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WASHTENAW AREA TRANSPORTATION STUDY

705 NORTH ZEEB ROAD 2ND FLOOR
ANN ARBOR, MICHIGAN 48103-1560
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NOTICE OF MEETING

COMPLETE STREETS STEERING COMMITTEE

DATE: October 10, 2011

TIME: 10:30 a.m.

PLACE: Washtenaw County LLRC, 4135 Washtenaw Avenue, Pittsfield Township

AGENDA:

1. Call to Order & Introductions
2. Changes/Approval of Agenda
3. Public Participation
4. Approval of Minutes – August 10, 2011 WATS Complete Streets Minutes (attached) – Action
5. Review of Preliminary Draft Plan Sections
6. Public Involvement Meetings
7. Adjournment

POLICY COMMITTEE MEMBERS

- CITY OF ANN ARBOR • ANN ARBOR DDA • ANN ARBOR TRANSPORTATION AUTHORITY • ANN ARBOR TOWNSHIP •
• CITY OF CHELSEA • VILLAGE OF DEXTER • DEXTER TOWNSHIP • EASTERN MICHIGAN UNIVERSITY •
- MICHIGAN DEPARTMENT OF TRANSPORTATION • CITY OF MILAN • NORTHFIELD TOWNSHIP • PITTSFIELD TOWNSHIP • CITY OF SALINE •
- SCIO TOWNSHIP • SOUTHWEST WASHTENAW COUNCIL OF GOVERNMENTS • SUPERIOR TOWNSHIP • UNIVERSITY OF MICHIGAN •
• WASHTENAW COUNTY BOARD OF COMMISSIONERS • WASHTENAW COUNTY ROAD COMMISSION • CITY OF YPSILANTI •
- YPSILANTI TOWNSHIP • EX OFFICIO: FEDERAL HIGHWAY ADMINISTRATION • SOUTHEAST MICHIGAN COUNCIL OF GOVERNMENTS •

AN INTERMUNICIPALITY COMMITTEE ORGANIZED UNDER ACT 200 OF PUBLIC ACTS OF MICHIGAN (1957)
REPRESENTING WASHTENAW COUNTY

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MINUTES OF MEETING

COMPLETE STREETS STEERING COMMITTEE

DATE: August 10, 2011

TIME: 10:30 a.m.

PLACE: Washtenaw County LLRC, 4135 Washtenaw Avenue, Pittsfield Township

Members Present: AATA- Chris White
City of Ann Arbor – Eli Cooper
WCRC – Doug Fuller
WCRC – Matt MacDonell
SEMCOG – Calvin Johnson
City of Saline – Jeff Fordice
WBWC – Larry Deck
Village of Dexter – Christine Phillips
Salem Township – Bill Degroot, Robert Heyl
Public – Ruth Ann Jamnick
Scio Township – Allison Arscott
MDOT – Larry Dropiewski
WATS Policy Committee – Jim Carson
WATS – Ryan Buck, Nick Sapkiewicz, Mark Ferrall, Eric Bombery

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Complete Streets Minutes

August 10, 2011

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1. Call to Order/Introductions

Chair Buck called the meeting to order at 10:32 am and asked those present to introduce themselves.

2. Changes/Approval of Agenda

Mr. Fuller made a motion to approve the agenda as presented. Ms. Arscott supported and the committee approved the agenda.

3. Public Participation

Mr. Buck asked if anyone from the public wished to address the committee. No one from the public addressed the committee and public participation time was closed.

4. Approval of Minutes

Ms. Arscott made a motion to approve the minutes of the June 8, 2011 meeting. Mr. Fuller supported the motion.

Mr. Deck made a friendly amendment to clarify the section on crash data to state that real crash locations will be used but not specific locations. Ms. Arscott and Mr. Fuller accepted the friendly amendment.

The committee approved the minutes as amended.

5. Old Business

A. Complete Streets Policies - Action

Mr. Buck stated that the Committee worked to develop the Complete Streets Policies included in the meeting packet. He invited those present to make any comments or recommended changes to the policies.

Mr. Buck stated that following recommendation by the steering committee the policies would be reviewed by the WATS Technical and Policy Committees.

Ms. Arscott made a motion to recommend the Technical Committee review the Complete Streets policies. Mr. Cooper supported and the motion passed. The policies are below:

General Complete Streets Policy

Transportation agencies shall consider the needs of pedestrians, bicyclists, public transportation vehicles and riders, motorists, freight vehicles, and people of all ages and abilities during planning, programming, policy development, design, construction, reconstruction, retrofit, operations, and maintenance activities and in product selection. Communities, transportation agencies, and partners should recognize all modes as integral

elements of the transportation system and view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in the region.

Policy on Federal Funds

The Washtenaw Area Transportation Study will confirm that Complete Streets needs are considered for any improvement for which federal transportation funds are sought.

Policy on Supporting the Vision of the Community

The Washtenaw Area Transportation Study seeks to promote Washtenaw County communities' livability and sustainability goals through planning and implementing Complete Streets initiatives and improvements.

Policy on Public Health

The Washtenaw Area Transportation Study supports improving public health by encouraging, facilitating and accommodating physical activity through the design and connectivity of transportation infrastructure, including ordinances, which promote public rights-of-way as safe places for transportation, social, and recreational functions.

6. New Business

A. Complete Streets Toolkit

Mr. Buck stated that WATS will produce two version of the toolkit, one for the complete streets plan and one entirely web-based version. Mr. Buck stated the web-based version would include links to research, helpful information and relevant pictures and videos.

Mr. Buck provided an example of what the toolkit treatment "profiles" will look like. Mr. Buck stated comments are welcome on the layout and stated that a more complete review of the text of all treatments would likely happen as part of the public review process.

Mr. Cooper recommended adding a discussion of how to use sharrows.

Mr. Buck stated that was an example of the enhanced functionality to be included in the web-based version of the toolkit.

Mr. Charnetski encouraged staff to find more local images for potential treatments.

B. Complete Streets Plan Outline

Mr. Buck stated that a draft Complete Streets Plan outline was at each place and asked the committee to review the document and provide comments by the next meeting.

Mr. Cooper made a recommendation to include reference to the State Complete Streets law. Mr. Cooper also recommended discussing 4-3 conversions as other treatments rather than making a separate place in the plan.

Complete Streets Minutes

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Mr. Johnson asked if Green Streets would be included in the Complete Streets Plan. Mr. Buck stated that WATS is working with SEMCOG to include discussion of Green Streets as a consideration for all improvements.

Mr. Cooper stated Green Streets was important to Complete Streets because storm water utilizes the transportation system.

Mr. White reported that he sits on the state complete streets committee, representing the Michigan Public Transportation Association. He stated the state complete streets committee is looking for examples of policies and indicated that he would share them when they are available.

7. Adjournment

Mr. Buck thanked those in attendance for their continued participation.

The meeting was adjourned at 11:19 am

Outline

Introduction to Complete Streets

Benefits of Complete Streets - Why we plan complete streets

- Existing studies and research
- Livability and sustainability
- Health Benefits

Examples of complete streets

- Quotes and images
- Embed scrolling pictures (web version)
- Urban, fringe and rural cross sections

Public Involvement

- Meetings
- Attendees
- Activities
- Social and include quotes/screen shot etc

Policies

Needs Identification (pedestrian, bicycle, transit, truck crash)

- Criteria
- Engineers Corner
- Individual mode sections
 - Ped
 - Bike
 - Pavement
 - Bus
 - Truck/Freight
- Maps

Improvements - not specific locations for all (safety, truck)

- Listed by land use density category
- How to use the Toolkit
- Toolkit - Matching improvements with needs

Best Practices/Local Case studies

Planners Corner
Before and after images and statistics

Coordination

Regional Planning Groups

Funding and Navigating the Funding Process - A User Guide

Elected Officials Corner

Appendix

Sample Ordinance

List of Resources

Definitions

Introduction to Complete Streets

Benefits of Complete Streets

Cost Savings

In challenging economic times, planners, residents and community officials look for ways to become more efficient and save money. Despite capital costs associated with implementing complete streets improvements, the many benefits of a multi-modal, accessible transportation network can offer significant cost savings to both individuals and the community.

The map below left shows housing costs as a percentage of household income. The map on the right shows the combined cost of housing and transportation as a percentage of household income. Yellow represents 30% of a household's income and blue represents 45% of a household's income. In general, areas that have access to transit and extensive non-motorized networks have a significantly lower combined cost of household and transportation.



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Recipient of the 2009 MacArthur Award for Creative and Effective Institutions.

Improving Mobility

Demographers expect Michigan's senior citizen population to increase dramatically over the next 30 years. Community leaders must plan for senior mobility to ensure quality of life for all residents.

Communities that provide multi-modal infrastructure add to their sense of place, improve its economic competitiveness and increase access to the cultural and historic amenities of each community.

Transit provides choices for residents, employees, and visitors. Multiple options address the needs of a diverse society. Comprehensive transit service is essential to smart growth and Transit Oriented Development (TOD) communities. Similar to complete streets, transit has economic, quality of life and health benefits. For transit to function efficiently, the supporting infrastructure must provide sidewalks, appropriately placed stops, and bus accommodations.

Increasing Corridor Capacity

For decades, the solution to traffic congestion was to widen roads and add travel lanes. This approach has become increasingly expensive and unsustainable. Instead, communities can increase the capacity of a corridor by constructing multi-modal facilities. Implementing coordinated traffic signal systems, offering increased levels of transit service and providing bike lanes and pedestrian facilities allows more trips along a given corridor. This paradigm shift in travel choices influences the way local travelers think about and interact with the transportation network.

Improving safety

Residents, employees, and visitors make hundreds of millions of trips in Washtenaw County each year. This activity level requires corridors be designed for both safety and efficiency. Installing multi-modal transportation accommodations reduces mixed mode crashes, which often result in serious injuries. Separate facilities make non-motorized users safer, and motorists drive less erratically while avoiding a bike or pedestrian. Separate facilities also provide a more predictable environment that feels safer for all users.

Encourage healthy lifestyle

Walking and biking facilities promote active transportation. They also encourage recreation, which provides a positive impact on the health of a community. The Centers for Disease Control and Prevention recently named adoption of Complete Streets policies as a recommended strategy to prevent obesity. The movement of trips to non-motorized modes reduces the air quality impacts and asthma related health issues.

Improving Sense of Place

Complete Streets help create communities where people of all abilities have safe transportation options. A sense of place and community is formed by the social interactions between residents and visitors. A fully functioning corridor facilitates those interactions. A

sense of place is very different in a rural area from urban areas. Similarly, a complete street will look very different in a rural area than a downtown, urban area or suburban or fringe area.

Examples of different types of [complete streets](#) are provided (in the document or when selecting the link). In these locations, the community desires are considered when determining the specific mode treatments. While separate facilities might not exist for pedestrians or bicycles in subdivisions or on low volume roads, users can safely coexist. The context of a community and corridor are important considerations when planning and designing a complete street.

Examples of complete streets

- [Quotes and images](#)
- [Embed scrolling pictures \(web version\)](#)
- [Urban, fringe and rural cross sections](#)

Public Involvement Summary

WATS provided several opportunities for the public to participate and make suggestions early in the Complete Streets Plan for Washtenaw County planning process. In addition to the steering committee, WATS held public workshops.

In late May 2011, WATS held public workshops in Ypsilanti Township and the City of Ann Arbor. WATS presented the complete streets needs identified and solicited comments from the public prior to writing Plan. During the May workshops, WATS presented an introduction to complete streets concepts and their relationship and importance to regional transportation goals. After the brief introduction, the workshop was open to interaction between the public and WATS staff.

To facilitate interaction and discussion at the workshops, WATS created an activity for participants. The activity encouraged the public to design their own complete street by allocating space on a cross section of road (urban or rural) to various modes. For example, based on the width given, the public could have recommended anything from six travel lanes or a more complete cross section with travel, turn, bike lanes, and sidewalk. In addition to engaging the public and familiarizing them with complete streets concepts, the activity allowed them to see one of the challenges with complete streets; that it is not a one-size-fits-all approach. WATS also provided maps of identified needs for discussion with the public. The maps included: bike, pedestrian, pavement, and transit needs.

In total, the May public workshops attracted about 30 people due unseasonably good and bad weather. WATS advertised the meeting on Facebook, Twitter, the WATS website, and arborweb website.

Complete Streets Policies

The plan includes four policies to provide guidance to local implementing agencies, elected officials and transportation planners and developers. The policies provide general guidance and support complete streets improvements where contextually appropriate while respecting the various land use patterns of communities within Washtenaw County.

General Complete Streets Policy

Transportation agencies shall consider the needs of pedestrians, bicyclists, public transportation vehicles and riders, motorists, freight vehicles, and people of all ages and abilities during planning, programming, policy development, design, construction, reconstruction, retrofit, operations, and maintenance activities and during product selection. Communities, transportation agencies, and partners should recognize all modes as integral elements of the transportation system and view all transportation improvements as opportunities to improve safety, access, and mobility for all travelers in the region.

Policy on Federal Funds

The Washtenaw Area Transportation Study will confirm that Complete Streets needs are considered for any improvement seeking federal transportation funds.*

Policy on Supporting the Vision of the Community

The Washtenaw Area Transportation Study seeks to promote Washtenaw County communities' livability and sustainability goals through planning and implementing Complete Streets initiatives and improvements.

Policy on Public Health

The Washtenaw Area Transportation Study supports improving public health by encouraging, facilitating, and accommodating physical activity through the design and connectivity of transportation infrastructure, including ordinances, which promote public rights-of-way as safe places for transportation, social, and recreational functions.

Engineer's Corner

The public, transportation planners and elected officials work together to generate ideas on how to improve the transportation system, but engineers design improvements and provide prepare plans for construction. Engineers are certified by the state and have special training in science, math, and structural design. This prepares them to make decisions on transportation infrastructure design for bridges, roads and bike lanes after considering input from stakeholders.

Engineers consider many factors when they design transportation facilities such as traffic speed, geometrics, pavement type, and sightlines. Many Engineers have embraced Complete Streets concepts and are incorporating them into local designs.

In 2008, Engineers for the City of Saline redesigned Willis Road between Ann Arbor St. and the city's east boundary. This section explores what an Engineer considers as they design a public right-of-way for people of all abilities and for multiple modes.

WATS: How and why was Willis chosen for repaving over other streets?

Gary Roubal: There were deficiencies in curb condition, pavement surface, pavement width, and 750 feet of bad water main.

WATS: At what point did you consider Complete Streets treatments – one that involved more than just road reconstruction for automobiles?

Gary Roubal: We were aware of the Complete Street principals and preparing to draft an ordinance. Since the principles and elements of Complete Streets were available, we incorporated them in the Willis Road design.

WATS: How did you consider and address the needs of all users and modes?

Jeff Fordice: Besides the local walkers and bicycle riders, we knew that Willis Road was a favorite route for weekend motorcycle groups, so the improvements to Wilderness Park would be beneficial for 'pit stops'.

WATS: How did a "Complete Streets" approach change the final design?

Jeff: We decided prior to design that we had the opportunity to incorporate many Complete Streets elements as well as some Storm Water Phase 2 elements – the two Best Management Practices (BMP) areas.

WATS: Did adding complete streets treatments such as bike lanes increase the total cost of the project? If so, how did you rationalize the increase in cost?

Gary Roubal: Some of the street was already 39 feet wide, so additional widening of 5 feet to 7 feet allowed for bike lanes; along the park we widened more to provide parallel parking spaces.

WATS: What has the response been to the completed Willis Road Project?

Jeff Fordice: We have received many complements on the finished product from the adjacent owners.

Introduction to Needs

Needs are identified in this plan for five types of transportation; bicycle, pedestrian, transit, automobile, and freight. Additionally, intersections are discussed because of the unique challenges and numerous treatment options associated with all modes mixing in one place, where corridors intersect. Needs are areas where consideration of additional complete streets treatment is warranted. A need does not indicate an area is deficient or that a specific treatment is required. In many cases, additional treatments may not be feasible. A Complete Streets approach is context sensitive - it considers the individual needs and character of the corridor and communities.

Lists and maps of needs were derived from a needs identification criteria process, which was reviewed by the public. The needs identification criteria below are broken out by land use category; urban, urban fringe, and rural. WATS uses these three general categories to simplify for planning purposes, the continuum of land uses from very dense urban to very open and sparsely populated rural areas.

Complete Streets Needs Identification Criteria		
<u>Bicycle</u>		
Urban	Urban Fringe	Rural
Lack of 4-5 foot bike lane or sharrow	Lack of 4-5 foot bike lane	Lack of 4ft+ paved shoulder
	Lack of a shared use path	Lack of a shared use path
<u>Pedestrian</u>		
Urban	Urban Fringe	Rural
Lack of buffered sidewalks both sides	Lack of buffered sidewalks both sides	Lack of wide shoulder or shared use path
No mid-block crossings at bus stop and other locations as appropriate	No mid-block crossings at bus stop and other locations as appropriate	No mid-block crossings at bus stop and other locations as appropriate
<u>Transit</u>		
Urban	Urban Fringe	Rural
<i>Stop Improvements</i>		

No lead walk at stops with adjacent sidewalks	No lead walk at stops with adjacent sidewalks	No lead walk at stops with adjacent sidewalks
Urban	Urban Fringe	Rural
No bench at stops with 25 boardings	No bench at stops with 25 boardings	No bench at stops with 25 boardings
No shelter at stops with 50 boardings	No shelter at stops with 50 boardings	No shelter at stops with 50 boardings
Level of Service		
Fixed Route within half mile of 90% of homes and demand response service to seniors and people with disabilities	Fixed or flex route service and Demand response service	Demand response service
Park and Ride/Carpool		
Lack of fixed route service	Lack of fixed route service	Lack of fixed route service
Lack of sidewalks	Lack of sidewalks	Lack of a wide paved shoulder or side path
Lack of bike parking	Lack of bike parking	Lack of bike parking
Lack of lighting	Lack of lighting	Lack of lighting
Lack of shelter	Lack of shelter	Lack of shelter
<u>Auto</u>		
Urban	Urban Fringe	Rural
Meet AASHTO guidelines for lane width - 10 to 12 ft	Meet AASHTO guidelines for lane width - 10 to 12 ft	Meet AASHTO guidelines for lane width and shoulder - 10 to 12 ft lanes
High crash location (left turn head-on, rear end, sideswipe)	High crash location	High crash location
4 lane road 20,000 and under (4-3 consideration)	4 lane road 20,000 and under (4-3 consideration)	
Congestion	Congestion	

Lack of Adequate drainage - AASHTO	Lack of Adequate drainage - AASHTO	Lack of Adequate drainage - AASHTO
Poor pavement PASER 2 or less	Poor pavement PASER 2 or less	Poor pavement PASER 2 or less
<u>Freight</u>		
<i>*on truck route or all season road</i>		
Urban	Urban Fringe	Rural
Poor pavement PASER 4 or less	Poor pavement PASER 4 or less	Poor pavement PASER 4 or less
High truck crash location	High truck crash location	High truck crash location
Lack of truck loading zones in core urban areas	Lack of truck loading zones in core urban areas	
<u>Intersection</u>		
Urban	Urban Fringe	Rural
Auto		
Lack of coordinated traffic signals	Lack of coordinated traffic signals	Lack of traffic actuated signal
Bicycle	signalized intersection	
Lack of bike accommodations at intersection and detector loops at signalized intersections	Lack of bike accommodations at intersection and detector loops at signalized intersections	Lack of detector loops at s
Freight		
Inadequate turning radii	Inadequate turning radii	
Pedestrian		
Lack of crosswalk and ADA ramps at intersections / Ped signals at lights	Lack of crosswalk and ADA ramps at intersections / Ped signals at lights	Lack of pedestrian facilities through intersection
Transit		
Queue Jump (congestion) Transit Priority	Transit Priority	

Information about individual modes is provided in this section. The information section will describe why each mode is important to complete streets as well as the challenges associated with implementing complete street strategies. The mode information section is followed by a needs map(s) based on the criteria in table XX. The map(s) will display the locations where consideration of a treatment is warranted. When available, a specific list of needs will accompany the map. Auto and freight are combined into one pavement section because treatments to the pavement, as well as pavement condition itself, impact automobiles and freight in similar ways since the modes use the same network.

After the modes are described, the Complete Streets toolkit offers a list of potential treatments to address needs throughout the county. The treatments listed in the toolkit are options but may not always be feasible. The purpose of the toolkit is to list a number of options to help make the road more complete based on the context of the area, while leaving the decisions up to the stakeholders of the improvement. The surrounding land use will have a significant impact on the types of treatments that are most appropriate to fit an individual need.

Bicycle

Historically, the bicycle has provided an affordable way for people of all ages to travel to more distant places than walking. In fact, bicyclists were among the first advocates of increased funding for roads in the United States. However, the design of roads and cities changed with the advent of the automobile. Transportation system funding became auto-centric, particularly in Southeast Michigan, making biking less desirable or safe. Today, transportation planners put increased emphasis on bicycle infrastructure. Increased investment in bicycle infrastructure has a [positive effect on the economy](#) ...insert link and can provide cost savings as well as environmental and health benefits. Additionally, communities that [provide adequate bike facilities create a safe environment](#) for all road users by separating different travel modes.

To foster increased bike use and support those who bike, it is important to increase investment in bicycle education programs and non-motorized infrastructure. Among the most important reasons to increase investment in the non-motorized system is reducing the demand on roads and bridges. Motorized congestion has been increasing for decades. Reduced transportation funding and updated land use policies limit the ability to widen roads. As a result, transportation planners and engineers must explore the most efficient ways to improve the transportation infrastructure.

Investing in bicycle infrastructure benefits all users. Several benefits apply to the general populous every time someone rides a bike instead of driving a car. Reduced congestion, less wear and tear on the road, and reduced greenhouse gas emissions benefit everyone.

Because automobiles travel at speeds faster than the average bicycle, when possible, engineers should design transportation corridors with facilities for bicyclists. Facilities such as bike lanes, wide paved shoulders, and off road paths designate portions of public rights-of-way specifically for bicyclists. These facilities also provide visual cues to make drivers aware of bicyclists. While bicyclists have the same rights to the road as motorists, not all feel comfortable using the travel lane. Separate facilities provide more options for bicyclists of different abilities. In communities that created a bicycling culture by a non-motorized system, users can make different trip types, including family outings, delivery services, commuting, and recreation for health benefits by bike.

Not everyone is able or will choose to ride, however, expanding the bicycling network is an important complete streets component. It not only provides more transportation options for those who chose to ride, but offers a host of benefits for everyone.

The following section identifies bike needs throughout Washtenaw County. Areas shown in green are candidates that might benefit from consideration of additional bike facilities and Complete Streets [treatments](#).

Bicycle Needs



Pedestrian

Pedestrian facilities serve the most basic and critical transportation needs by providing access to and circulation within communities. All automobile, bike, and transit users are also pedestrians at either end of their trips. Sidewalks, footpaths, and shared-use trails provide safe, separated access for pedestrians along roadways and easily accommodating gradual grade changes. The separation from other travel modes can include curbs, vegetation, vehicle parking, pay stations, and pavement marking or textures. Important accessories such as lighting, benches, and cafes making the space inviting.

While sidewalks provide the “travel lane” for pedestrians, they require special consideration for crossing intersections and vehicle travel lanes. Curb cuts, ramps and crosswalks direct pedestrians to the other side of a motorized facility, however many other options are available. Pedestrian traffic signals with visual and audible cues, flashing beacon or HAWK, mid block crossings, and raised crosswalks (speed table/hump) are several crossing treatments.

In addition, safe pedestrian travel is key to enhancing economic vitality and creating a sense of place, pedestrian accommodations are essential for the physical health of community residents. An increased focus on sidewalks, paths, trails, and paved shoulders enhances commerce by providing access to businesses, minimizing freight delays, and accommodating social interactions and physical health by providing a place to exercise/rest. Café zones and resting areas (benches, etc.) set the tone for pedestrian travel as the fundamental mode in urban areas, while wide, paved shoulders preserve road’s service life, accommodate farm equipment and provide a travel lane for both bikes and pedestrians.

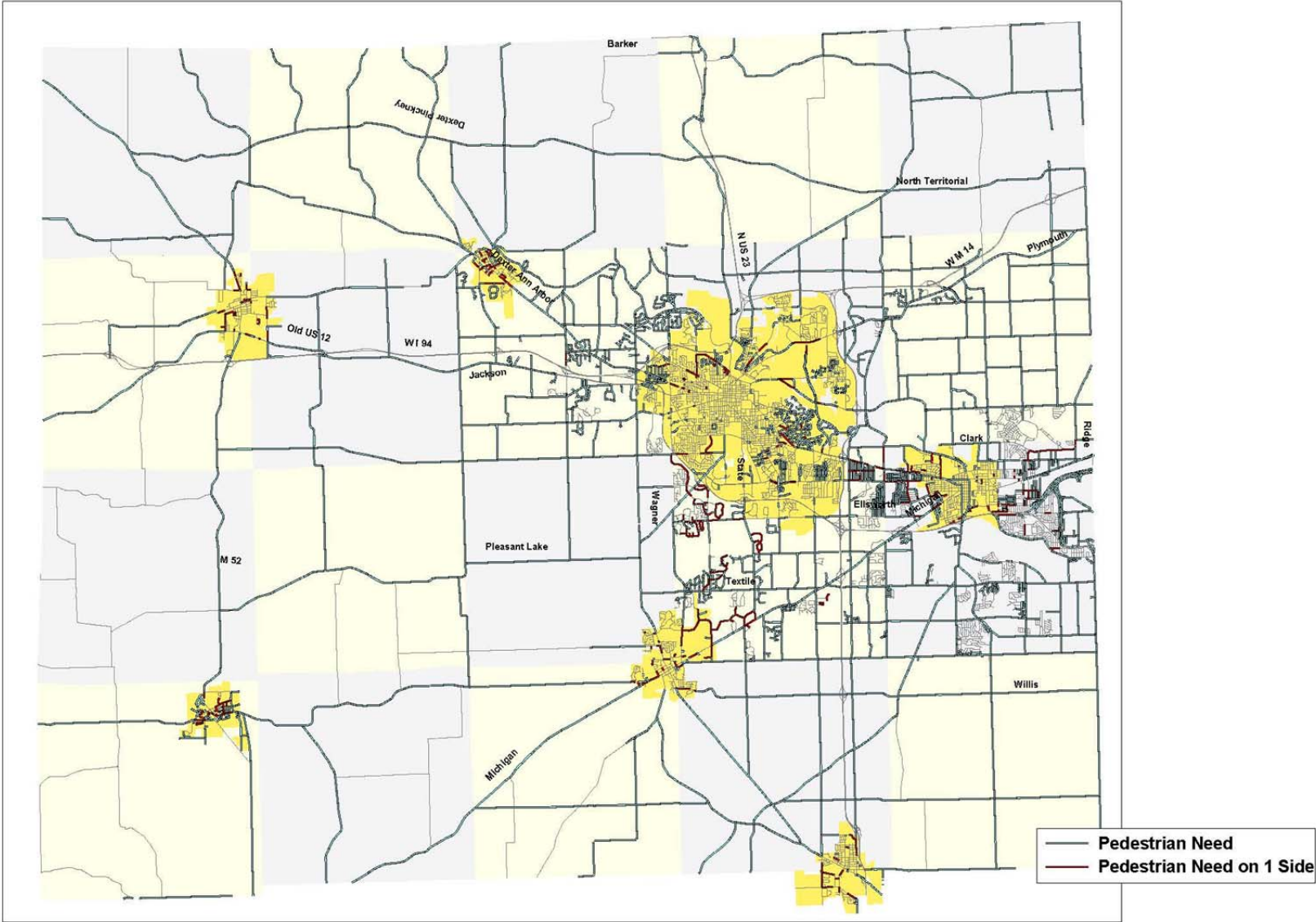
In 2009, the Federal Highway Administration (FHWA), Department of Housing and Urban Development (HUD) and the Environmental Protection Agency (EPA) formed an interagency partnership with an increased focus on livable, sustainable communities. Transportation sustainability provides benefits such as onsite storm-water management and improved air quality from reduced auto traffic.

Smart-growth land use decisions, supported by a network of Complete Streets, lay the foundation for a sustainable future. As communities reinvent themselves around more efficient land use, concepts such as Transit Oriented Development (TOD) maximize land use and existing transportation infrastructure by relying on large numbers of transit riders. While transit serve longer trips made in urban settings, transit relies on Complete Streets for the end of the trips.

Complete Streets plans for all modes and improve safety for pedestrians such as bulb-outs reducing the distance pedestrians cross at an intersection, make the pedestrian more visible to traffic, provide a on-street parking buffer and create an increased radii for freight movements.

The process of identifying Complete Streets opportunities in Washtenaw County includes evaluating the sidewalk network in urban and suburban settings, the availability of wide, paved shoulders in rural settings and connections between roads, trails, and crossings and destinations. A list of Complete Streets treatments and their applicability is available in the toolbox section of this plan (page xx). The following Complete Streets opportunities have been identifies throughout the County.

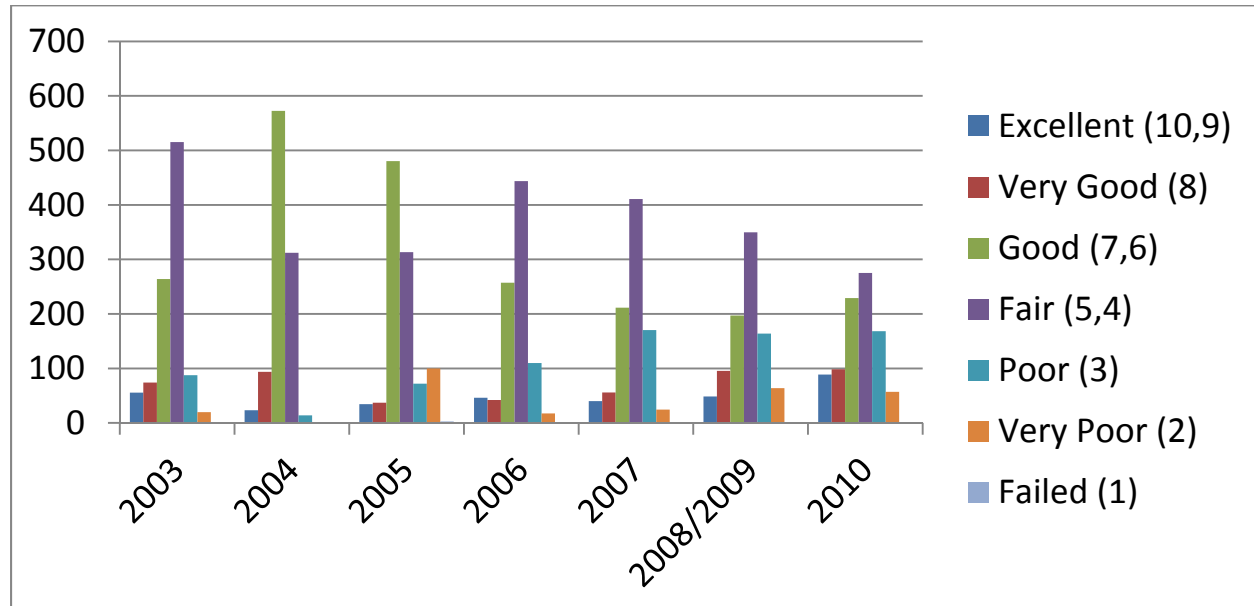
Pedestrian Needs



Pavement

Paved and gravel roads create a transportation network that serve most travel. Complete Streets design incorporates all modes of travel and pavement condition affects all travel. However, because communities historically designed roads with only automobiles and freight in mind, more than 90% of vehicle trips on roadways in Washtenaw County are automobile or freight. Pavement condition affects automobiles, and freight, transit buses, bikes, and pedestrians. With Complete Street modifications to a road, the percentage of transit and bike users should increase along with efficiency. This mode shift can greatly reduce the cost associated with constructing new travel lanes and widened roads.

Pavement condition significantly impacts travel efficiency, safety, user cost, and the local economy. In a recent study, Overdrive Magazine's Highway Report Card ranked Michigan's roads as the second worst in the nation in 2010. Michigan has dropped from third worst in 2009. The state with the worst roads is Pennsylvania and New York and California tied for third worst (midrive.org). When a road deteriorates to a level of four, the condition affects travel time and safety. Road agencies must maintain pavement in good condition for safe operation by all modes of travel. The PASER ratings of Washtenaw County roads shows a decline in condition that is likely to continue with current funding trends.



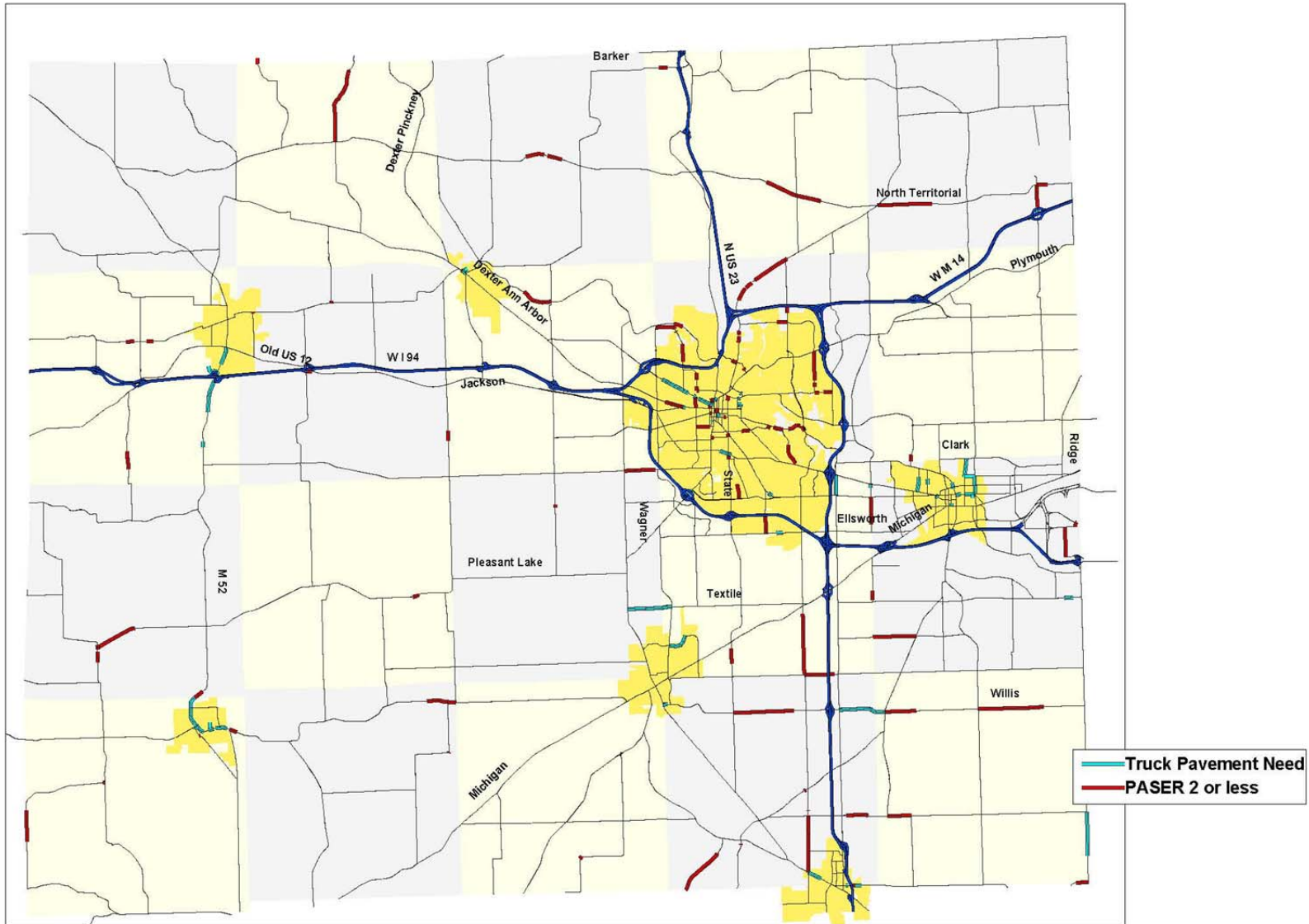
Source: WATS

There are Complete Streets treatments that can improve transportation system safety and efficiency. For freight travel, treatments including wide paved shoulders, center turn lanes, and appropriate turning radii all improve the safety for the diverse modes sharing pavement. However, improvements for freight uses may conflict with other modes. It is possible to design

roads for all users to coexist. When making decisions on use of complete streets treatments, it is critical to consider the unique characteristics of the community and corridor. In the rural area of Washtenaw County, paved shoulders help farm equipment navigate public roads in addition to providing a safe place to walk and extending the life of the pavement.

Automobile travel benefits from many of the freight complete streets treatments. Paved shoulders and center turn lanes improve vehicle safety by reducing crashes, while also indirectly enhancing vehicle flow.

Pavement Needs



Transit

Transit encompasses a wide range of shared passenger transportation services provided by both public and private entities.

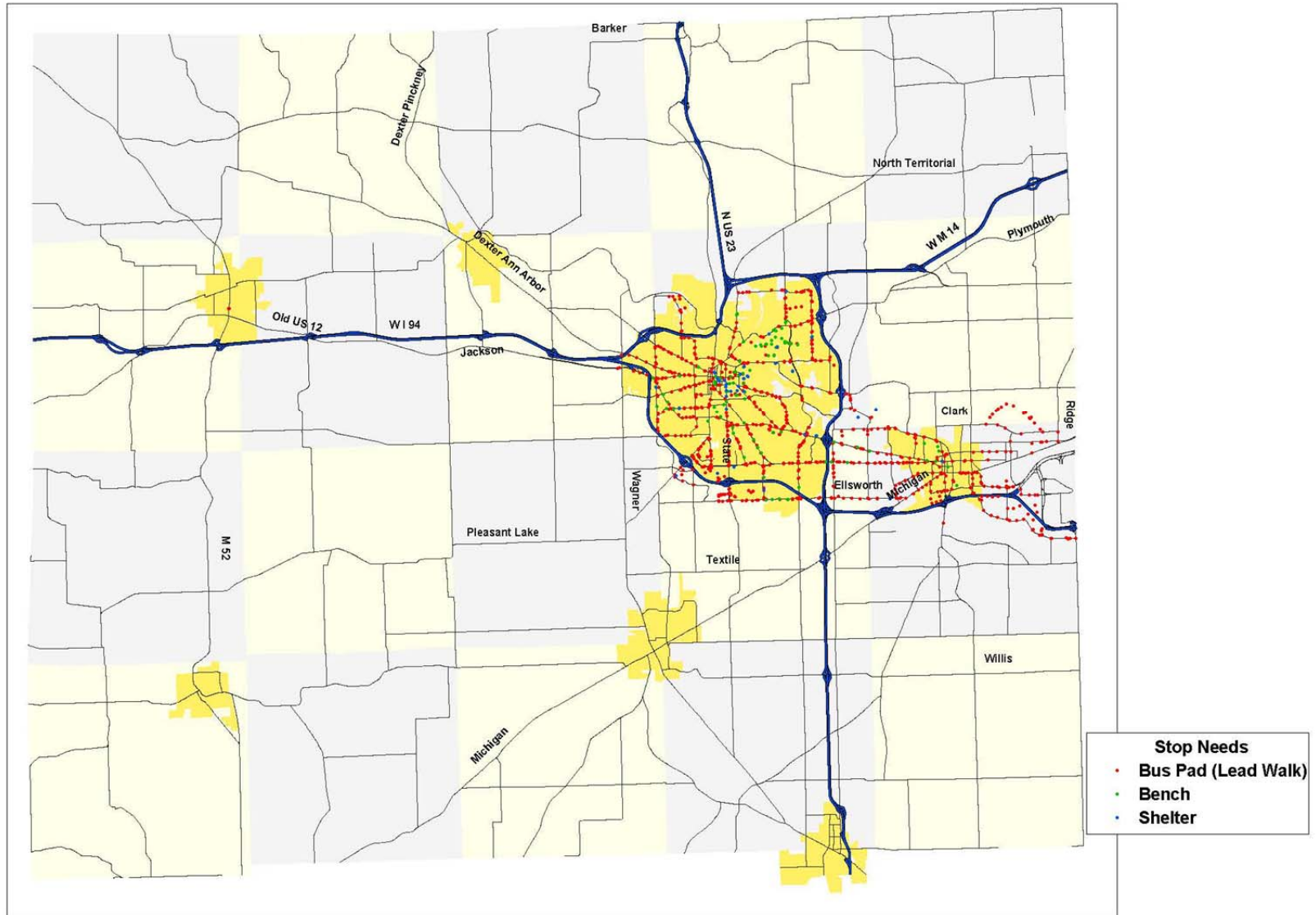
There are two categories of transit riders, dependent and choice. Dependent riders do not have access, cannot afford or, due to a disability, are not able to utilize other modes of transportation. Choice riders have the ability to utilize other modes of transportation such as a personal automobile but choose to use transit because of its wide range of personal and societal benefits.

Transit exists in many different forms based on the surrounding land use. Frequently arriving vehicles in urban areas allow significant portions of the population to be moved at a relatively low cost. Transit service is likely to be less frequent, and more costly in rural areas. Limited transportation service, such as dial a ride and door to door service is increasingly important due to the aging population. It is critical for planners to consider transit needs in traditionally rural areas because of the anticipated rise in seniors.

Transit vehicles move people from place to place but on-road amenities and treatments contribute to a complete street. While buses often rely on pavement, just as other modes, the experience of transit riders is improved with physical improvements to bus stops and other roadway modifications.

The maps below identifies existing transit stop locations which have been evaluated for improvement based on usage.

Transit Stop Needs



Improvements

How to use the Toolkit

Complete Streets Toolkit – A draft will be distributed at the meeting

Commuter/System User Corner

Green Streets

Best Practices/Local Case studies

Planners Corner

Before and after images and statistics

System User Corner – FREIGHT

While freight movements typically account for less than 10% of traffic volumes, freight movements impact and require transportation system amenities. WATS interviewed United Parcel Service driver Ken Smith to determine needs for safe, efficient freight delivery.

PAVEMENT QUALITY AND ACCESS

Ken informed WATS that Pavement quality, on both roads and the non-motorized system, impacts efficient freight delivery. In urban areas, designated freight loading zones can be helpful but there is often more demand than zones. Additionally signage and enforcement for loading zones is inadequate to ensure proper use of freight parking.

As a result, freight drivers must search for an adequate place to park on the street. Drivers experience leads them to seek good quality pavement adjacent to the parking to avoid traffic's avoiding potholes and crashing with the delivery vehicle.

[Alleys](#) provide an alternative for freight traffic, but often the vehicles that can use the alleys are limited due to narrow dimensions, obstructions such as dumpsters and low overhead wires.

NON-MOTORIZED AMENITIES

All trips begin and end as non-motorized trips and Ken supported the importance of the non-motorized network to freight deliveries. Regardless of delivery vehicle location, the driver and his hand-truck full of parcels need access to the sidewalk from the street and use the sidewalk to make deliveries. The smooth transition from street to sidewalk relies, just as pedestrians do, on sidewalk ramps. Once on the sidewalk, pavement quality and maintenance are a major factor for effective pedestrian travel. Adequate non-motorized pavement conditions, including winter maintenance, contribute to safe, efficient freight movements.

SAFETY

Freight drivers benefits from Complete Streets treatments. For example, freight-loading zones provide greater visibility to freight vehicles re-entering traffic after deliveries. Additionally, bulb-outs at pedestrian crossings provide freight drivers greater visibility of pedestrians and longer judgment time increasing the unobstructed view of pedestrians. These types of treatments create a synergistic transportation network.

CONGESTION

Ken explained that freight services measure delays in increments of less than a minute and closely monitor them for adjustments. The small delays throughout a day or route combine to significant lost productivity and increased costs. Reductions in delay and congestion, from infrastructure improvements and refined operating practices, are extremely valuable to freight operators. In suburban areas, drivers back in to driveways providing the driver with greater visibility and a safer and quicker re-entrance to traffic. Deliveries made in traffic at free-flow speeds, on roads in good condition, and the ability to make deliveries using loading zones and non-motorized facilities save time and improve safety.

Adequate signage in both urban and suburban areas also streamlines the delivery process for freight drivers. Improvements that reduce delay improve travel times for all users throughout the transportation network.

Regional Coordination

The disconnect between transportation planning and land use planning present a major challenge to regional planning. Transportation agencies including the Washtenaw County Road Commission, Cities and Villages and the Michigan Department of Transportation have jurisdiction over roads and responsibility for maintaining the right-of-way (the right-of-way includes the road and the area on either side of the road owned by the transportation agency or reserved for municipal uses). Land use planning, however, is the responsibility of the Cities, Villages and Townships. In the past, professionals, even within the same jurisdiction, would make decisions regarding land use without coordinating with those making transportation decisions and vice versa. Active local and regional coordination and streamlining efforts have improved these relationships. WATS works with local land use planning professionals to ensure transportation is fully considered in the development of community Master Plans. Federal partnerships such as the joint FHWA, EPA, and HUD Livability Initiative emphasize the importance of professionals from different disciplines coordinating decisions and policy recommendations. Currently federal, State, and local governments emphasize the importance of matching goals and priorities of land use planning with transportation planning in a regional context. When considering decisions that change public rights-of-way, it is important to consult with all stakeholders, specifically system users, adjacent neighborhoods, impacted businesses, and neighboring communities to promote safe, efficient, and economically competitive corridors.

This Plan stresses incorporating the unique qualities of corridors and protection of community character, throughout corridors, into the design of public rights-of-way while considering all users and modes. A tenant of Complete Streets in Michigan is the importance of considering neighboring plans and priorities as part of developing a regional vision. Michigan law states:

“Before a municipality approves any project in its multiyear capital improvement program ...it shall consult with the affected agency and agree on how to address the respective complete streets policies, subject to each agency’s powers and duties.”

Washtenaw County has several regional planning groups. These groups serve as a forum for discussing transportation improvements such as a Complete Streets design approach. Each group is a good venue for discussing the addition of complete streets treatment to a corridor. The groups and their members are listed below.

- **Chelsea Area Planning team and Dexter Area Regional Team (CAPT/DART)** - Chelsea City, Dexter Village, Dexter, Lima, Lyndon, Sylvan, Scio, and Webster Townships
- **Milan Organization for Regional Excellence (MORE)** – City of Milan, York, Augusta, Milan and London Townships
- **Saline Sustainability Circle (SCC)** – City of Saline, Lodi, Pittsfield, Saline, and York Townships
- **Southwest Washtenaw Council of Governments (SWWCOG)** – Manchester Village, Bridgewater, Freedom, Manchester, and Sharon Townships

The Washtenaw Area Transportation Study provides an opportunity to initiate complete streets discussion if an interested community is not a member of a regional organization.

Funding and Navigating the Funding Process - A User Guide

Elected Officials Corner