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# *Smart* INVESTMENTS<sup>SM</sup> IN TRANSPORTATION FOR MINNESOTA

## **Building Sensible Communities:** *Policies, Strategies and Background for Improving Location Efficiency in Minnesota*

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**GROWTH & JUSTICE**

Growth & Justice is a nonprofit, nonpartisan organization that researches and recommends public policies to make Minnesota’s economy simultaneously more prosperous and fair. We support fair taxation and smart public sector investment — fiscally responsible, accountable investment that advances prosperity for all Minnesotans. Growth & Justice is a leading progressive voice on key public policy issues in the state. This report was produced with funding from RE-AMP as part of the 2011 Building Sensible Communities Initiative.

# Key Points on Location Efficiency for Minnesota

Minnesota should increase the location efficiency of the land use patterns in communities throughout the state. The State of Minnesota could realize very substantial benefits by increasing development densities, mixing land uses, orienting neighborhoods around transit stops, favoring infill development over urban sprawl, and encouraging larger, more concentrated employment centers. The potential benefits include the reduction in the miles per day that people travel alone by car, the reduction of greenhouse gas emissions from transportation activities, the mitigation of transportation costs imposed upon low-income Minnesotans, and more cost-effective state and local infrastructure investments.

Unfortunately, Minnesota has a long way to go when it comes to location efficiency. Through much of the recent decades, both vehicle miles traveled (VMT) and the total quantity of urbanized land in Minnesota have increased at faster rates than the state's population, although VMT growth has leveled off and even dipped some in recent years. The longer-term trend lines for travel and land use are of concern both in the Twin Cities metropolitan area and in Greater Minnesota. In many cases, the lack of location efficiency in communities occurs because local governments haven't made serious efforts to plan for local growth and development. In other cases, it stems from short-sighted interests on the part of local governments when it comes to land-use decisions, such as zoning only for those land uses that will produce the greatest tax revenue per dollar of city services consumed, enacting zoning ordinances that force developers to build in a less location-efficient manner than what they would prefer, or failing to coordinate infrastructure and development decisions with neighboring local governments.

Within the seven-county Metropolitan Council area, some of these problems are mitigated by the coordinated provision of public services, the requirement that the land use plans from local governments are consistent with the goals and expectations laid out in regional planning documents, and limitations on development outside of the Metropolitan Urban Service Area (MUSA), which is the portion of the Metropolitan Council's territory where the council ensures the provision of regional services and facilities, especially sanitary sewer service.

However, the state of location efficiency in the Twin Cities is still not very good. Over the years, the metropolitan area has sprawled out far beyond the Metropolitan Council's geographic area, with development leapfrogging into counties not subject to the regulations of a regional planning authority and with a majority of work commutes now taking place suburb-to-suburb rather than to employment clusters that are large enough and concentrated enough to serve as major transit hubs – for example the Minneapolis and Saint Paul central business districts.

A review of actions taken in Minnesota and in a variety of other states indicates that in order to most effectively address location efficiency, the state government should pursue a four-pronged approach of:

- regulatory tools
- incentives for local governments
- incentives for developers, and
- smart infrastructure and capital investments.

These four approaches all should be coordinated by either a state agency or an executive-branch sub-cabinet with the mandate of ensuring that policies supportive of location efficiency are pursued by the many different departments of the state government and that the actions of those departments are consistent with one another.

**Regulatory tools:** When it comes to regulatory tools, the state could require that all local governments create and follow comprehensive plans to guide their development and ensure that those comprehensive plans are all consistent with either a regional or a statewide planning framework, with that framework containing language supportive of location efficiency. In this manner, the benefits of the Metropolitan Council could be extended throughout the state. Short of this, however, it would still be beneficial to expand the jurisdiction of the Metropolitan Council, so as to match it to the actual extent of the Twin Cities metropolitan area and stop the problem of leapfrog development into the outer areas of the Twin Cities region.

**Incentives for local governments:** The effective incentives that could be extended to local governments in order to encourage land use planning for location efficiency include offering cash awards; making location-efficient planning count for extra points in the formulas used to determine which local governments will receive a wide variety of grants, subsidies, tax credits, loans, and other financing mechanisms that the state government either already is responsible for distributing from its own budget or has been given the responsibility of distributing from various federal funding sources; and, finally, offering access to various types of technical assistance on matters related to planning, such as GIS databases, help from consultants, and model codes and ordinances. In terms of technical assistance, it is important that all forms serve both to make it easier for local governments to carry out planning activities and to ensure that the planning advice local governments receive is strongly oriented towards the goal of location efficiency.

**Incentives for developers:** Regarding incentives for developers to build certain types of structures in certain geographic areas, perhaps even more important than promises of grants, low-interest loans, and development insurance is the provision of an easy trip through the regulatory approval process. Regulatory hurdles and cumbersome approval processes add greatly to a development project's delays, costs, and uncertainty. Therefore, mechanisms should be put in place to recognize when the nature and location of a proposed development make it location-efficient, in order that those projects may qualify both for an expedited regulatory review process and for help from experts on that same process. In the area of capital investments, there are many things that the state can and should do. Transportation investments should continue to follow "fix-it-first" and complete streets policies, which advance the idea of investing in established areas before new areas and the idea of multimodal transportation. Sewer lines should be extended judiciously, with strict enforcement of density rules on either side of the MUSA boundary. Government buildings should be positioned in location-efficient neighborhoods, and public schools should be sited as close as possible to the homes of the children who attend them.



# Potential Investments, Policies & Choices to Increase Location Efficiency

There are many strategies by which the state government could increase the location efficiency of Minnesota communities. These strategies may be generalized as falling into one of four major categories, depending upon what type of action they require the state government to take. The first category consists of what might be termed “macro-scale adjustments” to state policies – ones that influence many different issue areas, regardless of what their primary motive is. The second category consists of incentives and support programs that may be offered to local governments, private developers, and individual residents to encourage more efficient land use patterns. The third category of state government location-efficiency strategies consists of policy changes at the Metropolitan Council. The fourth category of strategies consists of how, when, and where the state government makes infrastructure investments – especially transportation infrastructure investments – since the amount and type of infrastructure provided in an area influences what developers choose to build there. The following subsections will discuss, in turn, some strategies within each of these categories.

## 1. Macro-Scale Adjustments to State Policy

Laws have unintended consequences on location efficiency. Therefore, one step the state government should take if it is concerned about location efficiency is to evaluate all current state laws for their effect on location efficiency (Kane and Flanders, 2011). This would allow the state to identify many additional ways to influence and promote location efficiency. As for state policies that have location efficiency as a stated goal, it would be prudent to establish and use simulation tools to determine what the long-term effects of a given policy will be. When it comes to land use patterns, the time lag in between the causes and the effects is especially long, the number of competing interests in need of balancing is very large, and the links between a given policy and its practical implications are almost invariably complex. Consequently, it is a good idea to apply simulation tools to assess the effects of government policies on location efficiency (Ward, 2003).

**Interdepartmental Coordination:** Location efficiency is influenced by the actions of many departments within state government. However, the actions of those departments may contradict one another. One solution to this problem is to establish a formal sub-cabinet of executive-branch department heads to coordinate their activities on issues of mutual concern. Such a sub-cabinet could draft specific goals to be met by each department, with the earnest pursuit of these goals enforced by an appointed sub-cabinet leader (Envision Minnesota, 2010).

**Statewide Planning Documents:** A major source of the Metropolitan Council’s influence over land use is that it produces planning documents that establish development goals within its jurisdiction and with which all local government planning documents must be consistent. It stands to reason that the ability of the state government to enhance location efficiency in Minnesota could be increased if a state agency were established to generate planning framework documents for the state as whole, as opposed to just the Twin Cities metropolitan area. Once these planning documents exist, then all county, city, and township comprehensive plans could be made consistent with them (Envision Minnesota, 2004). One feature that could be in a statewide planning framework is the designation of priority growth areas. These would be limited areas within communities that local governments are encouraged to steer growth to (Minnesota Climate Change Advisory Group, 2008).

**Regional Planning Authorities:** Currently, Greater Minnesota is divided between a series of Regional Development Commissions, providing consulting services to local governments on matters of planning. However, the capacity of these regional bodies to produce location efficiency could be enhanced by giving them the authority to carry out regional planning activities, review local governments’ comprehensive plans, and coordinate activities affecting land use throughout their jurisdictions. In this manner, the location-efficiency benefits of Metropolitan-Council-type regional planning could be extended throughout the state (Envision Minnesota, 2004).

***Siting of Government Buildings:*** The state government is a very large employer. Consequently the location of the state government sites to which state employees commute has significant impacts on location efficiency. Also, private companies derive a benefit from locating near government agencies with which they are obligated to work. Therefore, it would be supportive of location efficiency for the state government to ensure that its buildings are placed in established, denser sections of cities, rather than on their fringes (Smart Growth Network and International City/County Management Association, January 2002).

***Siting of Public Schools:*** The market demand for housing increases in areas near schools. Recently the state of Minnesota reduced the minimum amount of land on which public schools may be sited, making it easier for them to be located on infill sites in established neighborhoods. State laws could go further by giving priority for funding to those school building projects that have been confirmed as being located in areas of location-efficient land use and supportive of the presence of schools (Smart Growth Network and International City/County Management Association, January 2002).

***Annexation and Incorporation Rules:*** The state government has ultimate authority over the conditions under which a new municipality may be incorporated or an existing municipality may annex new land. The moment when an area becomes part of a municipality can have a profound effect on the trajectory of its development patterns. Taking advantage of this, a suggested course of action is to establish minimum population densities for newly annexed and incorporated areas, as well as a requirement that before any land is annexed or incorporated, land use and infrastructure plans must be drafted for it. In this manner, the state government could mitigate some of the inefficiencies that result from haphazard or short-sighted annexation and incorporation (Envision Minnesota, 2004).

## 2. General State-level Incentives and Support Programs

When a state government seeks to promote location efficiency through incentives and support programs, those incentives and support programs may be made available either to local governments or to private developers and individual residents. Offering such incentives and support programs usually requires some financing. Therefore, it is prudent to consider strategies for funding location-efficiency incentives by creative means. If the state offers incentives to local governments to promote location efficiency, it is necessary to determine what specific strategies the local governments are to be rewarded for instituting.

***Incentives and Support Programs for Local Governments:*** For incentives and support programs provided by the state government to encourage greater location efficiency at the local level, those incentives and support programs must overcome two major hurdles. The first hurdle is that of a particular local government not wanting more location efficiency – for example, if some residents in a community are opposed to changes or if the local government is worried about the ratio between its tax base and service costs. The second hurdle crops up if a local government would like to plan for greater location efficiency but lacks the necessary funding and expertise to do so. The following are incentives and support programs that have been suggested for state government to use in overcoming these hurdles:

- Establish a competition wherein those cities with the most effective location efficiency policies will receive a monetary reward from the state government (Puentes, 2011).
- Give more planning grants to local governments, so that they are able to plan for location efficiency strategies in the first place (Salkin, 2007).
- Establish as prerequisites specific local government actions that promote location efficiency, making them requirements for communities wishing to receive some share of the state's aid to local governments, as well as some share of any other funding that goes from the state to local governments (Kane and Flanders, 2011).
- When the federal government grants a state agency the authority to decide how to distribute a particular pool of funds (such as for transportation or housing), the state government should place the priority for distributing those funds to localities that have location-efficient land use (Minnesota Climate Change Advisory Group, 2008).

- In situations where funding is available to local governments on a competitive basis, institute a point-based system for determining who gets the funding and award a significant number of points to those localities that actively and successfully pursue location efficiency (Salkin, 2007).
- Indemnify local governments against legal challenges that might result from instituting particular location-efficiency measures (Salkin, 2007).
- Increase the availability of tax increment financing (TIF) as a tool for funding facility improvements around transit stops, so as to attract developers (Envision Minnesota, 2010).
- Create a state government agency that provides technical assistance to local governments on planning matters, along the same lines as the former State Planning Agency (Kane and Flanders, 2010). This agency could maintain a user-friendly GIS database of land parcels throughout the state, including data on how suitable each parcel is for further development (Salkin, 2007).
- Enact a program of the same variety as the Community-Based Planning Act, which was ended in 2001. Under such a program, financial and technical assistance for local government planning would be linked to a set of statewide development goals (McKnight Foundation, 2008).
- Develop best practices that local governments may refer to when they are planning for greater location efficiency (Minnesota Climate Change Advisory Group, 2008).
- Draft model ordinances for location efficiency that are written so localities may easily insert them into their land use codes (Salkin, 2007).

***Incentives and Support Programs for Developers and Residents:***

- Make location-efficient developments eligible for loans with more favorable terms (Smart Growth Network and International City/County Management Association, January 2002).
- Make location-efficient development projects eligible for tax increment financing (Smart Growth Network and International City/County Management Association, January 2002).
- Make it easier for location-efficient development projects to obtain water-protection easements (Smart Growth Network and International City/County Management Association, January 2002).
- One of the major reasons that private developers shy away from infill development is that the stricter and more complex regulatory environments in established communities slow down the construction process, increase the cost of development, and make project completion far less certain (Carruthers, 2003). Therefore, a useful financial incentive could be provided to private developers at very little cost to government if a system were put into place whereby a given development proposal could be certified as promoting location efficiency, with that certification qualifying the project for a streamlined regulatory approval process (Envision Minnesota, 2010; Smart Growth Network and International City/County Management Association, 2003).
- Provide developers who wish to pursue location-efficient redevelopment projects with access to legal experts who can ensure both that they effectively navigate the complex regulatory processes that such projects must go through and that they are able to take full advantage of the various other incentive programs that such projects may qualify for (Smart Growth Network and International City/County Management Association, 2003).
- Draft a list of available location-efficiency incentives, so that developers are aware of their existence (Envision Minnesota, 2010).
- Partner with various private employers to create a Live Near Your Work program, wherein individual commuters are given financial incentives to live somewhere that is close to their place of employment (Smart Growth Network and International City/County Management Association, January 2002).

## *Funding Sources for Incentive Programs*

The state has only limited financial resources that can be dedicated to incentive programs. Therefore, creative means should be tapped to help fund location-efficiency incentives, means that depend less on money from the over-stretched state budget:

- Some of the incentives that the state may provide to local governments involve giving location-efficient communities priority in the distribution of funds that the state would still be distributing anyway, but for reasons unrelated to land use. This strategy has the advantage of enhancing the benefits of government expenditures without increasing their size.
- The U.S. Departments of Transportation and Housing and Urban Development and the Environmental Protection Agency have created an initiative called the Sustainable Communities Partnership, whose purpose is to fund projects that simultaneously advance objectives in the areas of transportation, land use, and environmental protection. The state government should take advantage of this program and encourage local governments to do the same (Envision Minnesota, 2010).
- Another federal source of funding that may be used for location efficiency is the Low-Income Housing Tax Credit program. It is up to the state to distribute these tax credits to affordable housing developers. This is done on the basis of a point system, wherein the state can choose to award extra points to those projects that are the most location efficient. The state can also dictate that a portion of the tax credits be used to preserve affordable housing near transit stations (Kane, 2009).
- The state could prioritize projects supportive of location efficiency when making decisions regarding the distribution of federal Community Development Block Grants, as well as grants that are available under various other federal programs (Smart Growth Network and International City/County Management Association, January 2002).
- Regardless of where the funding for incentives comes from, it is a good idea to use the funds to generate the optimum amount of benefit per dollar invested. Instead of providing developers with a cash grant incentive, the state could offer developers development finance insurance (DFI). Under a DFI program, the state government agrees to reimburse developers for a portion of their losses on a location-efficient development project, should that project happen to fail. With the inherent risks of real estate investment being mitigated in this fashion, developers become more likely to build in a location-efficient manner. If the state government is selective about which projects qualify for DFI, it will only have to pay out money on a small number of approved projects, generating a large effect from a small expenditure (Smart Growth Network and International City/County Management Association, 2003).
- Another alternative to giving away money in the form of grants is to establish revolving loan funds. Local governments and private actors can tap the revolving loan funds to borrow money at little or no interest. As these borrowers pay back their loans, the government is able to use the same money in the same fashion all over again, eliminating the need for the program to seek new appropriations during each state budget cycle. The revolving loan fund will only decline or be depleted when borrowers default, but even in these cases, the losses could be offset either through fees or through (modest) interest payments (Smart Growth Network and International City/County Management Association, 2003).

## *Local Government Practices to Encourage*

Incentives for local governments will have little meaning unless the state government has a clear idea of exactly what sorts of local government activities and approaches to reward. The most obvious local government action to promote through incentives is zoning laws that encourage higher development densities, more mixed-use zones, and more access to alternative transportation modes. However, there are also many less obvious local government actions supportive of location efficiency that the state could reward:

- *Transfer of development rights*: Under this policy, a local government identifies geographic areas where it wants to encourage development and others where it wants to discourage development. If someone owns land in an area where the local government wants to discourage development, that person may sell the development rights to a landowner whose property is located in an area where the local government wants to encourage development, meaning that the second landowner would then be allowed to develop his or her land at a higher density than what would previously have been allowable on that property (Envision Minnesota, 2004).
- *Density bonuses*: Developers usually prefer to develop their land at higher densities rather than lower densities, because the more use they get out of each acre, the higher their profits will be. When a developer receives a density bonus, it means that in exchange for taking a particular action, they are given the reward of being allowed to develop their land at a higher density than what it is zoned for. Even though allowing developers to build at higher densities is itself supportive of location efficiency, density bonuses could still be used to motivate developers to also take other sorts of actions that promote location efficiency. The bonuses could be granted to developments that incorporate multiple land uses on a single property, or to projects that are designed for pedestrian accessibility, or to developers who agree to pitch in money towards the improvement of some off-site facility that is intended to attract additional location-efficient developments (Feiock, Tavares, and Lubell, 2008).
- *Liberalized zoning ordinances*: More often than not, zoning laws in a city restrict the level of development density, the amount of mixed-use development, and the amount of pedestrian accessibility to less than what would result from developers building as they see fit. Therefore, location efficiency would be enhanced by a local government choosing to expand the number of different land uses that may be established within a given zone, choosing to increase maximum densities, or choosing to decrease the number of parking spaces required for any given development (Johnson, 2003).
- *Cooperation between neighboring local governments*: Neighboring local governments very frequently see one another as competitors for those types of land development that are likely to provide the greatest tax revenue per dollar of public service costs incurred. Competition between local governments can result in some very inefficient land use patterns. However, the problem could be substantially mitigated by neighboring local governments coordinating their land use decisions in a manner that they decide will be of mutual benefit (McKnight Foundation, 2008).
- *Impact fees*: Impact fees are assessed against developments to offset the cost to the local government of providing a new development with infrastructure and public services. Greenfield developments along the urban fringe incur greater infrastructure and service costs than infill developments in neighborhoods that already have infrastructure extended to them. Consequently, one may expect the impact fees for infill developments to be smaller than those assessed against fringe developments. In this way, impact fees may be used both as a revenue tool and as a location-efficiency incentive for developers (Smart Growth Network and International City/County Management Association, January 2002).
- *Special area plans*: Special area plans are categories within a local government's official list of land use zones that are applied to very specific land areas within the locality. Within these zones, greater flexibility is provided regarding how land is developed – greater flexibility than what conventional zoning code classifications would allow. Location efficient development could be encouraged by drafting special area plans for neighborhoods that are being targeted either for redevelopment or for transit-oriented development (TOD) (Metropolitan Council, 2011).

- *Urban growth areas (UGAs)*: Established through cooperative efforts by municipalities, townships, and the counties that contain them, urban growth areas determine what portions of the land outside of an urbanized area will be allowed to urbanize in the coming decades. Lands located outside of a UGA are then restricted to being developed at extremely low densities. Consequently, whatever development there happens to be a demand for must be made compact enough to fit within the UGA (Envision Minnesota, 2004).
- *Protecting industrial land uses*: In general, if an area of a city is zoned as mixed-use, developers will accept the invitation to establish a wide variety of land uses within that area. However, because land developers derive less profit from industrial uses than from commercial and residential uses, very few industrial buildings tend to be built in mixed-use zones, with the consequence that industrial land uses are instead established in far less location-efficient parts of the community. Therefore, when local governments institute liberalized zoning codes for the purpose of promoting location efficiency, it might be a good idea for them to still maintain some areas as being zoned specifically for industrial uses (Bronstein, 2009).

### 3. Adjustments to Metropolitan Council Policies

Most of the location-efficiency strategies and tactics that can be instituted at the state level in Minnesota also can be instituted at the level of the Metropolitan Council. However, there are some location-efficiency strategies and tactics that would require using unique powers that, in Minnesota, are held only by the Metropolitan Council. The following are a few strategies and tactics of this nature:

***More Specific Planning Requirements:*** One way for the Metropolitan Council to increase its influence over location efficiency is through the planning documents that it produces. In particular, it could increase the level of specificity for goals contained within its Metropolitan Development Framework that have a bearing on location efficiency. If this were done, local governments within the seven-county metropolitan area would have less leeway to plan in a manner that defeats the spirit of the Metropolitan Council’s location efficiency goals while hiding behind the defense that the council’s policies are vaguely worded.

One example of how the Metropolitan Council’s planning documents could be made more specific in regard to their location efficiency goals is if they laid out narrower ranges into which development densities must fall in various zones throughout the region. This would likely mean setting higher minimum development densities within transportation corridors and designated redevelopment zones, in addition to increasing the minimum development density for any new lands added to the Metropolitan Urban Service Area. It is worth noting, though, that in order for greater specificity within Metropolitan Council planning documents to have a meaningful impact on location efficiency, it may also be necessary for the council to become more aggressive in its enforcement actions. In particular, the council could demonstrate a greater willingness to deny its approval to local comprehensive plans that violate the spirit of the council’s goals for the region (Regional Strategies Working Group, 2002).

***MUSA Boundaries:*** In those portions of the Metropolitan Council’s jurisdiction that are not part of the Metropolitan Urban Service Area, allowable development densities are kept very low. This leaves Twin Cities real estate developers with a choice between restricting their activities mostly to land located within the MUSA or engaging in “leapfrog development,” wherein they move their development activities to the so-called collar counties, located just outside of the council’s jurisdiction. When developers are opting for the former of these two choices, location efficiency would be promoted by a policy of expanding the MUSA as little as possible, so as to confine development to a more compact area. However, when developers are opting for the latter choice and developing outside the council’s jurisdiction, location efficiency would be promoted by a policy of expanding the MUSA at a faster rate, so as to reduce the motive for leapfrog development. It is a matter of no small debate which of these two policies is more effective at controlling urban sprawl in the Twin Cities (Metropolitan Council, 2006).

***The Met Council’s Region:*** Even though the Metropolitan Council’s boundaries were originally set in such a way as to provide planning and infrastructure coordination and growth management throughout the Twin Cities metropolitan area, the full metropolitan area is now much larger than just the area over which the council has authority. Consequently, those counties located just outside the Metropolitan Council’s territory are experiencing metropolitan development pressures, but without the benefit of a regional authority to help ensure that those development pressures are handled in a manner consistent with location efficiency. It may be that expanding the geographic area over which the

Metropolitan Council has jurisdiction will yield benefits derived from regional planning and growth management in the collar counties (Collar County Study Committee, 2005).

***Strengthening Affordable Housing Requirements:*** In the Twin Cities, there exists a fair-share housing program, whereby each municipality within the Metropolitan Council's territory is obligated to take measures to meet a certain proportion of the regional need for affordable housing units. Programs such as this can make it easier for low-income workers to live closer to their places of employment throughout a metro area, hence reducing their overall VMT. Therefore, if the Metropolitan Council wishes to increase location efficiency through affordable housing, it would be well-advised to not only continue to have a fair-share housing program but also conduct a review of that program's specific provisions, with the goal of figuring out ways it could be made even more supportive of location efficiency (Smart Growth Network and International City/County Management Association, January 2002).

***Improve Property Tax Sharing:*** The Twin Cities is home to a property-tax-sharing program (see section below on Government Activities Affecting Location Efficiency), which is intended to reduce the inefficiencies that result from local governments engaging in the practice of fiscal zoning and competition for development. As with fair-share housing, this is something that the Metropolitan Council should continue to engage in but also evaluate for ways in which it could be made more effective at producing efficient land use patterns (Smart Growth Network and International City/County Management Association, January 2002).

#### 4. Transportation Infrastructure Investments

As a rule, land development is much more likely to take place in areas that are well-served by infrastructure than in areas that are not. Furthermore, as has already been established here, matching specific types of land use with appropriate types of nearby infrastructure is a critical element of location efficiency. The following is a list of actions whereby transportation infrastructure may be used to advance the goals of location efficiency. (For information on sanitary sewer infrastructure, see the MUSA heading of the section below on Government Activities Affecting Location Efficiency.)

***Fix It First in Compact Areas:*** The Minnesota Department of Transportation (MnDOT) already has a fix-it-first policy in which maintaining existing roadways takes precedence over the construction of new roadways. However, this policy could be further refined to not only give priority to preservation and maintenance of existing infrastructure but to give even higher priority to maintaining existing infrastructure in the most compact of neighborhoods (Kane and Flanders, 2010).

***Building on Complete Streets:*** MnDOT policies also now incorporate complete streets provisions, wherein roadways must be designed in such a way as to adequately accommodate transportation modes other than the private automobile. These policy provisions could be made even more supportive of location efficiency by increasing the amount of flexibility allowed in how these design standards are met, so as to take advantage of innovative new ideas that emerge and to address unusual circumstances that may present themselves in a given location. Furthermore, measures should always be taken to ensure that the manner in which the complete streets design requirements are met is complementary with any nearby land uses (Envision Minnesota, 2010).

***Identify Future Transitways:*** The State of Minnesota and the Metropolitan Council should firm up the maps for routes of future transitways and pedestrian facilities in the Twin Cities region. Having these routes more firmly established would help to make private developers more inclined to build alongside them in anticipation of the promised future amenity (Minnesota Office of the Legislative Auditor, 2011).

***A Metro Transit Real Estate Division:*** Metro Transit could establish a real estate office in order to advance transit-oriented development. The function of this office would be to spur location-efficient development projects in the vicinity of various stops within the transit system, especially in the areas around stations for light rail, commuter rail, streetcars and bus rapid transit. These real estate efforts should involve the development of excess land that the transit agency originally bought up when obtaining rights-of-way for fixed-route transitways (Surface Transportation Policy Partnership, Transit for Livable Communities, and Minnesota Center for Environmental Advocacy, 2011). It should be noted that the establishment of such a real estate office within Metro Transit would best be accompanied by the repeal of a 2006 law that requires that the transit agency sell off as quickly as possible any excess land originally obtained for transitways through eminent domain (Kane, 2009).



## Massachusetts

In 2003, then Massachusetts Governor Mitt Romney created the Office of Commonwealth Development, with the authority to oversee and coordinate the activities of various other state agencies, including those with authority over housing, transportation, and environmental affairs (Puentes, 2011; Salkin, 2007). The Office of Commonwealth Development is responsible for running the Commonwealth Capital program. This program calculates scores that are used to assign 30% of the total possible points used by the state when determining which cities will receive a wide variety of grants and loans from the state government through its Offices of Administration and Finance, Energy and Environmental Affairs, Housing and Economic Development, and Transportation and Public Works. To qualify for these points, local governments must submit an annual application explaining how their land use plans and regulations are consistent with the state's 10 sustainable development principles (Envision Minnesota, 2010; Massachusetts, *Commonwealth Capital—2010 Summary*; Kane and Flanders, 2010). Among these principles are the concentration of development patterns and the mixing of land uses, the expansion of housing opportunities in efficient locations, the provision of greater transportation mode choices, the enhancement of employment and business opportunities through clustering and efficient siting, and the implementation of regional planning efforts (Massachusetts, *Sustainable Development Principles*, undated).

Other measures in the state of Massachusetts that support location efficiency include the following programs:

- *Long-Range Transportation Plan*: Includes 20-year transportation objectives for the state, including smart growth, fix-it-first policies, and transit-oriented development.
- *Transit-Oriented Development Infrastructure and Housing Support Program*: Provides money for, among other things, sidewalk improvements, bicycle facilities, housing facilities, and parking facilities that are located near transit stops.
- *Chapter 40R*: Encourages cities to zone for greater density in the vicinity of suburban commuter rail stations.
- *Commercial Area Transit Node Housing Program*: Provides money for housing developments with at least 50% of their dwelling units designated affordable and with the housing located either in commercial areas or near transit.
- *MassHousing Priority Development Fund*: Provides funding for TOD, smart growth developments, and mixed-income housing that is located near transit (Salkin, 2007).

## Maryland

In the state of Maryland, incentive programs have generally been chosen over hard-and-fast regulations for the purpose of influencing land use patterns, primarily because it is politically more feasible to get incentive programs passed into law. One example of these incentive programs is Maryland's Transfer of Development Rights system. However, the state's principle tool is the establishment of Priority Funding Areas (PFAs). The state government intentionally limits the amount of money that it makes available for growth projects initiated by local governments that are not inside one of the PFAs that the state has mapped out. In fact, the Maryland state government has a policy of making urban infrastructure investments (such as the provision of sewer service) *only* inside PFAs. (Nonetheless, a portion of state expenditures on sewer service does still take place outside the PFAs, primarily in the form of repairing nonperforming septic systems.) Another way in which Maryland uses Priority Funding Areas to direct land development patterns is in conjunction with the state's Job Creation Tax Credit Program. Tax credits distributed under this program are awarded at a greater rate inside PFAs than outside them (Knapp and Song, 2004; Salkin, 2007).

Unfortunately, several problems have tended to mitigate the positive land-use effects of Maryland's PFA program since its inception in 1997. First of all, even though the law defines maximum development densities for areas outside PFAs, there is no system for monitoring whether or not these requirements are being met and there are no penalties prescribed for the violation of those requirements. Furthermore, the exact size, shape, and location of many of the PFAs are poorly defined within the law. PFAs have even less teeth to them because they are not required to be included in local governments' comprehensive plans. Finally, the exact extent of the development incentives found within PFAs very frequently varies according to the whims of whoever happens to be governor at the time (Salkin, 2007).

Besides Priority Funding Areas and Transfer of Development Rights, there are a few other noteworthy state government policies in Maryland that support the cause of location efficiency:

- *Smart growth cabinet secretary:* The state of Maryland has a cabinet-level secretary for smart growth, who is responsible for coordinating relevant activities carried out by various other state departments, educating the public on matters of efficient land use, and facilitating smart-growth development and redevelopment projects (Smart Growth Network and International City/County Management Association, January 2002).
- *Live Near Your Work:* Maryland has a Live Near Your Work program, wherein workers who buy homes near their jobs may qualify to receive \$1,000 apiece from the state government, their local government, and their employer, all to go towards their down payment and closing costs (Smart Growth Network and International City/County Management Association, January 2002).
- *Preserving schools:* Funding priority is given to the preservation of existing public schools over the construction of new ones (Smart Growth Network and International City/County Management Association, January 2002).

## California

One of the California government's most important tools for reducing VMT through location efficiency is the Sustainable Communities and Climate Protection Act. Under this act, the state government sets overall reduction targets for greenhouse gas emissions from transportation sources. Next the state government works with various regional authorities throughout the state to determine what each region's share should be for meeting these targets. After that, the state provides the regional authorities with the necessary technical assistance to generate urban growth plans that are consistent with their respective shares of the greenhouse gas reduction targets. California then supports the carrying out of these urban growth plans by offering development incentives for particular kinds of development in particular areas of the region. The creation of these growth plans is a prerequisite for any given region to receive state funding for transportation projects, with the quality of a region's growth plan determining just how high a priority rating that region receives when it comes to state transportation funding (Bhatt, Peppard, and Potts, 2010).

## Delaware

In the year 2001, the Delaware legislature passed a series of three bills that each had important implications for location efficiency. The first of these bills increased the amount of money available for brownfield redevelopment. The second bill created a framework for graduated impact fees, whereby impact fees are set to the highest level in those areas where urban expansion is the least desired. The third bill dictated that if a city wishes to annex new land, it must have a plan for how and when city services will be extended to the annexed land, as well as a resolution process for any disputes that might arise from the annexation.

Meanwhile, Delaware's State Planning Office provides an invaluable tool for planners throughout the state in the form of highly detailed strategy maps. These maps help determine whether or not development on any given piece of land would be consistent with state policies. In addition, each piece of land is labeled as being at one of four possible investment levels, with lands at each investment level determined to have a certain set of shared characteristics and have a particular set of development strategies prescribed for them.

Other noteworthy Delaware programs include:

- A selection process for new public school sites that favors location efficiency.
- A Live Near Your Work program, wherein workers are provided with financial incentives to live within three miles of their jobs.
- Coordination between the state's Economic Development Office and its Center of Infrastructure and Intergovernmental Relations for the purpose of guiding development to preferred growth areas, including areas targeted for infill development (Salkin, 2007).

## Arizona

In 1998, the Arizona legislature passed the Growing Smarter Act, which, among other things, provided enforcement measures to make local governments adhere to the state's already-mandatory comprehensive planning process, with the requirement that their comprehensive plans include sections on open space planning, definitions of urban growth areas, environmental planning, and the financial cost of development.

In the year 2000, the Arizona legislature passed the Growing Smarter Plus Act. Among this act's provisions are the following:

- A requirement that all 10-year local government comprehensive plans be subjected to voter approval.
- A requirement that local governments take part in regional and intergovernmental planning.
- Permission for local governments to set service area boundaries.
- Permission for counties to impose development fees in the same manner that cities were already allowed to.
- The option for cities to establish infill development incentive districts.
- The creation of a Transfer of Development Rights program.

Finally, in the year 2001, the governor issued an executive order establishing the Growing Smarter Oversight Council, which monitors the implementation of the Growing Smarter and Growing Smarter Plus Acts. When this Oversight Council identifies problems with the implementation of these acts, it suggests corrective actions by the state legislature. The Growing Smarter Oversight Council is also responsible for determining means by which to measure the success of programs under the above acts and is responsible for spearheading media and communications campaigns to educate both the public and government officials on matters related to smart growth and location efficiency (Salkin, 2007).

## Oregon

In 1973, the State of Oregon created a Land Conservation and Development Commission, as well as a set of state-wide planning goals. In this same legislation, Oregon also put into place the requirement that all urban areas in the state must be subject to urban growth boundaries (UGBs), in spite of how politically difficult it is to institute such a strict form of land use control. The extent of each UGB in the state is updated regularly, but the expansion of any UGB is only permitted in the face of some form of demonstrated need. Oregon's urban growth boundaries were made significantly weaker by the passage of a ballot measure in the year 2004, requiring local governments to either compensate land owners whose property values are lowered by the presence of the UGB or else grant them a waiver from adhering to it. The Oregon state government also promotes location efficiency through its Transportation and Growth Management Program. This program provides local governments with access to grants, expert planning consultants, and model land-use codes (Salkin, 2007).

## Connecticut

In the early 2000s, the then-governor of Connecticut created an urban homeownership program, making available rehabilitation grants and extended-term, low-interest mortgages within certain designated urban areas. In the year 2006, another gubernatorial action created the Office of Responsible Growth. The responsibilities of this Office include the following:

- Promoting interagency and regional planning dialogues.
- Providing local governments with incentives to engage in land-use planning.
- Updating Connecticut's Green Plan, which covers efforts on environmental issues.
- Reviewing the state's transportation policies.
- Encouraging the creation of business opportunities in the state.
- Producing educational materials on all of the above matters (Salkin, 2007).

## Colorado

In the year 2000, Colorado established an Office of Smart Growth (OSG), whose mission is to provide both financial and technical assistance to local governments on matters of land use planning and growth management. The technical assistance made available to local governments through the OSG includes free training workshops, model ordinances, a variety of handbooks and manuals, and an overall information clearinghouse on matters related to smart growth. Meanwhile, the financial assistance provided to local governments through the OSG includes the Colorado Heritage Planning Grant program. Grants awarded under this program are intended exclusively for planning efforts that involve two or more local governments, providing an incentive for local governments to work together when they do their planning. Another noteworthy initiative from the State of Colorado is the Intergovernmental Land Use Dispute Resolution Program. This program is intended to provide tools for the resolution of conflicts between neighboring local governments. One such tool that this program offers to local governments is a list of qualified professionals who possess expertise in both dispute resolution and land use planning (Salkin, 2007).



# Government Activities Affecting Location Efficiency

This section lists ways in which location efficiency is already promoted in Minnesota, and previews certain other state government tools that could be used for the same purpose

## The Metropolitan Council and Location Efficiency

Nowhere in Minnesota is there greater state-government influence over land use than in the seven-county area covered by the Metropolitan Council, a governing body appointed by the governor. For this reason, the influence of the Metropolitan Council over location efficiency is discussed here separately from the influence of government policies with statewide reach.

**Metropolitan Council Background:** The Metropolitan Council was established by the Minnesota legislature in 1967 for the purpose of coordinating governmental services across the Twin Cities area (Envision Minnesota, 2010). The borders of the Metropolitan Council have always encompassed the seven counties of Hennepin, Ramsey, Dakota, Anoka, Washington, Carver and Scott. In 1967, the Census Bureau’s designation for the Twin Cities Metropolitan Statistical Area (MSA) included only five counties, those being all of the Metropolitan Council counties except for Carver and Scott. However, the current Twin Cities MSA encompasses 13 counties, including all seven of the Metropolitan Council counties and six more beyond the council’s jurisdiction (Envision Minnesota, 2004). Among government entities with regional mandates, the Metropolitan Council is unusual, owing both to the extent of its powers over local planning activities within its jurisdiction and to the gubernatorial appointment of its members (Envision Minnesota, 2010).

**Metropolitan Council Planning Documents:** Under state law, the Metropolitan Council must maintain a Metropolitan Development Guide, as well as system plans for the region’s surface transportation facilities, aviation facilities, water resources, and parks and open space. In order to promote the efficient provision of infrastructure throughout the region, the Metropolitan Council must verify that the comprehensive plans of all local governments are consistent with its system plans (Metropolitan Council, 2010). Meanwhile, the Metropolitan Development Guide includes what is known as a “Development Framework,” which lays out goals for the region’s future land use (Regional Strategies Working Group, 2002). The Development Framework includes goals that are consistent with location efficiency, including the increase of transportation mode choices, the concentration of growth near transportation facilities, and steering a portion of the region’s growth towards its more established areas. However, some commentators question whether the specific targets associated with these goals are ambitious enough and whether the Metropolitan Council pursues its stated objectives aggressively enough (Regional Strategies Working Group, 2002). The use of any money that the Metropolitan Council distributes to local governments must be consistent with the Metropolitan Development Guide. In addition, if a local government seeks to carry out a project that the Metropolitan Council deems to be both of regional significance and inconsistent with the development guide, the council may place a one-year suspension on the project (Regional Strategies Working Group, 2002).

**The Comprehensive Planning Cycle:** One of the most important ways in which the Metropolitan Council affects land use is through the review of local comprehensive plans. Every 10 years, local governments in the seven-county metropolitan area must produce a comprehensive plan, covering such issues as housing, infrastructure, the provision of services, the disposition of natural areas, and development goals and patterns. The very fact that local governments must have comprehensive plans is a key factor in supporting location efficiency. The cycle in which Twin Cities local comprehensive planning takes place adheres to the following pattern:

- The U.S. Census Bureau makes its decennial release of highly-detailed population data.
- Using the data provided by the Census Bureau, the Metropolitan Council makes official 20-year growth forecasts for the number of people, number of households, and number of jobs in every part of the seven-county metropolitan area.

- The Metropolitan Council uses these growth forecasts to make updates to its official system plans.
- The Council submits individualized documents to every local government within its territory, stating exactly what the implications will be for that community of any changes contained in the updated system plans.
- Once this information is received, cities have three years to make their comprehensive plans consistent with the system plans.
- Whatever sort of comprehensive plan a local government produces, it needs to be approved by the Council, verifying its consistency with all of the system plans.
- Finally, whenever a local government wishes to update its comprehensive plan more than once in ten years, any changes resulting from the extra updating must also be approved by the Metropolitan Council (Metropolitan Council, 2010).

As this comprehensive planning cycle proceeds, its outcome is affected by several additional provisions of Minnesota law:

- In addition to being consistent with the Council’s plans, local comprehensive plans must be consistent with one another (Minnesota, 2007).
- Before submitting its comprehensive plan to the Metropolitan Council for approval, a local government must first gather comments on that plan from any neighboring and overlapping jurisdictions (Minnesota, 2007).
- After a local government has received its tailored information from the Metropolitan Council on how the new system plans will affect it, it is left to decide whether or not this new information warrants a comprehensive plan amendment (Minnesota, 2007).
- The Council may require a local government to change the comprehensive plan it submitted, provided that the Council finds that the plan represents a “substantial” impact on or departure from the system plans (Minnesota, 2007).
- If the Council tells a local government to further modify its comprehensive plan, the local government may lodge a challenge to that decision. If that happens, then the challenge goes to a hearing before either an administrative law judge or an advisory committee. However, the hearing may only legally produce a recommended course of action that the Council reserves the right to ignore. Furthermore, these recommendations are forbidden from questioning whether the system plans themselves are reasonable (Minnesota, 2007).
- All zoning and other official controls that cities institute must be consistent both with their own comprehensive plans and with the system plans. When the Council reviews a comprehensive plan, these more specific official controls are also reviewed (Minnesota, 2007).
- All comprehensive plans are required to include an affordable housing element that addresses both local and regional needs (Minnesota, 2007).

In order to help cities carry out these mandatory activities, the Council employs individuals whose job it is to act as liaisons with specific communities. This is in addition to providing cities with access to experts on various specific comprehensive planning topics. Small communities that cannot pay for their own comprehensive planning are eligible for grants from the Council (Metropolitan Council, 2010).

***Metropolitan Urban Service Area (MUSA):*** The MUSA is that area within the Metropolitan Council’s territory where the Council ensures the provision of regional services and facilities, such as major highways and especially sewers. The purpose of a MUSA is to save governments money by ensuring that urban growth is orderly, economical, contiguous, and synchronized with the provision of infrastructure (Metropolitan Council, 2006). The 2020 MUSA encompasses 670,000 acres. It should not be assumed, though, that all 670,000 acres will have sewers by 2020, since the MUSA only encompasses the area that might get sewer service within a given time frame (Metropolitan Council, 2006).

When the size of the MUSA is increased, it is usually the result of a local government requesting that it be expanded within their jurisdiction. Rules for how these requests are evaluated are contained within the *2030 Regional Development Framework*, the Metropolitan Council's top planning document. Specifically, MUSA expansions are granted on the basis of an area having a sufficient land use mix, sufficient density, and sufficient connections between land uses (Metropolitan Council, 2006).

Different rules exist for how lands may be zoned inside and outside of the MUSA. However, the stated intent of the Metropolitan Council in its governing planning documents is to provide municipalities with flexibility for how they plan within larger approved areas (Metropolitan Council, 2006). When sewer service arrives in a given area, the area is expected to have a net residential density of at least 3-5 dwelling units per acre. Net residential density is determined on the basis of the total number of acres that are actually developable. A municipality may choose to count extra dwelling units in areas that have more than three per acre as credits towards allowing them to keep much lower residential densities in other parts of the city (Metropolitan Council, 2007). Within rural areas that fall outside of the MUSA, there is a maximum residential density of 1 dwelling unit per 10 acres. However, some critics say that this rule is not well enforced (Regional Strategies Working Group, 2002; Surface Transportation Policy Partnership, Transit for Livable Communities, and Minnesota Center for Environmental Advocacy, 2011).

**Federal Highway Funds:** Acting in its capacity as the official Metropolitan Planning Organization for the Twin Cities, the Metropolitan Council has the authority to decide how, where, and under what conditions to distribute federal highway funds within the region. Being able to influence the locations and characteristics of thoroughfares gives the Metropolitan Council another significant tool for affecting land use patterns (Johnson, 2003). Much of the federal highway funding is flexible and can be used for a wide variety of road and transit projects. This flexibility is used in many other places throughout the country but not used much in the Twin Cities, and it could be used much more here.

**Livable Communities Act (LCA):** The Livable Communities Act is a grant program established in 1995 and administered by the Metropolitan Council. The specific purposes for which LCA grant money is meant to be used are economic revitalization, affordable housing, and development and redevelopment activities that connect land uses and which also have good transportation access. Within Livable Communities, there exist four separate grant programs with different characteristics:

- *Tax Base Revitalization Account (TBRA):* Funds brownfield cleanup projects in areas served by transit.
- *Livable Communities Demonstration Account (LCDA):* Funds development and redevelopment projects that use land and infrastructure in an efficient, cost-effective manner, including following development patterns that create links between housing, employment sites, and various services.
- *Local Housing Incentives Account (LHIA):* Funds affordable housing efforts.
- *Land Acquisition for Affordable New Development (LAAND):* Provides interest-free loans for affordable housing projects (Metropolitan Council, 2010).

**Property Tax Sharing:** Within the Metropolitan Council territory, a portion of cities' property-tax revenues must be shared among all the cities. The benefit of such a system is that it reduces the temptation among local governments to compete with one another (through zoning, fiscal instruments, and other mechanisms) for those land uses which are known to produce the greatest tax revenue per dollar's worth of city services consumed. The theory is that if cities are discouraged from so-called "fiscal zoning," they will be more likely to center their land-use decisions on goals such as location efficiency. However, there are two major limitations to this tax-sharing program. First, it applies to commercial and industrial properties, but not to residential properties, which leaves open the fiscal zoning tactic of mandating large residential lots and low residential densities. Second, the program requires the sharing of 40% of commercial and industrial property taxes, but only on that portion of a city's tax base that represents growth since the year 1971. Consequently, unless a city's commercial and industrial property tax bases were extremely small in 1971, the actual percentage of their commercial and industrial property tax revenue that they are required to share is actually far less than 40% (Smart Growth Network and International City/County Management Association, January 2002).

## Statewide Policies that Affect Location Efficiency

Even though the state government of Minnesota does not exert as much control over land use outside the Metropolitan Council territory as inside it, there are some actions that it takes which affect location efficiency in Greater Minnesota. The following is a summary of some of the things that the state government either does or does not do (or can or cannot do) in this regard.

***Disparities between Metropolitan Council and Greater Minnesota Local Governments:*** The barriers to location efficiency in Greater Minnesota include a lack of technical assistance, political resistance, a lack of money, and a lack of guidance from any sort of larger regional authority, such as the Metropolitan Council (Collar County Study Committee, 2005). One issue of particular concern is that comprehensive planning is not required of cities outside the Metropolitan Council area (Envision Minnesota, 2004). Without the financial and technical resources that a regional coordination body could provide, a great many local governments in Minnesota are too small to do any land use planning at all, thus leaving their development on the path to almost certain high inefficiency when it comes to location choices (Envision Minnesota, 2004).

Since local governments in Greater Minnesota are subject neither to system plans, such as those created by the Metropolitan Council, nor to urban service area boundaries, like the MUSA boundary in the Met Council's region, they are unable to reap the monetary savings of coordinated infrastructure provision (Collar County Study Committee, 2005). Even though local governments outside the Metropolitan Council could work together on planning issues of mutual concern, there is little incentive to do so. Many communities view each other as competitors in a game of piecemeal development policies that primarily pursue short-term fiscal goals, usually with the result being inefficient land use patterns (Collar County Study Committee, 2005).

One area in which short-term, parochial interests have a particular tendency to trump regional efficiency is the manner and timing of either new land being annexed into existing municipalities or previously unincorporated areas being transformed into new cities and towns (Envision Minnesota, 2004). At the same time, neighboring local governments often are reluctant to merge into a single larger unit because they bring decidedly unequal tax bases to the deal (Collar County Study Committee, 2005). Two more limitations that local governments in Greater Minnesota generally face are a lack of the financial and legal know-how to effectively deal with developers (Collar County Study Committee, 2005) and a tendency for schools to be sited without consideration for what the development potential is of the land underneath them (Collar County Study Committee, 2005).

***General Policies of State Agencies:*** Even though there is little state government involvement in planning for Greater Minnesota communities, there are some statewide laws and state agency policies that affect various components of location efficiency:

- There are state laws that limit the extent to which local governments can use various types of public finance tools (such as tax increment financing, discussed below) for redevelopment in established areas (Envision Minnesota, 2010).
- A 2006 Minnesota law limits the use of eminent domain (Kane, 2009).
- In 2009, state laws determining the amount of land required for each of the state's public schools were revised to reduce the minimum amount of land per school. It is now easier for schools to be sited on small infill properties, as opposed to lands near a community's fringe. This is significant because the demand for housing tends to be greater in areas near schools (Kane and Flanders, 2010).
- In 2010, Minnesota passed a Complete Streets law, which states that when the Minnesota Department of Transportation undertakes a construction project, the agency must consider the project's effect on the travel modes of walking, bicycling, and public transit, even if the primary purpose of the project is to build, improve, or maintain facilities for automobile travel (Kane and Flanders, 2010).

- Another noteworthy MnDOT policy is the use of a fix-it-first rule when deciding which activities to focus its finite resources on. MnDOT puts the spending priority on maintaining existing transportation facilities, as opposed to building new ones (Kane and Flanders, 2010). The effect of this policy on location efficiency is positive because building even more roadways would have the affect of encouraging households and companies to move to more remote locations, further increasing the distances traveled.
- At the Minnesota Housing Finance Agency, policies have been adopted that place a greater emphasis on ensuring that as many affordable housing units as possible are located within close proximity of existing developments, vital services, and highway and transitway corridors (Minnesota Climate Change Advisory Group, 2008). Since the residents of affordable housing units are more likely than most to have a need to use transit, locating affordable housing near transitways is certainly a source of efficiency. Also, locating any housing, affordable or otherwise, near existing developments and services is very much in keeping with the principles of location efficiency.

***Minnesota Incentive and Support Programs:*** Both inside and outside the Metropolitan Council’s territory, local governments bear the primary responsibility for land use planning, and the particular types and amounts of land development that take place within the parameters set in land use regulations by local governments are up to individual real estate developers and their customers. Therefore, it is important to note the incentive programs that the state makes available to local governments, land developers, and individual residents – incentive programs that either currently do or potentially could motivate them to make decisions that support location efficiency. Also worthy of note are any programs that make actions supportive of location efficiency easier and simpler to undertake for those who already want to take such actions. The following is a list of present and past incentive and support programs created by the state government that either promote location efficiency or present an opportunity to promote location efficiency:

- *Tax Increment Financing (TIF):* Under this financial mechanism, approved applicants are allowed to pay for such things as infrastructure improvements and the development and improvement of parcels of land by way of special government bonds. Rather than being paid back in the same manner as an ordinary loan, these bonds are paid off using whatever increase in the property tax base results from the projects that they fund. In Minnesota, TIF was originally intended for improvements to blighted neighborhoods and the building of affordable housing. However, it is now used as a funding tool for just about any kind of activity that attracts new development to an area, regardless of whether it is location efficient (Johnson, 2003).
- *Department of Planning:* Until 2003, the Minnesota Department of Planning employed staff whose job it was to give planning advice to local governments all over the state, as well as to generate written guides on how local governments may pursue particular planning goals. This sort of technical assistance was a boon for local governments that are too small to have much planning expertise among their own staff (Smart Growth Network and International City/County Management Association, January 2002; Bhatt, Peppard, and Potts, 2010).
- *Community-Based Planning Act (CBPA):* Started in 1997 but now defunct, this act created a system for local governments to receive both monetary and technical assistance for their comprehensive planning activities. The act also provided for the state government to draft guidelines for local comprehensive planning, especially in the area of growth management (Envision Minnesota, 2004). It was thanks to the assistance provided by the CBPA that many Minnesota counties established urban growth areas within their borders and that the St. Cloud Area Joint Planning District was established (Envision Minnesota, 2004).
- *Contamination Cleanup Grant Program:* This is an incentive program within Minnesota’s Department of Employment and Economic Development. It exists to help clean up brownfield areas in established urban regions so that they can be developed again (Envision Minnesota, 2010).
- *Green Step Cities:* This is a toolkit of greenhouse gas reduction strategies that may be used in Minnesota communities that have neither public transit nor high-density housing. One of the strategies in this toolkit is efficient highway-oriented design (Metropolitan Council, 2011).



## Appendix A: What Location Efficiency Is and What It Does

Location efficiency is a term describing land use patterns that optimize efficiency for travel between related destinations and that derive the greatest possible utility from the transportation system. Location efficiency creates an environment that allows people to quickly and easily reach destinations without much – or any – travel by car. The most basic indicator of a location-efficient place is a low level of vehicle miles traveled per person (VMT<sub>pp</sub>) (Smart Growth Network and International City/County Management Association, 2003.) Achieving a low rate of VMT<sub>pp</sub> consists both of minimizing the distances that must be traveled for various kinds of trips and of increasing the viability of non-automobile transportation modes (Center for Neighborhood Technology, 2010).

**Characteristics of Location Efficiency:** Characteristics of location-efficient neighborhoods and regions include:

- high employment density
- high population density
- the mixing of land uses
- transit accessibility, and
- connectivity and pedestrian-friendly street design (Dittmar and Ohland, 2004).

Location efficiency is heavily associated with both the idea of smart growth, which aims to mitigate urban sprawl, and the practice of transit-oriented development (TOD), wherein multiple land uses are clustered at high density within walking distance of a transit stop. A widely-used standard for matching transit with land use is that a residential area should have a density of seven dwelling units per acre to warrant bus service to it (Dittmar and Ohland, 2004). Eight dwelling units per acre are considered necessary to support a transit line with 25-minute headways, and 11 dwelling units per acre are considered necessary to support 15-minute headways (Dittmar and Ohland, 2004). In addition to high densities, a successful TOD must also contain related land uses that promote the internalization of trips within the development. If retail establishments are located within walking distance of transit-oriented commercial and residential clusters, it becomes far more practical for people to use transit for their work trips and forego the need to make separate automobile trips for the running of errands (Dittmar and Ohland, 2004). In addition to reducing VMT from personal work and non-work trips, another important aspect of location efficiency is the mixing of related commercial, industrial, and institutional land uses, which reduces travel by freight vehicles (Bronstein, 2009).

**Benefits of Location Efficiency:** According to one study, persons moving from traditional auto-oriented neighborhoods to location-efficient TOD neighborhoods may expect their VMT to go down by 25-57% (Jonathan Rose Companies, 2011). If this is accurate, there are significant benefits that may be derived from location efficiency and its VMT-reducing effects. Any strategy that reduces VMT is also likely to produce reductions in greenhouse gas emissions and energy use. For the United States, 17% of all greenhouse gas emissions come from household automobile use (Center for Neighborhood Technology, 2010). A household that owns a conventional car (or cars) and is located in a conventional suburban development will, on average, expend 132 million BTUs in transportation energy use per year, a figure which goes down to an average of 42 million BTUs per year in location-efficient TOD neighborhoods (Jonathan Rose Companies, 2011).

Another commonly-cited benefit of location efficiency is that reductions in vehicle miles traveled per person enable households to reduce the portion of their income that is spent on transportation costs. Given that on average households in general spend 1/5<sup>th</sup> of their income on transportation and that households with incomes of \$20,000-\$50,000 spend an average of 30% of their income on transportation, the individual financial benefits of location efficiency are potentially very great (Lipman, 2006). However, reaping these benefits requires the implementation of other complementary policies besides location efficiency because location-efficient neighborhoods have higher property values than other neighborhoods. The result is that the combined amount of money that a household spends on transportation and housing tends to remain largely constant from neighborhood to neighborhood within a metropolitan area,

with the proportion of this amount that is spent on transportation generally decreasing with proximity to large employment centers (Lipman, 2006).

Other potential benefits of location efficiency include:

- Meeting diverse housing needs, beyond what is likely with conventional land use patterns (Envision Minnesota, 2010)
- Reductions in infrastructure costs paid by municipal and other governments, resulting from the same number of customers being served by fewer total miles of roads and sewer lines (Envision Minnesota, 2010)
- Financial savings for businesses, with less spent on in-town transportation and advantages from agglomeration effects (Brookings Institution, 2010)
- Preservation of agricultural land and other open space through the reduction of urban sprawl (Minnesota Climate Change Advisory Group, 2008).

***How Location Efficiency Reduces VMT:*** A 2001 study of the Twin Cities area found that at that time travelers tended to budget about 70 minutes for travel on each day that they traveled, regardless of land use patterns. Not only does this mean that travelers are reluctant to spend more than 70 minutes traveling on a given day, it also means that they have a tendency to *fill* their travel-time budget in situations where less than 70 minutes of time is required to meet their various travel needs, either by choosing a preferred job and a preferred home location that are farther away from one another or by making non-work trips that are either more frequent or to locations farther away (Barnes and Davis, 2001). In this manner, the 2001 study found that most people are unlikely to travel less than what their personal travel-time budget allows. They are only likely to exceed their travel-time budget when it is necessary to do so in order to meet their bare minimum travel needs, such as by dint of living or working in very remote locations or as a result of economic hardship (Barnes and Davis, 2001). Consequently, when location efficiency reduces VMT, it is doing so either by offering people shorter trip distances in exchange for slower trip speeds or by increasing use of alternative transportation modes (Barnes and Davis, 2001). It is also worth noting that, to the extent that development patterns are able to affect how much time people spend traveling, people are far more likely to change the amount of time that they spend traveling to and from work than the amount of time that they spend on non-work trips (Barnes and Davis, 2001).

Regarding the share of commuters traveling by what transportation mode, the most important factor is how close people live to major employment centers (as opposed to how close they live to the nearest employment opportunity), with the people who live closest to these employment centers (or closest to an efficient transit route serving those centers) being the most likely to use transportation modes other than a personal automobile. The second most important factor in determining transportation mode share is the presence of a highly-connected, pedestrian-friendly street network. Overall, though, transit ridership is a function of how competitive transit travel times are with automobile travel times for the same trips (Metropolitan Council, 2011).

***Combining Elements of Location Efficiency:*** Even though several different characteristics of location-efficient land use have been presented here, attempting to implement any of these land use characteristics without the others is unlikely to lower VMT much (Johnson, 2003). The strategy of increasing residential density, most especially, requires the implementation of other related policies, such as transit service and transit-oriented development, to be effective (Metropolitan Council, 2011).

***Location Efficiency at the Regional Scale:*** It is important to note that location-efficiency strategies employed at the neighborhood level and at the regional level can have very different degrees of effectiveness. Unfortunately, far more is known about the effects of these strategies at the neighborhood scale than at the regional scale (Knapp and Song, 2004). One thing that is known about regional location efficiency is that polycentric metropolitan areas – areas with more than one center, as is the case in the Twin Cities – are more auto-dependent than monocentric ones (Buliung and Konaroglou, 2006). The reason for this is the critical importance of employment density for reducing VMT, an importance which far exceeds that of residential density (Barnes and Davis, 2001; Johnson, 2003). When a small enough area is home to a sufficiently large number of jobs, it is possible that market forces will naturally attract a high density

of residential land uses in the vicinity of that employment center (Johnson, 2003). Furthermore, a sufficiently large and dense employment center (such as a downtown, but not necessarily a downtown) will provide the necessary level of demand for transit service to make the area a major transit hub, with the result that a large number of commuters will be able to use transit in order to reach it, even if they actually live a great distance away. Use of transit will be more likely, too, if parking at the employment center is scarce or expensive (Barnes and Davis, 2001; Johnson, 2003).

### ***Location Efficiency Downsides and Impediments:***

- Rapid advancements in communications and information technology have the potential to substantially alter how transportation systems and land use relate to one another (Hanson and Giuliano, 2004).
- Urban sprawl is perpetuated by the fact that land prices on the urban fringe are almost always lower than in more concentrated areas, as well as the fact that many people prefer to live in a low-density environment (Kane and Flanders, 2011).
- Self-selection matters. Those individuals who choose to live in location-efficient neighborhoods may be the same people who would be predisposed to minimize their automobile use no matter where they happen to live. Consequently, the VMT savings that result from each household that moves from a less location-efficient neighborhood to a more location-efficient one may not be as great as the average VMT figures of those two neighborhoods might suggest (Knapp and Song, 2004). Of course, the flip side is that the provision of location-efficient neighborhoods *allows* people who are disinclined towards automobile travel to avoid being obligated to engage in more travel by car than what their actual preference would be (Barnes and Davis, 2001).
- Two very important components of location efficiency are the creation of large, dense employment centers and the mixing of commercial and residential land uses. However, if the economy of a metropolitan area is only large enough to support a certain number of jobs, shifting jobs from one neighborhood to another may just create location efficiency in one area at the expense of another area, resulting in meager net benefits across the region (Barnes and Davis, 2001).
- A walkable, dense, mixed-use neighborhood may make it easier for people to make trips *within* that neighborhood, but at the same time make it more difficult for people to make trips *to* the neighborhood (Barnes and Davis, 2001).
- Even though large, dense commercial centers are able to produce significant increases in transit use for commuting, they may also increase the distances that people commute each workday (Victoria Transport Policy Institute, 2010).
- Even though dense urban land use has the ability to reduce VMT, the greenhouse gas-reduction benefits of this are partially offset by the fact that cars in slow city traffic get worse gas mileage than cars driving on highways through the suburbs (Barnes and Davis, 2001).
- Since the benefits of VMT-reduction from location-efficient land use depend heavily on the existence of a multimodal transportation system, the smart course of action would be to coordinate transportation and land use policies. However, the effects of land use on transportation and the effects of transportation on land use exist in a chicken-or-egg relationship. Consequently, the timing of any coordinated transportation and land use policies is necessarily very difficult to determine (Johnson, 2003).



## Appendix B: Trends and Statistics for Location Efficiency in Minnesota

This appendix begins with Minnesota-specific data regarding the present state and likely future direction of some of the policy objectives that location-efficiency is meant to achieve, such as decreasing VMT and greenhouse gas emissions, increasing non-automobile mode shares, and making the combined cost of housing and transportation more affordable to more people. This is followed by observations regarding the degree to which the basic elements of location efficiency can be found in Minnesota land use patterns, as well as what the likely trajectory of those land use patterns is. Special attention is given to the distinction between conditions in the Twin Cities metropolitan area and the remainder of the state.

### The State of Location Efficiency in Minnesota

**Vehicle Miles Traveled:** According to the 2008 report of the Minnesota Climate Change Advisory Group, VMT in the state of Minnesota had risen 45% since the year 1990, even though the state's population only grew by 19% during the same time period (Minnesota Climate Change Advisory Group, 2008). In the year 1990, the seven-county Metropolitan Council accounted for 52% of the state's population, but only 45% of statewide VMT. By 2005, the Metropolitan Council's share of the state population had risen to 54% and its share of state VMT had dropped to 40%, suggesting that VMT growth rates in the Twin Cities are slower than those in Greater Minnesota (Minnesota Climate Change Advisory Group, 2008). On the basis of this and other data, the Minnesota Climate Change Advisory Group projects that in the year 2025, the seven-county metropolitan area will account for 58% of the state's population, but only 36% of its VMT. The Advisory Group predicts that growth in VMT will be a relatively minor concern in the Twin Cities, but a very large concern in the remainder of the state (Minnesota Climate Change Advisory Group, 2008). It should be noted, however, that these statistics and projections use a very narrow definition of the Twin Cities metropolitan area, encompassing the seven counties that are under the jurisdiction of the Metropolitan Council but not any of the "collar counties" into which the metropolitan area has been spreading over the decades. These collar counties, and especially those collar counties along the northern border of the Metropolitan Council's region, have seen particularly large increases in vehicle miles traveled (Envision Minnesota, 2004). Worth noting, too, that annual vehicle miles in Minnesota leveled off from 2004 forward and have declined somewhat in the last several years.

**Greenhouse Gas Emissions and Energy Consumption:** It is estimated that in the year 2005, 25% of Minnesota's total greenhouse gas emissions came from the transportation sector, with 61% of transportation-sector emissions coming from on-road gasoline vehicles and 18% coming from on-road diesel vehicles. In 1990-2005, the quantity of greenhouse gases generated by Minnesota's transportation sector increased by an average of 1.7% per year. On-road gasoline use went up 31% in 1990-2005 and on-road diesel use went up 49%. During this same period, transportation accounted for 22% of the net growth in Minnesota's emissions (Minnesota Climate Change Advisory Group, 2008).

**Transportation Mode Shares:** Transit, due to the density required to make it viable, is primarily a metropolitan issue. Therefore, any discussion of mode shares in Minnesota must be first and foremost about the Twin Cities metropolitan area:

- At the start of the last decade within the Metropolitan Council area, less than 10% of personal trips were made by transit, bicycling, or walking (Metropolitan Council, 2011, reporting on results from the 2000 Travel Behavior Inventory; results for the 2010-11 inventory were not yet available at the time of this publication).
- The Twin Cities transit mode share is very close to the national average for metropolitan areas, at least as of early in the last decade:
  - Transit accounted for 2.5% of all trips in the Twin Cities.
  - Transit accounted for 5.2% of all *work* trips in the Twin Cities.
  - Transit accounted for 25% of all trips where one of the trip ended in either downtown Minneapolis or downtown St. Paul (Johnson, 2003).

- Walking and bicycling account for approximately 4% of all trips in the Twin Cities (Johnson, 2003).
- By far, the cities of Minneapolis and St. Paul, and most especially their downtowns, are home to the Twin Cities' highest usage rates for alternative transportation modes. In addition to density and the clustering of destinations, this is in part due to the greater number of low-income households to be found in the central cities (Barnes and Davis, 2001). For low-income commuters in the urbanized area of the Twin Cities Metropolitan region – workers in households with incomes at 150% of the poverty level or below – the work-trip mode-share estimates are as follows:
  - 62.5% drive alone
  - 14.3% car pool
  - 12.8% take transit (Census estimates from the American Community Survey, 2007-09).
- In spite of the historical trend towards more car travel, Twin Cities transit ridership has experienced noteworthy increases in recent years. During the period 2004-2008, bus ridership increased 34% (not counting trips on the Hiawatha light rail line) (Brookings Institution, 2010).

**Housing/Transportation Affordability:** It is estimated that households in the Twin Cities Metropolitan Statistical Area (MSA) with incomes of \$20,000-\$50,000 spend 27% of their incomes on housing and 30% on transportation (Lipman, 2006). This puts the Twin Cities above the national average for personal transportation costs and below the national average for housing costs (Center for Transit Oriented Development and Center for Neighborhood Technology, 2006). Some patterns emerge within the metropolitan area when the trade-off measures of housing and transportation affordability are combined. Even though there are some expensive neighborhoods in Minneapolis and St. Paul, these two cities are still, by far, the most affordable places to live in the metropolitan area, assuming that both housing and transportation costs are taken into account. Other areas that are affordable according to this measure are primarily to be found alongside several major transportation corridors that radiate outward from the two central cities. As far as less affordable areas of the Twin Cities are concerned, the worst areas are in the northern, western, and eastern suburbs (Center for Transit Oriented Development and Center for Neighborhood Technology, 2006). Only in the two central cities are there any neighborhoods where the combined costs of housing and transportation are affordable for a family making less than 50% of the metropolitan area's median income (Center for Transit Oriented Development and Center for Neighborhood Technology, 2006).

## Is Location Efficiency Being Achieved in Minnesota?

The historic trend in Minnesota land use patterns is towards less location efficiency, rather than more, although the years following the economic downturn in 2008 indicate some change for this pattern at least in the Twin Cities area. Throughout most of the post-World War II era, the average distances between Minnesotans' homes and places of work have gotten longer. Commuting and development patterns have spread out even in communities that did not experience population growth (Adams, Koeppe, and VanDrasek, 2003). Research indicates that trends in development patterns found in the Twin Cities are generally mirrored in the areas around the state's other regional centers, although sometimes with a built-in time delay (Adams, Koeppe, and VanDrasek, 2003).

**Urban Sprawl:** It was been estimated, prior to the 2010 Census, that by 2030, the population of the urbanized area of the Twin Cities would increase by one million. (Following the 2010 Census, the estimate was reduced to three-quarters of a million.) The McKnight Foundation notes that without countermeasures, 3/4<sup>ths</sup> of this increase will be from households spreading into what are currently rural areas (McKnight Foundation, 2008). This would be a continuation of a trend which, during the 1980s and 1990s, saw the Twin Cities become the second worst U.S. metropolitan area in terms of urban sprawl (Surface Transportation Policy Partnership, Transit for Livable Communities, and Minnesota Center for Environmental Advocacy, 2011). The outward spread of the metropolitan area, and hence the reduction of its density, is contrary to the idea of location efficiency, of course.

The Twin Cities' high rate of urban sprawl shows what happens when a large number of actors make independent, short-term decisions in pursuit of their self-interests. Many people move to edge communities because they want to live someplace isolated, but so many other people have the same idea that reclaiming the goal of an isolated home-

stead eventually requires more moves to places even more remote, resulting in an endless cycle of sprawl (McKnight Foundation, 2008). To make matters worse, when people move to an edge community, they usually already have a job someplace else in the metropolitan area, meaning that after they move outward they likely have a longer daily commute (McKnight Foundation, 2008).

In addition to responding to this market demand for buildings around the metropolitan fringe, land developers are also motivated by the fact that land in edge communities is generally cheaper and by the fact that the laws in edge communities make land development easier and less expensive than in more built-up communities (Ward, 2003). While land prices and local regulatory practices leave fringe development largely unhindered, the possibility still exists that it will eventually be slowed down by the difficulty of meeting an ever-expanding need for new sources of potable water, especially where growth in land development exceeds growth in infrastructure (Ward, 2003).

One particularly troubling aspect of Twin Cities urban sprawl is “leapfrog development.” Within the Metropolitan Council’s region, land development is subject to far greater regulation than in the rest of the state. Therefore, rather than new Twin Cities development extending outward contiguously, developers choose to focus on the “collar counties,” located just outside the area that is subject to the Metropolitan Council’s rules. Development rates are especially high in those collar counties which run along the northern border of the Metropolitan Council area, most particularly Sherburne, Chisago, and Wright Counties (Envision Minnesota, 2004).

**Separation of Land Uses:** The Brookings Institution reports that over half of the Twin Cities’ population lives within a 30-minute travel time of at least one million jobs. However, just because someone lives within easy travel distance of a large number of jobs does not necessarily mean that person is able to take advantage of that fact. Even though 45% of poor Twin Cities residents live in Minneapolis or St. Paul, less than 30% of low-wage jobs in the Metropolitan Council’s region are in either of those two cities (Brookings Institution, 2010).

**Employment Concentration in the Twin Cities:** According to the Metropolitan Council, the Twin Cities contain eight major job and activity centers, defined as each being a contiguous area with at least 10 jobs per acre and at least 40,000 total jobs. This is the level that the Met Council considers sufficient to support transit service. In addition to the Minneapolis and St. Paul downtowns, the greatest concentrations of jobs in the Twin Cities are along highway corridors (and sometimes transit corridors, especially where they happen to run alongside a highway corridor), most especially within the area bordered by the Interstate 494 and 694 beltways. There is no expectation on the part of the Metropolitan Council that any significant shifts will take place in the geographic positions of the Twin Cities’ major areas of job concentration (Metropolitan Council, 2011). The only Twin Cities employment centers with a density of at least 50,000 jobs per square mile are the Minneapolis and St. Paul downtowns and the University of Minnesota, which together account for 14% of all Twin Cities jobs (Transit for Livable Communities, Minnesota Center for Environmental Advocacy, and Surface Transportation Policy Partnership, 2008).

The current Twin Cities trend is of decreasing job concentration. Already, a majority of Twin Cities commuting is suburb-to-suburb, as opposed to being directed from suburban households to central-city job centers (Ward, 2003). The suburbanization of Twin Cities jobs can be largely attributed to technological advances that reduce the benefits of having a large number of employees and a large number of related businesses in a single location. Consequently, companies now move service jobs closer to the decentralized population whose business they want, rather than forcing their customers to travel to a distant central business district (Ward, 2003).

**Proximity to Transit:** 25% of the Twin Cities population lives near moderate-to-frequency transit, defined as fixed-route service that runs at least six days a week and with headways of no more than 30 minutes. Meanwhile, 10% of Twin Cities residents live near high-frequency transit (Transit for Livable Communities, Minnesota Center for Environmental Advocacy, and Surface Transportation Policy Partnership, 2008). However, just because someone lives near a transit stop on a route with short headways does not mean that the individual will have reason to travel to where that transit route goes. Although both job sites in general and dense concentrations of job sites are dispersed throughout the metropolitan area, only the job centers of the Minneapolis and St. Paul downtowns and the University of Minnesota have regionwide accessibility via the existing transit system (Transit for Livable Communities, Minnesota Center for Environmental Advocacy, and Surface Transportation Policy Partnership, 2008).

***Land Use Patterns in Comprehensive Plans:*** Following the most recent round of updates to local governments' comprehensive plans within the seven-county metropolitan area, the Metropolitan Council compiled statistics showing the degree to which these revised documents are anticipated to increase location efficiency in the Twin Cities:

- If the comprehensive plans are adhered to, there will be nine times as much land zoned as mixed-use in the year 2030 as there was in the year 2005, accounting for nearly 3% of overall land use within the Metropolitan Council's jurisdiction (Metropolitan Council, 2011).
- 2/3<sup>rd</sup>s of mixed-use land planned to exist in the Twin Cities in 2030 will be within a half mile of a highway and 1/3<sup>rd</sup> will be within a half mile of a fixed transit corridor (highways and fixed transit corridors very often follow the same route) (Metropolitan Council, 2011). Whether it is a highway or a transitway, significant efficiency is derived from a given land use being located near a transportation corridor.
- 20% of 2030 land use will be dedicated to either low- or medium-density housing. Meanwhile, 1% of land will be zoned for high-density housing (defined as containing at least 8 dwelling units per acre), which will be in addition to high-density housing that results from that type of housing constituting one of the permitted land uses in approximately half of the region's mixed-use zones (Metropolitan Council, 2011).
- In 2030, half of all high-density housing will be near a highway corridor and 23% will be near a transit corridor (Metropolitan Council, 2011).
- 1/5<sup>th</sup> of 2030 land use will be located within a half-mile of a highway, with 60% of this highway corridor land use consisting of either residential, commercial, industrial, or institutional uses or areas of mixed-use zoning (up from 45% in 2005).
  - 9% of all land use within a half-mile of a Twin Cities highway will be zoned as mixed-use.
  - 3% of land use within these highway corridors will be high-density housing.
  - 30% will be either low- or medium-density housing.
  - 18% of Twin Cities highway corridor land use in the year 2030 will be either commercial, industrial, or institutional (Metropolitan Council, 2011).
- 8% of 2030 Twin Cities land use will be within a half-mile of either an existing or a planned fixed-route transitway, such as light rail, commuter rail, or bus rapid transit (Metropolitan Council, 2011).
- In 2030, mixed-use zoning and high-density residential land use will constitute 16% of all land use around transit stations that are along fixed-route transitways. Within these station areas, the share of land dedicated to mixed-use zoning will be in excess of 11%, as compared to a less-than-3% share in the year 2005. Meanwhile, 27% of station-area land use will be low-to-medium density housing and about the same percentage of land will be filled by commercial, industrial, and institutional land uses (Metropolitan Council, 2011).



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