Chapter 2: Vision, Goals, and Strategies

A Vision for Ann Arbor's Transportation System

"An integrated multi-modal system that will build upon the unique qualities of each part of the city" is the City of Ann Arbor's vision for its transportation system. To achieve this vision, the transportation plan is focused on meeting the needs of all transportation users: pedestrians, bicyclists, transit users, commercial trucking, and motorists.

In the past, transportation plans focused solely on transportation solutions. As travel patterns have become more complex; congestion is no longer associated just with trips between home and work in the peak hours. In addition, the public and community officials no longer view the transportation system just as a way of getting around, but as an important ingredient in the city's overall character, economic health and sustainability. The link between transportation and land use decisions has become more obvious, and this plan considers both the transportation consequences and opportunities of various land use scenarios. The city's transportation philosophy is to improve safety, reduce emissions, and reduce congestion not by widening streets, but through a series of transportation improvements and policy changes. Many of the recommendations in this Plan incorporate the best transportation and land use principles being used by other progressive cities, but with careful refinement to acknowledge and support the unique qualities of Ann Arbor and the high expectations of its residents, employers and visitors. The Plan directs investment and decision-making toward mobility and accessibility for all user groups, building on the success of the 1990 plan and setting a course for the next 20 years.

The Ann Arbor Transportation Plan Advisory Committee, comprised of representatives from City, County, local agencies, business leaders, and residents, developed a set of goals to drive the recommendations and provide a performance measure for proposed transportation improvements. These goals were presented at public workshops and refined throughout the process. The goals are to:

1. Provide appropriate access and mobility for people and goods, with minimal negative impacts for all.
2. Protect and enhance the natural environment and energy resources, and the human and built environment.
3. Promote a safe and secure transportation system.
4. Invest in transportation infrastructure in a manner consistent with other goals, and within the financial constraints of public/private resources.
5. Promote cooperation between the City of Ann Arbor and other governmental entities, particularly the surrounding townships and municipalities and the University of Michigan, in a manner consistent with the other goals.
6. Ensure that meaningful public involvement will be part of any transportation project in the City of Ann Arbor.
7. Promote a transportation system supportive of and integrated with land use decisions.
8. Work to accommodate projected development by decreasing emissions and auto miles traveled compared to future levels.

Supporting the Vision and Goals: Ann Arbor Strategies

To support the vision and goals, several key strategies have been identified to harmonize all **modes** for a sustainable transportation system. Transportation Demand Management (TDM) was a key component of the 1990 plan. Traditionally, TDM involved policies and programs to reduce the number of vehicle trips, especially single-occupant vehicle trips in the peak hour. This Plan Update builds on this foundation for managing travel demand to further advance the city's traveler choices and options to provide a balanced, cost-effective transportation system in the light of projected growth. A revised approach to TDM supplements additional key strategies such as Transit-Oriented Development (TOD), Context Sensitive Solutions (CSS), non-motorized systems, access management, and Transportation Impact Analyses, all described below. The success of implementing this Plan will be directly linked to establishment of city policies and capital investment, as well as policies and capital investment of all public agencies, including the UM, which align transportation and land use decisions with the Plan's recommendations. The strategies in this Chapter are referred to throughout the plan as the rationale for intersection, street, and transit improvement projects and as the tools for implementing recommendations to meet Plan goals, and provide traveler choices to all.

What is a Mode?

A transportation "**mode**" is, simply put, a type of travel. A mode can be walking or biking, driving a car or truck, riding a bus or other transit facility, or using any means of transportation.

Traveler Choices and Options (Transportation Demand Management or TDM)

Consistent with the vision and goals of this plan, improving the city's transportation system requires maximizing the existing automobile facilities while directing more investment to alternate modes. Traveler Choices strategies are critical to running an efficient multi-modal transportation system. A number of strategies developed as part of the North East Area Plan (NEAP) which have been refined and incorporated in Plan update, to be supported through policy and funding decisions, including:

- Employment of a full-time Travel Choices Coordinator for part/all of the city
- Improvement / enhancement of transit development/funding
- Improvement / enhancement of non-motorized network
- Advanced traffic signal technology
- Parking management
- Ridesharing
- Telecommuting/Alternative work hours

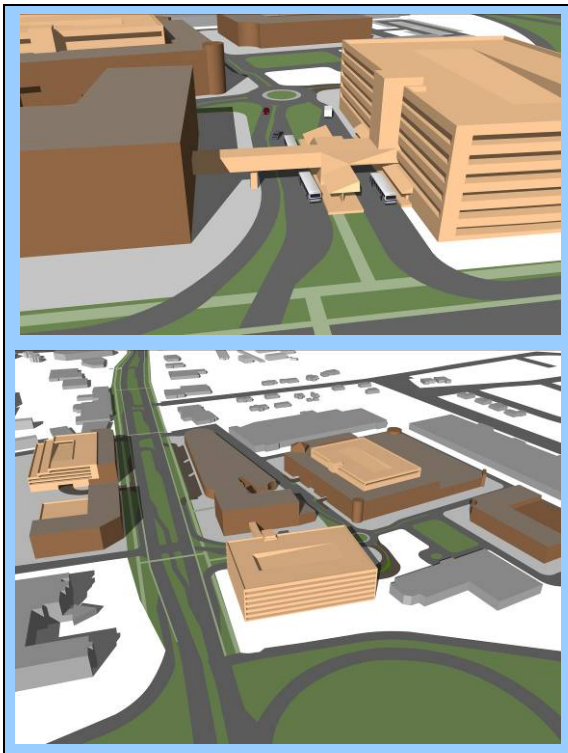
Building a Sustainable Transportation System

- Encourage walking and biking for better health.
- Make cost-effective investments over the long term.
- Support an efficient transportation system that meets the needs of commerce and helps attract and retain young professionals.
- Reduce the reliance on fossil fuels and reduce carbon footprint.
- Utilize green technologies, such as for signal systems.
- Incorporate environmentally friendly design (street design, re-use of materials, green stormwater).
- Reduce emissions through less congestion and travel by means other than single-occupant automobiles.

Transit Enhancements

A key foundation of this Plan is to improve traveler choices, with expansion of transit as an important ingredient to meeting Plan goals. Ann Arbor already has a first-class transit system, especially when compared to other cities of its size. AATA and the U of M have implemented many enhancements to make transit more convenient and accessible such as additional park and ride lots and continuous monitoring of the system to revise routing. Plans are in place to improve the system through "green" buses, additional park and ride lots and potential commuter rail connections to Howell (WALLY), Metro Airport and Detroit. The package of planned improvements will make Ann Arbor even more transit friendly.

But rather than contentment with those improvements to transit already under development, this Plan proposes a more varied transit system, possibly with new types of transit service along "signature corridors" to link key destinations in the city. A separate transit feasibility study will be undertaken to evaluate options for additional transit such as more frequent bus service, street cars or bus rapid transit for those corridors. Among the factors that will be considered are potential ridership, benefits to economic and environmental sustainability and financial feasibility.



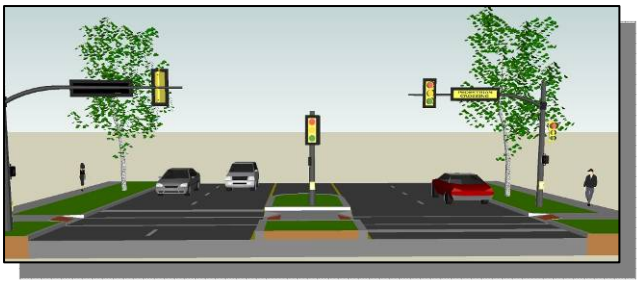
This Washtenaw/US-23 interchange area simulation illustrates one land use-transportation intensification concept with infill development designed to support increased walking, biking, and transit use with multi-story, mixed-use buildings, structured parking, and integral transit facilities.

One approach to support viable transit, especially along those signature corridors, is for more transit-friendly land uses and design, sometimes called Transit-Oriented Development or Transit-Oriented Design (TOD). Ann Arbor already has many transit-oriented areas – downtown, U of M campuses, some compact neighborhoods. But there are opportunities to gradually make those signature corridors more transit friendly through the following actions:

- Use zoning to restrict additional development of auto-oriented uses such as gas stations or large shopping centers with large amounts of parking in the front. Instead, zoning should encourage more compact development, with buildings closer to the street to increase traveler choices by making it more convenient for walkers, bicyclists and transit riders.
- Provide an inviting environment for walking with pedestrian-oriented design. That would include buildings closer to the street, streetscape amenities, and convenient pedestrian connections between uses and transit stops.
- Promote residential and employment densities that support transit for development and redevelopment. This could mean minimum heights rather than maximum heights, and mixed use rather than single-use developments (example, a multistory building with

commercial on the first floor and offices or residential above instead of single-story commercial).

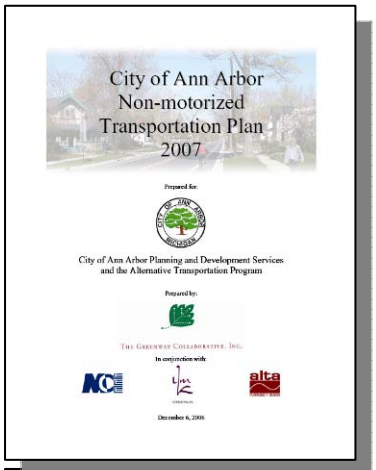
- Decrease required parking needs as transit availability increases at each location. Parking could be located in the rear, sides or even in parking structures to make development more compact. Employers could offer incentives to encourage employees to use transit rather than park on site.
- Use zoning revisions through a corridor overlay district or a more "form based" rather than "use based" approach to support transit, along with walking and bicycling. A model overlay TOD zoning district is included in Appendix A.



A mid-block pedestrian crossing, shown above, is one example of a street design element that provides a supportive environment for pedestrians and promotes transit as a viable, safe option for travelers.

- Use density bonus incentive in City code for all developments within ¼ mile of certain types of transit routes.
- Promote transit corridors as an attraction for employers looking to locate in the city, as a way to accommodate new employees and visitors without increasing congestion, emissions and other environmental consequences of single occupant auto travel.

Active Transportation (Non-Motorized Transportation Systems)



The city's position on non-motorized transportation is best summarized in the 2007 Non-Motorized Transportation Plan. It maintains three primary goals:

1. To integrate planning practice with non-motorized policies.
2. To develop a comprehensive non-motorized network as part of the city's overall system.
3. To raise awareness of the benefits of non-motorized transportation on the quality of life and the environment.

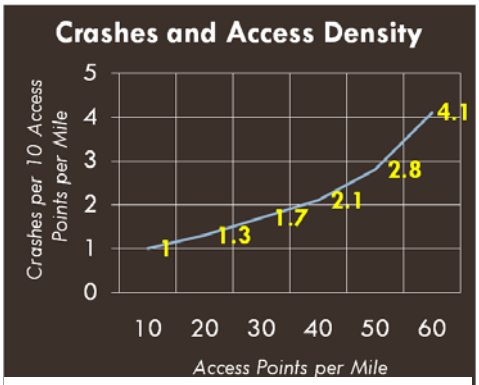
Together, these statements support the city's policies to elevate the importance of non-motorized modes of travel so they are equal to other modes that must be accommodated. In other words, the City of Ann Arbor is developing and maintaining a transportation system where investment and priority is spread across all modes.

As such, the city's Non-Motorized Transportation Plan includes policy recommendations to include non-motorized elements in the design of all future street projects, and/or to be accepting of reductions to vehicular Levels of Service if it is necessary to accommodate non-motorized enhancements. The city's Non-Motorized Transportation Plan aims to educate its citizenry toward better understanding of the physical, mental and environmental benefits of non-motorized travel, as it can reduce noise, water and air pollution, encourage healthier living, and provide a more sustainable transportation system. It is also necessary to serve the city's growing senior population. The percentage of residents over the age of 60 increased from

9.7% in 1990 to 10.6% in 2000, and continues to grow. As it does, additional non-motorized travel options will be required to assure these residents maintain a high level of accessibility and quality of life. This transportation plan supports those recommended policies.

Access Management

Numerous studies in Michigan and nationwide have shown that a proliferation of driveways or an uncontrolled driveway environment can increase the number or severity of crashes, reduce capacity of the street, and may create a need for more costly improvements in the future. Excessive access points also make streets less safe and inviting for pedestrians and bicyclists. Ann Arbor has several streets where the number and location of access points have a noticeable influence on traffic flow, such as along segments of Packard, Jackson, State, and Plymouth.



Data from the National Highway Institute.

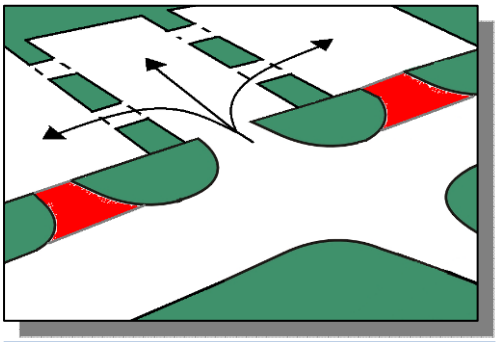
Access management involves a series of tools to reduce crash potential, maximize street capacity and improve corridors for transit, bicyclists, and pedestrians. These tools are implemented through the regulation of number, spacing and design of access points.

Ann Arbor participated in the preparation of a corridor access management study for the Jackson / Huron / Washtenaw Corridor *(Washtenaw County Access Management Plan - WCAMP)*. This plan incorporates the specific recommendations of that plan, but expands the scope to include all the major streets in the City. The City crafted a city-wide access management zoning ordinance amendment to implement recommendations and establish general standards for access management. As other major corridors in the City require reconstruction or improvement, similar studies should be prepared in advance of final design.

Optimum driveway spacing reduces the amount of information a driver must process and improves driver reactions. Adequate spacing between driveways and unsignalized roadways (or other driveways) can reduce confusion that otherwise requires drivers to watch for ingress and egress traffic at several points simultaneously while controlling their vehicle and monitoring other traffic ahead and behind them. Reducing the amount of information related to selecting an access point and avoiding conflicting turns and traffic provides greater opportunity to see and safely react to non-motorized and transit users both on- and off-street.

Access Management Principles. To achieve the typical benefits of access management, access standards and practical application of access management must recognize the following principles:

- Locate driveways away from intersections.
- Consolidate and eliminate driveways wherever feasible to increase driveway spacing.
- Establish shared access connections wherever feasible to promote cross-access and reduce individual access points.
- Relocate or eliminate driveways with poor offset spacing from driveways on the opposite side of the



One key access management principle is sharing driveways and promoting cross-access connections between adjacent properties.

street.
- Design driveways to meet the needs of pedestrians, bicyclists and motorists.

Implementation. This Plan promotes access management implementation generally in two ways: as part of street reconstruction or improvement projects, or interpretive application of access management standards as sites are developed or redeveloped. While City-wide access management standards recommended in the zoning ordinance amendment are based on national research and the Michigan Department of Transportation (MDOT) Access Management Program, the recommended regulations include an inherent acknowledgement that the built-out character of Ann Arbor's major streets will require application of recognized access management principles on a case-by-case basis.

While individual land owners may see the regulations as a burden to access, a well managed access system will improve access to properties and maintain travel efficiency, enhancing economic prosperity of local businesses. Chapter 3 makes specific recommendations related to access management in Ann Arbor, including recommended zoning ordinance amendment language (located in Appendix A) to establish standards and guiding principles for implementing access management on the City's major streets.

Context Sensitive Solutions (CSS)

Since the 1990 Plan, Context Sensitive Solutions (CSS) emerged as a process to better ensure transportation improvements complement the character (or context) of the vicinity. The Federal Highway Administration (FHWA) defines CSS as a "collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility."

Enhanced crosswalks are supported by CSS principles by placing equal emphasis on pedestrians, bicyclists, and autos, which is integral to the character of Ann Arbor's streets.

Conventional street design standards define features such as minimum lane width, design speed and minimum parking supply. A traditional engineering approach reflected the assumption that bigger and faster is better, resulting in wider roadways and higher design speeds. Ann Arbor has taken a different approach, applying many of the CSS principles before they came into vogue.

While safe and efficient travel for automobiles and commercial traffic is always a component of street improvement projects, the city has balanced those needs with the needs of transit, walkers, and bicyclists. An example includes the narrowing of lanes and other design features to calm traffic speeds along Platt Road.

As new projects are designed, the city will continue to consider all users. In addition, Ann Arbor will continue

Streetscape enhancements improve aesthetics, provide public spaces, and serve adjacent land uses.

to promote public awareness and input during the design process, a feature of its CSS-based approach.

Green Transportation

Virtually all of the various Ann Arbor planning documents have a common goal related to a reduction in negative environmental impacts and "sustainability". An environmentally friendly approach to transportation is an ingredient in implementation of those goals. Through various workshops and public forums conducted as this plan was prepared, there was frequent expression that Ann Arbor's transportation plan should promote environmental goals through its policies and recommendations. In 2005, Mayor Hieftje announced his Green Energy Challenge, calling for municipal use of at least 20% "green energy" by the year 2010 and for city-wide use of green energy by the year 2015. As of June, 2006, 14.7% of the city's energy was from green sources. The elements listed below intend to further this goal:

- Reduce automobile use by offering more choices for walking, bicycling and transit.
- Accommodate planned growth without an increase in vehicle use or greenhouse gas emissions through promotion of other modes of travel and more compact, mixed use development.
- Reduce emissions through improved traffic flow. This can include select intersection improvements, improved signal timing coordination, and ever improving technology. Technology (including on board systems) can direct motorists to their destination, available parking, and alert them of incidents or construction so those potentially congested areas can be avoided.
- Recycle materials and use of recycled materials, when practical.
- Use landscaping generously, such as in medians and along the street edge to filter runoff and reduce the "heat island effect".
- Deploy more energy efficient vehicle fleets and lighting.
- Consider priority parking for car pools, ridesharing, and hybrid, electric or other high-efficiency and/or low emissions vehicles.
- Use best management practices and Low Impact Design techniques for stormwater runoff from streets, and perhaps pervious pavement for certain parking areas or lots. Low Impact Design considers use of individual stormwater systems that include design elements such as reduced impervious surfaces, functional grading, open channel sections, disconnection of hydrologic flowpaths, and the use of bioretention/filtration landscape areas.
- Assess alternative transportation on an ongoing basis, through use of surveys and bicycle/pedestrian counts.
- Offer priority parking or pricing to "clean" vehicles such as electric cars, hybrids, Zipcars and carpools.
- Pursue alternative energy sources for transportation vehicles, signs and lighting such as solar and hydro-power or wind energy.

Transportation Impact Analysis and Trip Reduction Factors

In order for transportation impacts of proposed development to be anticipated and mitigated, it is important to understand how many new "trips" will be generated, and how those trips will impact the transportation system. City policy requires a transportation impact study be prepared by a developer for any project that would generate 50 or more directional (one-way) trips in the peak hour or 500 trips expected in an average day. Guidelines for preparing transportation impact studies have been established by the "Evaluating Traffic Impact Studies: A Recommended

Practice for Michigan Communities," the Institute of Transportation Engineers (ITE) Trip Generation Manual, and other handbooks. Traditionally, these studies have focused on traffic impacts and what improvements are needed to retain a certain "acceptable" level of traffic operations (LOS). Ann Arbor's philosophy to harmonize the needs of all users (motorists, pedestrians, bicyclists, transit users) calls for refinement of this practice.

This plan recommends the traffic impact study requirement be expanded to require evaluation of all modes of transportation when analyzing transportation impacts of a proposed development. This process should require developers to demonstrate not only the traffic impact and improvements to reduce that impact to meet the City's operational standards, but also how vehicle trips, especially those in the peak hour, will be reduced through demand management, mixed-use, transit- and pedestrian-oriented design elements, and the availability of other transportation modes such as transit, walking or bicycling adjacent to the site. Examples of these reductions include designing a development to include retail, office, and residential uses on one site to provide the ability for travelers to replace auto trips between uses with walking trips, and designing strong physical links between the site and transit facilities, pathways, and other facilities. In addition, the transportation impact studies should evaluate the number and placement of access points, including alternatives that would benefit the public and still provide reasonable access to the property. Model language for Transportation Impact Analyses and requirements are included in Appendix A.