

Tysons Land Use Task Force **Transportation Demand Management (TDM) Subcommittee**

BACKGROUND

The Tysons Land Use Task Force has been charged by the Board of Supervisors with soliciting community input and making recommendations to update the 1994 Tysons Corner Comprehensive Plan to incorporate the four planned Metro Stations into the Plan. The Tysons Land Use Task Forces mission is to formulate Plan revisions that will:

- Promote mixed use
- Better facilitate transit-oriented development (TOD)
- Enhance pedestrian connections throughout Tysons
- Increase the residential component
- Improve the functionality of Tysons
- Provide for amenities and aesthetics, such as public space, public art, and parks.

To support the Task Force's efforts, Fairfax County has recently engaged PB Placemaking, a preeminent urban design/planning firm, to develop alternative scenarios for how Tysons should look in the future with the planned Metro Rail Stations. A major consideration for PB Placemaking and Cambridge Systematics will be the transportation impact of the design alternatives and the potential to mitigate negative effects through strategies often referred to as Transportation Demand Management (TDM). PB Placemaking's alternative design scenarios and TDM assumptions will be provided to the County's transportation consultant, Cambridge Systematics, for use with the transportation model to evaluate traffic conditions in a fully developed Tysons Corner.

The Task Force believes that TDM should be a component of the final Comprehensive Plan recommendations. Even major VDOT capital projects in Northern Virginia, which appear unlikely in the immediate future, would not be sufficient to mitigate the traffic to be generated by the redevelopment of the Tysons Corner Urban Center. Therefore, the Task Force believes that it is important to have a TDM plan which first closely examines the demand side of transportation and then creates a meaningful Tysons Corner Urban Center area-wide TDM plan that focuses on reducing peak-hour trip generation, vehicle miles traveled and overall single occupancy trips reduction.

PB Placemaking needs to ensure that all of the TDM programs and related efforts that are currently underway are coordinated in such a fashion as to ensure that they strengthen, not hinder, the ultimate TDM Comprehensive Plan recommendation that they deliver to the Task Force. This will require PB Placemaking to immediately review TDM planning and support programs, available TDM services, the project specific TDM efforts, the proffered TDM programs, the County efforts (TDM Consultant Project, TDM Coordinator position, TOD Committee) as well as the regional congestion management plan (CMP) and the CMP's for the Dulles Metro Rail project and the HOT Lanes project. The success of the TDM plan for the Tysons Corner Urban Center will be dependent upon the coordination of all of these efforts.

Another key to the success of the Tysons Corner Urban Center TDM plan is to develop the right mix of TDM programs and strategies that not only fit the currently built Tysons Corner environment, but also have the ability to adapt to the changing environment as Tysons Corner is redeveloped over time. PB Placemaking must recommend a plan, which is not a “cookie-cutter” approach, but rather a TDM plan that is unique to the Tysons Corner Urban Center. While individual TDM efforts can be effective, most TDM strategies are most effective when used in combination with certain other TDM strategies. PB Placemaking must recommend the right mix of TDM strategies for the Tysons Corner Urban Center.

Although PB Placemaking has TDM experts on their team, the Task Force felt that it would accelerate their evaluation if the Task Force could provide information on current Regional, State, County and Tysons Corner TDM efforts and an initial assessment of the various TDM techniques that might be most applicable at Tysons Corner. With that in mind, The Task Force created a TDM Subcommittee to prepare this assessment.

WHAT IS TRANSPORTATION DEMAND MANAGEMENT (TDM)?

Transportation Demand Management (TDM) is a term applied to a broad range of strategies to shape the design and use of a transportation system. It has a particular focus on reducing the demand for travel by single occupant vehicles, as increasing the supply (more roads and parking) is not always an effective solution to increased traffic, and is usually more costly than other transportation alternatives.

TDM focuses on offering a variety of transportation alternatives (rail, bus, bike, walking, car pools, etc.), as well as other incentives and disincentives, that will modify travel behavior. While TDM will not eliminate all increased traffic generated from the redevelopment of Tysons Corner, it will reduce travel by single occupant vehicles and change the time of day that trips are made (reducing the impact of “peak hour” travel). It will also encourage energy conservation and improve air quality. TDM strategies are inherently flexible and adaptable, but their ultimate success depends upon providing real alternatives to automobile travel in order to affect the decisions of individuals who use the transportation system. Providing these alternatives requires the active and continuing cooperation of the private sector.

WHAT ARE THE CURRENT TDM EFFORTS?

Currently there are TDM efforts underway at the state, regional, and county level. There are also TDM programs in place that specifically cover the Tysons Corner Urban Center as a result of individual proffers or efforts by local TMAs or businesses. The TDM Subcommittee has attempted to compile a comprehensive list of the TDM programs currently underway that could affect the Tysons Corner Urban Center. These efforts, which are catalogued in Attachment A, include:

- TDM Planning and Support Programs
- Available TDM Services
- Project Specific TDM Efforts
- The regional congestion management plan (CMP) as well as the Dulles Rail and HOT lanes CMPs
- Proffered TDM Programs (i.e. Metro West and Macerich)

- Fairfax County efforts (TDM Consultant Project, TDM Coordinator position, TOD Committee)

PB Placemaking needs to review and understand all of the TDM efforts underway at the state, regional, county and Tysons Corner specific level so that they can develop an area wide TDM plan that not only coordinates all of these efforts but leverages the TDM funding of these efforts as well. PB Placemaking will also have to evaluate each of these efforts as to their effectiveness as well.

SPECIFIC TDM STRATEGIES

The TDM Subcommittee has also reviewed numerous TDM strategies. These strategies, which have been grouped into the following six categories, and are discussed in detail in Attachment B, include:

- **Alternative Mode Support Strategies:** These strategies encourage the use of alternatives to single occupancy vehicles. One method is through public education and various promotions. Modes include ridematching services, public transportation, vanpools, custom transit services, and non-motorized transportation. Offsite facilities such as HOV lanes and park and ride lots are supported. Car sharing services are also supported. In order for these modes to be promoted, proper facilities are needed to make them attractive and easy to use. Examples include a pedestrian and bicycle infrastructure that must be in place, and there must be public and private commitment for financial support of construction of these facilities.
- **Worksite-Based Strategies:** These strategies are private sector programs and services that encourage employees to change commuting patterns on a worksite by worksite basis by providing incentives that make publicly-provided modes more attractive, disincentives to single occupant travel, and employer management policies that provide employees with flexibility in mode choices.
- **Land Use Strategies:** These strategies include changing density, land use, urban design and land use mix to impact travel needs and patterns. Land use strategies are potentially the most effective over time.
- **Programmatic and Policy Support Strategies:** These strategies introduce restrictions and regulations to automobile use and provide political/program support and guidance to new institutional relationships
- **Telecommunications Strategies:** These strategies utilize modern communications technologies, principally the Internet, to reduce the need for vehicle trips. While the primary impact is on commuting trips, they also have the potential to reduce non-commuting trips.
- **Pricing Strategies:** Pricing strategies use financial incentives and disincentives, such as parking or gasoline taxes, to influence transportation decisions.

While PB Placemaking's TDM experts are most likely familiar with all of the TDM strategies reviewed in Attachment B, the TDM Subcommittee reviewed the strategies with the Tysons

Corner already-built environment in mind and made recommendations as what strategies might therefore be the most effective.

PB Placemaking needs to review and evaluate Attachment B and develop a program of TDM strategies for the Tysons Corner Urban Center taking into consideration the currently built Tysons environment as well as the ultimate preferred design scenario.

SUBCOMMITTEE RECOMMENDATIONS

Coordination of the TDM Efforts - If TDM is to have any chance of being successful in the Tysons Corner Urban Center, it is of critical importance that all of the TDM efforts are well coordinated. While there are currently many significant TDM efforts underway, there needs to be significant improvement in the coordination of the efforts between state, regional and county and private TDM programs and services. In addition, the marketing efforts to boost company and employee participation – a key to TDM success – need to be improved.

PB Placemaking also needs to be aware of all of the County efforts as well as other projects that may have an impact on an effective TDM program for the Tysons Corner Urban Center. In particular, PB Placemaking needs to understand the TDM planning and support programs, available TDM services, the project specific TDM efforts, the proffered TDM programs, the County efforts (TDM Consultant Project, TDM Coordinator position, TOD Committee (see Attachment C)) as well as the regional congestion management plan (CMP) and the CMP's for the Dulles Metro Rail project and the HOT Lanes project. Coordination of these efforts is critical to the success of the Tysons Corner Urban Center TDM Plan.

An active TMA for the Tysons Corner Area is essential for TDM efforts to be effective. PB Placemaking needs to evaluate the efforts of local TMA's, in particular TYTRAN, and recommend how they can best be utilized to improve the effectiveness of the Tysons Corner area-wide TDM program.

PB Placemaking also needs to review and evaluate current County efforts and their staffing of these efforts to determine whether they are coordinated and adequate. This is important because County staff will need to have the capability to oversee and validate area, site or project performance measures.

PB Placemaking should also recommend whether there needs to be any regulations or ordinances to assist in the implementation of an effective area-wide TDM program in the Tysons Corner Urban Center. PB Placemaking has a unique opportunity to make such suggestions since the Task Force is expected to recommend new Comprehensive Plan language along with recommendations for changes to existing regulations, or for new regulations or ordinances that support the recommended Comprehensive Plan changes.

Recommended TDM Strategies for Consideration - The Subcommittee reviewed the available TDM strategies and programs within the context of the Tysons Corner Urban Center to identify those that should be more closely reviewed and considered by PB Placemaking. While the list below provides the views of the Land Use Task Force TDM Subcommittee, it is not intended to replace the expertise of PB Placemaking in identifying additional or more effective approaches.

PB Placemaking must recommend the right mix of TDM strategies for the Tysons Corner Urban Center.

- Alternative Mode Support Strategies – PB Placemaking should focus on public education and promotion of alternative modes, ridematching services, additional forms of transit beyond Metro Rail, vanpools and shuttles, non-motorized support and HOV/HOT facilities. PB Placemaking must also recommend a Tysons Corner Urban Center internal circulator system that not only serves the urban center but also allows the surrounding neighborhoods access to the transit stations along with being better connected to the opportunities and amenities of a redeveloped Tysons Corner Urban Center.

With the advent of Metro service in Tysons, transit becomes the most attractive alternate mode. Local feeder buses, both public and private, will be needed to supplement Metro. With no parking planned at the four Metro stations, non-motorized modes can play a large role in moving people from the stations. Bicycle parking facilities, bike lanes throughout the Tysons Corner area, a complete, convenient, attractive pedestrian network are all needed for this mode to succeed.

There exist a number of services such as ridematching, vanpools, and custom transit services that need to be more heavily promoted.

Currently free parking in Tysons Corner is a major reason for employees and retail customers to use single passenger vehicles. If this is to change in the future, alternative modes must be promoted at the same time that parking management strategies are implemented.

- Worksite-based Strategies – PB Placemaking should focus on creating worksite-based strategies that can be implemented by both the County and a TMA like TYTRAN. The recommendation should include monetary incentive and disincentives, alternative work schedules, parking management and facility amenities.
- Land Use Strategies - PB Placemaking should focus on density levels, land use, urban design and land use mix. Their recommendation should include suggestions for compact residential development, compact employment and activity center, an affective mix of land uses, connectivity, transit and pedestrian oriented design, the jobs/housing balance and affordable housing. PB Placemaking will also have to design an improved grid of streets to support many of the TDM land use strategies.
- Program and Policy Support Strategies – PB Placemaking should evaluate potential strategies such as adoption of a trip reduction ordinance, establishment of a parking district or parking authority, and creation of a transportation management district. The evaluations should assess the operating costs and the anticipated effectiveness of each strategy.
- Telecommunication Strategies – Although the benefits of telecommuting/telework may be limited compared to other alternatives, it is a relatively low cost option and should be considered. The issue of infrastructure (wiring and telework centers) should be addressed. The U.S. General Services Administration and other organizations should be consulted about regional telecommuting programs and opportunities.

- Pricing Strategies – As previously noted, many of these are controversial and some would require new authorities, making implementation difficult and perhaps problematic. However, parking pricing should be considered as part of the review of parking management, including the review of County minimums and maximums for parking.

Use of Complementary TDM Techniques - The literature reviewed shows that in creating an effective TDM plan it is essential to include a mix of complementary techniques and strategies. While most TDM strategies are complementary, many are most effective when used in combination with certain other TDM strategies. The synergistic benefits from using the best mix of strategies needs to be considered at both the parcel and Tysons-wide level. At the Tysons-wide level, there is also the consideration that some strategies, such as shared parking, may not be fully effective – or even feasible – without participation by multiple developers and owners.

- PB PlaceMaking should develop a strategy for emphasizing complementary TDM techniques at both the parcel and Tysons-wide level, while still providing developers flexibility in their TDM plans.
- PB PlaceMaking should specifically evaluate the feasibility and value of requiring specific TDM techniques in parcel level and Tysons-wide TDM plans.
- PB PlaceMaking should include design elements that support TDM efforts, such as parks, that reduce the need for personal travel to other locations.
- PB PlaceMaking should evaluate the feasibility and strategy for including TDM requirements in all office and commercial leases for Tysons Corner.

Monitoring, Evaluation and Enforcement - TDM efforts need to feature monitoring and evaluation components to obtain and interpret feedback on program operations. The feedback is provided to program management to enable verification of satisfactory operation or to detect gaps between desired and actual program results. Management can act on results gaps to achieve or to regain program success.

TDM programs feature monitoring and evaluation components, designed to obtain and interpret feedback on program operations. The feedback is provided to program management to enable verification of satisfactory operation or to detect gaps between desired and actual program results. Management can act on results gaps to achieve, to maintain, or to regain program success.

Monitoring is done in two ways: (1), by physical counts of vehicles at predetermined points on or at the edges of development sites, and (2), through sample surveys of people who live on, work at, or in some cases visit a site. Representative physical counts allow direct comparisons of actual observations against desired values, e.g. PM peak hour actual against program PM peak goal. Sample survey results give indications of trends, e.g. increasing/decreasing use of carpools or shuttles, and also give information on such items as preferences, e.g. which of several possible incentives might be best for persuading people to ride the bus rather than drive.

Currently, TDM programs at development sites make use of both these forms of measurement to produce reports of past performance (for example on an annual or quarterly basis) and form the basis of plans for future program operations (for example, introduction of a new incentive package or tactic). The current programs have so far evolved site by site.

The Tysons Corner Urban Center will be made up of a number of individual development sites of various sizes. The ground maps of these sites may or may not correspond with any given division of the Tysons Corner Urban Center according to convenience of access to the circulator, or to transit, or for purposes of carpooling, or for bicycling and walking. Yet people will live and work at individual buildings on these development sites. If a broader view than the site level is to be taken, it must still be possible to make measurements that can be used to diagnose TDM problems and permit the development of solutions, in other words to make measurements of the road use behavior of specific people at specific places in the Tysons Corner Urban Center.

However, that level of monitoring and evaluation should be only a part of a larger view of transportation management in the Tysons Corner Urban Center. What is now referred to as TDM should become an integrated component of an overall Tysons Corner Urban Center transportation management system which embraces all modes of movement and all purposes of travel, including but going beyond vehicle counts and daily commute trips at individual sites. The larger system should address all aspects of the transportation infrastructure, beginning with the attributes of the built environment that affect transportation and extending to all methods of transportation management, using all cost-effective measurement technologies and evaluation methods.

When monitoring and evaluation indicate a failure of TDM techniques, enforcement of penalties must be part of any TDM program. TDM programs should be developed in such a way that it is in the best interest of developers to ensure their success. However, without enforcement, travel trip reduction goals are meaningless.

The Subcommittee recommends that PB Placemaking develop a Tysons Corner area-wide and site-specific monitoring and evaluation system to support their recommended TDM plan. Recognizing that the interests of the developers and the citizens need to be protected, PB Placemaking should also suggest ways to construct proffer agreements that can be more flexible to future revisions and updates as TDM evolves. “Phasing” should be used in developer TDM proffers to allow the opportunity to measure performance in meeting TDM targets.

ATTACHMENT A

EXAMPLES OF CURRENT TDM EFFORTS

	Fairfax County	State	Commuter Connections and Other Regional
Planning & Support	Transportation Benefit Financial Incentive For Employers (www.fairfaxcounty.gov/fcdot/match.htm)	VDOT Regional Congestion Management Plan ¹	Employer Services provides funding to local TDM agencies to support technical assistance to employers. ²
	Fairfax County's Employer Services Program (www.fairfaxcounty.gov/fcdot/employer.htm)	Department of Rail and Public Transit's Telework!VA business incentive program (www.teleworkva.org) ³	Telework Resource Center ⁴
		Dulles Corridor Metrorail CMP (during construction) (www.dullesmetro.com)	Public Sector Employer Outreach ⁵
Available TDM Services	RideSources Carpool/Vanpool Assistance (www.fairfaxcounty.gov/fcdot/sources.htm)	Virginia's 511 Traffic and Travel Information (www.511virginia.org)	Guaranteed Ride Home Program ⁶
		HOV Lanes Information (www.virginiadot.org/comtravel/hov-default.asp)	Northern Virginia Transportation Commission- Planning and financial support for region's transportation system (www.thinkoutsidethecar.org/info.asp)
			Carpool/Vanpool Ridematching program ⁷

*Note: The chart above does not contain all of the regional, state, county, Tysons area or business TDM efforts listed on the following pages.

¹ The contact is Barbara Reese at VDOT. Currently there is a draft regional CMP concept paper.

² Programs include: Guaranteed Ride Home; Ridematching; Transit Information; Smart Trip Cards; Transit Voucher Programs; Teleworking Assistance; Parking Management Programs; Marketing Transportation Options; Incentive Programs

³ CMP would manage or mitigate congestion during construction (2007 to 2011) of the Dulles Corridor Metrorail Project extension to Wiehle Avenue. The CMP would cover emergency response, communication, transit, and TDM. The CMP will provide cost-effective transportation options to commuters, shoppers, and residents of the corridor so that they can move safely and efficiently through the construction zones.

⁴ Provides technical assistance, speakers, training for setting up telework programs through MWCOC in cooperation with local TDM agencies (FFXCO Ridesources).

⁵ Provides sales person resources to assist local TDM agency efforts with public sector agencies for above services.

⁶ Operated through MWCOC. (www.mwcog.org/commuter/Bdy-Grh.html)

⁷ Ridematching database housed at MWCOC. Network members (local TDM agencies) offer commuter and employer assistance using this database. It is currently being revamped and will offer direct on-line matching in the future.

Regional

Metropolitan Washington Council of Governments (COG) Commuter Connections

Program: COMMUTER CONNECTIONS is a regional network of transportation organizations coordinated by the [Metropolitan Washington Council of Governments \(COG\)](#), a non-profit. Commuter Connections offers free services to those who work in the [Metropolitan Washington area](#). Among many services, it offers ridematching for carpools and vanpools and administers the Guaranteed Ride Home program. Commuter Connections also helps employers establish commuting benefits and assistance programs, including telework/telecommute programs, for their employees.

Commuter Connections website <http://www.mwcog.org/commuter/ccindex.html>

Commuter Connections FY 2007 work program

<http://www.mwcog.org/commuter/Work%20Program%20FY07.pdf>

State

Telework!VA: The Telework!Va Program provides incentives for Virginia businesses to establish or expand telework programs for employees. The program goal is to provide more opportunity for participation in teleworking.

It is a program administered by the Commonwealth of [Virginia Department of Rail and Public Transportation \(DRPT\)](#) through the [Metropolitan Washington Council of Governments \(MWCOCG\)](#) for northern Virginia companies.

The Telework!Va Program is limited to reimbursement of lease costs and consultant/technical assistance expenses. It reimburses a variable percentage of the lease expense for equipment; telework center space; technical assistance for setting up programs and installing equipment; and provides training for teleworkers and supervisors.

Telework!VA website <http://www.teleworkva.org/overview.htm>

Virginia's 511 Traffic and Travel Information: Provides real-time reports of accidents and incidents on highways. <http://www.511virginia.org/>

Congestion Management Plans (CMP): CMPs are implemented during major construction projects and include TDM measures. A few recent examples of construction projects with significant CMPs are I-66, the Woodrow Wilson Bridge and the Springfield Interchange. In the near future, the CMPs for the Dulles Rail construction and the potential Capital Beltway HOT lane construction are critical to the Tysons area. Due to the overlapping area of these construction projects, the state is initiating a regional CMP effort.

Fairfax County

Employer Services Program (ESP): The ESP provides information and assistance regarding commuting alternatives to employers with 100 or more employees.

<http://www.fairfaxcounty.gov/fcdot/employer.htm>

RideSources Program: The RideSources Program provides Fairfax County citizens with free information and ridematching services. This is a cooperative program with COG Commuter Connections. <http://www.fairfaxcounty.gov/fcdot/sources.htm>

Community Residential Program (CRP): This program builds partnerships with residential developments to promote use of alternative modes of transportation. <http://www.fairfaxcounty.gov/fcdot/crp.htm>

TDM Consultant Project (Travel Demand Management and Associated Parking Requirements for Transit Oriented Developments and Transportation Management Districts): In 2007 Fairfax County DOT will engage a consultant to examine how to incorporate Travel Demand Management (TDM) as an integral part of the land use and development process in the County. A key aspect of this project is to determine TDM trip reductions and associated parking requirements for Transit Oriented Developments (TOD) and Transportation Management Districts (TMD). The completion of this project will assist the County and DOT staff in optimizing TDM proffers and associated parking requirements for developments including Metro station area developments.

TDM Coordinator: In the FY 2007 budget, the County Board established a TDM coordinator position within the Department of Transportation. The purpose of this position is to focus on TDM proffer development and implementation. This position was filled in October 2006.

Proffers – Proffers are voluntary commitments that a developer makes to offset the impacts of a proposed development. Due to the lack of state enabling legislation for the County to enact an adequate public facilities ordinance, or similar requirements for a new development, the proffer system, which is voluntary, is the primary mechanism by which such contributions are made. Proffers often include monetary contributions toward capital facilities such as schools, parks, roads and other public facilities. To mitigate the transportation impact of a development, proffers increasingly include a TDM plan.

The County is currently using a performance-based approach to TDM plans proffered by developers. That is, a TDM plan may include a range of techniques that may be employed, but the developer has the ability to “mix and match” which ones to use as long as he meets the agreed upon performance goals.

Existing Proffers - The following chart summarizes all Tysons Corner proffers that have a TDM component.

Zoning case	Tax Map	Description
RZ 1980 C 072	29-1	Bus, limo or vanpool service to Dulles and other major arrival points
RZ 1982 C 056	29-3	Applicant will promote ridesharing and staggered work hours
RZ 1982 C 057	29-3	Applicant to provide a ridesharing or vanpool program
RZ 1984 D 049	29-4	Applicant to provide for on-site sale of fare media in dedicated space
RZ 1984 D 049	29-4	Conduct biennial survey of trips and coordination with DOT
RZ 1984 D 049	29-4	Triggered on not meeting 20% reduction target and no rail service at time NonRUP > 1,963,474 square feet. Establish & maintain fund for TDM actions subject to replenishment from tenants based on use survey results.

RZ	1984	D	049	29-4	Applicant to provide incentives generally to meet target of "20% mode split goal for SOV": Rideshare program; guaranteed ride home / MetroCheck; preferential car/vanpool parking; reduced rate parking for HOV3; free parking for vanpool; bicycle storage; showers & lockers; and annual surveys to update program based on results.
RZ	1984	D	049	29-4	Applicant must appoint TDM coordinator 60 days after site plan approval
RZ	1986	D	085	29-3	Provided a special taxing district is created applicant will provide priority parking for car/van pools.
RZ	1988	P	048	39-2	Provide priority parking for car/van pools; coordinate with County
RZ	1998	PR	058	39-2	Establish Shuttle from site to Dunn Loring metro - shuttle can be discontinued if public transportation service is provided from METRO to location adjacent to property is initiated.
RZ	1998	PR	058	39-2	Actions initiated by applicant must include: guaranteed ride home; preferential van/car pool parking with SOV charged market rate and HOV3+ charged half; and shuttle bus to Metro during weekday peak periods unless service to Dunn Loring provided by WAMATA or equivalent
RZ	1999	PR	060	39-2	If applicant or land area is included in Fairfax Square agreements applicant will provide car/van pool coordination & preferential parking
RZ	2001	PR	005	29-1	A TDM program to meet a 20% reduction target vis-à-vis ITE 6th edition. This includes a TDM coordinator, lit drop, rideshare database and bulletin board coordinated with TYTRAN & DOT, involvement in Guaranteed Ride Home, & premium spaces for car/van pools. Other items include quarterly & annual reports and a possible shuttle bus. Program to be supported by \$0.08 per square foot per year.
RZ	2001	PR	005	29-1	Penalty payment if 20% reduction not met:\$0.035 per sq ft, \$50,000 bond to insure payment
RZ	2002	HM	012	29-3	Provide for office lease / purchasers a formal ride-share program with coordinator to encourage such; also distribute public transit information. May coordinate, establish, or participate with other employers in the Tyson's area.
RZ	2002	PR	016	29-4	Provision of shuttle bus service, at least hourly for eight hours each weekday; free taxi service or participation in comparable bus service by others may be substituted. Expires if five years have passed from first RUP and 2/3 of unit owners agree to abolish.
RZ	2002	PR	016	29-4	Must maintain shuttle bus service 8 trips per day min, or prepaid taxi, or participate in existing service by others. Applicant must create deed covenants for support of shuttle or alternative transit with a requirement of 2/3 majority vote to abolish.
RZ	2003	PR	008	39-2	Program to have a 20% reduction target; includes TDM coordinator; bike storage; telecommuting center; two 'level 3' activities per proffer document and annual survey.
RZ	2003	PR	008	39-2	Applies when reduction target not met: \$40.00 per occupied unit per year. Expires 15 year after last RUP issued.
SE	1996	P	006	29-3	Applicant to encourage employee participation in TDM
SE	1998	P	051	29-4	Applies under development option one only - various TDM programs including shuttle bus.
SE	1998	P	051	29-4	Applies under development option one only - shuttle bus service will be ended if metro stop constructed adjacent to site.
SE	2004	PR	017	39-2	A literature drop TDM only; low priority.

New Proffers_ - PB Placemaking should review both of these TDM proffer documents.

MetroWest – See <http://www.restondigital.com/tysons/tdmlinks.html> (see attachment D)

Tysons Corner Center – See <http://restondigital.com/tysons/tdmlinks.html> (see attachment E)

Tysons Area – The Tysons Transportation Association (TYTRAN) is a non-profit membership transportation management association that seeks to achieve an effective and coordinated transportation system within the Tysons Corner Urban Center that supports the community’s economic prosperity and quality of life. TYTRAN accomplishes this through advocacy for transportation improvements and appropriate development policies, implementation of transportation demand and system management strategies and coordination of like-minded public and private organizations. TYTRAN’s programs include, but are not limited to, the TYTRAN commuter program, area-wide and employer TDM programs and services, meetings and forums, and a legislative program

Northern Virginia Transportation Commission – Commuter info
(www.thinkoutsidethecar.org/info.asp)

Business -

Nuride – automated ridesharing system (www.nuride.com)

Zipcar – in the Ballston Corridor (www.zipcar.com)

Flex Car – the nearest location is West Falls Church (www.flexcar.com)

ATTACHMENT B

SPECIFIC TDM STRATEGIES

The TDM Subcommittee has also reviewed numerous TDM strategies. These strategies have been grouped into the following six categories:

- Alternative Mode Support Strategies
- Worksite-Based Strategies
- Land Use Strategies
- Programmatic and Policy Support Strategies
- Telecommunications Strategies
- Pricing Strategies

Alternative Mode Support Strategies

Many of the above activities should be coordinated by the Transportation Coordinator for Tysons. A well-funded, proactive transportation management group like TYTRAN would be the logical umbrella organization. Many examples of transportation demand management organizations exist in the region, including LINK of Reston and DATA (Dulles Area Transportation Association). PB Placemaking should determine when these organizations have been effective, and when not effective, determine why not.

Public Education and Promotion - Marketing plays an important role in dissemination of information about options for travel. Commuter Connections, a regional network of transportation organizations coordinated by the Metropolitan Washington Council of Governments, conducts public education and promotion campaigns in the Metro DC area.

These efforts can be used to encourage those people who don't normally think to use alternate modes to use them for some of their trips. Effective publicity stresses the importance of using alternate modes and tries to reduce the stigma sometimes associated with using public transit, walking, and biking. Promotional materials should be widely available and provided to all employers.

Ridematching Services – TYTRAN currently uses the Commuter Connections car and van pool matching service. There is also a Commuter Connections ridesharing bulletin board. A more effective service would allow interactive origin/destination address entry showing prospective, screened applicants. Informal slug lines exist in the area and should be supported and encouraged. Employers should be encouraged to map employee residences (while ensuring privacy) to understand their employee commute regions and to help implement effective ridesharing services. Financial incentives are available to employers and employees. Residents should be encouraged to consider using ridematching services for non-commute trips such as team sports, school carpools, shopping trips for the elderly, and others. Carpooling has developed a negative connotation that needs to be overcome.

Transit Services – Tysons is served by many bus routes. Metro bus routes 28A, 28B, and 3T and Fairfax Connector bus routes 574, 401, and 404 all stop at the Tysons Corner Mall, which is one of the busiest bus stops in the region. TYTRAN provides basic links to Metro bus and Fairfax Connector information.

Dissemination of schedule information (Web, paper, wireless, email alerts) is important, and active encouragement of the use of transit should be part of any program. Access to transit stations needs to be improved (sidewalks, crosswalks, bike routes), as many stations are located on major arterials without sidewalks, bike routes, or proper crosswalks. We need to improve the facilities at bus stops (bus shelters, trash containers and pickup, secure, covered bike parking). More comfortable buses (less noise and pollution, smaller size) and more efficient routes would lead to additional ridership. Bike racks should be placed on buses to help integrate both modes of travel.

A Tysons Transit Pass would allow Tysons residents and employees to travel cheaply using all transit services. Hotel guests could be issued passes upon arrival.

There is also a great need for station centered circulation shuttles as well as shuttle service to Tysons Corner from adjacent communities such as Vienna, McLean and Pimmit Hills

Vanpool Services – TYTRAN provides a link to the Commuter Connections ridesharing service. There are Federal tax and other subsidies available. These subsidies should be publicized by employers. The Commuter Connections Guaranteed Ride Home program can help alleviate concerns that parents and others have about not being able to quickly travel in case of emergencies.

Custom Transit Services – There are many existing shuttle buses from hotels/businesses/shopping malls to/from Metro stations and other major destinations. The Holiday Inn provides a shuttle to the Dunn Loring Metro station. The Comfort Inn Tysons provides a free shuttle to Dulles Airport. The Tysons shuttle provides service to the West Falls Church Metro station. The Marriot and the Embassy Suites Hotel Tysons Corner provide a free shuttle to a 3-mile radius of the hotel. Tysons Corner Doubletree provides a free shuttle to Metro.

These services will need to be expanded and coordinated when Metro comes to Tysons. The shuttles need to be frequent and direct. Residents and employees should be surveyed to determine what trips could be taken by shuttle that would otherwise taken by personal vehicles.

Non-Motorized Support – Despite the fact that Tysons is surrounded by the Dulles Toll Road, I-495, Route 123 and Route 7, there exist a number of ways to bicycle to and through Tysons from surrounding areas, mostly using existing roads. These routes should be mapped and publicized. Bicycle advocacy groups such as Washington Area Bicyclist Association and Fairfax Advocates for Better Bicycling are available for providing information about routes and resources.

For pedestrians, while there are a number of sidewalks in Tysons, many are not connected and those that exist often do not provide a direct route to destinations. Pedestrian crossings of the major roads are dangerous or non-existent. Most office buildings were developed with only motorized access in mind. Pedestrian and bicycle connections to the street are usually via these motorized access routes, not the more direct routes. These direct ped/bike routes to the street are sometimes prevented due to landscaping or fencing.

Safe routes to Metro stations and other locations throughout Tysons are needed. This includes trails, sidewalks, marked bike lanes, and signed bike routes. The built environment should

include interesting sights and locations along pedestrian routes that encourage walking. The street network should consist of “Complete Streets” which routinely accommodate travel by all modes. Bicyclists and pedestrians need not compete for offroad space on sidewalks and trails if bicyclists are comfortable riding on the road, which is usually the safest and most direct method of bicycle travel.

Covered, secure bicycle parking, safe crossings of major roads, including new bridges over I-495 and Dulles Toll Road, and access through surrounding neighborhoods are needed. Bike rental or loans could be provided, including very short-term rentals to facilitate trips to/from Metro from nearby locations. Bikes could be rented using a credit card or special bike rental card. Rental rates would be low, possibly subsidized by the county and developers. See the Community Bicycle Program link on TDM link page for more information and examples of such programs.

Bike stations should be available for maintenance and storage of bikes during the day, with showers, lockers and changing rooms. Due to the hilly nature of the center of Tysons, some bikes may need to be supplemented with small electric motors.

Secure, covered bike parking, shower and locker facilities and other amenities for cyclists must be provided by employers. Bike to Work Day events can be held to encourage ridership and provide resources for cyclists. Events and campaigns are useful in spreading the word that it’s OK to bike and walk. Bicycle safety and education programs can be coordinated with the bicycle advocacy groups.

Bicycles can be provided by employers to reduce mid-day auto trips. An example is the National Wildlife Federation in Reston which has a fleet of bicycles for employee use.

A multi-modal access guide should be published to inform citizens about how and why to bike and walk to and through Tysons. Maps of access routes, street crossings, public restrooms, bike parking facilities, etc. can be provided. Walking and biking times to/from various destinations can be provided. The guide can be funded by state or federal grants.

The importance of bicycling as a way to quickly evacuate an area when the road network is clogged could be stressed

HOV/HOT Facilities – HOV lanes are located on the Dulles Toll Road. There are two studies underway at VDOT for constructing HOT lanes on I-495 and I-66. See TDM link page. These lanes need better enforcement and if congested, the requirements for entry could be increased. High Occupancy Toll lanes are being considered as well.

Park & Ride Lots – The TYTRAN, COG and County web sites contain maps of regional park and ride lots.

Car Sharing –Flexcar has current locations in East Falls Church, West Falls Church, and Vienna metro stations. The closest Zipcar location is currently along the Ballston corridor. Discussions with these and other firms should be held to investigate innovative uses of their services.

Worksite-Based Strategies

On an individual site basis, TDM programs have been found to result in significant HOV use where there is a strong employer commitment to the program. TDM programs could induce a significant shift in travel behavior in the Tysons Corner Urban Center when individual employer TDM programs are coordinated with an area-wide TDM Program.

Work-site based strategies may be provided by developers or employers. All of the work-site based strategies are designed to make forms of public transportation more attractive, provide flexibility in the choice in the mode of transportation and disincentives to driving alone.

The programs can have a direct impact on the number of commuting trips generated by an individual employer, could be implemented with the assistance of a Tysons Corner Urban Center Transportation Management Association and could be monitored effectively at the individual worksite basis as well as area-wide.

Monetary Incentives – Monetary incentives generally take three forms, direct subsidies, transportation allowances, and parking cash outs.

Under current IRS rules an employer can provide parking with a market value of up to \$165 per month, tax free to the employee. Employers can only provide a transit/vanpool subsidy of up to \$65 per month tax free. Any financial incentives given by an employer to commuters who carpool, bicycle, or walk, however, are taxed in full.

Employers can also provide direct subsidies for transit passes. All of these mechanisms give employees a financial incentive to take transit, carpool, vanpool or bike/walk to work. Transit subsidies are only effective in areas with good transit service. While Tysons Corner has good bus service, the Metro will not be available until 2012. A transit subsidy program will not be able to be truly effective until the Metro is operational through Tysons Corner.

However, financial incentives are among the most effective TDM measures and can have a dramatic effect on a company's single occupant vehicle rate. "COMSIS has estimated that a reduction in trips of between 8% and 18% can be expected at individual employment sites, although this is heavily dependent upon the availability of alternative commute options at those sites. A study of Los Angeles commuters estimates that parking cash-out programs could reduce SOV trips by as much as 24% and a parking cash out program modeled by the Puget Sound Regional Council estimated a 1% to 3% reduction in regional daily work trips."

Alternative Work Schedules – Alternate work schedules include flexible work hours, compressed work weeks and multiple work shifts for certain operation. All employers should be encouraged to implement alternative work schedule options for their employees.

"According to estimates by COMSIS, compressed work weeks reduce not just work trips, but total trips – on the order of 15%. The PRSC, however, estimates that alternative works schedules can only achieve up to a 1% reduction in region-wide VMT and vehicle trip reduction."

Guaranteed Ride Home - Guaranteed ride home is a strategy offered to complement other TDM strategies. Employers "guarantee" some form of transportation to their employees in the event of personal/family emergencies or unscheduled overtime, to ensure that the employees can get home.

Currently there are at least two guaranteed ride home programs available in the Tysons Corner Urban Center. One is operated by the Metropolitan Washington Council of Governments (MwCOG) COMMUTER CONNECTIONS. (www.mwcog.org/commuter/Bdy-Grh.html).

Parking Management - Parking management strategies are designed to impact the availability, cost and location of parking. Parking, although provided free of charge for many commuters in the Tysons Corner Urban Center, does have a cost. Transferring this cost to employees – while giving them the ability to avoid it by using an alternative mode – is among the most effective ways to reduce the use of SOV's for commute trips.

The County, working with a Tysons Corner Urban Center Transportation Management Association, should review parking requirements in the Zoning Ordinance to consider the full range of parking management strategies and other transportation demand management strategies. Parking management measures include the following:

- Preferential parking for HOVs/vanpools
- Parking cash out programs
- Limiting parking supply
- Parking pricing

“Aggressive parking management programs are possibly the most effective TDM measure an employer can take to reduce SOV travel. Limiting its supply is almost as effective.”

Facility Amenities – Facility amenities include the physical changes that can be made to an employment center to encourage the use of non-SOV modes by employees. Trip generating amenities like daycare, post offices, banks, gyms, restaurants, etc.) should be situated on-site to reduce the need for these trips.

In addition there are also other types of facility amenities that can reduce the need for employees to run errands like using the Internet for dry-cleaning, groceries, and allowing employees to send mail using the Company mail services. Amenities for cyclists like bike racks, showers and lockers are also effective in encouraging bike commuting.

Other facility amenities include: On-site transportation coordinators, preferred HOV parking locations, company vanpools and remote Post Office automated stations to eliminate post office trips.

Transportation Management Associations (TMAs) – Both individual TDM measures, as administered through commitments that are made as a part of the zoning process, as well as an area-wide TDM program, are needed in the Tysons Corner Urban Center as components of a successful public transportation improvement program. A Transportation Management Association (TMA) such as TYTRAN should administer a comprehensive area-wide program and coordinate the TDM actions of individual employers. Because of the public benefit that can be realized through these programs, the County should consider providing public funding to support such efforts.

The implementation of a successful comprehensive area-wide TDM program may require adoption of an ordinance governing such actions so that all property owners will be required to participate, not just properties committing to participation through the zoning process.

Ordinance requirements may include paid parking, transit subsidies, rideshare matching services, preferential treatment of carpool/vanpools, shuttle bus services to nearby transit transfer stations, guaranteed ride home programs, marketing of commuter assistance programs, and other related measures designed to lessen use of single-occupant vehicles and boost HOV usage during peak commuting periods.

Land Use Strategies - Land use strategies are critical to the success of an area-wide TDM strategy for the Tysons Corner Urban Center. The use of a combination of land use strategies coupled with other TDM efforts can have a significant impact on travel need and patterns.

In the Rosslyn-Ballston Corridor of Arlington County, land use strategies have been a major factor in the overall success of its TDM strategy. Its success can be demonstrated through the following facts:

- 1) Since 1980, employment has increased 2x from 40k to 80k, residential units have increased 2.3x from 12k to 28k, office space has increased 3.5x from 6.5msf to 22.5msf.
- 2) The Corridor produces 32.8% of the County's real estate taxes from 7.7% of its land – allowing Arlington to have the lowest property tax of any major jurisdiction in Northern Virginia. There has been an 81% increase in the assessed value of the land.
- 3) 73.3% of patrons walk to transit, over 61,000 trips daily, 38% of residents near stations take transit to work. 12% of Arlington County households don't own cars, the regional average is 4%.
- 4) The traffic counts at five major intersections have increased only 16% from 1980 to 2000 while an 80% increase was projected.
- 5) Almost 30msf of development has occurred on two square miles of urban land. This development would require 14 square miles of green field land if constructed in a typical suburban location.

Compact Residential Development – After increasing or improving the level of transit service, an area's housing density is the strongest predictor of alternative mode use. Also, research has suggested that increasing a community's density may even drive the addition of mixed-use development and pedestrian friendly streetscapes, two other land use changes which can further reduce SOV use. Actions include allowing zero-lot line construction.

The time frame for this change to occur can vary as it is mostly influenced by the economy and the real estate market. The proper developer incentives should target key parcels or areas. Density bonuses, provision of upgraded infrastructure and accelerated permitting processes can all be effective incentives.

Increasing transit services is essential to see the benefits from increasing residential density.

“Pushkarev and Zupan state that when density levels approach 30 du/acre, transit demand triples, and at density levels over 60 du/acre, over half of all trips are made using public transportation.”

Compact Employment and Activity Centers –

“According to the 1994 study of Puget Sound travel behavior by Frank and Pivo, change from SOV to other modes becomes significant at densities of greater than 50 employees per gross

acre. At densities greater than 125 employees per gross acre a majority of trips are made using modes other than SOVs.”

Mixed Land Uses – A mix of land uses including, but not limited to, commercial, residential, mixed use centers, civic uses and amenities is critical to the success of an urban center TDM plan.

Connectivity – Connectivity refers to the network of streets, sidewalks and trails that make it more efficient for a person to travel from one place to another. Improved connectivity can be accomplished by the following; a grid of streets for walking, bicycling and driving which provides numerous route choices, more connections to the regional network, improved connections to transit, improved connections between developments, pedestrian-friendly sidewalks as well as separate non-motorized paths and trails, and onroad bicycle routes

Improving the connectivity of road networks can improve congestion and shorten trips, but is unlikely to actually decrease auto trips. Improving sidewalk connectivity and trails can have a real impact on increasing pedestrian travel and decrease vehicle miles traveled.

Transit and Pedestrian Oriented Design – Numerous studies have demonstrated that factors such as safety, accessibility, amenities and aesthetics can all have a significant influence on transportation mode choice. Transit and pedestrian oriented design actions include: prominent crosswalks and complete sidewalk networks, traffic calming measures, landscaping techniques, parking, narrower streets, outward building orientation and zero lot-line frontage

Use incentives such as density bonuses accelerating permit approval for pedestrian friendly design.

Parking Management – Parking management refers to actions that affect the supply, location, cost and demand for parking. Strategies include the following: adjust off-street parking requirements, allowing flexible requirements, allowing shared parking, providing joint use spaces for park and ride lots, on-street parking, charging for parking costs, parking lot placement, residential parking permit zones.

Jobs/Housing Balance – There are approximately 15,000 residents and 120,000 workers in the Tysons Corner Urban Center. Efforts must be made to correct that imbalance as one of the keys to a successful urban center is a critical mass of residents. Placing housing close to work center is an extremely effective TDM land use strategy.

Affordable Housing – Housing must be available at all price points in the Tysons Corner Urban Center.

Please refer to the report from the Tysons Land Use Task Force Affordable Housing Committee.

Programmatic and Policy Support Strategies

Trip Reduction Ordinances (TROs) and Programs - Some states and localities have TROs. They can apply just to employers or be broader in coverage. The County is negotiating trip reductions, such as with Macerich and MetroWest, but it is done on a proffer basis and thus

applies only to those coming before the Fairfax County Planning Commission and the Board of Supervisors on a plan amendment or zoning change.

If there were a desire to have a TRO for Tysons, the following determinations and decisions would have to be made:

- what state enabling legislation would be required;
- who would be covered;
- what would be the requirements;
- what enforcement or penalties would there be;
- what role would the County play in facilitating the implementation.

Access Priority/Restriction - These are carrot and stick approaches to get people to change behavior. These include things such as lanes or parking spots for HOV or van pools and limiting the number of parking spaces not for HOV or van pools. Much of this would apply to broader geographic areas and not be Tysons specific. Some of those are being implemented, such as the HOT lanes on the Beltway.

One thing that could be considered for Tysons is limiting parking spaces to encourage use of travel options other than SOVs. Something such as a parking district or parking authority could be considered for Tysons. Because of differences in history, use, and proximity to the rail stations, significant effort would be required to fashion something that would be effective and also be saleable.

Support of New Institutional Relationships - Transportation Management Associations (TMAs) are addressed in Employment Site Based Strategies. A Transportation Management District (TMD) could be created for Tysons. It could have responsibility for a variety of things from parking to shuttles to some of the things TYTRAN does or could do. Enabling legislation could be required to establish a TMD.

Establish a Transportation Management District – Tysons, or part of Tysons, could be designated as a transportation management district (TMD). Within the transportation management district, there could be both controls, such as limitations on parking spaces or use of parking space, and programs, such as operation of shuttles. Determinations would have to be made about what the limitations and responsibilities would be, who would operate the TMD, and how the costs of operation would be covered.

Restrictions on SOV parking spaces within parts of Tysons Corner – Limitations could be placed on the number and use of parking spaces within designated parts of Tysons Corner. These restrictions could be governed simply by ordinance, by a parking authority that would have responsibility for parking but not for other things, or by an entity operating a transportation management district. There are cost to operate either a parking authority or a transportation management district but such structures also provide greater flexibility, can be more responsive, and can provide an opportunity for those controlled to be directly involved in operations.

Telecommunications Strategies

These strategies utilize modern communications technologies, principally the Internet, to reduce the need for vehicle trips. While the primary impact is on commuting trips, they also have the

potential to reduce non-commuting trips. Except for telecommuting/telework, there is limited documentation on the effectiveness and implementation of telecommunications strategies.

Telecommuting/telework - Networked computers allow employees to work at home or another site, such as a telework center, rather than regular place of work. Vehicle trips can be significantly reduced for both residents of Tysons Corner and employees of businesses located in Tysons who can utilize this strategy. Telecommuting is particularly attractive to workers with longer distance commutes, so reductions in vehicle miles traveled is relatively high.

There will be, however, limitations to the use and benefits of telecommuting at Tysons. The vision of Tysons as a location where individuals both live and work reduces the need and opportunity for telecommuting. In addition, some categories of employees, such as service workers are required to be on-site, and will not be able to participate. Some employers may resist a telecommuting program due to concerns about potential loss of managerial control. Significantly, telecommuting will not have any impact on non-commuting trips, e.g, trip generation from business clients and retail and entertainment clientele or personal trips by residents. Non-commuting trips can represent 70 percent or more of total vehicle trips.

Although the application of telecommuting/telework will have some limitations, consideration should be given to providing the necessary infrastructure so they can be used where appropriate. For example, both residential and commercial development could be wired for Internet and other telecommunications services during construction. In addition, the feasibility of telework centers in Tysons could be explored with the U.S. General Services Administration and other organizations.

Other Strategies - Other telecommunications-based strategies focus on trip reduction through Internet shopping, service transactions (e.g., Tele-shopping, Tele-banking, Electronic Government), and distance learning. Limited research has been done on the impact of Internet commerce. Given the lack of information, along with the fact that most of these services are market based and beyond control of developers or the County, these strategies may not be significant factors in a Tysons TDM Plan. Nevertheless, they might be included in the Public Education Program under “Alternative Mode Support Strategies.” In addition, the County may consider investigating expanded opportunities for residents to conduct business over the Internet.

Pricing Strategies

Pricing strategies use financial incentives and disincentives to influence transportation decisions. Many of these are controversial; some would require new authorities.

Parking Pricing - In certain situations a fee, such as a tax on parking spaces or a charge for parking, can be imposed on all parking spaces as part of a TDM strategy. Parking fees are also a revenue producer, although as much or more revenue could potentially be lost from decreased economic activity. While meters for street parking and paid parking at public or commercial parking garages may be feasible at Tysons, fees or taxes on shopping center surface parking and employee parking would be difficult to implement. Such fees would be controversial and likely opposed by property owners and developers, as well as shoppers, employees, and residents. Potential spill-over parking will be an issue with adjoining residential neighborhoods. Implementation of a fee would require [a special tax district?].

Parking Pricing is just one potential technique of a total Parking Management Program that discourages excessive parking supply and demand, and makes more efficient use of existing parking. Parking Management also includes such techniques as shared parking, parking “cash out,” more accurate and flexible parking minimums and maximums, and car sharing programs that allow members to reserve and drive a car whenever they want, eliminating the need for owning a car and an associated parking space. Parking Management efforts should be coordinated with County staff currently working on parking minimums and maximums.

See <http://www.vtpi.org/tdm/tdm26.htm> for a more complete discussion of Parking Pricing and Parking Management. See also “Parking Management Best Practices,” published by Planners Press (Litman, 2006), and the report “Parking Management: Strategies, Evaluation and Planning” available from the Victoria Transport Policy Institute at www.vtpi.org/park_man.pdf.

Gasoline Tax Increase - Fuel is the largest and most visible auto operating expense. A gas tax (or applying the general sales tax to fuel) would make other transportation modes more competitive with automobile travel, as well as providing additional revenue to the County. Reduction in fuel usage would also reduce dependence on imported oil and reduce pollution. However, a significant tax would be needed to impact travel behavior. Even then, the desired traffic reduction may not be achieved, as drivers may switch to more fuel-efficient cars rather than drive less, or purchase fuel in neighboring jurisdictions. Implementation of a fuel tax would require [what authority would County need or what action would it have to take?].

Road/Congestion Pricing - Road pricing imposes a fee for traveling on a specific road. The most common road pricing application is a toll road, which can include HOT lanes (HOV lanes available to low occupancy vehicles if a toll is paid). Tolls can also be charged for driving in a particular area, usually a city center. Some area tolls only apply during peak periods. Congestion pricing is a variation on the toll theme, using variable pricing (higher prices under congested conditions and lower prices at less congested times and locations). As the name suggests, congested pricing is intended to reduce peak-period vehicle trips.

A Vehicle Miles Traveled (VMT) tax would, as the name suggests, charge drivers based on miles driven. In locations where it has been used it usually replaces registration and fuel taxes. Implementation would be costly, as GPS equipment for each car would be required to track mileage. Privacy issues would be raised by tracking the use of vehicles.

Like gasoline tax increases, road/congestion pricing and a VMT tax may be more suitable as County-wide or regional TDM approaches.

There are also traffic control systems in place in London, Rome and Stockholm. Stockholm and London use similar “congestion pricing” systems where drivers are charged different amount depending upon the time of day and their location. The project is essentially a giant behavior-control experiment designed to distribute traffic more efficiently throughout the day and to spur more people to take public transportation.

The TDM Subcommittees report relied on the review of numerous sources, many of which are listed below. Much of what is contained in the report is not original thought and is taken directly from these sources.

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