jobs, without unreasonable commutes or the need to move.

EFFECT ON MORTGAGE CAPACITY

Unfortunately, giving up a car may not help homebuyers qualify for mortgages. Banker's formulas typically do not take car ownership into account. They do take into account car loans owed by applicants, but in many cases the second car will be paid off. Giving this type of car up will not enable a household to qualify for a larger loan. Local governments might want to take a more aggressive approach than a brochure by offering mortgage insurance to lenders that would increase lending limits to potential homeowners who signed a binding agreement not to purchase a second car. A lender, for example, by agreement with the local government, would permit a homeowner to have an additional $14,000 in credit for not having a second car. The county in return would provide insurance to the lender for up to $14,000 in losses in the event of default.

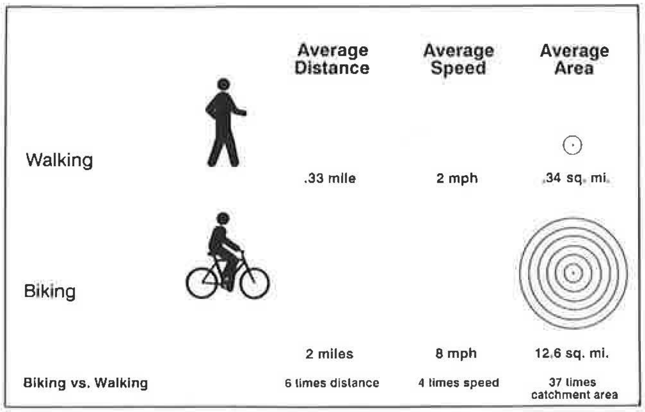

FIGURE 1 Pedestrian and bicycle transit access distances.

SUBDIVISION DESIGN

Local governments should also consider working with developers to design subdivisions that do not require second-car ownership. Such subdivisions would probably have pedestrian easements that ensure that all homes are within walking distance of bus stops with frequent peak-hour service, as currently required in Ottawa, Canada. The subdivisions should also have convenience retail shops within walking or cycling distance. It might also be worthwhile to consider including a car rental agency nearby. The easy opportunity to rent a second car when needed can reduce anxiety about giving up a second car.

PARKING IN RENTAL HOUSING

A policy that required landlords and condominiums to separate housing and parking costs would enable residents to know how much they were paying for parking. A recent study of parking costs by the Eno Foundation estimated that the annual costs of a surface parking space in a commercial district is $995 ($83 per month) (*2*). After eliminating costs for lot attendants, and cutting land costs in half to reflect the lower value of residential land, the costs of a surface residential parking space in a suburban area are approximately $40 a month.

If a local zoning ordinance required landlords to charge separately for housing and parking, tenants would have an additional $40 per month if they give up a second car, and $80 per month if they could give up two cars. If an apartment with parking cost $600, the projected savings to the tenant of giving up one car would be 7 percent, a significant rent reduction.

Obviously, existing landlords would object because they would not want to see their income reduced. The ordinance should therefore also allow landlords the opportunity to use surface parking land for income-producing uses that helped tenants get along with fewer cars. Examples would be day care centers, convenience retail for use of residents only, and car rental agencies.

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Publication of this paper sponsored by Task Force on Transportation Demand Management.