

BRIEFING PAPER

TDM REGULATORY CONDITIONS: BARRIERS AND RECOMMENDATIONS

Chittenden County TDM Education, Outreach, and Support Program

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FITZGERALD & HALLIDAY, INC.

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FINDINGS SUMMARY

As Chittenden County explores tools to expand application of Transportation Demand Management (TDM) techniques, the regulatory environment will be one avenue to consider. Generally, communities in Chittenden County advocate increased availability of alternative travel modes through their future development plans. Local zoning regulations have been used to a limited degree to implement this goal by encouraging new development to include opportunities for access by modes other than the car. However, there is little consistency of approach from one community to the next in terms of regulatory requirements or encouragements for use of TDM, leading to piecemeal expansion in TDM programs as gained through the land development process. The existing commitment of the CCMPO TDM Partners and many business leaders to expand TDM in the county suggests that developing a stronger regulatory environment for TDM is worth exploring. The first step in the process would be education and training on how land use regulations can be used to promote TDM so that all those administering as well as required to comply with TDM zoning provisions are working from the same knowledge base. In addition, TDM initiatives would be furthered more consistently across municipal boundaries, leading to a more cohesive set of TDM initiatives county-wide, where there is common use of the same zoning language to both encourage and require new developments to include TDM.

INTRODUCTION AND OVERVIEW

The successful implementation of Transportation Demand Management (TDM) programs in Chittenden County, Vermont will depend, to some degree, on the extent to which TDM strategies are incorporated into the land development process. There is an inherent opportunity to employ TDM measures in association with each major land development proposal. And, the first opportunity to ensure TDM measures are implemented along with new development is when an application is made for zoning and/or subdivision approval. The types of TDM measures that will be most applicable and functional for each development will depend on the proposed use, proposed scale, relationship to surrounding uses, and location relative to available transit. This briefing paper provides a discussion of the common features of TDM zoning regulations in use nationally today, an analysis of the barriers or challenges to use of such provisions or bylaws in Chittenden County, and recommendations for addressing those challenges. It also considers how the provisions of Act 250 could be strengthened to support implementation of TDM programs locally.

The comprehensive plans and land use regulations of eight municipalities were researched for this briefing paper to provide an understanding of existing regulatory conditions in Chittenden

County. That research was documented in the *Briefing Paper: Summary of TDM-Related Regulatory Conditions* (October 26, 2004) prepared for this project. The communities researched represent the Burlington metropolitan area and include:

- Burlington
- Colchester
- Essex
- Essex Junction
- Shelburne
- South Burlington
- Winooski
- Williston

These cities and towns were selected for assessment by the Chittenden County Metropolitan Planning Organization (CCMPO) because they represent priority areas for implementation of TDM strategies. The community comprehensive plans that were reviewed indicated that towns and cities in Chittenden County place a high value on alternate modes of travel. The plans generally recognize the need to address growing traffic congestion in the area and the adverse impact of too much traffic on sustaining a desirable distinct downtown or village center. Most of the comprehensive plans advocate strengthening options for walking, bicycling, and using public transit. However, TDM was not consistently considered as a means to reduce single-occupancy vehicle travel. Where TDM-related measures were advocated, with the exception of the City of Burlington, there was limited detail on how to implement them.

Zoning provisions designed to minimize parking, mitigate traffic congestion, create high-density mixed-use community centers, and promote walking and bicycling were common among the regulations reviewed. Few, however, incorporated direct requirements to provide transit access in developments or use other mechanisms for TDM to reduce single-occupancy vehicle trips generated by development. In addition, none of the communities researched, except Burlington, provide financial and/or site design incentives for developers to integrate TDM concepts, such as priority parking space for carpools or paying a fee in-lieu of parking which could then be used to develop more public transportation. It is noteworthy that Vermont municipalities are specifically given the authority to allow a trade-off of required parking spaces for employee use of transit through the state's enabling legislation for zoning (V.S.A. Title 24 Part 2, Chapter 81, Section 4407 (4)). A comprehensive zoning update recently completed for Colchester includes this provision. Burlington is the only other community among those researched to take advantage of this option.

Interviews were also conducted with municipal planning staff to supplement the evaluation of each community's comprehensive plan and zoning regulations. Their assessment of current barriers and opportunities to better implement TDM measures within the county are noted in the discussion below. In summary, the planners concluded that there are mixed opinions and support for TDM in the county and that often, TDM is not well understood. Many observed that TDM would be best served by enhancements to the existing transit and possibly, in the long term, the rail system. They also noted that the successful implementation of the long-range,

future land use plan in their community, most of which call for one or more pedestrian-oriented, compact, vibrant village centers and/or downtowns, would both be served well by TDM, and make effective TDM more feasible.

CONTEMPORARY TDM REGULATORY PROVISIONS

There are two general approaches that Chittenden County and its member communities could take to strengthen regulatory support for TDM. The first would be the adoption of a municipal or county-wide “trip reduction ordinance” (TRO) which would require all large businesses to adopt TDM programs. This strategy would not be beneficial or appropriate for Chittenden County due to a number of factors including constraints on local governments for implementation, enforcement issues, and potential impacts to future economic development. More importantly, the findings of the stakeholder interviews for this project, including feedback from municipal staffs, documented strong existing partnerships between the public and private sectors for implementing TDM. It was felt that a general ordinance mandating TDM through a TRO would undermine these working relationships already in place and not substantially benefit the pace and manner in which TDM is applied county-wide.

A second approach would be for each municipality to include a comprehensive set of TDM provisions within their zoning regulations to require all new businesses (of a given size) to provide TDM as a means to reduce single-occupancy trips generated by a proposed development. Numerous models exist for specific, direct TDM zoning provisions which Chittenden County municipalities could include in their regulations. None now do so in a comprehensive manner. Zoning regulations that require TDM have been adopted throughout the United States in a variety of urban and suburban communities, as well as broader metropolitan areas. A sampling of jurisdictions with these TDM provisions as compiled by the University of South Florida, National Center for Transit Research (<http://www.nctr.usf.edu/clearinghouse/tro/trolist.htm>) includes:

- Glendale, California
- Pasadena, California
- Orlando, Florida
- Atlanta, Georgia
- Minnetonka, Minnesota
- Franklin, Tennessee
- Alexandria, Virginia
- Vancouver, Washington

Their ordinances generally take one of two approaches to TDM within the zoning regulations. The first approach is to directly require that some combination of a list of TDM measures be included in all development proposals of a given size (the threshold can be as low as any employer with 10 or more employees) and sets a goal for a percentage reduction in single-occupancy vehicle (SOV) trips. Alternately, these regulations are more optional. That is, they require a traffic impact analysis and provide a menu of TDM strategies as options for offsetting

anticipated adverse traffic conditions. In both instances the regulations generally include the following features:

- Application of TDM requirements only to developments above a given size either for a single use or a site with multiple uses congregated together
- A requirement for a traffic impact analysis that includes a projection of number of SOV trips that would be generated by the development and an estimate of reduction in trips that could be achieved with TDM
- A menu of acceptable TDM approaches that could be used to meet TDM requirements
- A requirement for preparation and submittal of a TDM plan for the site that will serve as a commitment to a selected list of TDM measures
- A process for requesting a waiver from the regulations
- A statement of how the regulations will be enforced including a process for monitoring the implementation of the TDM plan

Some of these zoning provisions also offer incentives to developers to use TDM. For example, where a 15% or more reduction in SOV is projected using a variety of TDM measures, an applicant will get a comparable reduction in the number of required parking spaces. Some regulations also require a “transit impact analysis” which would be an estimate of how the development might affect local transit operations. Any such impact analyses would require consultation with the municipal engineer and local transit service providers.

The list of TDM measures which might be required as a condition of zoning approval could include:

- A commuter matching service, in addition to or coordinated with an areawide rideshare program, to facilitate employee ridesharing for work trips
- Provisions of vans for vanpooling
- Subsidized carpooling or vanpooling which may include payment for fuel, insurance or parking
- Use of company vehicles for carpooling
- Provision of preferential parking for carpool or vanpool users which may include close-in parking or covered parking facilities
- Cooperation with transportation providers to provide additional regular or express service buses to the work site.
- Subsidized bus fares
- Construction of special loading and unloading facilities for transit and carpool and vanpool users
- Construction of walkways or bicycle routes to the work site and coordinated with local system
- Provision of bicycle racks, lockers and showers for employees who walk or bicycle to and from work.
- Provision of a special information center where information on alternate modes and other travel reduction measures will be available.
- Establishment of a work-at-home program, full- or part-time, for employees

- Establishment of a program of adjusted work hours which may include compressed work weeks and employee-selected starting and stopping hours. Work hour adjustments should not interfere with or discourage the use of ridesharing and transit
- Establishment of a program of parking incentives and disincentives; such as a fee for parking and/or a "rebate" for employees who do not use the parking facility
- Incentives to encourage employees to live closer to work
- Implementation of other measures designed to reduce commute trips such as the provision of day care facilities or emergency taxi services.

BARRIERS TO TDM IMPLEMENTATION

As noted above, none of the communities in Chittenden County have comprehensive TDM provisions as part of their land use regulations. Many do have some provisions to encourage walking, bicycling, ridesharing, and use of transit, but most are phrased in the form of options rather than requirements. This means that as development applications are reviewed, the burden falls on the planning and/or zoning commissions, as well as the District #4 Environmental Commission (for Act 250 approval) to recognize opportunities to use TDM and negotiate the use of such measures with the applicant. This in itself can be a barrier to coordinated implementation of TDM in Chittenden County.

Barriers to use of specific TDM zoning regulations can arise from existing provisions in a set of regulations that conflict with TDM goals and from local perceptions and understanding of the benefits and regulatory opportunities to implement TDM. Regulations that could conflict with or undermine TDM goals could include:

- Inflexible requirements for a static amount of parking for each use, providing a disincentive to also providing access to alternate modes
- Prohibitions on allowing parking off-site from a use, making it difficult for employees to park and take transit to their jobs
- Requirements for off-site roadway improvements to mitigate traffic impacts regardless of other options, creating a disincentive for developers to make investments in modes other than automobiles
- Predominantly large minimum lot sizes, creating a physical separation of uses that discourages walking
- Large setback requirements, parking siting requirements, and inflexible buffer requirements which effectively create large physical separation between uses, also discouraging walking
- Prohibitions on residential uses mixing with or in close proximity to non-residential ones in one or more zones, making residents more automobile dependent

All of the local regulations reviewed have one or more of these features to some degree. It can be presumed that each of these types of provisions was adopted with specific community welfare goals in mind. At such time as each community explores options for strengthening TDM provisions in their regulations, it will be important to review the above list and consider

amending these types of existing provisions for greater flexibility. The City of Burlington regulations provide an example of how this might be accomplished. While the City's parking regulations require that all parking for any use be located on the same lot as the proposed use, it also provides for waivers from any parking requirements where the applicant can demonstrate a sound reason for doing so.

The findings of the interviews with local municipal staff reflect the other types of perception and administrative barriers to implementing TDM regulations. A summary of the observations made for each community follows.

City of Burlington: The City has a number of zoning provisions in place to reduce parking requirements in key locations (downtown zones). Burlington also has a fee-in-lieu of parking that allows funds paid in lieu of constructing parking to go to fund mass transit service. These are the key TDM measures in the Burlington regulations. TDM can be written into conditions of approval for development, but this is at the zoning commission's discretion and not required. The City is currently rewriting its zoning ordinance, providing an opportunity to bolster TDM provisions. Businesses may be amenable to more stringent TDM requirements if they can clearly see the benefits they will gain. The City's office of economic and community development has been a key source of information for businesses on TDM while the zoning administration process has been used less so for this purpose. Public/private partnerships are viewed as having the most potential for success in implementing TDM versus a strictly regulatory approach with stringent requirements for TDM measures.

Town of Colchester: Currently, there is no transit service to Colchester. The town voted down spending money (increase in property taxes) to pay for extension of CCTA service to Colchester. The town still has the goal of expanding bus service to key growth centers in the community. For new developments with over 250 parking spaces required, the town asks developers to consider carpooling programs, but this is an informal request versus a requirement. The town currently has a good working relationship with local employers and there is a fear that making TDM a development requirement could jeopardize that. In addition, the anticipated construction of the circumferential highway is seen as the best antidote to traffic congestion. Consequently, the value of TDM as a regulatory tool seems less compelling.

Town of Essex: In general, residents advocate bringing more business to town and may be hesitant to add any regulatory burdens to discourage them from locating in Essex. Currently, the town engineer conducts the traffic impact analysis for proposed developments and sets required mitigation. The engineering staff does have the skills needed to consider TDM in the context of development proposals and recommend TDM as a condition of approval. However, potential recommendations lack the strongest legal basis because the regulations do not specifically require TDM. Essex has not been receiving requests for the scale and intensity of developments that would generate sufficient traffic to make stringent TDM requirements reasonable. Town center development is a key issue for Essex and success in sustaining a vibrant center could support TDM efforts. However, there is a lack of awareness or understanding as to what benefits a regulatory approach to TDM might provide.

Village of Essex Junction: The village does get a number of applications for mixed-use developments but the regulations are not very specific on conditions where TDM should be incorporated into a site proposal. The planning and zoning commission wishes to support business growth in Essex Junction and this influences their approach to development applications. Due to the general availability of land, there is little incentive to consider the adverse effects of disconnected, spread-out development patterns during the application review process.

Town of Shelburne: Sidewalk improvements are often required as part of development plans but there are no other specific requirements for other forms of TDM, including impact fees which could be used to pay for TDM programs. Payment of an impact fee is optional. In general, trip generation is not tied to regulatory language to provide TDM. That is, TDM is not identified as a mechanism to offset the anticipated volume of vehicle trips generated by a proposed development. In addition, development along Shelburne's main road, Route 7, is reaching full build-out. Future growth may be mostly in the form of redevelopment of existing developed sites. TDM will need to be applicable to those conditions as well as new development.

City of South Burlington: South Burlington has some large lot zoning, particularly for residential uses. This tends to encourage automobile travel and discourage use of TDM. South Burlington regulations do require bicycle racks and access for bicyclists, but there are no other TDM type requirements. South Burlington is bisected by two major highways and is the fastest growing community in the state after Burlington. Development pressures are currently staying ahead of city efforts to limit sprawl and encourage denser, mixed-use development. The zoning regulations have established some zones where there is a limit on the amount of traffic a use can generate. This could encourage use of TDM to offset traffic generation and allow more intense development in these zones.

City of Winooski: The community is fairly well built out. There is not a lot of development activity that would create opportunities to implement associated TDM.

ACT 250 Considerations: Generally speaking, Act 250 permit applications are required to include a traffic impact report. The measure of impact is related to Level of Service (LOS) on the roads surrounding the proposed development. These reports usually recommend mitigation for projects generating substantial traffic that would worsen LOS. Mitigation subsequently required for permit approval sometimes includes a general requirement to expand existing bus service and/or to expand participation in CATMA TDM programs. However, such permit requirements rarely include implementation of any other specific TDM measure such as instituting a carpooling program. Rather, required mitigation for traffic impacts usually focuses on modifying the roadways with features such as turn lanes and signals. The District Environmental Commission generally accepts these forms of mitigation. This is due in part to the fact that the construction of roadway modifications can be ensured with a performance bond. The local government has responsibility for enforcing the conditions of approval for ACT 250 permits associated with a development. Thus, the burden for monitoring and enforcing any TDM conditions of an ACT 250 permit would fall to the municipality. Yet, they often do not have enough staff or staff with the training, and authority to perform such enforcement activities. The smaller engineering firms can also be an issue where Act 250 and TDM is concerned as they

prepare a share of the required traffic impact studies but have less familiarity with the ACT 250 process, including what applications should include and how best to recommend mitigation. Another issue for requiring TDM as mitigation for development impacts is the availability of transit to serve new developments. One area noted was Severns' Corners (Colchester) where they are seeing a fair amount of new development but there is no transit to connect workers or business patrons to the surrounding communities. The infrastructure is often not in place to support TDM programs and so it is not considered as a regulatory tool.

RECOMMENDATIONS

The findings of the review of local regulations and discussions with local municipal staffs suggest that one of the keys to stronger implementation of TDM through the local land development process would be the inclusion of more comprehensive TDM language in the zoning regulations. TDM should be approached as both a measure to reduce vehicle trips and as an activity that will enhance quality of life for Chittenden County residents. Therefore it is recommended that each Chittenden County municipality consider amending its regulations to add a section specifically addressing TDM and the conditions under which it is either required or recommended to be made part of a development proposal. This section should include quantifiable standards against which proposed TDM programs to offset SOV would be measured. In order to accomplish this, the following recommendations are made:

1. The CCMPO should develop comprehensive model zoning provisions for TDM that can be used by communities as a guide in developing their own regulations
2. A series of workshops should be conducted for planning and zoning commission members, municipal planning staff, as well as the local development community on:
 - The benefits of TDM as a component of land development
 - Approaches for including TDM requirements in the zoning regulations
 - How to develop a TDM plan for an individual development
 - How to conduct an impact assessment for SOV trips and trip reductions possible with TDM
 - Approaches for public/private partnerships in land development incorporating TDM
 - Monitoring and enforcement issues for TDM plans provided in association with development approvals
3. The CCMPO should develop a technical assistance program for Chittenden County communities to assist them with developing regulatory language, reviewing traffic impact analyses relative to TDM, and recommending TDM measures to be provided with a development proposal.
4. The CCMPO should approach the District #4 Environmental Commission to discuss; a) the County's TDM goals and how and when TDM can be consistently considered as a mitigation requirement for ACT 250 permit approvals; b) the use

of alternative performance measures for assessing traffic impacts, since the use of LOS as a basis for measuring impacts tends to favor roadway design modifications as mitigation; and c) issues of monitoring and enforcement to ensure that ACT 250 required TDM programs are implemented.