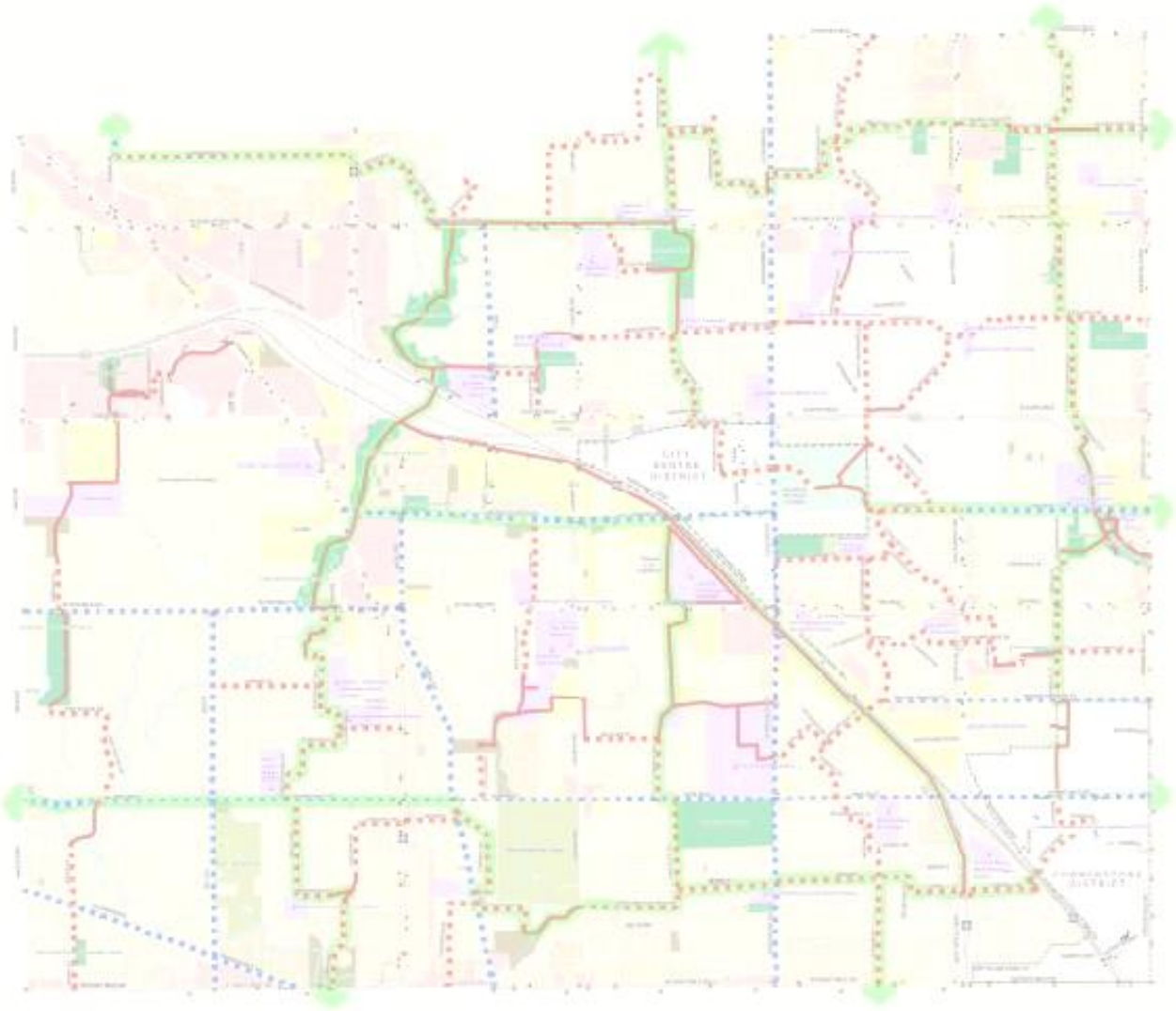
Non-Motorized Pathway & Public Transit Plan

Adopted March 19, 2012
City of Southfield, Michigan

Non-Motorized Pathway & Public Transit Plan

City of Southfield, Michigan



March 19, 2012

RESOLUTION
CITY OF SOUTHFIELD

RESOLVED: that the Amendment to the Comprehensive Master Plan (MP-02) to include a Non-Motorized Pathway & Public Transit Plan supplement, draft dated February 17, 2012, as amended, in accordance with Article 4, Section 5.59, Comprehensive Master Plan Procedure, Chapter 45, Zoning, of Title V, Zoning and Planning of the Code of the City of Southfield, and the Michigan Planning Enabling Act, Public Act 33 of 2008, be approved for the reasons, set forth in the City Planner's recommendation;

1. The amendment, as prepared by the City of Southfield Planning Department, the City of Southfield Planning Commission and residents, with the assistance of The Greenway Collaborative consulting group, has been thoroughly studied by the Planning Commission at their Planning Commission Study Meetings and Regular Meetings.

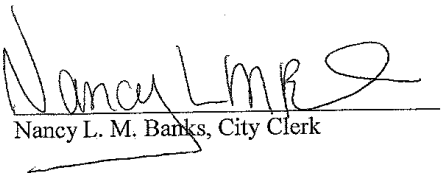
2. The Non-Motorized Pathway & Public Transit Plan supplement will serve to guide and coordinate decisions in developing an efficient transportation system that meets the needs of various users, including drivers, pedestrians, bicyclists and public transit riders; encourage an active and healthy lifestyle; reduce fossil fuel consumption; provide a more pedestrian friendly and accessible environment; improve safety for pedestrians; link destinations through non-motorized pathways; foster economic development; increase the use of public transit facilities; increase the "Quality of Life" for residents, businesses and visitors of Southfield; leverage State and Federal funding sources; offer mobility options for seniors, persons with disabilities and low income families; and create a "Sense of Community" by encouraging pedestrian interaction.

3. The Non-Motorized Pathway and Public Transit Plan will provide an additional tool in the City's redevelopment tool box.

BE IT FURTHER RESOLVED: that the Southfield City Council approved MP-02 at their March 19, 2012 Meeting.

I, Nancy L. M. Banks, the duly elected and qualified City Clerk of the City of Southfield, County of Oakland, State of Michigan, do hereby certify that the foregoing resolution was adopted by the Southfield City Council at the Regular Meeting held on March 19, 2012.

Dated: March 22, 2012



Nancy L. M. Banks, City Clerk

ACKNOWLEDGEMENTS

City of Southfield

Mayor	Honorable Brenda L. Lawrence
City Council	Joan Seymour, President Sidney Lantz, President Pro-Tem Donald F. Fracassi Myron A. Frasier Sylvia Jordan Jeremy Moss Kenson J. Siver
City Clerk	Nancy L. M. Banks
City Treasurer	Irv M. Lowenberg
City Administration	James G. Scharret, City Administrator Fred Zorn, Deputy City Administrator
Planning Department	Terry Croad, AICP, ASLA, Director of Planning Jeff Spence, Assistant City Planner Sarah Mulally, Senior Planner Noreen Kozlowski, Landscape Design Coordinator Michael Mason, Intern
Public Works Department	Sally Price, GIS Coordinator Leigh Schultz, Assistant City Engineer Dave Wawrzyniak, Traffic Analyst

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*Note: All photographs courtesy of Southfield Planning Department and taken within the City of Southfield unless otherwise noted.

Introduction

Figure I.1: Vintage Bicycle Postcard
Source: The Henry Ford Museum

INTRODUCTION

"Active living environments are places where all people are able and inspired to use their feet to get them places. They are places where people of all ages, incomes and abilities can walk and bike-both for recreation and for transportation." – Michigan Governor's Council on Physical Fitness, Health and Sports

What is a transit plan? Why is it important for the City of Southfield?

In Southfield and communities across the country, transportation is no longer just a way to serve the needs of new development. Transportation investments can act as a catalyst for desired redevelopment of land uses. Reconstruction of a roadway with elements such as medians, or combined with the installation of a streetscape enhancement system, can attract other quality development and cause a resurgence in activity and economic development and investment. A high-quality transportation system has supported the growth and development of Southfield and will remain a key ingredient in the City's future.

Bus stop at Ten Mile Road.

Southfield's location along several freeways has attracted residents and businesses, making Southfield the "Center of it All," but the configuration of freeways favors traffic moving through the City and does not provide convenient access to key destinations in the City. The automobile is the dominant mode of transportation and, thus, most transportation planning efforts focus on improving the street system for automobiles. However, providing a "multi-modal" transportation system (vehicles, pedestrian, bicyclist, and public transit) provides access for those citizens unable or unwilling to drive such as seniors, children, and those who do not have access to a car.

The American Planning Association (APA) believes that transportation planning has a direct influence on urban form and community character. Coordinating transportation with land-use, environmental, and social planning helps to improve the quality of life within a community and reduce energy consumption.

Pedestrian path along Civic Center Drive.

Transportation plans often exist at the state, regional, and local levels. Local plans should consider regional or state plans, but should also recognize that these plans are multi-jurisdictional and generally only address major arterial roads, regional bike paths, and regional transportation systems. Developing a local transportation or transit plan is necessary to address all streets within a community as well as neighborhood issues such as connectivity to transit, walkability, traffic calming, etc.

One goal of this local plan is to provide a high-quality system that provides safe and efficient access to all areas of the community for a wide variety of users, such as drivers, pedestrians, bicyclists and public transit riders. Developing an efficient transportation system that meets the needs of various users requires an evaluation of existing conditions, needs and opportunities.

For our purposes, this transit plan will include a review of existing and proposed non-motorized pathways and public transportation. Developing a transit plan for the City is important for the following reasons:

- Encourage an active and healthy lifestyle
- Reduce fossil fuel energy consumption
- Provide a more pedestrian friendly and accessible environment
- Improve safety for pedestrians
- Link destinations through non-motorized pathways
- Foster economic development
- Increase the use of public transit facilities
- Increase the "Quality of Life" for residents, businesses and visitors of Southfield
- Leverage State and Federal funding sources
- Offer mobility options for seniors, persons with disabilities and low income families
- Create a "Sense of Community" by encouraging pedestrian interaction

Chapter 1

EXISTING CONDITIONS (MOTORIZED)

CHAPTER 1 - EXISTING CONDITIONS (Motorized)

"*Transportation is intrinsically woven into the fabric or our existence, encompassing not only how we get from place to place, but also how we conduct our daily routines . . . Getting to work, school, or medical appointments, running errands, shopping, socializing and enjoying recreational pursuits are among the many things we do that are affected by the kinds of transportation available (or not available) to us. The location and appearance of transportation facilities, the design of streets and sidewalks, and the placement of on-street parking can make all the difference in how we experience our daily activities."*
– United States Department of Transportation

Introduction

The automobile has always symbolized independence and freedom to travel the open road for Americans, especially in the Detroit region. "Americans also like choice." – Nelessen and Howe, 1995

The City of Southfield was established as a "first ring" suburb of Detroit in 1958. During this time, popularity of the automobile significantly changed the American landscape and lifestyle. It became common for suburban families to own multiple cars, providing the ability to easily travel anywhere throughout their cities and beyond. This strong automobile-orientation affected Southfield's built environment by encouraging the development of large arterial roadways to accommodate the automobile. Most major local roads developed in a north-south or east-west orientation, forming a grid-like pattern. These roads, often 5+ lanes in width, connect to several regional freeway interchanges, creating a well-connected street system for the automobile.

Although public transit exists in the City, automobile-orientation still prevails. Unfortunately, the pedestrian has been frequently overlooked. Pedestrian needs such as sidewalks, clear way-finding signage, and connections to transit are rarely considered. In order for public transit to offer a viable option to the automobile in Southfield, transit service must be accessible, convenient, functional, safe, attractive, reliable, *and pedestrian friendly*. Other factors such as cost, bus design and headway scheduling (time between buses) are important to transit use.

Land Use Characteristics and Major Activity Centers

According to the City of Southfield Comprehensive Master Plan, Southfield is an urban city that is predominately developed (refer to ***Map 1.1: Southfield Land Use***). Land Use throughout the City primarily consists of single-family residential (40%), office/commercial (12%), multiple-family residential, and institutional (8%). Southfield differs from surrounding communities in that it has higher percentages of multiple-family and office/commercial; resulting in Southfield's recognition as an employment and population center. In contrast, the City has smaller shares of water, recreation/conservation land uses and industrial areas in comparison to surrounding communities.

Southfield's goals for managing land use planning include: (1) Creating a balanced and diversified mixture of land uses that support economic vitality, tax base, and livability of the City; (2) Offering unified, well-organized residential neighborhoods that provide a traditional, livable environment for the City's residents; and (3) providing for an appropriate amount of commercial, office, and industrial uses, located for convenience and safety, resulting in aesthetic business areas in the City.

Table 1.1: Major Activity Centers

1. Northland Center / Southfield DDA
   Commercial/Office
2. Telegraph Road Corridor – 8 Mile to 10 Mile
   Commercial/Office and Industrial
3. Telegraph and 12 Mile Road
   Commercial/Office
4. Southfield Municipal Complex / City Centre District
   Public/Institutional and Commercial/Office
5. Southfield Road
   Commercial/Office

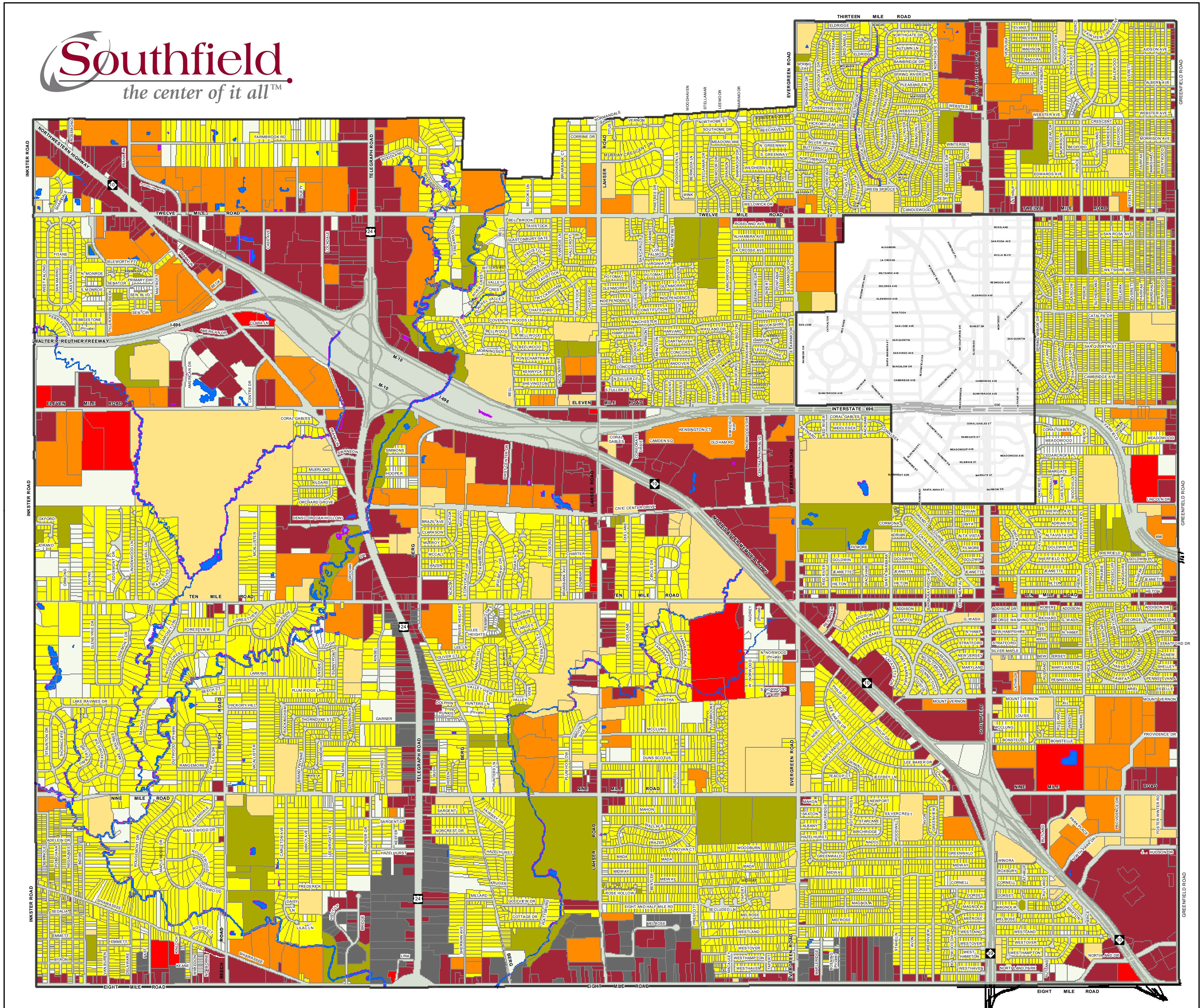
Major activity centers including commercial/office, industrial, and public/institutional land uses can be found throughout the City. All major activity centers are primarily connected to residential neighborhoods via roadways with automobile travel.

Commercial/Office: Parcels used for wholesale, retail, office, entertainment, or services, including those uses predominately at street level on multi-functional structures, plus related contiguous accessory uses such as parking areas and service drives.

Local/Community Commercial: Parcels with commercial uses, not including offices, which primarily serve the local community.
Regional Commercial: Parcels with commercial uses, not including offices, which draw significant users from beyond Southfield.
Office: Parcels used primarily for offices, including office towers, office parks, and individual office buildings.

Industrial: Land used predominately for manufacturing or on which materials or articles are processed or semi-processed, but not retailed, including associated storage areas, and warehousing.

Public/Institutional: Parcels and facilities that are held in the public interest and are usually exempt from real property taxation plus any service drives or roads inside the actual parcel. Examples of this category are churches, educational facilities, governmental offices, hospitals, municipal parking facilities, day care centers, and cemeteries.



Map1.1: Existing Land Use

City of Southfield, MI

- Vacant
- Commercial/Office
- Industrial
- Public/Institutional
- Recreation/Conservation
- Transportation/Utility/Communication
- Multiple Family
- S.F. More than one unit per parcel
- Single Family, 1 to 2.5 Acres
- Single Family, 14,000 to 43,559 sq. ft.
- Single Family, 2.5 to 5 acres
- Single Family, 5 to 10 acres
- Single Family, 8,000 to 13,999 sq. ft.
- Single Family, Greater than 10 acres
- Single Family, Less than 8,000 sq. ft.
- Water

Miles

0 0.25 0.5 1

N E S W

12/19/2010

Demographic Characteristics and Transit Propensity

Transit propensity is the likelihood of a bus stop to attract riders based on the characteristics of the residents in the vicinity (typically within a ½ mile walk to a bus route).

Transit propensity is identified by using demographic variables to determine the potential for persons living and working in areas adjacent to existing bus routes to use public transit services.

A total of five demographic variables are typically selected for determining transit propensity, bus stop locations and proposed bus routing:

- Density of persons (population density or persons per acre)
- Density of occupied housing units with either 0 or 1 vehicle (housing units per acre)
- Density of seniors (persons per acre)
- Density of persons with mobility restrictions (persons per acre)
- Density of households at or below the poverty level (households per acre)

Table 1.2: Southfield Demographic Statistics

	Number	Percent
Total Population*	**71,739**	**100%**
Population Age 65 and Older	**12,151**	**16.94%**
Disabled Population	**11,953**	**16.66%**
Total Households	**31,383**	**100%**
Households with 0 or 1 Car	**18,017**	**57.41%**
Families Below Poverty Level	**3,817**	**12.16%**

Source: United States Census Bureau, 2010

* Note: With over 27 million square feet of office space, Southfield's daytime population grows to approximately 175,000 people.

A detailed analysis of transit propensity should be conducted using GIS to determine the propensity for bus routes and pedestrian amenities (including examining the population density within a ½ mile radius of proposed routes).

Transportation Services

Access to transportation has been a key factor in Southfield's land use development pattern. Southfield has an established street system that includes a hierarchy of streets from local residential streets to high-capacity expressways. The expressways, such as I-696, M-10, and M-39, provide access to the primary transportation links in the Detroit metro area, including I-96, I-94, I-75, and the region's airports. The City's major commercial and cultural centers such as the City Centre have located near expressways, but navigating from the expressway to destinations in the City is indirect and confusing, rather than direct, clear, or convenient. The expressways provide access to other employment centers and residential areas throughout the metro area, but primarily function to move traffic through the City.

Regional Transit Services

In August 2007, the Regional Transit Coordinating Council (RTCC) unveiled a Vision Plan for transit in Southeast Michigan. The next step was the preparation of the *Comprehensive Regional Transit Service Plan,* which began in January of 2008. The intent was to provide a more detailed analysis of the existing transit services in the region, recommend enhancements and to develop a recommended transit network for Southeast Michigan (including Wayne, Macomb and Oakland counties) and to include Commuter Rail Transit (CRT) service to/from Washtenaw, Monroe and St. Clair counties.

Light Rail Transit.
Source: Ranger, 2011

The *Comprehensive Regional Transit Service Plan* recommends the phased implementation of transit services, resulting in a 2035 network.

Key features of the recommended network include:

- Enhancements to existing services:
  - Improved service frequency, additional routes, increases in community transit and paratransit services, improved waiting environments at bus stops.

- Introduction of Rapid Transit Corridors throughout the region:
  - Arterial Rapid Transit (ART) services are the backbone & catalyst of the system.
  - Services can become Bus Rapid Transit (BRT) or Light Rail Transit (LRT) "If and only if" ridership and cost characteristics warrant.
  - Light Rail on Woodward (Phase 1) will be a privately funded project.
  - Commuter Rail from Detroit to Ann Arbor will be a SEMCOG project.

The recommended network provides many benefits to the Southeast Michigan region:

- Transit travel time is projected to decrease nearly 20% by 2015 and over 30% with the 2035 network in place. Additionally, many trips that cannot be made by transit today will be possible and realistic choices to residents of Southeast Michigan in the future.
- Connections to other parts of the regional transportation network such as park and ride lots, bicycle networks, and greenways will improve mobility in the region for all.
- For every dollar spent on transit, the region will gain between $4 and $81. Economic benefits come from jobs and housing that are attracted to corridors with transit. When transit is a part of aggressive economic development plans, the results can move from 'good' to 'great'. Strong fiscal benefits to local communities and the State as a result of this development.

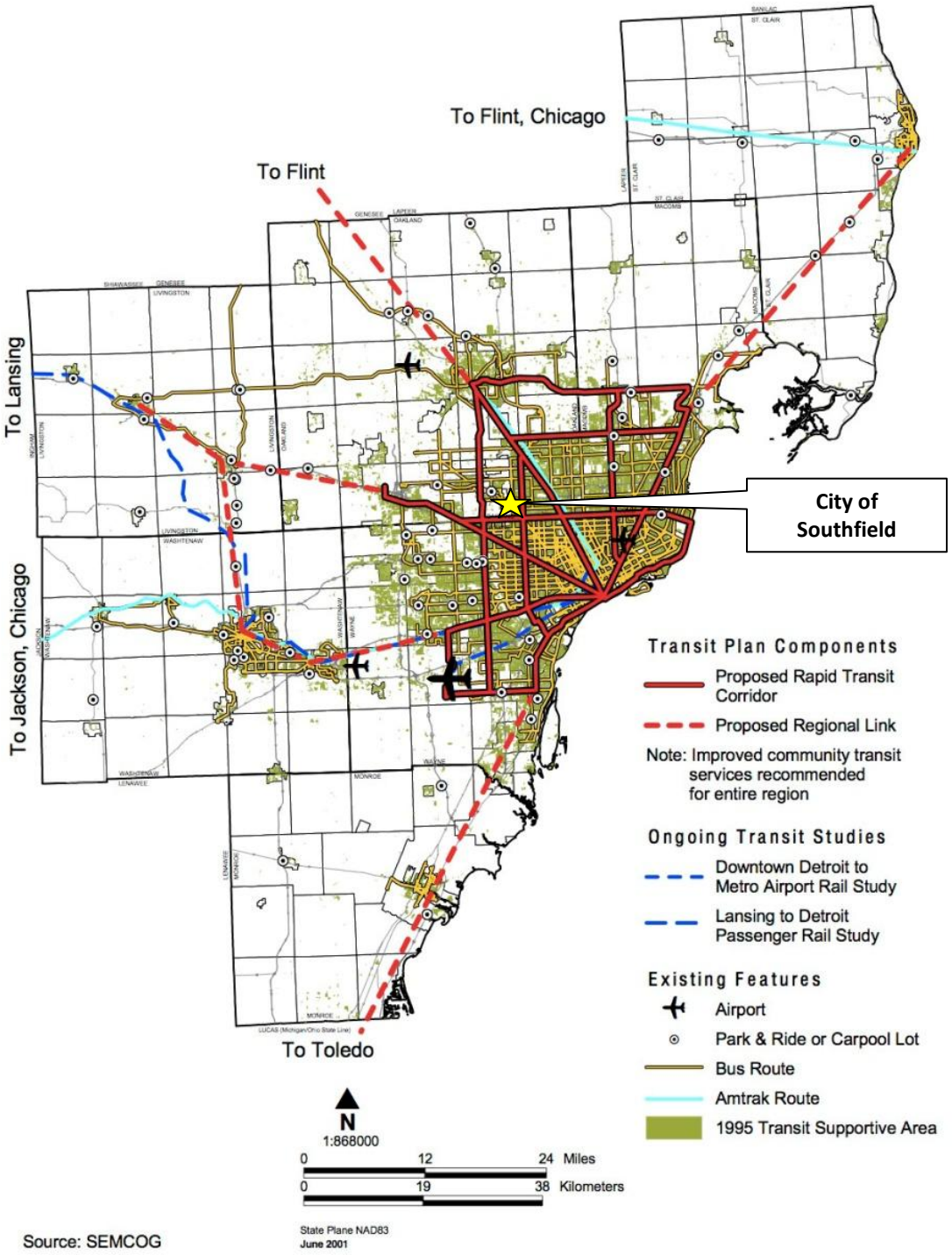
Source: Regional Transit Coordinating Council, 2008

Existing Regional Transit Services

The Detroit Tri-County area, including Wayne, Oakland, and Macomb Counties, is home to just over 3,800,000 residents (United States Census Bureau, 2010). Currently, bus, taxi, and train transit services are offered throughout the region (Refer to ***Figure 1.1: Existing and Proposed Regional Transit Services***). The Michigan Department of Transportation (MDOT) also provides Park and Ride locations to enabling carpooling in automobiles.

Although the City of Southfield is home to several regional transit services, others (such as train stations and airports) lie outside of the City. Therefore, establishing connections between transit services throughout the region will benefit the City's residents and business community.

Figure 1.1: Existing and Proposed Regional Transit Services



Airports:

The following airports are located within 30 minutes of Southfield residents:

Detroit Metropolitan Wayne County Airport (DTW)
Welcoming more than 30 million passengers each year, Detroit Metropolitan Wayne County Airport (DTW) is one of the busiest airports in the United States and among the world's largest air transportation hubs. As the second-largest hub and primary Asian gateway for Delta, the world's largest airline, DTW serves as the SkyTeam™ Alliance's major Midwestern hub. DTW is also a major base of operations for ultra low cost carrier Spirit Airlines. Together with 14 additional passenger airlines – including four foreign flag carriers – Detroit's airlines and their regional partners offer service to more than 160 non-stop destinations around the globe.
Source: Wayne County Airport Authority, 2004

Distance from Southfield: Approx. 20 Miles
Transportation options to airport: Automobile, Taxi, SMART Bus, D-DOT Bus

Oakland County International Airport (OCIA)
Serving individuals, businesses, and industry in Oakland County, OCIA is ranked as the world's 12th busiest general aviation airport with approximately 120,000 takeoffs and landings annually. More than 150 corporations base aircraft at OCIA, many with more than one aircraft. In total, over 800 aircraft are based at the facility.
Source: Oakland County, Michigan, 2012

Distance from Southfield: Approx. 20 Miles
Transportation options to airport: Automobile, Taxi

Oakland/Troy Airport
Oakland/Troy Airport is the County's 'executive' airport. Business travelers and tourists using private, corporate and charter aircraft benefit from the airport's convenient proximity to business, recreation and entertainment facilities. Charter passenger, air freight, as well as aircraft maintenance and fuel, are available on the field.
Source: Oakland County, Michigan, 2012

Distance from Southfield: Approx. 7 Miles
Transportation options to airport: Automobile, Taxi, SMART Bus

Oakland/Southwest Airport
Formerly New Hudson Airport, Oakland/Southwest Airport began operating in 1946 as a training facility for war veterans interested in pursuing their pilot's licenses under the G.I. Bill.

The County acquired the airport in August 2000 after purchasing the 83 acres of property for $3.6 million, with 95 percent of the cost covered by a grant from the state of Michigan. The other 5% of the purchase price came from the County's Airport Fund.

The addition of Oakland/Southwest Airport gives Oakland County three first-class airports, more than any other county in Michigan. This newest complement to the County's airport arsenal will serve the aviation needs of southwest Oakland residents for many years to come.
Source: Oakland County, Michigan, 2012

Distance from Southfield: Approx. 22 Miles
Transportation options to airport: Automobile, Taxi

Southfield Transportation Center:

The Southfield Transportation Center.

Owned by the State of Michigan and renovated in summer 2011, Southfield's Transportation Center is home to one of only three Greyhound Bus stations in Metro Detroit and a designated MDOT Park and Ride facility. Located at Lahser and 11 Mile Roads (with convenient access to I-696), the center features an enclosed facility complete with Greyhound Bus ticket office, waiting room, and restrooms.

Greyhound Lines, Inc. is the largest provider of intercity bus transportation in the United States, serving more than 2,300 destinations throughout the country. Nationwide, Greyhound's service offerings include express bus travel, package shipping, and charter bus rentals. In the United States, the highest passenger volume is concentrated on the east coast.

The Southfield Station Manager estimates that approximately 300,000 riders utilize the Southfield location annually. Operating six days per week (Monday through Saturday), the station serves connector routes to other major stations, where riders have the ability to transfer to other routes to travel throughout the U.S., Canada, or Mexico.

Sharing a parking lot with a designated MDOT Park and Ride facility, most Greyhound riders travel to the station via automobile. However, four (4) SMART Bus transit stops exist in close proximity. Despite SMART's availability, the Station Manager explained that Greyhound riders often do not consider riding the bus because the bus stops lack vital information regarding schedules and fares. The Station Manager has attempted to obtain such information, but SMART has been reluctant to provide it to date. In addition, accessibility issues between the SMART stops and Greyhound station limit ridership.

Other forms of transportation to-and-from the station include taxi service or bikes, although these forms of transportation are only occasionally used by Southfield riders. Despite Greyhound's partnership with Amtrak in some markets, no partnership currently exists between the Southfield station and Amtrak.

Southfield Transportation Center
26991 Lahser Road
Southfield, MI 48033
Transportation options to station: Automobile, Taxi, SMART Bus

Megabus:

Megabus Transportation.
Source: Stagecoach Group, PLC, 2010

Recognized as a safe, convenient, low-cost daily express bus service, Megabus operates a network of bus routes throughout the United States and Canada. Direct bus routes are available to Chicago, Pittsburgh, and Toledo from Detroit. Additional connections can be made at these stops to continue travel to additional cities.

Detroit
Rosa Parks Transit Center
Distance from Southfield: Approx. 15 Miles
Transportation options to station: Automobile, Taxi, SMART Bus (Direct via Route 851), D-DOT Bus

Train:

The National Railroad Passenger Corporation, doing business as Amtrak, provides passenger train service throughout the United States. With a presence in nearly every state within the contiguous US, Amtrak provided service to over 28 million riders in 2010. The regional Wolverine route, connecting Chicago-Detroit-Pontiac, is one of the top 15 busiest routes in the country. Regionally, two train stations exist in close proximity to City of Southfield.

Amtrak Train.
Source: National Railroad Passenger Corporation, 2012

Detroit
11 West Baltimore Avenue
Detroit, MI 48202
Distance from Southfield: Approx. 12 Miles
Transportation options to station: Automobile, Taxi, SMART Bus, D-DOT Bus

Royal Oak
202 South Sherman Drive
Royal Oak, MI 48069
Distance from Southfield: Approx. 5 Miles
Transportation options to station: Automobile, Taxi, SMART Bus

Proposed Regional Transit Services

"Airports are driving and shaping business location and urban development in the 21st century, much as highways did in the 20th century - railroads in the 19th, and seaports in the 18th. Airports have become key nodes in global production and commercial systems. As aviation-related businesses cluster at and near major airports and along transportation corridors radiating from there, a new urban entity is emerging - the Aerotropolis."
– John Kasarda, PhD, Dean of the Kenan Institute of Private Enterprise and Kenan Distinguished Professor of Entrepreneurship at the University of North Carolina.

Aerotropolis:

In the past, cities grew around transportation hubs such as seaports, rail stations, and highways. Today, globalization has resulted in travel patterns dependent on air transit. By 2015, the FAA predicts air passenger traffic to increase by about 60 percent to approximately 1 billion. Accordingly, a new revival initiative utilizing Wayne County's Metropolitan Airport was created to spark economic development in the region.
Source: Dziadosz, 2007

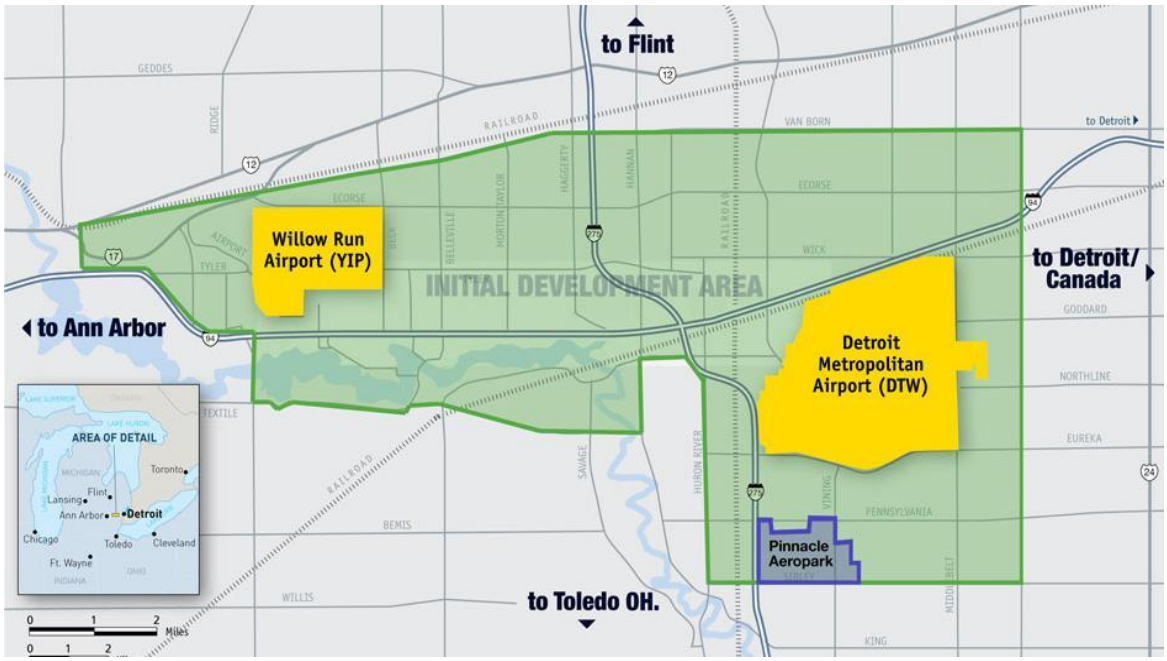


Figure 1.2: Proposed Detroit Region Aerotropolis Development Area
Source: Aerotropolis Development Corporation, 2011

The Aerotropolis stakeholders envision development that not only provides economic benefits to the communities immediately surrounding the airport, but which also benefits the greater Metro Detroit region. Leaders recognize the importance of linking developments in the Aerotropolis region to the rebirth of the City of Detroit, and that there exists a natural synergy between Detroit Metropolitan Airport and Detroit's position as a tourist destination. They also recognize that the City of Detroit has a skilled and able workforce that will be needed to support

development efforts, and its citizens will occupy jobs created through business attraction efforts. The creation of an Aerotropolis will benefit other areas of Metro Detroit as well as the City of Southfield. With the prospect of regional transit and potential new border crossing with Canada, the Aerotropolis concept fits squarely with other efforts aimed at making Metro Detroit a gateway to the state, nation, and the world. Metropolitan Airport is approximately 20 miles from the City of Southfield.
Source: Aerotropolis Development Corporation, 2011

Heliport:

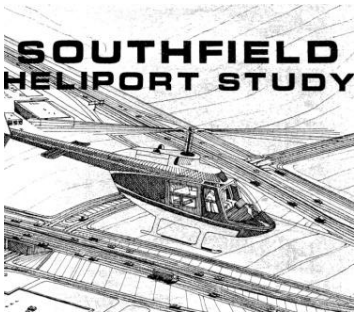


Figure 1.3: Southfield Heliport Study

Recognizing the City of Southfield's central geographic location in Metropolitan Detroit and high concentration of office development, the City of Southfield's Planning Department proposed a heliport facility circa 1980 under the tenure of Mayor Donald F. Fracassi. Considering socio-economic factors, existing aviation facilities, and laws relating to heliports, a large, full-service (public) heliport was proposed to provide an additional transit option in the northwest corner of the City with direct access from I-696.

Activities anticipated at the facility included:

a. Commuter linkages with metropolitan airports
b. Access to other metropolitan destinations
c. Shipment of fragile or urgent materials thereby requiring limited storage
d. Emergency utilization for public safety purposes
e. Parking of privately owned helicopters

In addition to the full-service heliport, limited-service helipads and/or helistops were also suggested. To ensure a logical and complete implementation in phases, the adoption of a "Master Helicopter Plan" was encouraged.

Although helicopter transportation is one of the most expensive forms of transportation, its speed, flexibility, and convenience were found to appeal to many Fortune 500 businesses. Therefore, introducing the heliport facility was predicted to increase economic activity through the creation of new industry, increased employment, and an expanded tax base.

Troy Transit Center:

A proposed transportation center on Troy's Birmingham-border was to include accommodations for Amtrak train passengers as well as cars, buses, taxis, and bikes. The current Troy Amtrak Station, located across the tracks in the City of Birmingham, has witnessed a steady increase in ridership over the past 2 years. Considering the growing ridership trend, continued support from Troy stakeholders and residents, and available federal funding, an $8.4 million transit center was proposed at the location. However, considering budget concerns for construction and maintenance, the Troy City Council approved a scaled-down center offering similar amenities in January 2012.

Figure 1.4: Proposed Troy Transit Center

Source: Ferretti, 2011

Woodward Avenue Light Rail:

Light Rail Transit (LRT) is an electric passenger train system that typically travels at grade level. Currently, the implementation of LRT on Woodward Avenue between Jefferson and Grand Boulevard was recently considered. Future plans for the Woodward Avenue Light Rail include extending service into Oakland County and creating/connecting the LRT to a broader regional transportation system consisting of Arterial Rapid Transit, Bus Rapid Transit, and Commuter Rail lines. The proposed transit plan could link City of Southfield residents to the Woodward Avenue Light Rail and other destinations via Arterial Rapid Transit (ART) and Bus Rapid Transit (BRT).

This improved transportation network will reduce travel times, introduce additional transportation options for everyone (including the elderly and disabled), and encourage pedestrian/bicycle connection throughout Southeast Michigan. The City should investigate bicycle route connections to LRT in the future.

Figure 1.5: Artist's Rendering of Possible Light Rail in Highland Park

Source: M-1 Rail, 2011

Local Transit Services

The City of Southfield is served by several bus and taxi service providers, offering connections to both local and regional points of interest. As transit continues to grow throughout the region, it will be vital to review the City's local options to ensure that links are made to regional services and service within the City is adequate to support the residential, business, and commercial communities.

Existing Local Transit Services

City Centre Trolley Route (Discontinued):

Source: Lamers, 2011

The City of Southfield, City Centre Advisory Board (CCAB), and 10 TEN Complete Living sponsored complimentary trolley service from various office locations to the City Centre Plaza in summer 2006. Two (2) trolley routes were established to connect City Centre-area building tenants to the plaza to encourage attendance at "Eat to the Beat" concerts on Thursday afternoons.

Service was provided for six (6) Thursday concerts. The trolleys ran continuously over a three (3) mile route from 11:15AM to 1:45PM, with an estimated time of 10 minutes to complete a full run. Each trolley could accommodate 45 passengers (30 seated and 15 standing).

The trolley route was discontinued due to cost and low ridership.

D-DOT (Detroit Department of Transportation):

D-DOT bus at Northland Center.

The mission of the Detroit Department of Transportation is to provide public transit services that are reliable, clean, customer-focused, safe and secure. D-DOT offers bus service for the City of Detroit and also serves several locations in Southfield. ***Route #17 (Eight Mile)*** carries riders from Eastpointe to Redford Township. The route operates 7 days per week, connecting riders to destinations such as Chrysler Warren Truck Assembly, Northland Center, and several commercial districts along 8 Mile and 7 Mile roads. Adult Base Fares are $1.50 and discounted rates are available for those who qualify. In Southfield, fourteen (14) Route #17 stops exist along Eight Mile Road and at Northland Center. Although most stops are designated only by signs, five stops also include shelters.

SMART (Suburban Mobility Authority for Regional Transportation):

Fixed-Route SMART bus at Northland Center.

SMART was established through Public Act (P.A.) 204 as the only regional authority for public transportation in southeast Michigan. In FY 2010 SMART's annual ridership was approximately 12.2 million with a service area of more than 1,200 square miles.

SMART serves 76 suburban communities in the counties of Oakland, Macomb and Wayne. In Oakland County, the City of Southfield participates through P.A. 196, which allows an opt-in or opt-out decision community by community. As of November 2010, there were 23 opt-in communities in Oakland County, including the City of Southfield.

SMART offers five different types of services:

- Fixed-Route: Regularly scheduled bus routes
- Shuttle: Job Express, Job Shuttles and Flex-Routes
- Connector: Reservation, curb-to-curb small bus
- ADA: curb-to-curb small bus for certified individuals
- Community Partnership: custom para-transit services developed and operated by local communities with a large portion of funding provided through and/or by SMART

SMART fares* are as follows:

Fixed Route $2.00
Park and Ride $2.50
Connector $4.00
Transfer $.25
***Reduced rates are available for youth, elderly, and disabled.**

Currently, 455 SMART bus stops exist within the City of Southfield. Southfield riders are served by eight (8) Crosstown fixed routes, one (1) Community fixed route, and one (1) Park and Ride fixed route, enabling travel within the City and to neighboring communities (refer to ***Map 1.2: Existing SMART Bus Routes)***.

Eight (8) Crosstown fixed routes (operating between suburbs and connecting to main corridor routes) currently exist in the City of Southfield:

- ***275 Telegraph***
  - Southland Center (Southgate) to Woodard Avenue (Pontiac)
- ***405 Northwestern Highway***
  - Northland Center (Southfield) to Henry Ford Medical Center (West Bloomfield Township)
- ***415 Greenfield***
  - State Fair & Woodward (Detroit) to Meijer (Royal Oak)
- ***420 Southfield***
  - State Fair & Woodward (Detroit) to Meijer (Royal Oak)
- ***710 Nine Mile Crosstown***
  - Nine Mile & Mack (St. Clair Shores) to Northland Center (Southfield)
- ***730 Ten Mile Crosstown***
  - Mack & Moross (Grosse Pointe) to 10 Mile & Telegraph (Southfield)
- ***740 Twelve Mile Crosstown***
  - Macomb Mall (Roseville) to 12 Mile & Haggerty (Farmington)
- ***760 Thirteen Mile / Fourteen Mile Crosstown***
  - Macomb Mall (Roseville) to Telegraph & 13 Mile (Bingham Farms)

One (1) Community fixed route (circulating only within communities) currently exists in the City of Southfield:

- ***400 Southfield / Orchard Ridge***
  - Northland Center (Southfield) to OCC Orchard Ridge Campus (Farmington Hills)

One (1) Park and Ride fixed route (offering express service to downtown Detroit) currently exists in the City of Southfield:

- ***851 West Bloomfield / Farmington Hills P & R***
  - OCC Orchard Ridge Campus (Farmington Hills) to Downtown Detroit (Southfield stop at Northland Center)

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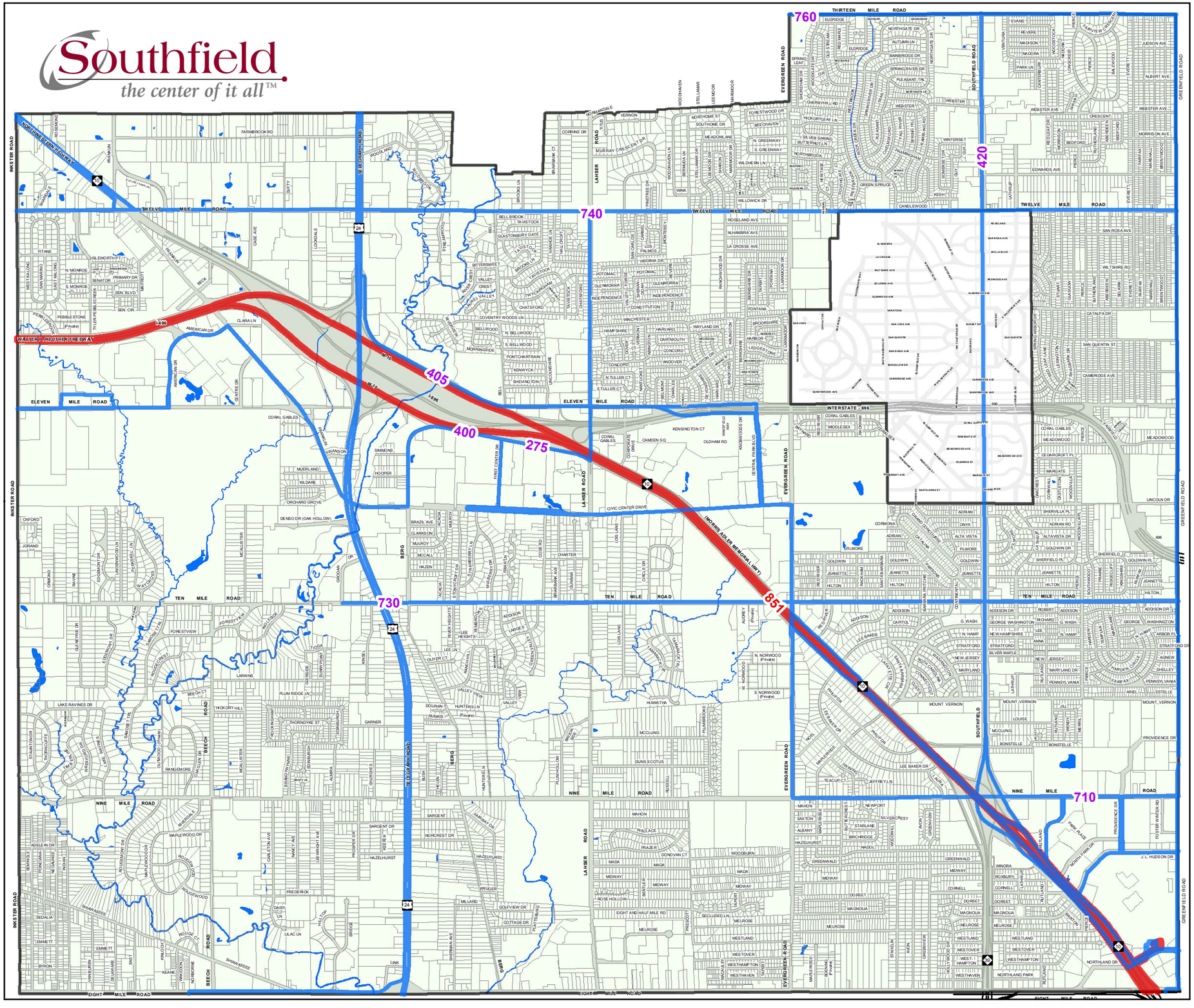
Map 1.2: Existing SMART Bus Routes

City of Southfield, MI



New SMART shelter prototype.

In fall of 2011, SMART poured five (5) additional concrete pads to be used for new bus stop shelters in the City of Southfield. Construction on the new shelters will begin in early 2012:

1. Southbound Evergreen in front of the Shoppes at Park Place
2. Westbound 10 Mile Road in front of Lawrence Technological University
3. Eastbound Civic Center Drive at Lawrence Technological University's North Campus
4. Eastbound 12 Mile Road at Lockdale
5. Eastbound 10 Mile Road just east of Berg Road

In addition to the above stops, SMART intends to install two (2) concrete shelter pads at Westbound and Eastbound Civic Center Drive just west of Evergreen Road during spring/summer 2012.

Additional concrete pads are being installed in City of Southfield.

SMART has also been awarded grant funding for the purchase of bike racks in communities served by SMART to enhance the relationship between bicycle and bus ridership. SMART coordinates the purchase of the racks, but the community can choose the color, style, and manufacturer, as well determine the placement of the rack anywhere within the community.

Under the grant, SMART can contribute up to $2,500 for the purchase and shipping of a bike rack for a community.

SMART Bus with bicycle storage.

Although installation and maintenance is the community's responsibility, SMART requires that the racks be bolted or cemented to the ground and retains ownership of the racks.

The City of Southfield will be a grant recipient of bike rack funds for implementation in 2012.

Taxi Services:

Numerous private taxi companies exist in the City of Southfield. Service is generally "call ahead", although taxis can sometimes be seen and flagged down for ridership. Taxi companies are commonly headquartered in the City or nearby cities, so drivers are usually familiar with the area. In addition to taxi service, limousine and luxury coach companies also serve the City.

Although any taxi company can provide service to City of Southfield as a destination, a city ordinance requires taxi companies to be licensed to pick up fares within city limits:

*Ordinance: **Sec. 7.167-A. - Public convenience and necessity.***

(1) *Number of taxicab registration plates. Factors affecting public convenience and necessity, which affect the number of taxicab registration plates to be in service at any given time, may be reviewed by council periodically to determine the level of service being provided by existing taxicabs and the need for issuance of additional taxicab registration plates, if any, or the removal of existing plates from service. The number of taxicab registration plates shall be established after a public hearing by council resolution in accordance with the following guidelines:*

> ***(a)*** *All current taxicab registration plate holders and persons who have a current application on file for a certificate of registration in accord with section 7.152 shall be given notification by first class mail by the city clerk, addressed according to the clerk's registration records, mailed not less than seven (7) days prior to the hearing, of the date, time and place of the public hearing. In addition, notice of the date, time and place of hearing shall be published in the official newspaper of the city at least ten (10) days prior to the hearing date.*
>
> ***(b)*** *In determining the need for additional taxicab registration plates, the council shall consider as a minimum the following factors:*
>
> ***1.*** *The number of existing taxicabs operating in the city;*
> ***2.*** *The manner in which existing taxicabs are operated;*
> ***3.*** *The needs and demands of the public;*
> ***4.*** *Traffic conditions; and*
> ***5.*** *Such other relevant facts as the council may deem advisable.*

(2) *Procedure for selecting registration plate recipients. If council determines that additional taxicab registration plates should be issued, it shall direct the staff transportation committee to investigate all persons who at the time of the public hearing have applications for registration plates on file under section 7.152 of this chapter. The staff transportation committee shall consist of such administrative employees as may be appointed by council. Upon concluding such investigation, the committee shall file a report and recommendation to the council as to which of the applicants should receive the additional plates. The council, after considering the report and recommendation of the committee, shall by resolution grant such additional registration plates to such applicants as in its discretion deems advisable. In determining the applicants to be issued the additional registration plates the council may, among others, consider the following factors:*

> ***(a)*** *Financial capability;*
> ***(b)*** *Criminal record;*
> ***(c)*** *Driving record;*
> ***(d)*** *Proposed taxicab service levels;*
> ***(e)*** *Past taxicab experience; and*
> ***(f)*** *Other such factors as the committee may deem appropriate.*

To encourage taxi companies to provide service within the City of Southfield, it is recommended that the above ordinance is updated and revised to allow for taxis who drop off passengers within city limits to pick up passengers as well.

As of fall 2011, licensed taxi and limousine companies for City of Southfield pickup include (but are not limited to):

A & A Discount Cab
23150 Park Place Drive
Southfield, MI 48033
(248) 212-3132

A.J. Cab
25232 W. Rue Versailles Drive #C
Oak Park, MI 48237-4009
(248) 556-0515

Southfield Yellow Cab
1681 Browning Street
Ferndale, MI 48220-3402
(248) 548-8511

AA Airport @ Local Cab
30290 Twelve Mile Road #E103
Farmington Hills, MI 48334
(888) 660-5837

Alltime Transportation
30310 Twelve MIle #F103
Farmington Hills, MI 48334
(248) 202-0573

Town Cab
16061 Eleven Mile Road
Southfield MI 48076-3615
(248) 535-9445

Active Cars
29501 Greenfield #212
Southfield, MI 48076
(888) 288-2928

American Taxi
22549 Glastonbury Gate
Southfield, MI 48034-2006
(248) 569-4100

Adam's Express
3221 Hanley St.
Hamtranck, MI 48212-3575
(248) 991-4885

Southfield Liberty Cab
20216 N. Larkmoor
Southfield, MI 48034
(248) 350-1915

According to a representative from A & A Discount Cab, one (1) designated taxi stand exists within the City of Southfield. The stand, located at Northland Center, is a popular pick-up and drop-off destination for registered taxi companies. The Westin Hotel and Southfield Transportation Center are also popular destinations, although no formal taxi stands exist at these locations.

Taxi cabs wait for pickup at the Northland Center taxi stand.

TOSS (Transportation of Southfield Seniors):

TOSS vehicle provided by SMART.

Established in 1987 and managed by the City of Southfield Parks and Recreation department, TOSS is a program that improves accessibility to the seniors in the City of Southfield by offering transportation to local doctor's appointments, grocery stores, banking facilities and other personal appointments as needed within the City. It allows Southfield seniors that do not have their own vehicles or transportation to live independently in their home or apartment. Nine vehicles (including a bus, cars, and vans) comprise the TOSS fleet. Of the nine, seven existing vehicles can accommodate wheelchairs. All TOSS drivers have CDL's (Commercial Drivers Licenses) and CPR & First Aid certificates.

Currently, three vehicles are on the road daily (120 hours per week) for TOSS transportation to doctor's appointments and dialysis. TOSS also offers transportation to banking facilities in the community every Wednesday. In addition, there are 20 hours a week on average dedicated for grocery shopping, dining-out programs and special group requests. TOSS service hours are Mondays through Fridays from 8:00 AM until 4:00 PM. Specialized services are also provided after 4:00 PM and on weekends. TOSS asks that riders make reservations 2 weeks in advance but take reservations as early as 4 weeks in advance. However, the organization strives to also accommodate riders needing service on short-notice.

TOSS provides regular and specialized services to residents of Southfield of all age groups, from children to seniors and persons with disabilities, as well as to persons with disabilities that attend Parks and Recreation Department programs. Regular transportation services to and from medical facilities within the geographical area bounded by Fourteen Mile on the north, Eight Mile on the south, Coolidge to the east and Middlebelt to the west. A donation of $5.00 per round trip is suggested. In addition to medical-related transportation, TOSS also provides service to local grocery stores for McDonnell Towers and Woodridge apartment residents, as well as for the Chaldean Ladies of Charity, for a charge of $2.00 per person round trip. Service is also available for Southfield Public Schools, special interest groups, Southfield Optimist Club, and the City (for special event shuttle services), with charges on a sliding scale depending on the vehicle they use and the hours used by the driver. Fees vary from $2.00-$5.00 per person.

TOSS's average cost per rider (round trip) is $19.00 considering fuel, wages, insurance, etc., but the average donation per rider (round trip) equates to about $1.50. Funding for TOSS is provided by SMART, Community Development Block Grant (CDBG) funds, Providence Hospital, Beaumont Hospital, Comerica Bank and ridership donations. Funding from SMART was reduced 20% in 2011.

Approximately 2,000 riders take advantage of regular TOSS services annually. However, ridership totals about 12,220 people annually considering all TOSS transportation programs. The City of Southfield, estimates that at least 120 people utilize TOSS regularly.

Proposed Local Transit Services

Southfield Regional Transit Center:

Introducing a regional transit center within the City of Southfield would provided a needed central hub for buses, taxis, and other future transit alternatives. Such center should be located at or near a major activity center, such as the Telegraph and 12 Mile Road intersection, Northland Center, or OCC Campus/Providence Hospital. Accommodations for automobile parking, bicycle storage, ticket sales, and other modern conveniences should be incorporated into the proposed center (as depicted below).

Figure 1.6: Proposed Southfield Regional Transit Center
Source: 8 Mile Boulevard Association

Existing Bus Stop Conditions

"*Bus stops send a message about a city's public space. They are the place where bus transit and municipal identity overlap. Each stop can be thought of as having a two-way identity; it is a gateway to the transit system for passengers getting on and a gateway to the adjacent neighborhood for passengers getting off. Each stop should be assessed as part of a pedestrian network that permits someone to get to and from the stop."* – D. Suisman, Places, Summer 1997

Over 450 bus stops can be found throughout the City. SMART and D-DOT service these stops to offer transit within the City and beyond to neighboring communities. Although some bus stops are welcoming and have a strong a presence to encourage ridership, many existing bus stops lack amenities or elements that make them user-friendly and accessibly. In addition to the bus stop facility itself, a stop's connection to nearby destinations influences ridership. The City of Southfield's high-use stops are connected to major activity centers, but often lack amenities:

Benches for riders to rest while waiting for the bus to arrive are often missing. Although private benches are sometimes found near stops, benches rarely exist unless a shelter is present. The Southfield DDA and City Centre have been installing benches throughout the districts.

Typical DDA respite stop complete with bench and trash receptacle.

Bench and pad located on Evergreen Road in the City Centre district.

Bus stop in with multiple benches to provide adequate seating.
Example: Oak Park, MI

Bench and bike rack introduced in a similar style.
Example: Grand Haven, MI

Bicycle Storage within close proximity to a bus stop enables bus riders to utilize bicycles as a means to travel to the stop. Accommodating bicycles can encourage ridership to travel from further distances Limited or nonexistent.

Bike racks can provide both functional and aesthetic benefits.
Example: Albion, MI

Different styles and shapes exist for bike racks.
Example: Grand Haven, MI

Providing clean, attractive bike racks with landscaping will encourage use.
Example: Grand Haven, MI

A variety of locations support bike racks.
Example: Knoxville, TN

Keywalks connect riders from the sidewalk to the street for bus pick up. Although most major stops throughout the City do have keywalks, other less-used stops often lack keywalk paths.

Properly installed keywalks enable safe bus access.

Keywalks can include additional amenities as well.

Kiosks to provide route maps, schedules, and directions to nearby attractions are nonexistent.

Directories to guide users to nearby attractions are useful at bus stops.
Example: East Town Center, OH

Kiosks can also provide insight to local history and/or historic places.
Example: Ferndale, MI

Introducing maps and schedules at or near bus stops encourages ridership and pedestrian activity.
Example: Ferndale, MI

Lighting is necessary for safety around bus stops. Because not all bus stops are equipped with full facilities, city street lighting often serves as primary lighting at bus stops throughout the City of Southfield. However, inconsistent lighting or lack of street lighting near stops is common.

Decorative street lighting.
Example: Boston, MA

Street lights often provide needed lighting at bus stops.

Downlighting can be used to illuminate sidewalks and bus stops.
Example: Albion, MI

Newspaper Stands provide free or low-cost entertainment for riders while waiting for buses to arrive. Most stops throughout City of Southfield lack newspaper stands.

Placing newspaper stands in close proximity to bus stops provide riders entertainment while waiting.
Example: Knoxville, TN

Newspaper stands can feature other periodicals and advertisements at various price points.
Example: Plymouth, MI

Pads to provide a waiting area are often in need of repair or absent. Pads visually distinguish a bus stop and provide clean platform for riders to wait for the bus to arrive. During the winter, concrete pads enable easy snow removal.

Many existing concrete pads are in need of repair.

Newly installed concrete pad for future shelter.

Shelters provide safe and protected waiting areas for transit riders. Relatively few shelters exist in the City of Southfield to provide welcoming waiting areas for bus pickup. Shelters that do exist lack consistency. The style, materiality, and structure maintenance vary shelter to shelter, with no uniformity or standard.

Existing bus stop shelter.

New SMART Bus shelter.

Signage that is vital to designate a stop location. In some locations, signage is missing or damaged and needs to be improved.

New SMART logo and sign design.

Former SMART logo and sign design.

Current DDOT sign.

Trash Receptacles to promote environmental cleanliness should be provided to bus riders at stop locations. Throughout the City of Southfield, trash receptacles are often nonexistent at bus stops, even at locations with shelters.

Trash receptacle located within a downtown district.
Example: Albion, MI

The Southfield DDA added a bench and trash receptacle to this bus stop pad on Nine Mile Road.

Traffic Flow Conditions (Existing)

MacArthur School.

Throughout the City of Southfield, several neighborhood schools are located within residential communities, such as the MacArthur School located at 24501 Fredrick Street. The schools generate a significant amount of automobile traffic each morning and afternoon when parents are dropping off or picking up their children. Although the City has attempted to address the traffic flow issue at the MacArthur School by designating feeder streets as "one-way" during peak hours, continuous speeding, unauthorized parking, and limited road rights-of-way continue to create traffic problems, upsetting the residents who live along them. Suggested changes include increasing police patrol enforcement, widening roads, install traffic calming measures, and consolidating schools to reduce the number of grade levels across the district. Further investigation and analysis relating to school traffic flow conditions is suggested.

Chapter 2

EXISTING CONDITIONS (NON-MOTORIZED)

CHAPTER 2 - EXISTING CONDITIONS (Non-Motorized)

"Walkable Communities-those where it is easy and safe to get around by foot-have become popular travel destinations and sought-after places to live and work. . . They provide attractive sidewalks or paths designated for walking. Second, they prioritize the needs of pedestrians and make walking, bicycling, and using public transportation not only possible but also enticing and safe. Finally, places where people need to be are located within easy walking distance from one another."
- Design Guidelines for Active Michigan Communities, 2006

Introduction

Non-motorized transportation (sidewalks, bike lanes, pathways) not only helps meet the overall goal of a healthy community but also provides an alternate mode of travel. An interconnected system of bike routes, bike lanes, sidewalks, and pathways not only provide residents an alternative travel option for shorter trips, they also provide more convenient access to transit facilities, recreation opportunities, improve connections throughout the City, help reduce isolation, and can even help reduce traffic volumes. A more walkable community also has significant health benefits for its residents.

A primary goal of non-motorized pathways is the connection of residential areas to parks, schools, and employment, shopping, and entertainment centers. Non-motorized transportation can provide health benefits by providing local, convenient facilities for exercise to allow users to be active and through the potential for reduced automobile emissions. Children, young adults, seniors and persons with disabilities often rely on the non-motorized transportation system and public transit as their primary means of travel. Their unique needs must be considered when designing them.

Based on data from the 2000 United States Census relating to commute to work, City of Southfield residents do not highly utilize non-motorized transportation or transit. In Michigan, high range for walking is around 16% and 3% for bicycling (although the bike numbers though have increased dramatically since 2000).

Table 2.1: Southfield Resident Commute Types (Percent)

- **0.1% Bike**
- **1.5% Walk**
- **1.2% Bus**
- **2.7% Don't drive**
- **7.1% of homes do not have a car**

Existing Non-Motorized Pathway System

Sidewalks and Bicycle Paths (including Bicycle Routes):

Sidewalks generally accommodate foot traffic and shorter bicycle trips. Throughout the City, three classes of sidewalks exist (refer to ***Illustration 2.1: Sidewalk Classes***):

- **Class I:** *Curbside*
- **Class II:** *Set back from road with buffer*
- **Class II:** *Set back from road with buffer and landscape*

Curbside sidewalks are located directly adjacent to the street with little or no barrier between automobile traffic and the pedestrian users, while other sidewalk classes are kept separated by buffers. Sidewalks set back from the road with landscaped buffers provide users with the maximum sense of safety as these sidewalks are screened from the automobile traffic.

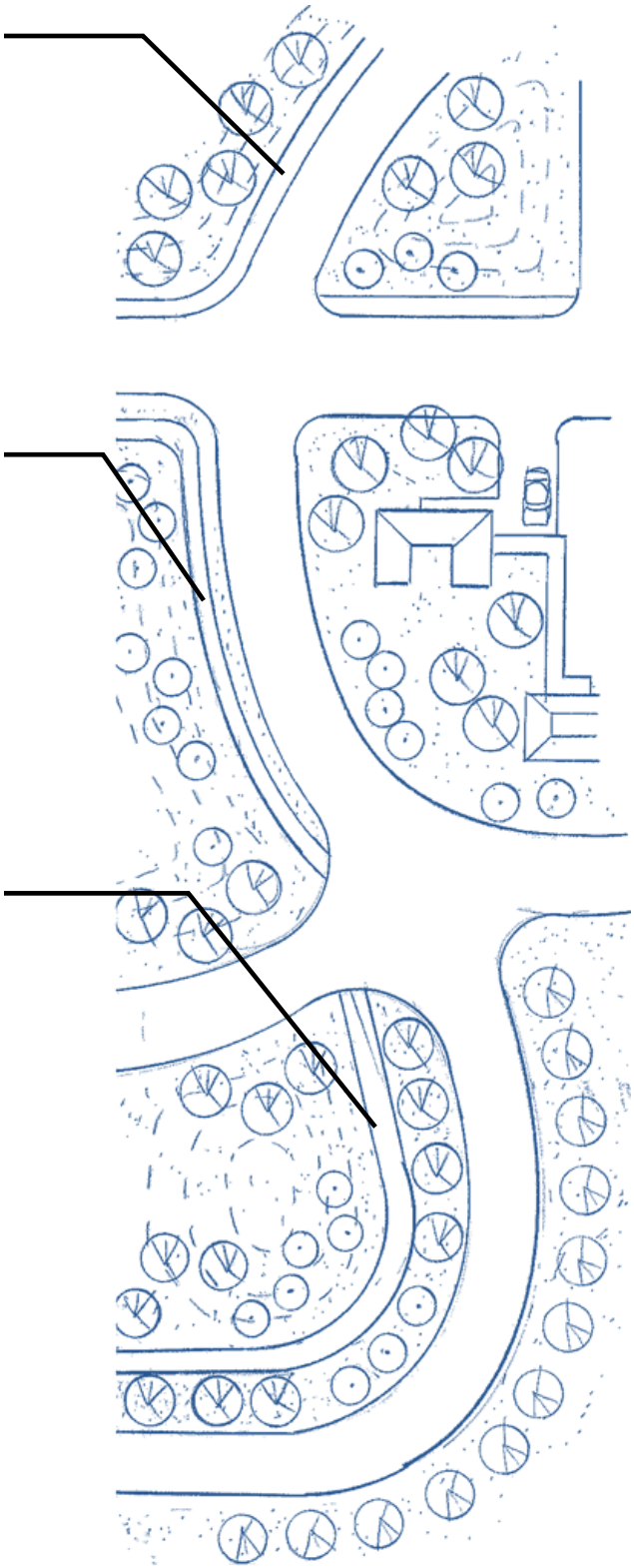
Maintaining an interconnected system of sidewalks, leading to community or regional pathways, enhances the pedestrian and non-motorized environment. The City should vigorously pursue filling in gaps in the system that act as barriers. While City funds may be used for this purpose, adjacent land owners should also share in this commitment. Options to accomplish this include requiring the installation of pathways along major roads and sidewalks throughout the interior of new projects or for residential lots that have not maintained or installed their sidewalks, requiring an escrow or performance guarantee when transfer of property ownership occurs or establishing a special assessment district (SAD).

Illustration 2.1: Sidewalk Classes

Class I: Curbside
Example: Easton Town Center, OH

Class II: Set back from road with buffer

Class III: Set back from road with buffer and landscape



While a majority of the City's non-motorized facilities are sidewalks, Southfield maintains a designated network of bicycle routes throughout the City (refer to ***Map 2.1: Existing Bike Routes***). Primarily located along major streets, the system contains over 32 miles of bicycle routes that are contiguous, uninterrupted paths that connect destinations across the City. Although most of the routes in the system are internal to the City, Nine Mile and Shiawassee routes terminate on the west at the City's border with Farmington Hills, and the Evergreen route terminates on the north at the City's border with Beverly Hills. These routes offer the potential links to communities beyond Southfield's borders.

Four (4) distinct types of bike routes are located throughout the City:

Sidewalk Routes

Asphalt Paths

Road Routes

Paved Roadway Shoulders

Sidewalk routes (15.3 miles) make up the largest portion in the City, followed by roadway routes (6 miles); asphalt paths (5.5 miles); and paved shoulders (4.7 miles).

These routes vary in availability of signage identifying them as bike routes. Some routes have no signage whatsoever while other routes have ample signage along the entire route. In addition, some asphalt paths have pavement markings while others don't.

Sidewalk routes can be found along major roadways as well as residential streets and generally measure 5' in width and are generally found on one side of the street. Roadway routes are found along residential streets where sidewalks are not available and don't have a particular

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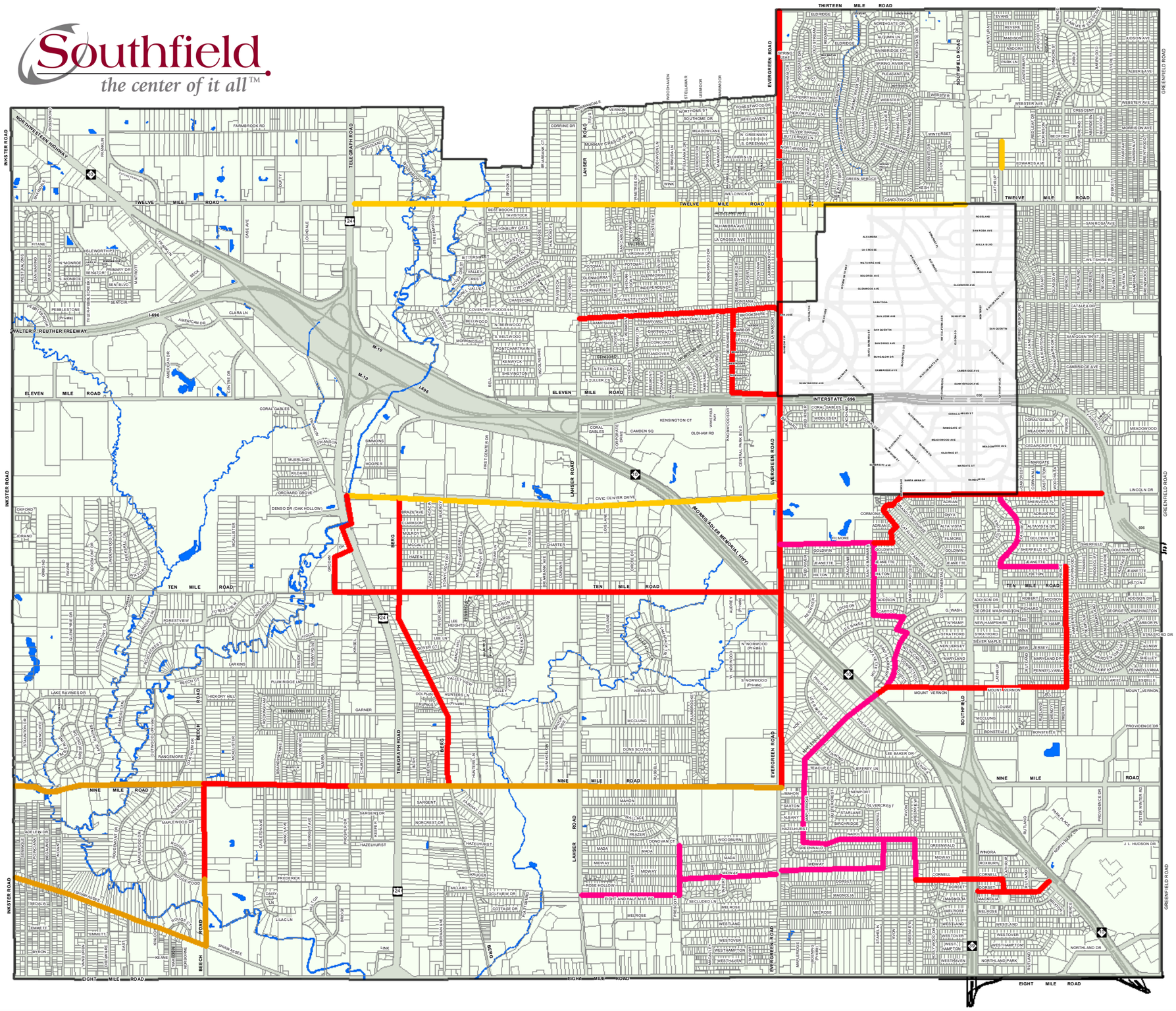
Map 2.1: Existing Bike Routes

City of Southfield, MI



- Asphalt
- Paved Shoulder
- Road Route
- Sidewalk Route

Miles

0 0.25 0.5 1

N W E S

12/19/2010

width attributed to them. Asphalt paths are found along Twelve Mile Road between Telegraph Road and Southfield Road, and on Civic Center Drive between Telegraph Road and Evergreen Road, and are generally 6-8' in width. The Civic Center Drive Route connects the City municipal complex with the City Center area, Lawrence Technological University, the Burgh Historical site and the Valley Woods Nature Preserve at Telegraph Road. Paved Shoulder routes are found along Nine Mile Road from Evergreen to Inkster Road, along the southern portion of Beech Road at Shiawassee and along Shiawassee from Beech to Inkster. These routes are typically 3-5' wide and striped to designate the bike lane from the vehicular lane.

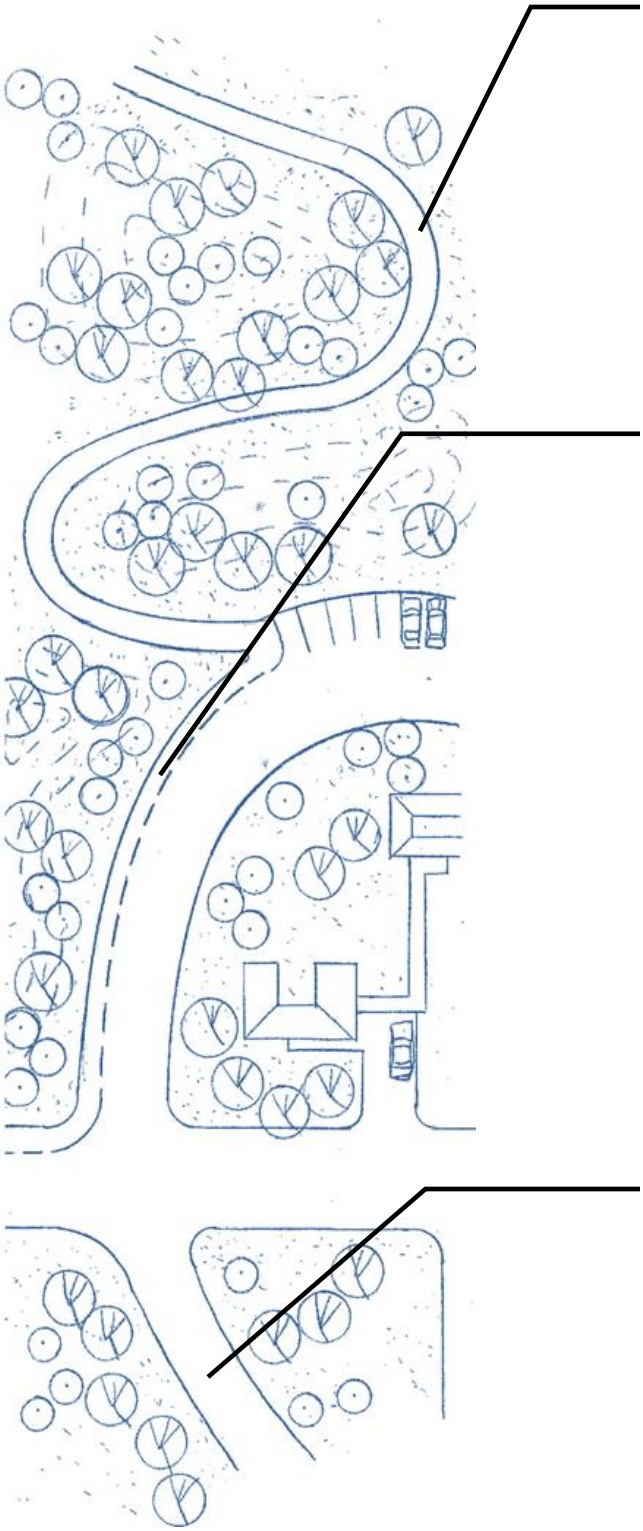
Three classes of bicycle paths make up the City's bicycle route network (refer to ***Illustration 2.2: Bicycle Path Classes***):

- ***Class I:*** *An independent riding surface that is physically separated from a roadway.* Although this type of path is the most costly to construct, user safety is the highest in comparison to the other classes because it is designed for bicycle use only. This path class offers users a unique riding experience that often follows a scenic route or can be enhanced with landscaping.

- ***Class II:*** *Narrow bike lanes incorporated within an existing street right-of-way.* This type of path is designed to protect bicyclists by designated specific riding areas along a new or existing automobile roadway. Because Class II paths do not include buffers between automobile and bicycle traffic, user safety is compromised where bicyclists must cross over driving lanes.

- ***Class III:*** *A street right-of-way which is designated for bicycle use by appropriate signs and street markings.* Appropriate for low-traffic streets, this class system depends on the attention of both automobile drivers and bicyclists for safe use.
  Source: Oakland County Planning Division

Illustration 2.2: Bicycle Path Classes



Class I: Independent riding surface separate from roadway

Class II: Narrow bike lanes incorporated within the street right-of-way

Class III: On street right-of-way

Pedestrian and bicyclist characteristics can differ greatly – there is no such thing as a typical pedestrian or bicyclist. Age, education, skill level, physical ability, travel speeds, and/or vehicle characteristics all vary. However, certain standards and concepts should be considered when planning and designing a non-motorized plan:

Pedestrian

- Most walking trips for personal business are ¼ - ½ mile in distance (5-10 minute walk)
- Bus stops should be placed in direct travel routes
- Sidewalks are vital on both sides of a street
- Motor vehicle activity affects pedestrian orientation
    - Vehicle volume
    - Percent of truck traffic
    - Degree of separation between pedestrian and vehicle

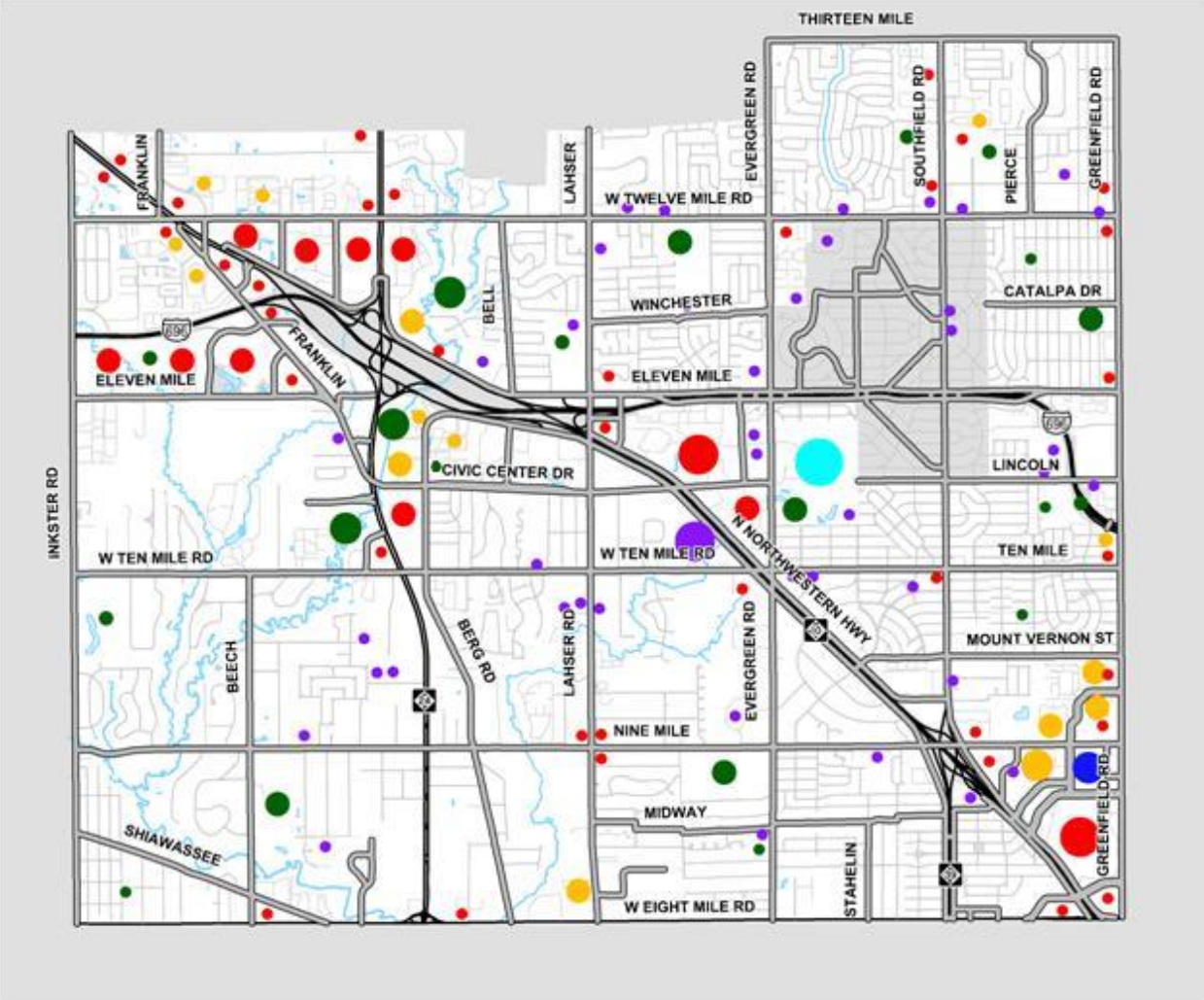
Bicyclist

- Presence of a bike lane encourages ridership
- Motor vehicle activity affects pedestrian orientation
    - Vehicle volume
    - Percent of truck traffic
    - Degree of separation between pedestrian and vehicle
- Size and complexity of intersection

Throughout the City of Southfield, many of the above standards and concepts are lacking, resulting in an environment that is often unsafe for non-motorized travel. In addition, the City's existing land use pattern has resulted in the creation of isolated origins and destinations separated by freeways and other barriers.

Map 2.2: Origins and Destinations

Whether walking, biking, utilizing transit, or driving an automobile, ***Map 2.2: Origins and Destinations*** identifies key areas of interest throughout the City. While most trips are currently made by automobile, opportunity exists to encourage pedestrian and bicyclist orientation (as well as transit ridership) to link residents to these areas. Overall, origins and destinations are concentrated in three clusters and divided by freeways (larger circles indicate higher activity levels).



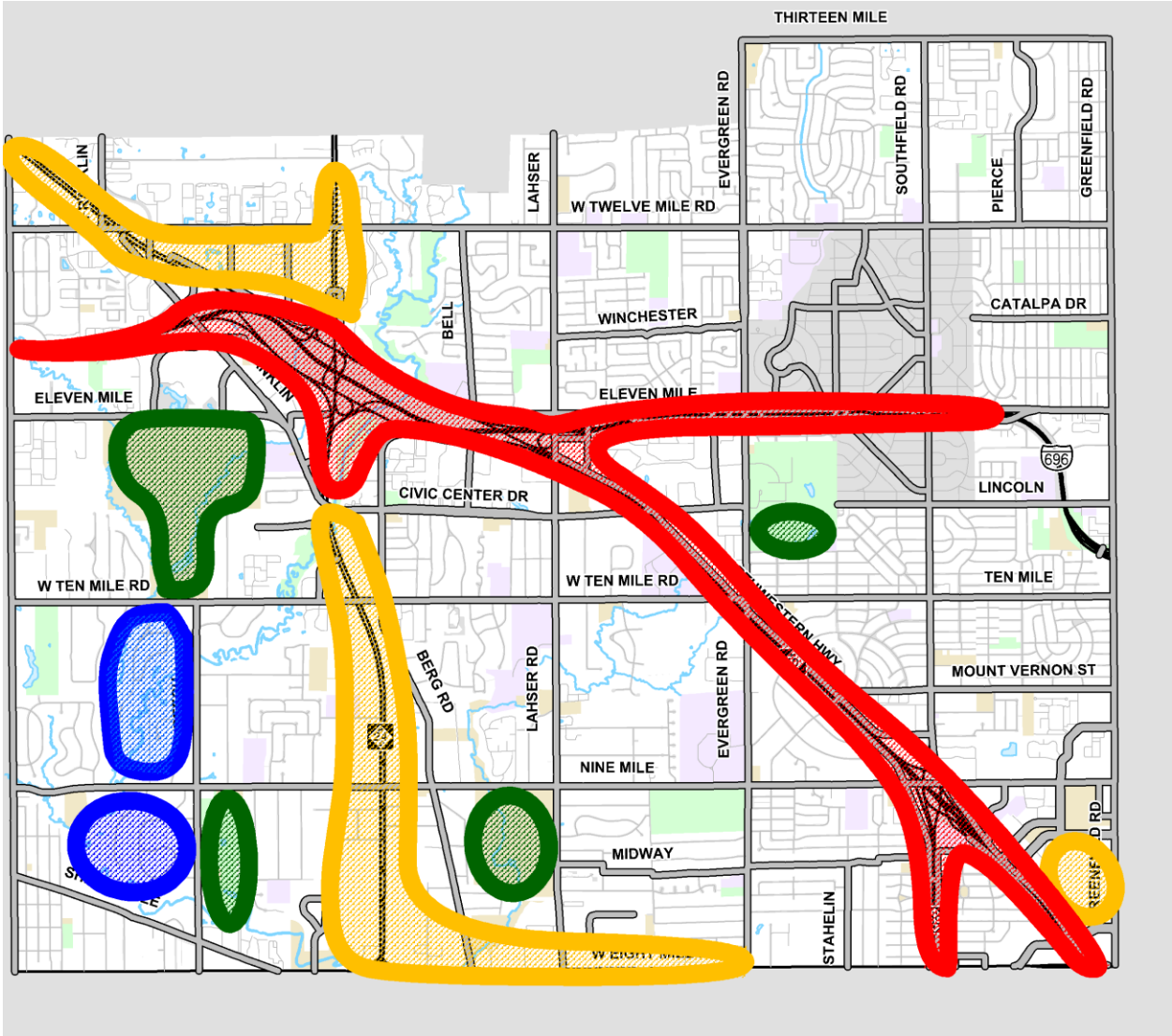
Source: Greenway Collaborative, Inc., 2011

KEY

- Civic Center
- Park/Recreation
- Commercial
- Residential
- Education
- Hospital

Map 2.3: Non-Motorized Transportation Barriers

Map 2.3: Non-Motorized Transportation Barriers reveals areas where freeways, intensely developed commercial and industrial corridors, cul-de-sac neighborhoods, and/or privately-owned greenspace prevent non-motorized connections. In general, freeways significantly hinder non-motorized connections. Although some freeway bridges have sidewalks, crossings are limited for non-motorized path users. The west side of the city has the highest concentration of barriers.



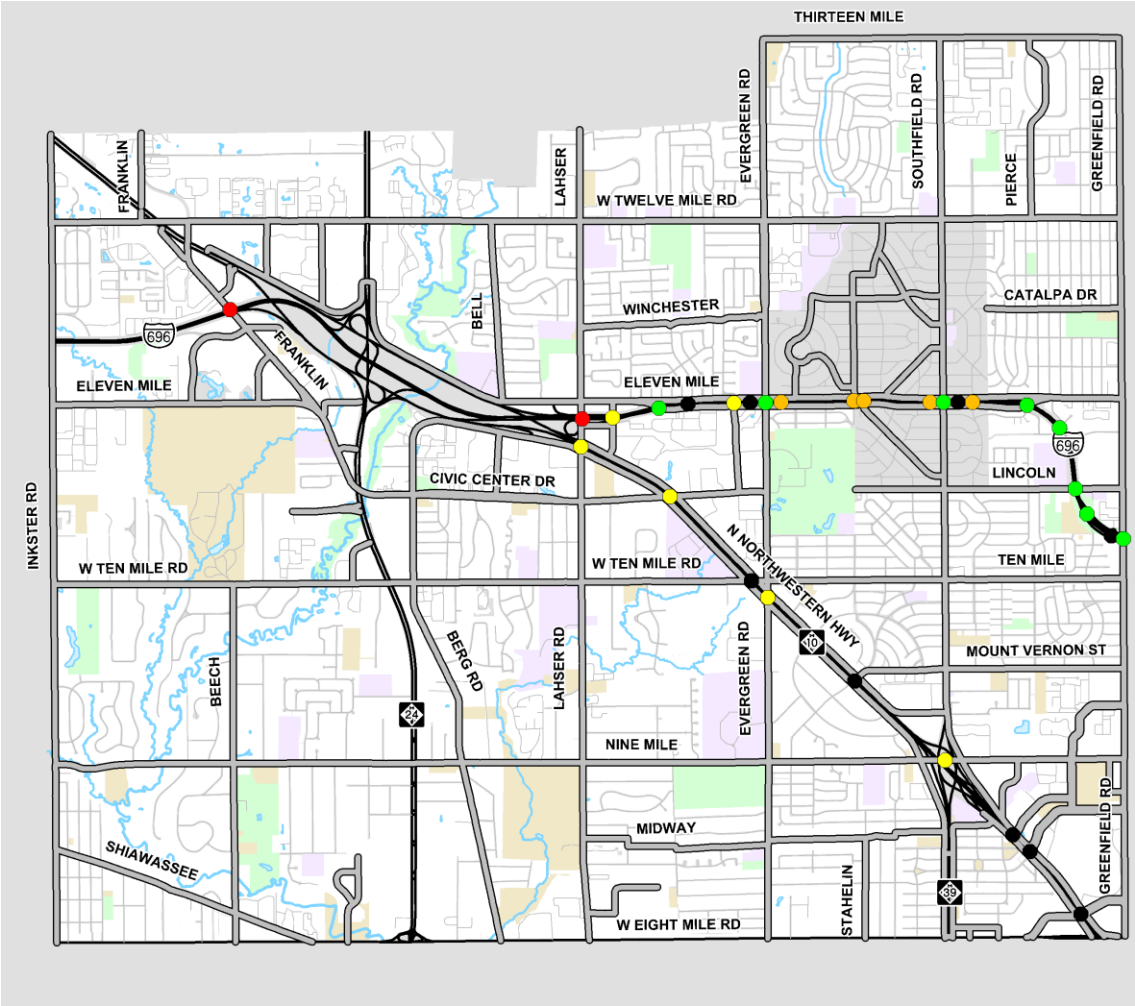
Source: Greenway Collaborative, Inc., 2011

KEY

- Freeways
- Commercial/Industrial Development
- Open Space (Cemetary/Golf Course)
- Residential Development

Map 2.4: Freeway Crossings

Map 2.4: Freeway Crossings identifies and rates existing freeway pedestrian crossing conditions. The Freeway Crossing Rating was based on how comfortable a pedestrian would feel crossing the freeway based on existing conditions. The rating was determined based on the difficulty of the road to be crossed and the presence of sidewalks, marked crosswalks, signalized crossings, and free-flowing interchange ramps. I-696 between Lahser and Greenfield roads is quite permeable, requiring only slight improvements to better establish connections. However, Northwestern Highway is much more challenging with fewer crossings. I-696 between Inkster and Lahser also proves challenging as only one crossing exists.



Source: Greenway Collaborative, Inc., 2011

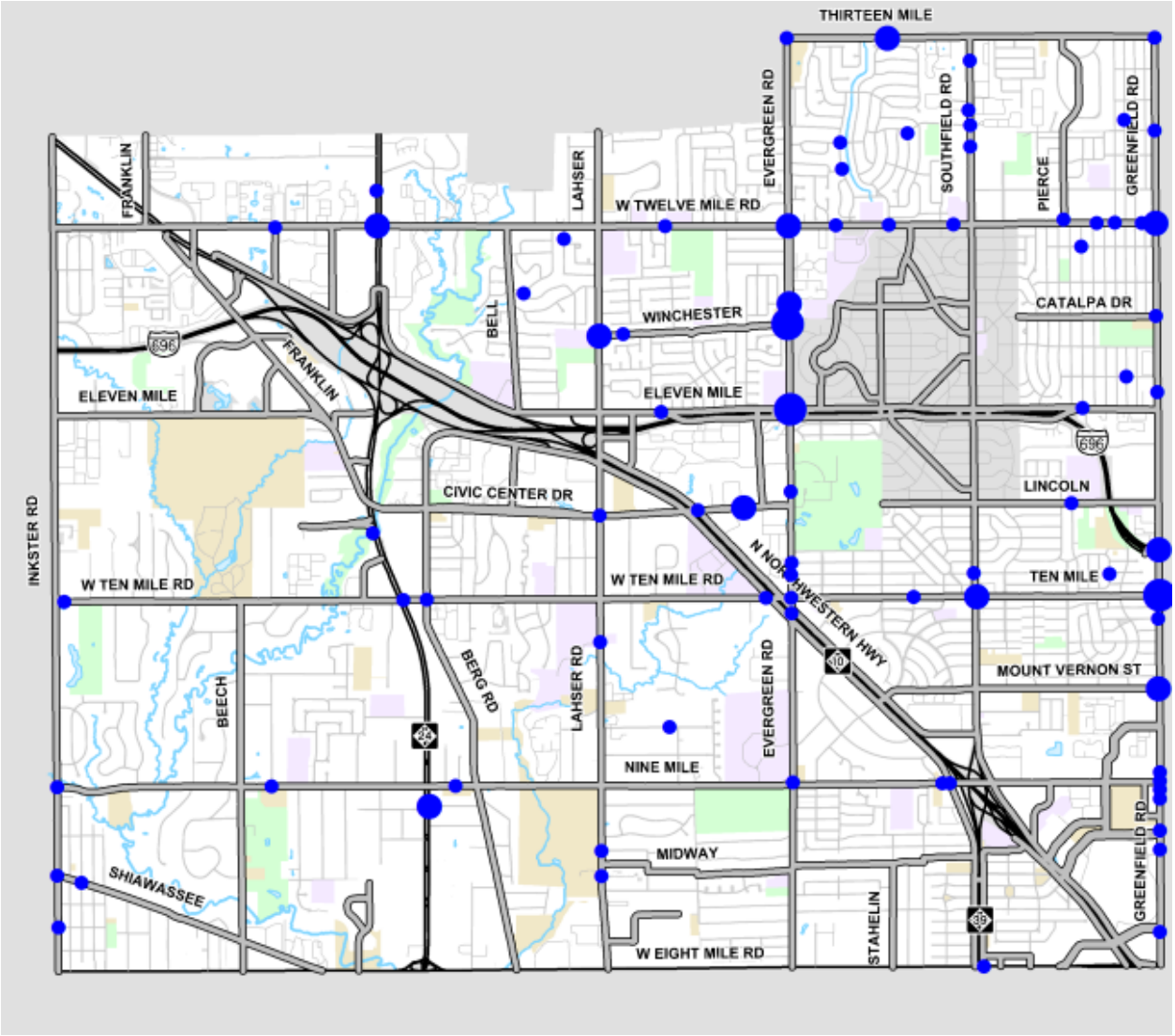
KEY

Rating of Freeway Crossings
- A - Very Comfortable
- B - Comfortable
- C - Uncomfortable
- D - Very Uncomfortable
- E - No Existing Facilities

Map 2.5: Bicycle Crashes

Despite the City of Southfield's current poor non-motorized path conditions, bicycle activity does occur throughout the City. From 2004 to 2010, a number of automobile crashes involving bicyclists were reported as seen on ***Map 2.5: Bicycle Crashes***. Most crashes are concentrated along major roadways, with the highest concentrations of bicycle crashes occurring along:

- Evergreen Road, between 10 Mile and 12 Mile roads
- Greenfield Road, especially south of Lincoln Road
- Twelve Mile Road, between Evergreen and Greenfield roads



Source: Greenway Collaborative, Inc., 2011
*Data represents reported crashes from 2004-2010.

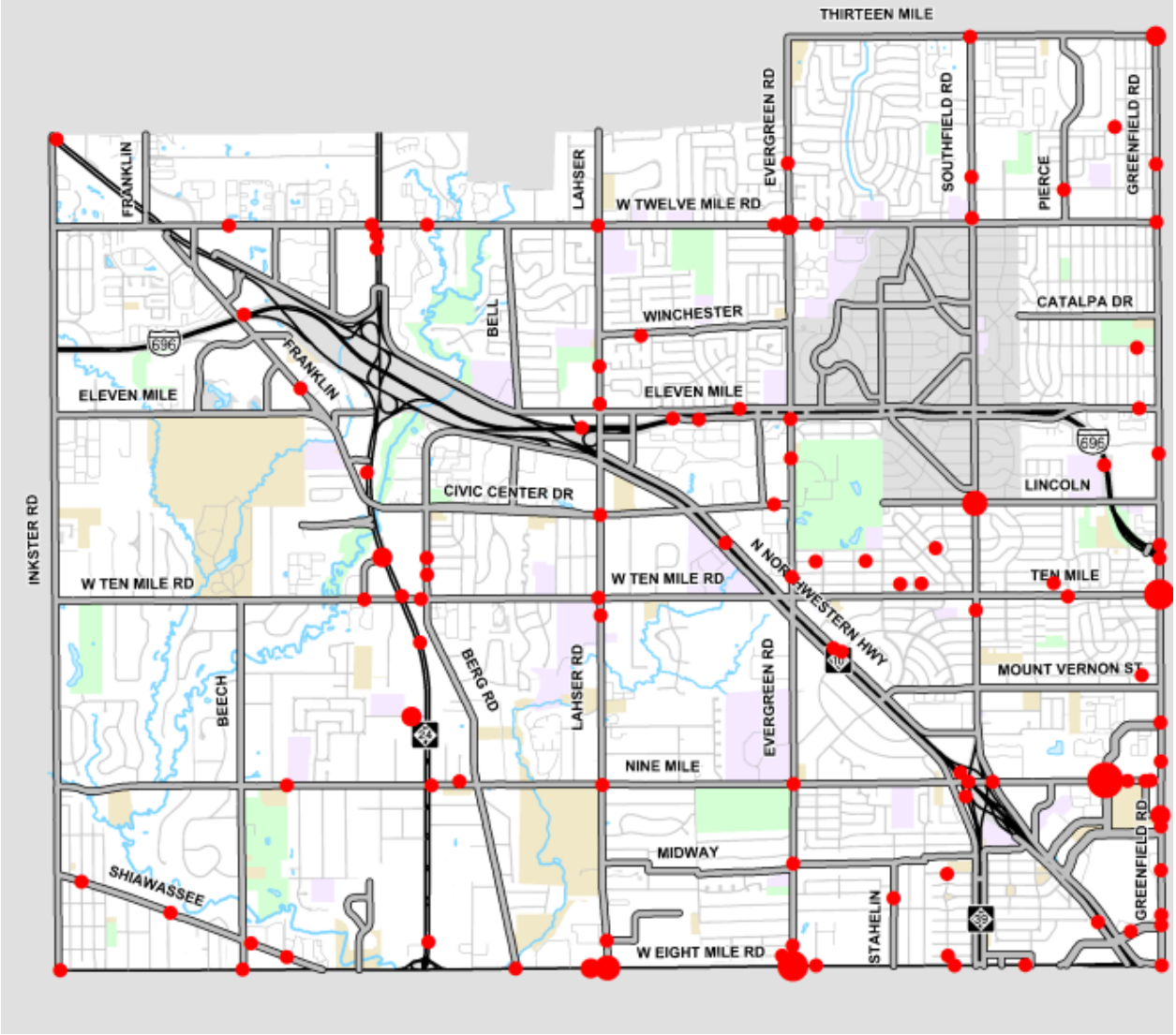
KEY

- 1 Crash
- 2 Crashes
- 3 Crashes

March 19, 2012

Map 2.6: Pedestrian Crashes

From 2004 to 2010, the high concentrations of pedestrian crashes are found near Providence Hospital. However, crashes can be found consistently throughout the City, as seen on **Map 2.6: Pedestrian Crashes.** These crashes indicate a need for an improved non-motorized path system.



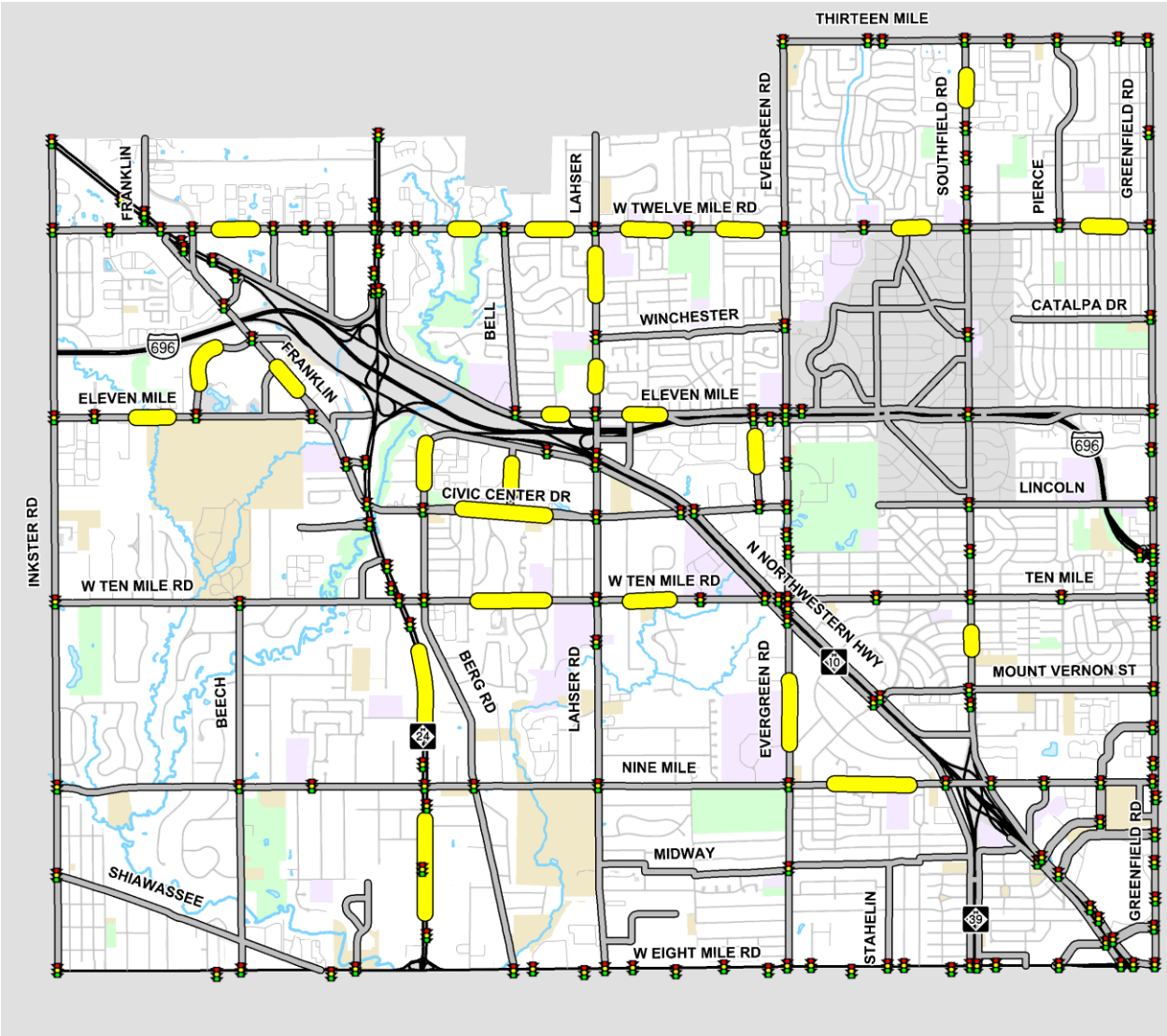
Source: Greenway Collaborative, Inc., 2011
*Data represents reported crashes from 2004-2010.

KEY

- 1 Crash
- 2 Crashes
- 3 Crashes
- 4 Crashes
- 5 Crashes

Map 2.7: Demand for Crossing Improvements

Map 2.7: Demand for Crossing Improvements identifies locations where crossing improvements should be made to increase pedestrian and bicyclist safety as well as encourage non-motorized transportation activity. Considering the distances between bus stops and certain land uses, areas were identified where pedestrians and/or bicyclists have to go over 1/8 mile out of their way to cross the road at a crosswalk.



Source: Greenway Collaborative, Inc., 2011

KEY

- Demand for Crossing Improvements
- Traffic Signal

Existing Non-Motorized Pathway Conditions

Existing non-motorized pathways (sidewalk and bicycle) throughout the City are often disrupted or hindered due to:

Overgrown Landscape / Encroaching Landscape. Natural or enhanced landscape within close proximity to non-motorized pathways can interfere with use if not properly maintained. Overgrown or encroaching landscape limits the width of pathways and can also hide wayfinding signage that designates non-motorized routes.

Without proper maintenance, natural or man-made landscape can interfere with path usage.

While not directly affecting the path, overgrown landscape can interfere with usage by reducing wayfinding sign visibility.

Pathways should be continuous and unobstructed.

Land Use Conflicts. Non-motorized pathways are often obstructed and sometimes impassible due to surrounding land uses. In addition, lack of separation between the automobile and non-motorized paths creates an uncomfortable & threatening environment.

Pathways should be kept clear of obtrusive objects, even if temporary.

Despite this roadway shoulder's bike path designation, rumble strips to alert drivers of the road's edge were installed; interfering with pedestrian use.

Permanent objects sometime interfere with safe pathway use.

Restrictive Barriers. Previous installations hinder the connectivity of non-motorized paths throughout the City.

An existing guard rail prevents continuous sidewalk installation and hinders pedestrian use.

Inadequate Construction and/or Poor Maintenance. Non-motorized pathway maintenance is often overlooked throughout the City. While some paths are constructed with less-than-adequate materials, other paths have become unusable or unclear due to a lack of maintenance.

This pedestrian pad is constructed of inadequate materials, creating safety and maintenance issues.

Settling and tree routes often interfere with the safety of a non-motorized path.

Poorly maintained landscape reduces the usability of a non-motorized path.

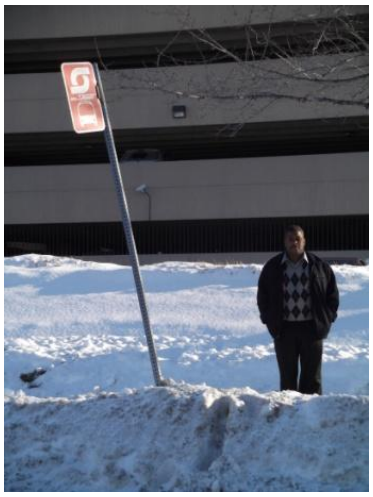
Bridge and boardwalk maintenance relating to snow removal and general upkeep to preserve the structure are often overlooked.

Drainage Conflicts. The installation of some non-motorized pathways has created drainage issues for nearby greenspaces, driveways, and roadways. Improper installation can also result in drainage issues on the path itself.

Non-motorized paths should not drain into existing driveways, roadways, or yards.

Lack of drainage results in wet, slippery pathways that are often not passable.

Lack of Amenities. Waste receptacles, benches, lighting, and other amenities enhance non-motorized paths. Although such amenities exist throughout the City of Southfield, placement is inconsistent or sparse and no uniform style exists. Many amenities have been neglected or poorly maintained. Other amenities are constructed of meager quality and require replacement.



A SMART passenger waits for the bus with no shelter and a pad/keywalk covered with snow.

Many existing benches are dangerous to use for rest.

Non-Accessible / Unmarked Crosswalks. Many of roads throughout City of Southfield are greater than 2 lanes in width and lack defined crosswalks. Painted markings are often worn and barely visible. Clearly defined crosswalks benefit both pathway users and automobile drivers as they raise awareness of potential crossings. In addition to markings, crosswalks should be easily accessible from the pathway with limited curb restrictions to allow all users to comfortable navigate across roadways.

Painted crosswalks are warn and nearly invisible.

Inadequate / Confusing Signage. Sign placement and/or condition directly influence readability and understanding. Having too many or too few signs can confuse pathway users. If a sign has not been maintained and is not readable, a user will not be able to understand the route. Faded signs or markings also do not draw attention and encourage use.

Multiple signs can create confusion among riders.

The limited visibility of faded signs may leave users lost.

Inconsistent signs and poor descriptions interfere with usability.

Painted markings require maintenance.

Poor Design. Some non-motorized paths are installed in a confusing or inadequate style that does not encourage proper use.


Multiple pathways constructed of different materials leave users wondering which path to take.

Incomplete Systems / Pathway Gaps. Sidewalks throughout the City often start and stop with no connection to nearby roadways, destinations, or other paths. Pathways that do not provide direct connections are often not used. If destinations are near the end of the path, user-made "Goat Paths" are sometimes created to establish the connection.

Non-motorized pathway users will create needed pathways to reach destinations.

Pathways should have defined starting and ending points.

Goat Paths:

People are most likely to take the shortest path between two points. Due to incomplete pedestrian infrastructure, many destinations lie disconnected throughout the City of Southfield. Rather than remain on indirect sidewalks or bicycle routes, people often create their own paths as a means to get from one point to another. These paths, known as "goat paths," become more defined with increased usage.

Although "Goat Paths" should be recognized for the needed connections they provide, these informal trails are not accessible and lack amenities such as signage, proper material construction, lighting, adequate drainage, etc. Therefore, safety, continuity, and accessibility issues are commonly associated with Goat Paths. The paths should be studied and considered for sidewalk infill and bike path expansions to improve continuity throughout the City.

Signage:

As noted in the descriptions of the bike routes above, standard bike route signs attached to poles are employed along the various routes throughout the City. Pavement markings are also found along paved shoulders and asphalt paths. However, both signage and pavement markings are inconsistent and poorly maintained. Moreover, some routes have no signage at all or don't indicate where bike routes begin, change direction, or end. In addition, there are no way-finding signs showing where bike routes exist in the City. Often times, overgrown landscape can interfere with the visibility of signage. Sign placement is sometimes confusing as multiple signs often exist at intersections. Sign maintenance/replacement is needed as some signage is difficult to read.

Bike Facilities:

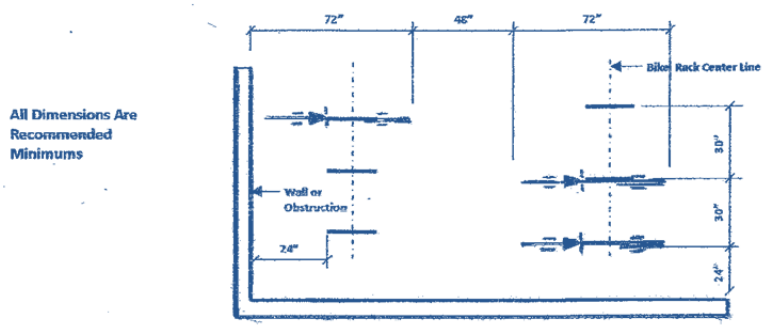
In February 2009, the Departments of Public Works, Parks & Recreation, and Planning, worked jointly to introduce a formal policy which requires that any road improvements include consideration for non-motorized facilities. The adopted policy assists the City in negotiations with other agencies to fund non-motorized transportation facilities when improvements are made to local roads or highways. In addition, the policy also serves as support to any formal grant applications for trails, walkways, non-motorized paths and bicycle baths as it indicates Southfield's commitment to non-motorized transportation facilities.

Encouraging the use of bicycle transportation requires that the City introduce and raise awareness of related facilities. Bicycle storage systems, such as bike racks and/or lockers, are currently limited throughout the City. However, the use of bicycles requires storage facilities at destinations. These destinations include retail stores, office/employment centers, bus stops, etc. Bike racks, which expose bikes in clear view, offer a quick and easy means to secure a bike for a short period of time. In contrast, bike lockers are secure containers that shield bicycles from the weather/sight and can be used for longer periods of time (i.e.: work day or overnight storage).

To encourage bicycle use in the City, the Council adopted the following zoning amendment in fall 2011:

> Bike Racks and Bike Parking Credit: To promote non-motorized transit and to reduce impervious surfaces, the City is encouraging alternate means of transportation. The lack of secure bike parking space keeps many people from using their bikes, thus a minimum of 4 bicycle parking spaces shall be provided for each non-residential and multi-family development.
>
> For every bike rack which accommodates four (4) bicycles, one off-street parking space, up to a maximum of five (5%) percent of the total required parking may be credit by the City Planner. Bicycle parking racks shall be located close to the building entrance, and shall be separated from vehicle parking areas to minimize motor vehicle damage to bicycles. Bicycle racks shall be securely anchored to the supporting surface, and shall be at least three (3) feet in height and able to support a locked bicycle in an upright position. Additional accommodations for bicyclists that may be considered & include, but are not limited to: bicycle lockers, employee shower facilities and dressing areas for employees.

Illustration 2.3: Bike Rack Storage



Lawrence Technological University's (LTU) Bike Sharing Program:

LTU has four (4) "Blue Devil Bikes" available to current students for free usage. Students are able to rent a bike for one (1) day and each bike comes with a helmet, lock, and basket. The program is utilized by many students who don't have cars on campus, enabling them to obtain groceries, access restaurants, or simply use the bikes to exercise outside and enjoy the weather. During the fall 2011 semester, over 90 rentals were tracked.

LTU Bike Share Participants
Source: Trudeau, 2011

Introducing the bike share program has encouraged bicycle ridership in many ways. Since the program was introduced, a Blue Devil Bike Group was created to bring together recreational riders. This group, consisting of over 20 students, established a biking trail on LTU's campus along the river watershed. The group also participated in the regional bike event Tour de Troit, where all four of the Blue Devil Bikes were used.

Despite the appeal of the program, Scott Trudeau (Director of Recreation, Athletics, and Wellness at LTU) explains that a lack of bike racks, the unsafe feeling of many City streets, and the limited number of bikes available all restrict the success of the program.

In fall 2011, the City of Southfield began to investigate introducing a community bike share program at the Municipal Complex. Encouraging bicycle transportation as a preferred non-motorized form of transit benefits the environment and community. Bike share programs can be more attractive to individuals as they eliminate many of the disadvantages of owning a bike, such as the possibility of theft or vandalism, inadequate parking or storage, and maintenance requirements.

Chapter 3

VISIONING & PUBLIC INPUT

CHAPTER 3 – VISIONING AND PUBLIC INPUT

"*Southfield is a model of a successful urban community. Southfield's distinctive quality of life is exemplified by its unparalleled physical beauty, culture and diversity. People are its greatest resource. The City is involved in an active partnership with Southfield residents and businesses to foster educational, cultural and economic opportunities in a safe, vibrant and healthy community."* – City of Southfield Vision

Introduction

Actively involving all residents and community stakeholders in developing any community plan is an important part of the planning process. Encouraging public participation helps to ensure that the outcome of any planning process reflects the vision, goals and values of the community. Gathering public input can be done in a variety of ways, including conducting focus groups, workshops, surveys, public hearings, social media, etc.

Workshop Attendees.
Source: Greenway Collaborative, Inc., 2011

Surveys:

In fall 2006, the City of Southfield conducted a Southfield Resident Public Opinion Survey to better understand the needs of Southfield residents. A survey and newsletter was mailed to all 35,000 households within the City. Approximately 3% of residents responded to provide insight to issues and opportunities. This led to the identification of big picture issues and opportunity, along with some degree of prioritization. The survey results were considered and incorporated into the City's Comprehensive Master Plan adopted April 2009.

According to the survey, improved maintenance of streets, walks, trees, etc. was supported by 56.5% of respondents. Mention of the need for additional sidewalks and improved interlinked bike/walking trails was also made. Streets, sidewalks, or intersections in the City that were commonly believed to be unsafe or in need of improvement included:

1. Telegraph Road and 12 Mile Road
2. 10 Mile Road
3. Southfield Road and 12 Mile Road
4. 8 Mile Road
5. Southfield Road and I-696

Overall, residents expressed support of sidewalks (43.9%), bike path systems (37.4%), and improved maintenance of streets, walks, trees, etc. throughout the City (56.5%).

Community Outreach

Visioning Workshops:

Two (2) Visioning Workshops were hosted by the Planning Department and led by consultant Greenway Collaborative, Inc. Attendees at both meetings included representatives from City Departments, the Planning Commission, and other community residents and key stakeholders. All information regarding each workshop was made available for public review on Greenway Collaborative's website.

Workshop #1

Date:	October 18, 2011
Time:	6:30PM to 8:30 PM
Location:	Parks and Recreation Building, Rooms 220 and 221
Purpose:	To provide an overview of the current best practices in non-motorized transportation and transit planning and begin to look at how these could be applied to the City of Southfield

After a brief project overview and best practices PowerPoint presentation, workshop attendees were split into three small groups to collaborate and define corridor classifications (refer to ***Map 3.1: Corridor Classification***) and existing or potential neighborhood connector routes (refer to ***Map 3.2: Neighborhood Connectors***). Regional transportation connections and key transit issues within the City of Southfield were also discussed.

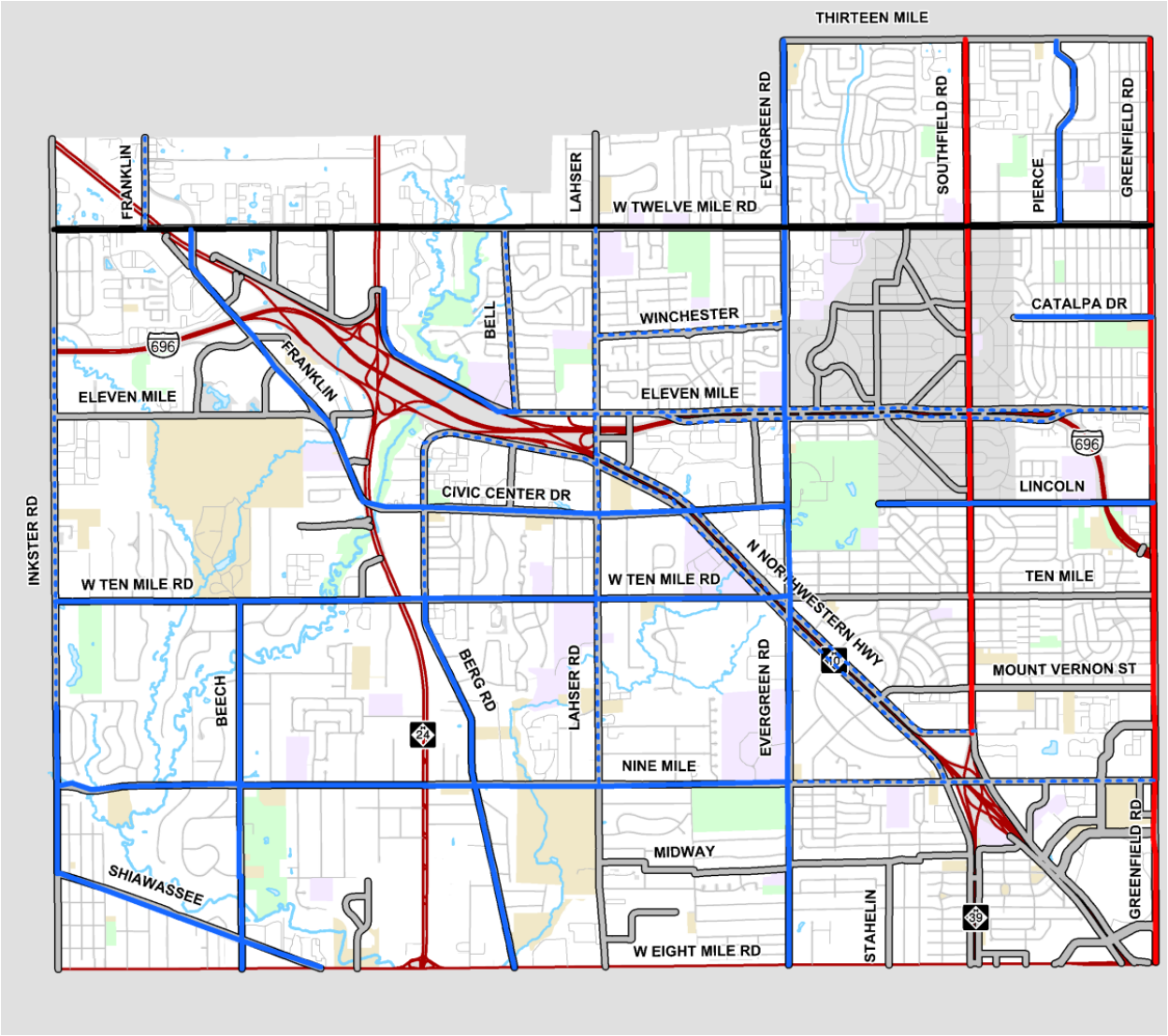
Common findings among the groups included: issues involving the large barriers created by freeways; lack of connection to the City's Municipal Complex; and lack of pedestrian connectivity between Lawrence Technological University and the Municipal Complex.

Other general findings included the difficulty for pedestrians to cross major roads, the opportunity that natural (i.e.: Rouge River Greenway) areas provide for pathways/connections, and the importance of connecting Southfield to other communities and/or a regional transportation system. Summary maps can be seen on the following pages.

Workshop Attendees.
Source: Greenway Collaborative, Inc., 2011

Map 3.1: Corridor Classification

For this exercise, participants were asked to identify any key corridors in the community that they believe should be pedestrian and bicycle routes and what corridors should be auto focused routes. The map below displays the combined overall results from the three groups.



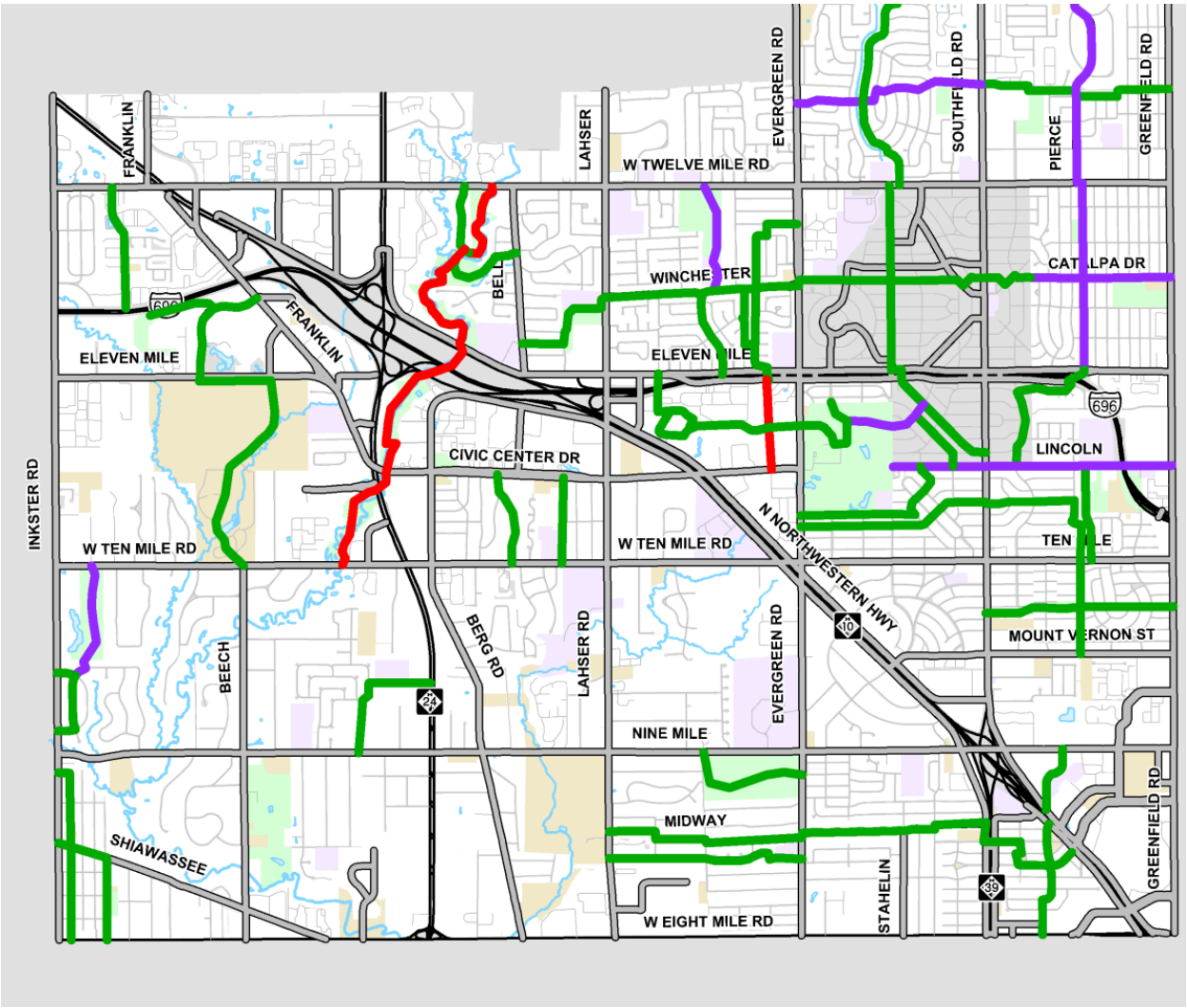
Source: Greenway Collaborative, Inc., 2011

KEY

- Auto Focused Corridor
- Bike/Pedestrain Focus Corridor
  - (some desire for Bike/Ped Focus Corridor)
- Mixed Corridor
- Undetermined
  - (equal desire for Bike/Ped and Auto Focus Corridors)

Map 3.2: Neighborhood Connectors

For this exercise, participants were asked to identify any existing or potential neighborhood connector routes. A neighborhood connector route is a signed route along local roads with low speed limits, which can be safely navigated by a (beginner) bicyclist. The map below displays the overall results from the three groups.



Source: Greenway Collaborative, Inc., 2011

KEY

Neighborhood Connector Routes
- Identified by All 3 Groups
- Identified by 2 Groups
- Identified by 1 Group

Workshop #2

Date: November 9, 2011
Time: 6:30PM to 8:30 PM
Location: Parks and Recreation Building, Rooms 220 and 221
Purpose: To present the preliminary plan and findings and refine network routes

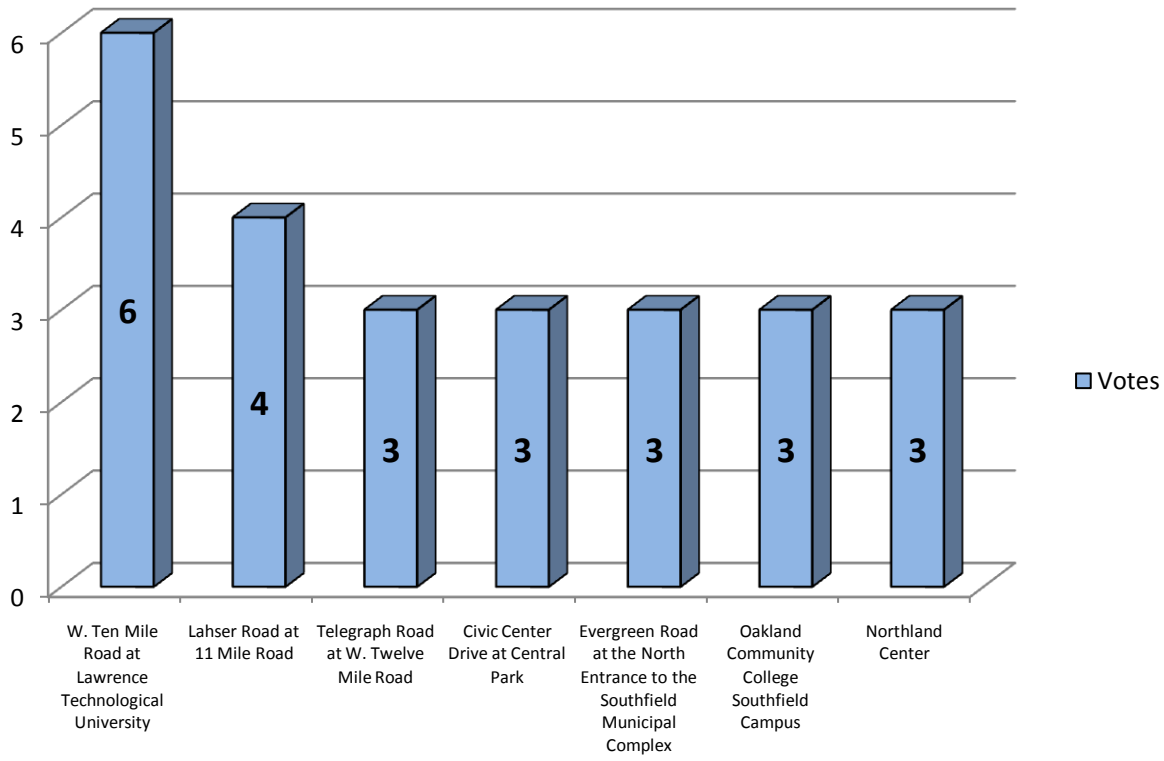
Workshop Attendees.
Source: Greenway Collaborative, Inc., 2011

During this workshop, Greenway Collaborative presented preliminary Key Corridor and Neighborhood Connector pathway plans that were drafted after Workshop #1 (refer to ***Map 3.3: Preliminary Key Corridors*** and ***Map 3.4: Preliminary Key Connector Routes***). The plans were reviewed and critiqued by attendees. Although feedback was generally positive, attendee's concerns included too many turns, missed potential connections, existing road traffic, etc.

In addition to the plan review, Greenway Collaborative also turned to attendees for suggestions regarding which specific study areas that should be further pursued (refer to ***Map 3.5: Additional Study Areas***). Regarding public transit, attendees were asked to identify where they felt bus "super stops" should be located (refer to ***Map 3.6: Preliminary Bus Super Stop Identification***). Bus super stops feature additional amenities such as benches, shelter, bike parking, bus pull-off area, and maps.

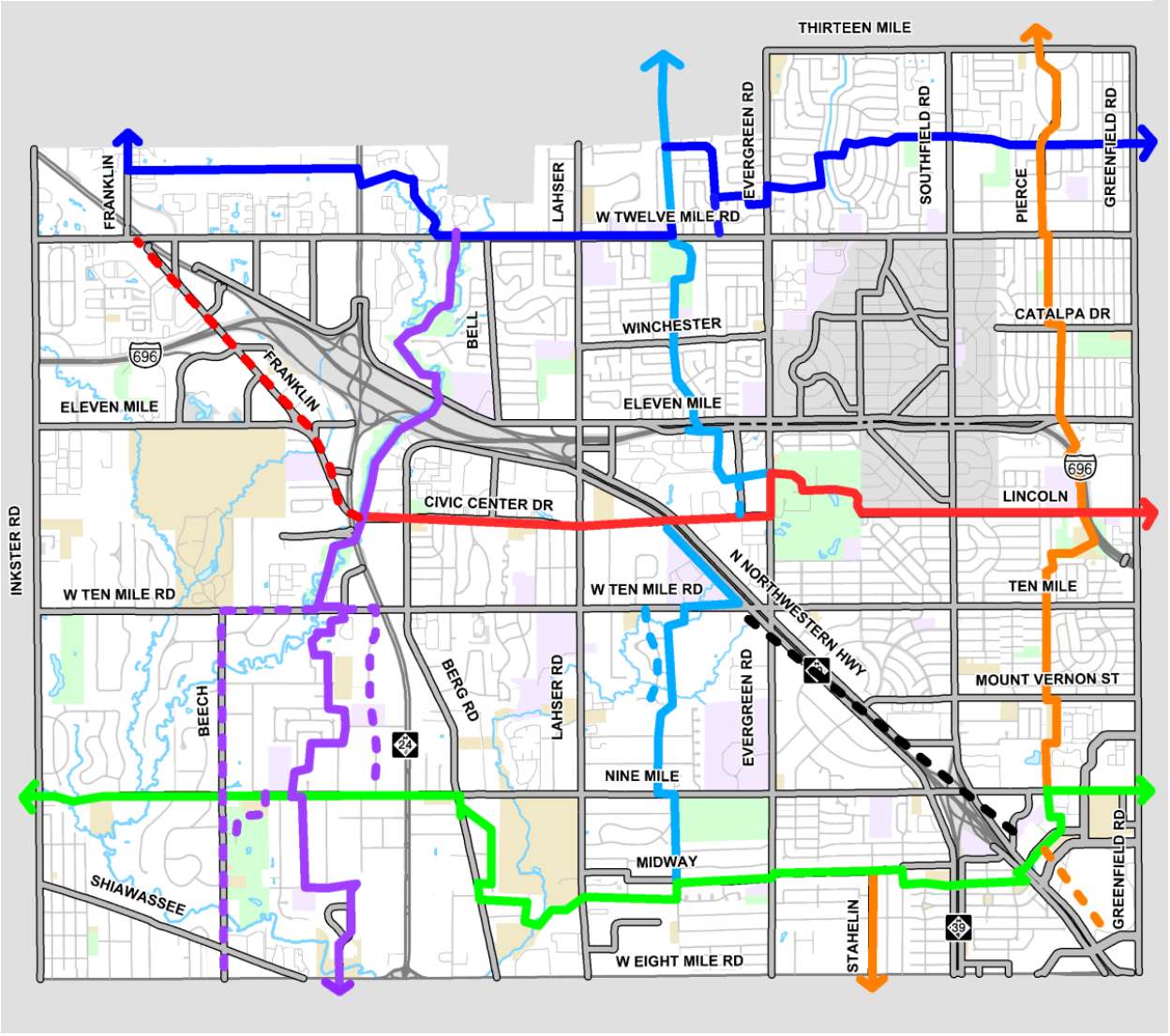
Based on the workshop, high priority super stops were suggested at:

Chart 3.1: Suggested High Priority Bus Super Stops



Map 3.3: Preliminary Key Corridors

For this exercise, participants were asked to review the potential key corridors identified in the preliminary plan. Individually, each participant was given a worksheet to mark if they agreed or disagreed with a route. Then, in small groups, participants marked changes to the key corridors on a large map. The map below displays the combined overall results from the worksheet along with a map of the changed routes.



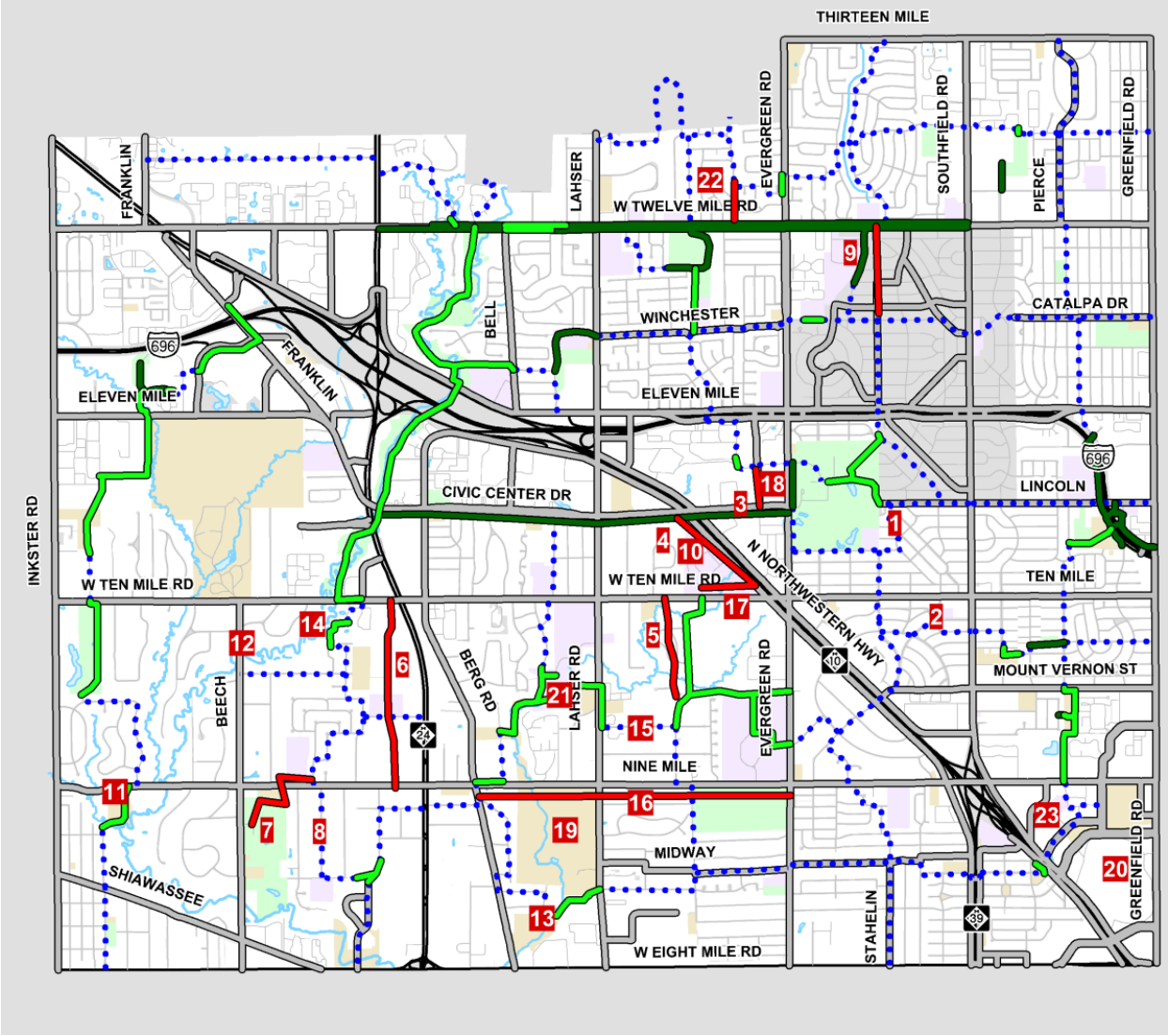
Source: Greenway Collaborative, Inc., 2011

KEY

- Corridor A
- Corridor B
- Corridor C
- Corridor D
- Corridor E
- Corridor F
- Conceptual New Corridor

Map 3.4: Preliminary Neighborhood Connector Routes

For this exercise, each group was asked to review potential neighborhood connector routes and note any issues or changes to the routes. The map below displays the overall results from both groups. Corresponding notes regarding connector routes can be found in the Appendix.



Source: Greenway Collaborative, Inc., 2011

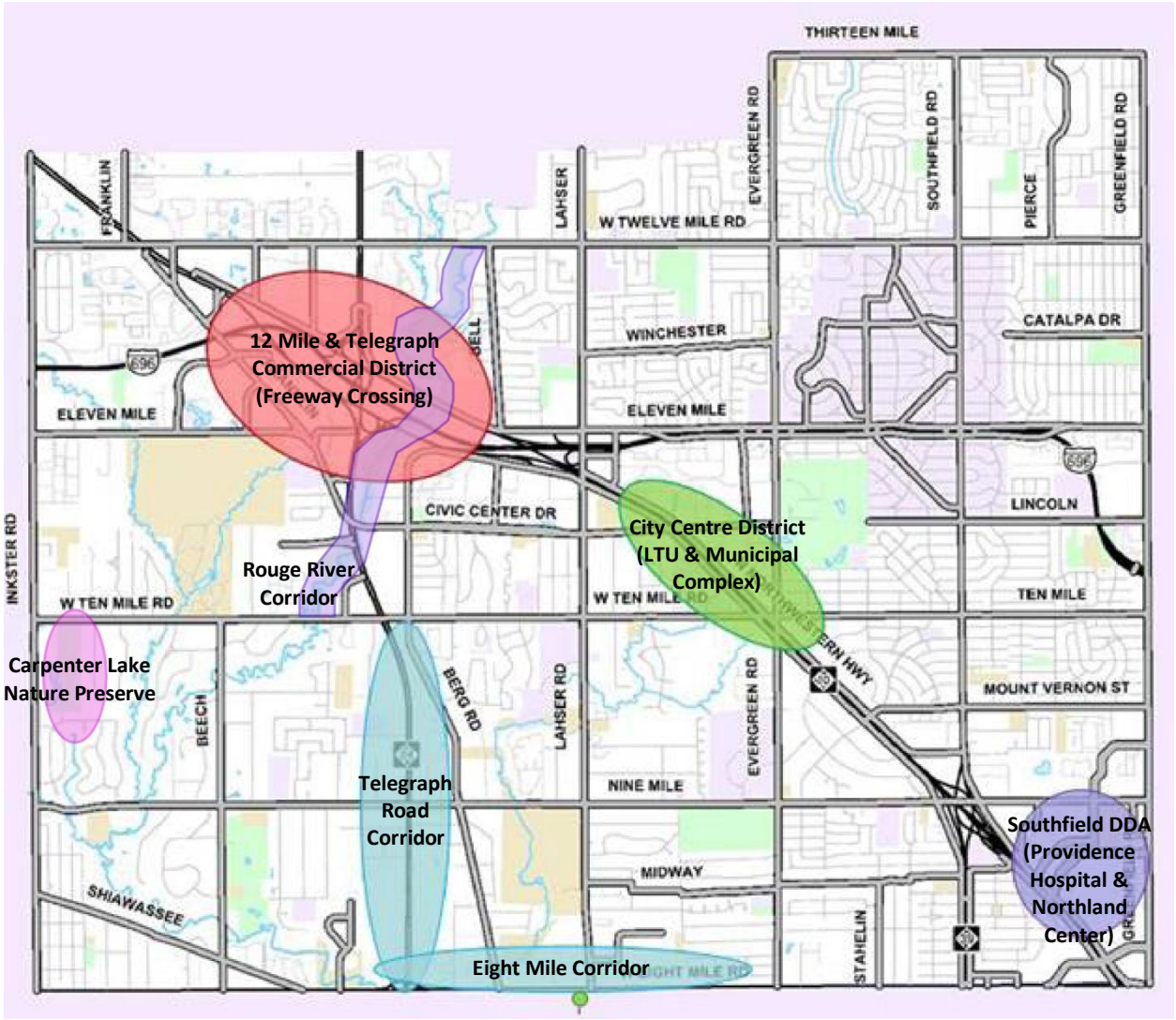
KEY

- Neighborhood Connector Routes
- Existing Pathways
- Potential Pathways
- Suggestions from Workshop Participants

Map 3.5: Additional Study Areas

In order of importance, the attendees agreed or strongly agreed that these areas deserve a closer look:

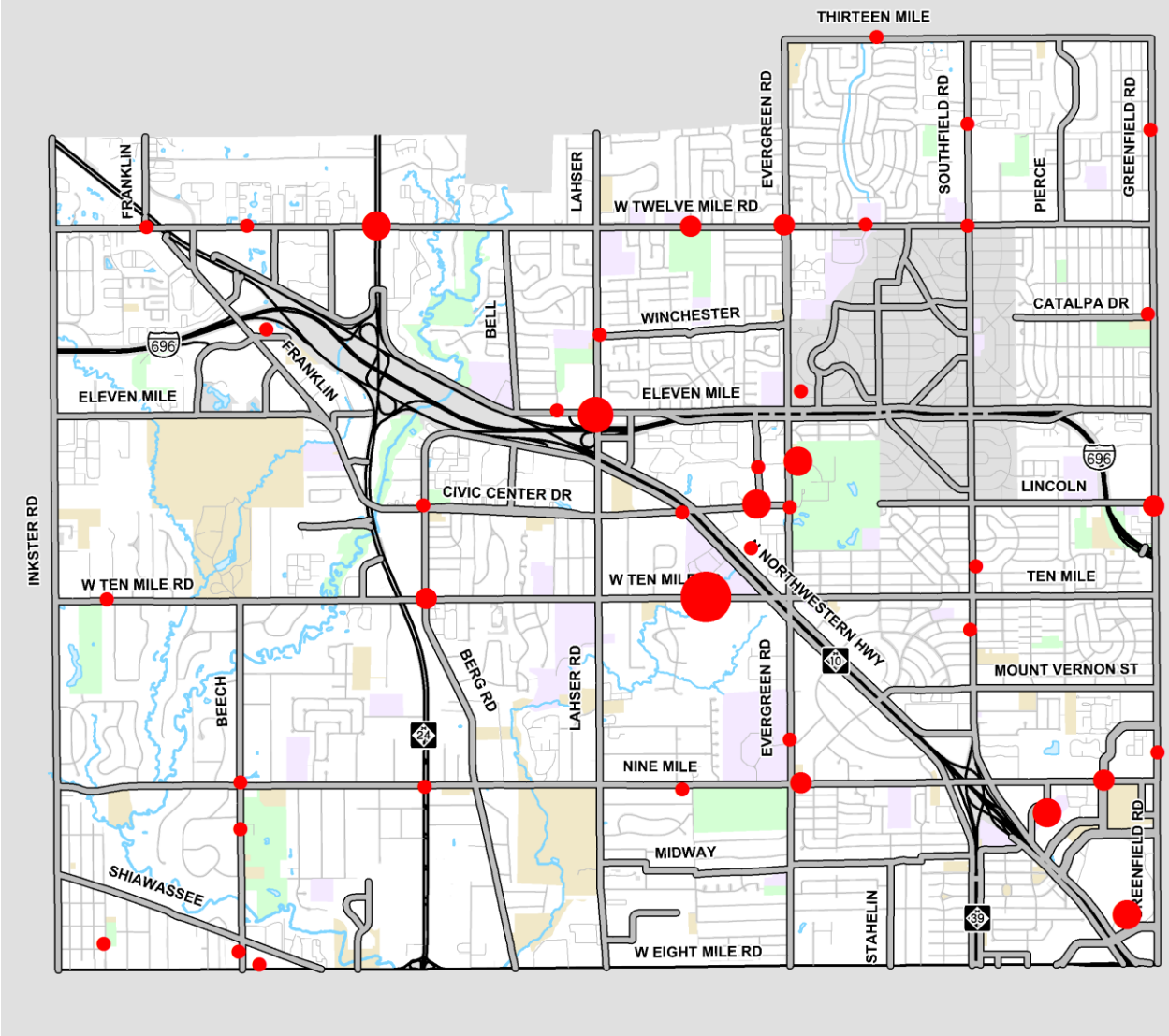
1. City Centre District (Municipal Complex and Lawrence Technological University)
2. 12 & Telegraph Commercial District (Freeway Crossing)
3. Southfield DDA (Providence Hospital and Northland Center)
4. Telegraph Road Corridor
5. Eight Mile Corridor
6. Rouge River Corridor
7. Carpenter Lake Nature Preserve



Source: Greenway Collaborative, Inc., 2011

Map 3.6: Preliminary Bus Super Stop Identification

For this exercise, participants were each given 5 stickers and asked to identify the top "super stop" locations in the city by placing the stickers on the map in that location. The map below summarizes the input from this exercise noting the priority super stops.



Source: Greenway Collaborative, Inc., 2011

KEY

- 1 Vote
- 2 Votes
- 3 Votes
- 4 Votes
- 5 Votes
- 6 Votes

Planning Commission Study Workshop:

In addition to the two previous key stakeholder Visioning Workshops held in October and November, the Planning Commission held an additional workshop on January 18, 2012 to review a draft of the Non-Motorized Pathway and Public Transit Plan. Planning Commission members and other attendees were invited to comment on the draft and suggest areas or topics for further exploration.

City Council Presentations & Workshops:

During two workshops (December 5, 2011 and March 5, 2012) with the City of Southfield Council, the Director of Planning and Greenway Collaborative, Inc. presented "best-practice" examples of non-motorized pathway and public transit improvements. Workshop results were shared, potential implementation benefits were explained, and questions were answered. Valuable feedback from Council was gathered and incorporated into the final plan.

Public Hearings:

Three Public Hearings (see Appendix) were held throughout the process to educate the Planning Commission, City Council, and general public on the status of the transit study and provide an opportunity to gather feedback and input. The first Public Hearing was held by the Planning Commission in November 2011. At this time, the process of amending the Southfield Master Plan to include the non-motorized study was explained and maps from the Visioning Workshops were provided. Attendees were given the opportunity to comment on the current status of pedestrian facilities, pathways, and public transit throughout the City, as well as suggest any improvements.

A Southfield resident commented that "this plan is going right along with the Master Plan" and will help to encourage a healthy lifestyle for residents. Other residents expressed the need for connecting existing pathways to the Carpenter Lake Nature Preserve. Overall, consensus among attendee comments included the need for:

(1) Better pedestrian and bike connections to destinations (such as parks, schools, and shopping);
(2) Enhanced maintenance along current paths;
(3) Improved safety for pathway and transit users (especially children); and
(4) Improved walkability and safety for pedestrians in the Jewish Orthodox neighborhoods

On February 22, 2012, the Planning Commission held a second Public Hearing to solicit public comment and gain additional feedback from interested parties on the draft plan. The third and final Public Hearing was held by the City Council on March 19, 2012 to present the final draft of the Non-Motorized Pathway & Public Transit Plan before adoption.

Chapter 4

IMPROVEMENTS

CHAPTER 4 - IMPROVEMENTS

"The most visible, and perhaps most tangible evidence of a bicycle friendly community, business or state is the presence of an infrastructure that supports bicycling. Survey after survey shows the physical environment is a key determinant in whether people will get on their bike and ride."
– Bicycle Friendly America, 2011

Introduction

One of the greatest impacts on our lifestyles and on our City's urban environment has been the emergence of the "automobile culture." The auto, while providing convenient and comfortable transportation, has also contributed to urban sprawl, air and water pollution, and the need for an extensive network of roads and parking facilities. A secondary consequence of the automobile may be the obesity crisis that we face in Michigan. These factors tend to be a primary component of our visual environment. How to accommodate automobiles, pedestrians, bicyclists, and transit is perhaps the single most critical challenge in contemporary urban design.

Urban design considerations such as Complete Streets, Transit Oriented Development, Green Infrastructure, and Healthy Living all consider a variety of users while promoting healthier economic, social, and ecological environments.

Complete Streets

According to the American Planning Association (APA), planners and urban designers have made a significant shift in their approach to street design in the last decade. While conventional transportation planning focused on automobile safety, the "Complete Street" approach considers all users, regardless of mode, age, or physical ability.

Complete streets are ***planned, designed, operated, and maintained*** such that all users may ***safely, comfortable, and conveniently*** move along and across streets throughout a community. All users of various ages and abilities include: Pedestrians, bicyclists, transit users, motorists, trucks, etc.

Complete Streets promote healthy transportation choices by adequately providing for bicyclists, transit riders, and automobile drivers.
Example: Santa Cruz, CA
Source: Burden, 2011

Complete Street design considerations include the following:

- *Skinny Streets*
  Narrower street lanes result in slower traffic movement that translates into safer, more accessible, and more pleasant thoroughfares for all users. Although a street can be physically narrowed, other options include introducing on-street parking to reduce the number and/or width of travel lanes.

- *Street Connectivity*
  The length and directness of a route influences its use. Streets that are well-connected provide more choices for all travelers and command higher usage.

- *Context-Sensitive Streets*
  It is important to recognize that not all streets are similar because land-uses influence street design/class. Streets in any class can be designated as Complete Streets.

- *Complete Streetscape Design Elements*
  Introducing the Complete Streets approach to previously developed streets does not always require extensive construction or investment. Key design elements that can be incorporated include:

    - Raised medians
    - Pedestrian refuge islands
    - Bicycle lanes
    - Bus pull-outs
    - Transit shelters
    - Street furniture

Increased public health, pedestrian safety, and transportation options are all direct benefits of incorporating the Complete Streets design approach when developing or redeveloping. In addition, indirect benefits such as increases in economic development and support of Transit-Oriented Development also commonly result from the implementation of Complete Streets.

Locally, the City of Southfield's neighboring City of Lathrup Village became the first community in Oakland County to adopt a master plan amendment for Complete Streets in November 2011. The City of Lathrup Village drafted a Non-Motorized Transportation Plan that addressed the key issue of pedestrian and bicycle connectivity around the City (considering freeway and roadway barriers). Looking long-term, the City of Lathrup Village reviewed and assessed its current non-motorized transportation network and identified a vision for an improved system. Upon sharing the plan with residents, neighboring communities, and regional authorities, the Planning Commission held a public hearing on November 8, 2011 and the City Council adopted the plan on November 21, 2011.

Transit-Oriented Development (TOD)

There are opportunities within the City at several locations to make corridors and development areas more transit friendly by adopting Transit-Oriented Development (TOD) standards for development. Future growth and redevelopment of commercial employment centers within the City should strongly consider the inclusion of a mixture of residential, commercial, and institutional uses designed to promote convenient non-motorized access to transit facilities and between residential, retail, and office uses.

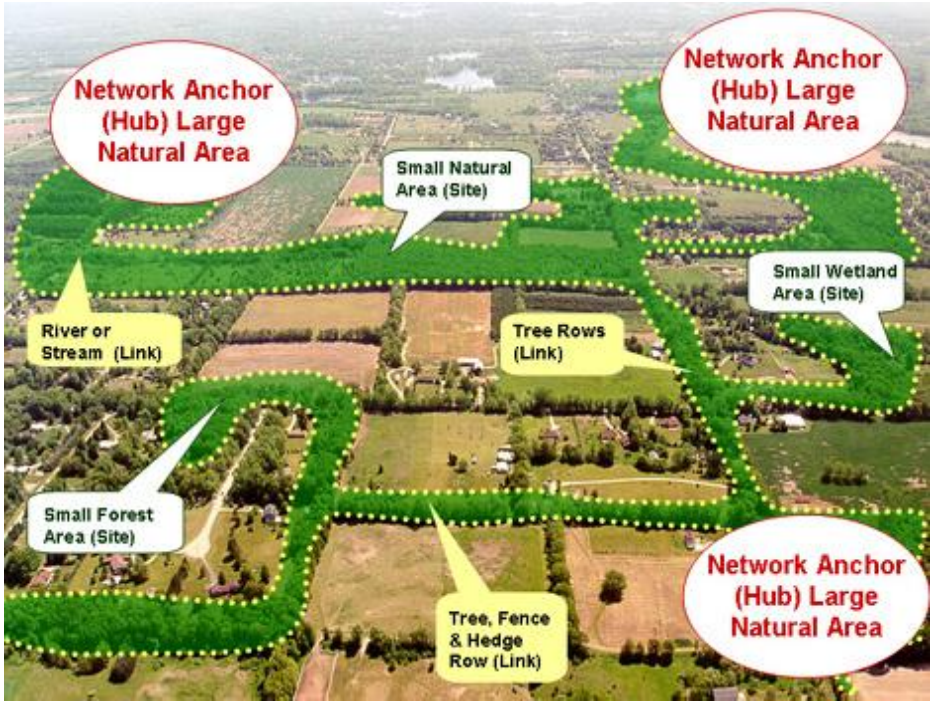
TOD strategies support the City's goal to create a more livable and walkable community. TOD and transit-oriented corridors consist of land use patterns that promote travel by transit, bicycle, walking and ridesharing, and encourage concentration of mixed-use development along transportation corridors serviced by transit.

Transit service is an important component of the transportation system because it offers another transportation option for the community and increases mobility for those who are unable to drive. Public transit and non-motorized pathways increase the overall capacity of the transportation system, which supports the Plan's goal to maintain and improve the transportation system without excessive road widening. The City's efforts in improving the transit system should be focused on the most cost-effective methods to increase ridership in the existing bus systems and linking to other regional transit systems (i.e.: Proposed Woodward Light Rail Corridor).
Source: American Planning Association, 2009

Green Infrastructure

Oakland County's Green Infrastructure Program focuses on identifying an interconnected **network of green space** that conserves natural ecosystem values and functions, guides sustainable development, and provides associated economic and quality-of-life benefits to communities. An important goal of the program is to incorporate the natural ecosystem with the built environment.

Figure 4.1: Green Infrastructure Components



Source: Oakland County, Michigan, 2012

Oakland County defines key components of Green Infrastructure as:

- Hubs
  - Large, contiguous areas (typically greater than 250 acres in size) that serve as primary origins or destinations for a wide variety of living things
- Sites
  - Smaller wetland, wooded, or open space areas that contain less core habitat in comparison to hubs
- Links
  - Linear connection between hubs and sites

The County encourages local communities to engage in preserving their natural assets by setting conservation goals. In addition, the County fosters collaboration among communities and provides assistance to the communities to develop sustainable approaches to land use planning and development.

Green infrastructure should be valued for many reasons. A 2007 study conducted by Michigan State University's Land Use Policy Institute found that residential property values directly benefit from close proximity to green infrastructure in Oakland County. Nearby water resources, trail/path networks, and natural area/open space all positively influenced home value. In addition, other benefits include:

- Economic
  - Supports business attraction
  - Helps to increase and maintain property values
  - Provides free services such as water filtration, storm water control, etc.
  - Improves local and regional tourism
- Social
  - Helps to build a sense of place
  - Provides outdoor learning environments
  - Creates recreational opportunities
  - Improves health and wellness
- Environmental
  - Provides habitat and biodiversity
  - Reduces air, noise, and water pollution
  - Safeguards natural and historic assets
  - Manages storm water
  - Helps mitigate the effects of climate change

Source: Oakland County, Michigan, 2012

Healthy Living

Community design affects public health in a variety of ways. Air and water quality, street safety, and an individual's level of daily activity all depend on land-use and transportation policies made by local governments. The American Planning Association (APA) believes that a major connection exists between urban form and both obesity and air quality. Therefore, the APA supports compact, mixed-use development; proven to reduce obesity and smog by allowing for people to abandon their cars for alternative forms of transportation, such as walking, biking, or transit.

Evidence also suggests that the incorporating adequate amounts of greenspace into a community can help to lower an individual's stress, promote healing, and help children concentrate in school. Greenspace can be utilized by residents and other visitors for recreational purposes, including exercise. The American Heart Association (AHA) suggests at least 150 minutes per week of moderate exercise or 75 minutes per week of vigorous exercise (or a combination of moderate and vigorous activity). Thirty minutes a day, five times a week is an easy goal to remember. The AHA recommends introducing walking into an individual's daily routine as the simplest way to improve health. However, any type of physical activity can that makes you move your body and burn calories, such as climbing stairs or playing sports, will benefit the body. Individuals should include a combination of aerobic and strength exercises in their routines. Aerobic exercises benefit your heart, such as walking, jogging, swimming or

biking. Strength and stretching exercises are best for overall stamina and flexibility. No matter what type of exercise, greenspaces introduced and maintained by a community provide needed space for activity.

Source: American Heart Association, 2012

Although many comprehensive plans incorporate public health concerns as important secondary benefits, few plans address public health as a primary concern or major theme. Integrating public health as a major theme allows for goals and policies to be created that introduce supporting land-uses and a greater emphasis on the transportation element. Incorporating public health into a community's comprehensive Master Plan is important to ensure that future growth leads to a healthier community.

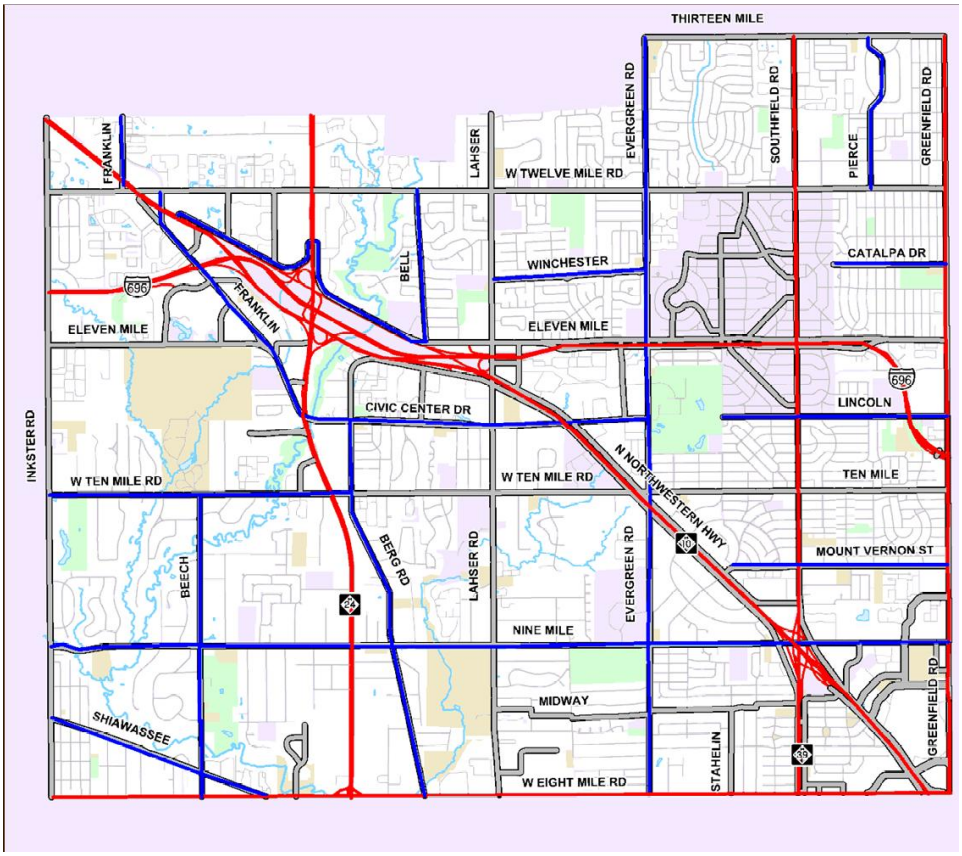
Proposed Non-Motorized Improvements

The most effective way to increase the safety of pedestrians and bicyclists is to increase the numbers of pedestrians and bicyclists. This concept applies community-wide as well as to specific locations and times. Less frequent use needs more visible facilities to increase motorist awareness. Pedestrian and bicycle safety is the biggest concern where there are the fewest bicycles and pedestrians, which is the opposite of motorized transportation. While more automobile traffic on a street directly correlates to more risk for an accident, more bicycle and pedestrian traffic on a street correlates to less risk for an accident as motorized transportation users are more aware of the bicycle and pedestrian traffic.

Accessible Routes:

Upon completing two public Visioning Workshops and considering existing conditions, the City of Southfield Planning Department contracted Greenway Collaborative, Inc. to aid in developing a non-motorized transportation and transit plan for the City. Greenway Collaborative suggested designating corridors for automotive or pedestrian/bike focus. To create a complete pedestrian/bike network, neighborhood connector paths were then developed to link pedestrian/bike corridors to destinations of interest.

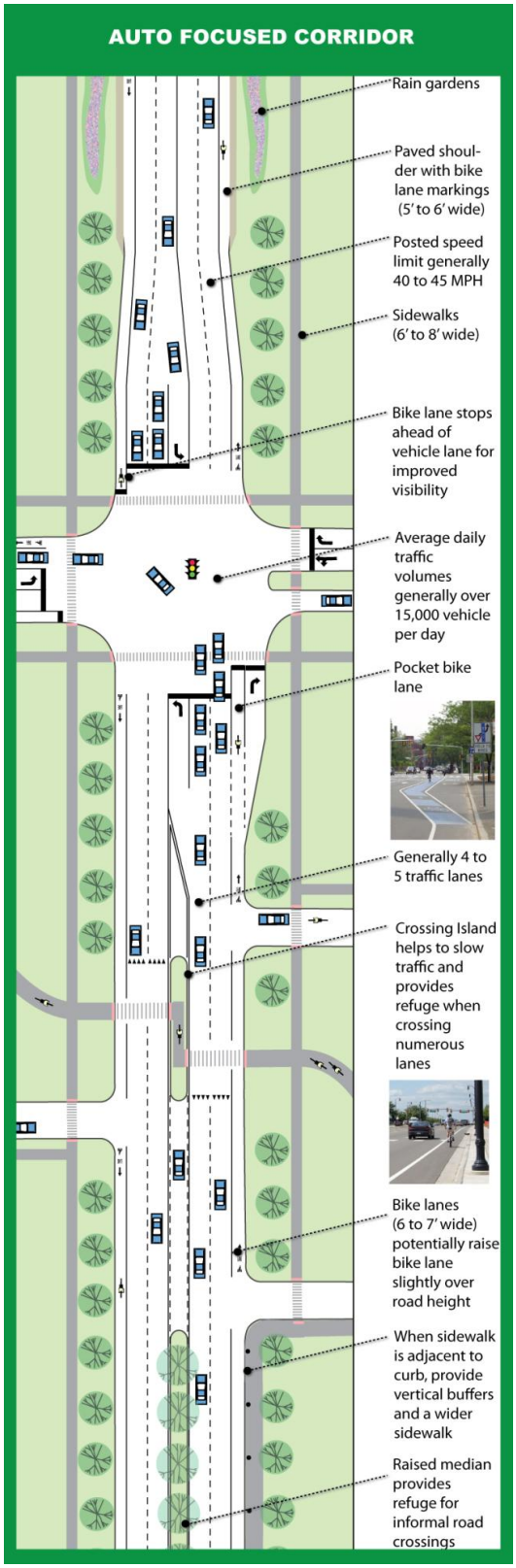
Map 4.1: Proposed Corridor Classification



Source:
Greenway Collaborative, Inc., 2011

Figure 4.2: Auto Focused Corridor

Source: Greenway Collaborative, Inc., 2011



Although autombile focused corridors cater to the automobile, accomodations for pedestrians and bicyclists are still considered. Providing safe pedestrian crossings across the roadway (especialy near transit stops) and adding bicycle lanes (when possible) help to balance user types along auto focused corridors, although looking for alternative parallel bike routes is suggested.

Throughout the City of Southfield, it is recommended that freeway and large connector roads are designated as auto focused corridors:

- Eight Mile Road
- Greenfield Road
- Northwestern Highway (M-10)
- Southfield Road
- Telegraph Road (US-24)
- The Walter Reuther Freeway (I-696)

While freeways will continue to be designated for primarily auto use, considerations should be made to enable pedestrians or bicyclists to cross freeways at convenient and accessible locations.

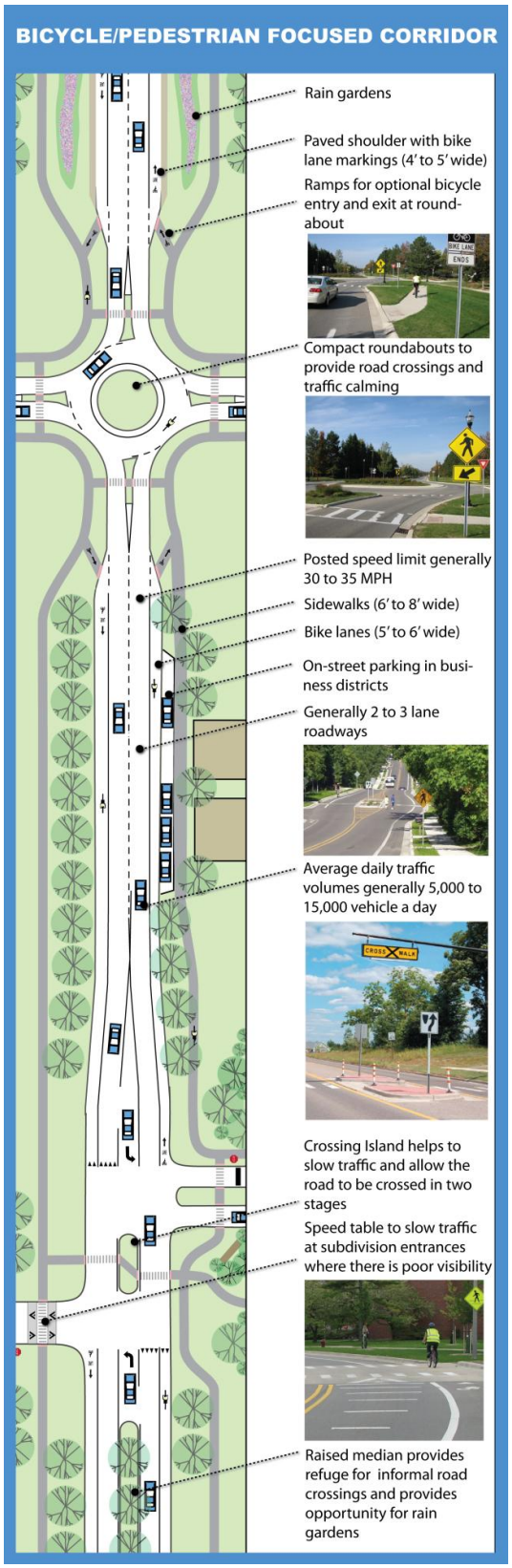


Figure 4.3: Bicycle/Pedestrian Focused Corridor

Source: Greenway Collaborative, Inc., 2011

Utilizing traffic calming measures to improve aesthetics and encourage non-motorized path users, pedestrian and bike focused corridors typically include bike lanes and sidewalks, crossing islands, planted medians, and street trees. Reducing the number of automobile lanes and making the lanes narrower will help to minimize the speed differential between motorists and bicyclists.

Throughout the City of Southfield, it is recommended that less-traveled auto roadways be designated pedestrian/bike focused corridors:

- Beech Road
- Bell Road
- Berg Road
- Catalpa Drive
- Civic Center Drive
- Eleven Mile Road
- Evergreen Road
- Franklin Road
- Lincoln Drive
- Mount Vernon Street
- Nine Mile Road
- Pierce Street
- Shiawassee Road
- West Ten Mile Road
- Winchester Road

These corridors provide adequate connections to many destinations throughout the City but are less utlized by automobiles in comparisson to the larger arterial roadways.

Mixed Corridors

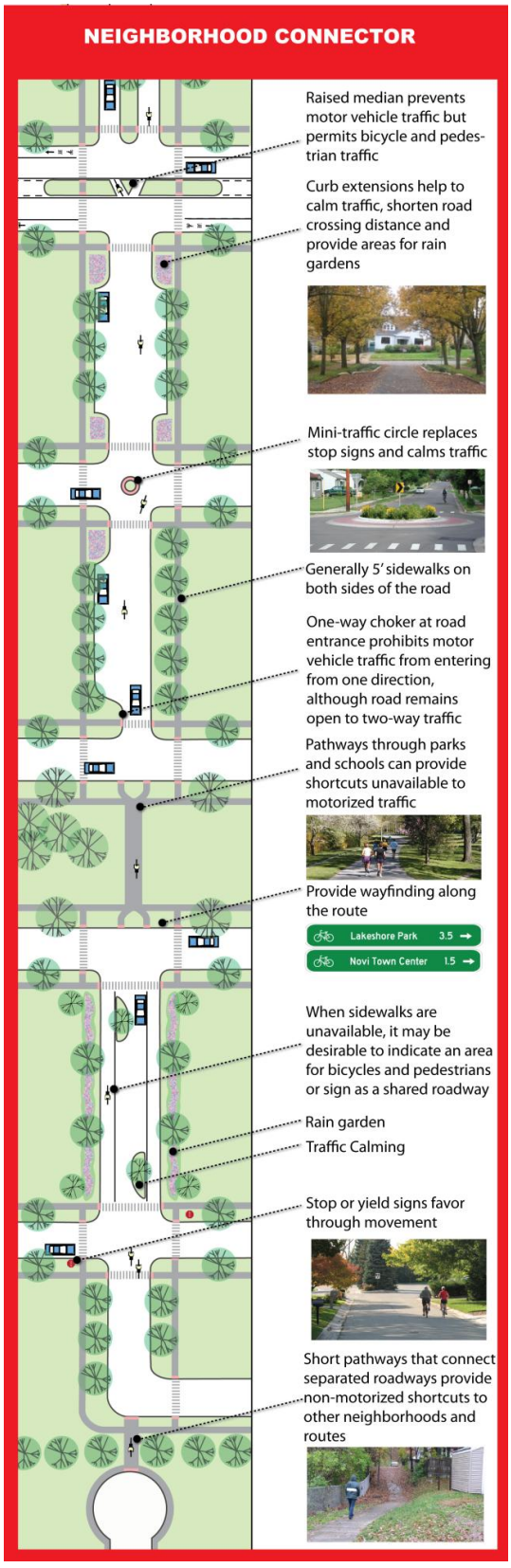
Incorporating elements of both auto and pedestrian/bike focused corridors, mixed corridors that provide accomdations for all users are proposed for many key streets throughout the City. Designated mixed corridors provide users with access to many of the City's destinations, such as the Southfield Municipal Complex, City Centre District, Northland Center, and Lawrence Technological University. Although many corridors are chosen for mixed focus, the following are key corridors:

- Civic Center Drive
- Eleven Mile Road
- Inkster Road
- Lahser Road
- Midway
- Northland Drive
- Northwestern Highway Service Drive
- Southfield Road (between Midway and Eight Mile Roads)
- Thirteen Mile Road
- West Ten Mile Road (between Berg and Greenfield Roads)
- West Twleve Mile Road

Figure 4.4: Neighborhood Connector
Source: Greenway Collaborative, Inc., 2011

With a focus on creating a pedestrian and bicycle-friendly environment as an alternative to automobile focused corridors, neighborhood connectors link parks, schools, transit stops, and other key community resources utilizing areas that restrict automobile use. Mini roundabouts, curb extensions, wayfinding signs, street trees, and other green elements are all common to neighborhood connectors. Utilizing a combination of local roads and short off-road trails, neighborhood connectors should be designed so that a 12-year-old will feel comfortable traveling on bike by him or herself.

Throughout the City, neighborhood connectors are proposed in alliance with pedestrian/bike corridors and an expanded trail network.



Non-Motorized Transportation Plan:

Considering the existing non-motorized pathway network and demand for improvements, a complete non-motorized transporation plan was developed for the City of Southfield (refer to ***Map 4.2: Proposed Non-Motorized Transporation Plan***). The plan connects an expanded trail and pathway network to neighborhood connector routes and key corridors throughout the City. Land uses, as well as points of interest (such as education facilities, signalized roadway intersections, proposed crossing improvements, and existing D-DOT and SMART bus stops) were considered when determining the appropriate plan. The plan utilizes north/south and east/west roadways with reduced traffic volumes. Way-finding signs and traffic calming measures are suggested to define the routes.

Roadway complete with landscape islands used as traffic calming measures.
Source: Washington State Department of Transportation, 2012

Wayfinding signage used to link bike routes with the trail system.

City of Southfield Non-motorized and Transit Vision Workshop Map

NOTES:

LEGEND

Proposed Non-motorized Facilities:

- Neighborhood Connector Routes (e.g. Wayfinding Signage, Traffic Calming)
- Trails and Pathways
- Bicycle & Pedestrain Focused Corridor (e.g. Bike Lanes, Sidewalks)
- Proposed Key Corridors (High priority non-motorized routes across the city)

Points of Interest:

- Education Facility
- Signalized Intersection
- Proposed Road Crossing Improvements
- DDOT & SMART Bus Stops

Existing Landuse:

- Parks
- City Property
- Water
- Parcel
- Buildings
- Golf Course
- Commercial
- Industrial
- Office
- Single Family Residential
- Multi Family Residential
- Education

SCALE

0 1/5 1

Mile

Scale: 1" = 1/5 Mile

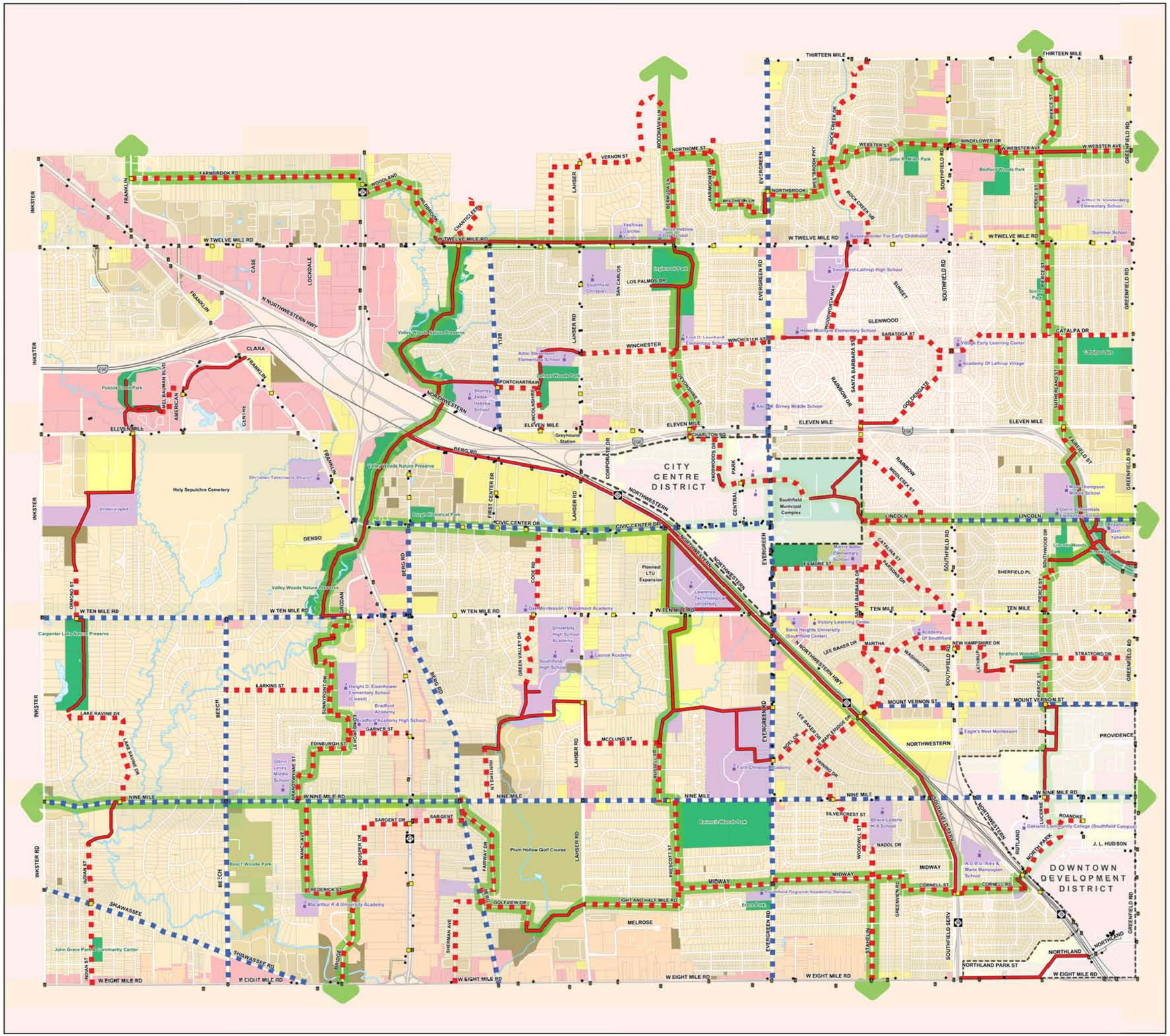
A mile takes between 16 to 24 minutes to walk and 4 to 8 minutes to bike not accounting for delays.

Map Prepared By:

The Greenway Collaborative, Inc.

March 19, 2012

Please note that the information shown on this map is in draft form that was specifically prepared for this workshop. Any recommendations that result from this plan will be subject to action by the governmental bodies for implementation and funding.

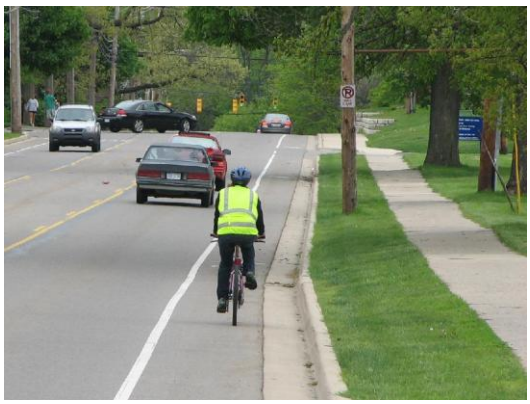


Design Guidelines

Overall, a pedestrian system needs to be safe and attractive to maximize use. Elements such as lighting, proper maintenance, and proper crossing enhancements will bring comfort to sidewalk and pathway users, which will encourage more use. User safety is of particular concern where sidewalks intersect with motorized travel routes. Safety hazards exist where the non-motorized system crosses individual driveways, or where they meet at a road intersection. In these areas, the following improvements should be considered:

Accessible Routes:

Bike lanes should be designated on appropriate primary roads. Each lane (5' minimum width) should be delineated by a solid white stripe, bike icon pavement markings and signs. Bicyclists should travel the same direction as motorized vehicles.



Source: Greenway Collaborative, Inc., 2011

Shared lane markings should be added to appropriate local residential roads to accommodate motorists and bicyclists. Used where a bike lane is not feasible and/or desirable, a shared lane indicates to motorists to expect bicycles and indicates to bicyclists to ride with traffic and keep a safe distance away from car doors.

Source: Greenway Collaborative, Inc., 2011

Pedestrian/bicyclist pavement markings should clearly indicate to motorists where pedestrian activity will occur. Vehicles are not permitted to block these areas.

Defined pedestrian crosswalk with stamped concrete material.
at 8 Mile Road and the Southfield Freeway.

Designated on-street bicycle lane.
Example: Boston, MA

Clear vision zones should be maintained at all intersections. This can increase visibility for motorists, pedestrians and bikers, all of whom need to be aware of potential conflicts.

Intersection with clear vision zone and pronounced pedestrian crosswalk
in the Southfield DDA district.

Narrow the roadway at crossing points by installing road medians or raised islands within the roadway to create a safe haven for pedestrians and bikers, or by eliminating on-street parking and extending the sidewalk closer to the road. This will reduce the number of lanes a pedestrian must cross and increases their perceived safety. These elements can also enhance the aesthetic environment by providing planting areas or resting areas and may be appropriate in strategic locations along Telegraph Road.

Raised islands provide a safe stopping point for pedestrians.
Example: Santa Cruz, CA
Source: Burden, 2011

Decorative crosswalks and landscape can be incorporated into crossing islands.
Example: Rochester Hills, MI

Provide adequate lighting at intersections and along pathways so pedestrians and bikers are safe at all hours.

Sidewalk and streetlight uplighting.
along Civic Center Drive.

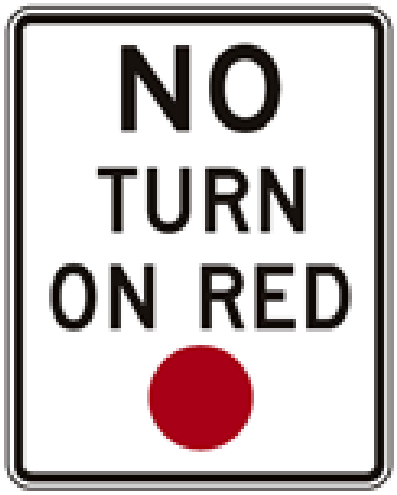
Sidewalk downlighting.
Example: Oak Park, MI

Include overhead flashers to indicate non-signalized crossing points. Mid-block crossings can be further enhanced by using pavement markings and signage at the motorists' eye level.

Overhead flashers help to define this crosswalk with raised pedestrian island.
Example: Fargo, ND
Source: Burden, 2011

Illuminated crosswalk signs draw attention to crosswalk on a high-traffic roadway.
Example: Rochester Hills, MI

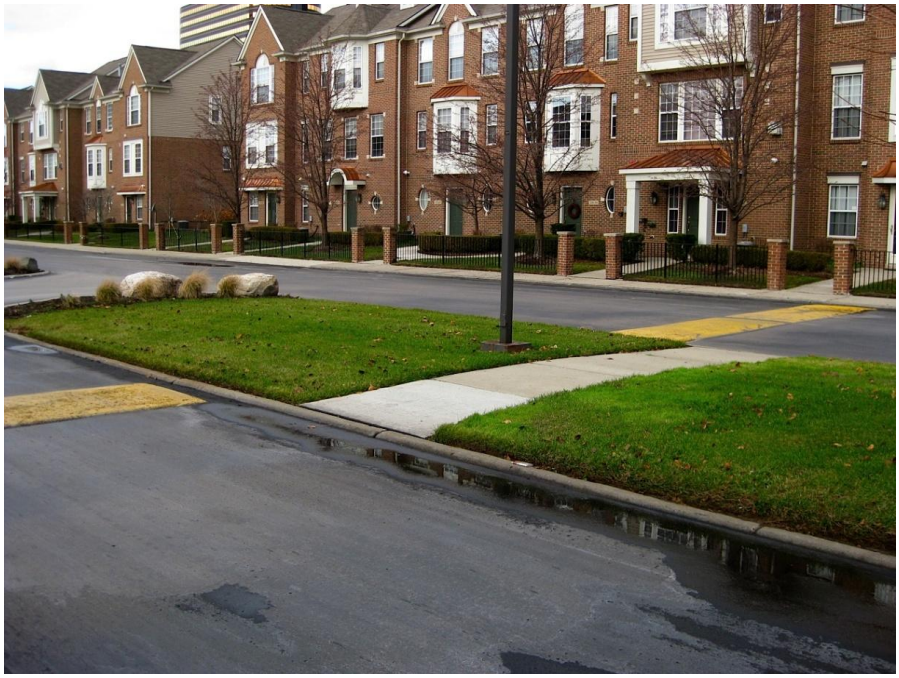
Consider restrictions of right turns on red at high volume intersections, as most motorists fail to consider the pedestrian when turning.



Fully restrictive automobile traffic sign.
Source: www.ricesigns.com

"No turn on red" sign that creates awareness for pedestrians.
Source: VW Vortex

Include medians in the design or redesign of intersections, especially where a high volume of pedestrian activity is expected. Medians provide safer crosswalk options for all residents.



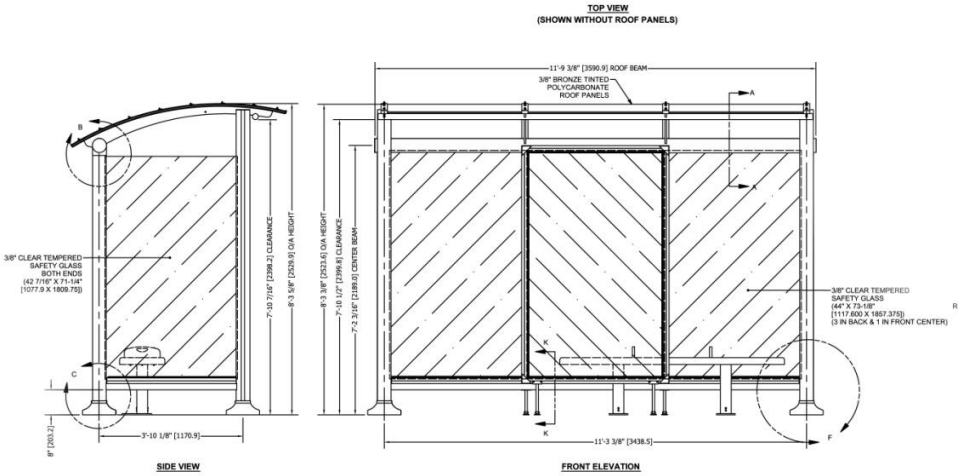
Roadway with speed bumps and median with pedestrian pathway in the Southfield City Centre District.

Bus Stops:

Covered shelters should be introduced at stops with high ridership. These shelters should be constructed of consistent materials throughout the City and follow a modern design style.

Figure 4.5: SMART Bus Shelter

SMART, 2011



SMART's new shelter design features a modern design with sleek materials. The shelters provide a covered waiting area complete with benches.

Signage:

Way-finding signs provide visitors, corporate citizens and residents orientation and direction to help plan and enjoy their experience. Way-finding signs link users to key destinations using routes appropriate for most pedestrians and bicyclists, often providing a low traffic alternate route to a major road. These routes often need signage to be identified as they are not always

Wayside exhibits are a means for exploring, learning about, enjoying, and conserving your special place, neighborhood, park or community. They combine provocative text with vivid graphics to tell a story and encourage a visitor to think about the environment and events that happened here.

Illustration 4.1: Wayfinding and Route Signage

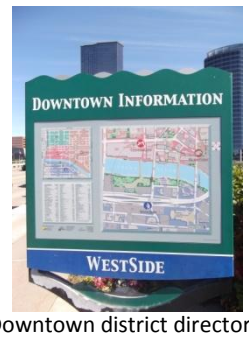
Photo Source:
Greenway Collaborative, Inc., 2011

Interpretation is more than facts or stories; it is information that builds connections between personal interests and a place, event, resource, or landscape. The result is a deeper sense of history and appreciation of place, resource, or landscape. This heightened appreciation can lead to protection and preservation of a person's special place or thing. Interpretation signs can include banner signs along trails, monuments and plaques at historic destinations, etc.

Carefully planned and developed waysides can quickly draw our attention to a place or landscape. The panels reveal stories of past and present- encouraging us to think about those special places, resources and events. "Through interpretation comes understanding; through understanding comes appreciation; through appreciation comes stewardship." – Wayside Companion, National Park Service

Historic building marker.
Example: Ferndale, MI

Historic site marker.
Example: Syracuse, NY



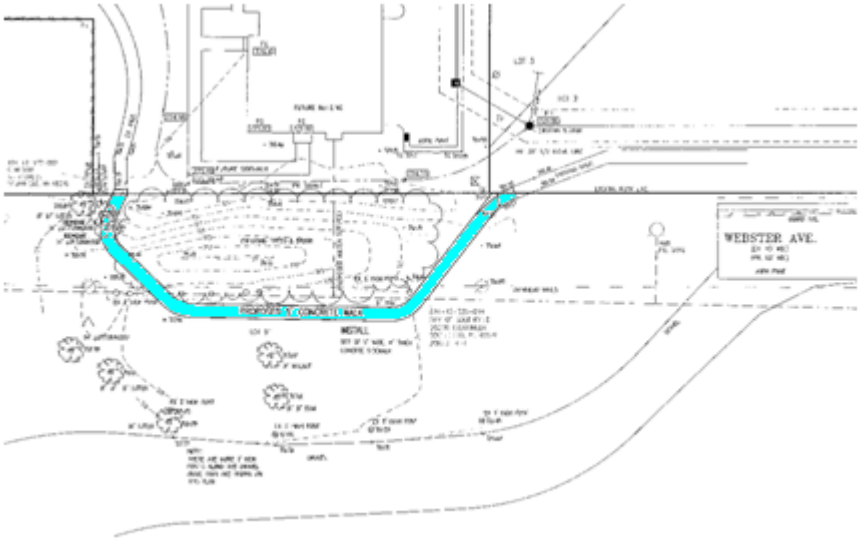
Downtown district directory.
Example: Grand Rapids, MI

Walks:

The City of Southfield has constructed an extensive sidewalk network. However, gaps or deficiencies in the system need to be addressed to create a completely functioning sidewalk system. Sidewalks should be installed in gaps following a similar style to the existing network in which they connect. Where possible, sidewalks should be installed set back from the street with a landscaped buffer to maximize visual appeal and safety for pedestrian users (refer to ***Figure 4.5: Possible Sidewalk Route***).

Sidewalk widths should be maximized based on site, while inclines or ramps should be kept to a minimum. According to the American Disability Association (ADA), an accessible route with a running slope greater than 1:20. Nowhere shall the cross slope of an accessible route exceed 1:50.

Figure 4.6: Possible In-Fill Sidewalk Route Example



Source: Community ES, 2011

Benches and Trash Receptacles:

Amenities such as benches and trash receptacles are necessary for non-motorized pathway users and transit users. Such amenities should be incorporated into the design of these facilities to adequately support the predicted number of users. Construction materials at each site should be consistent and maintenance requirements should be considered when selections are made.

Newly-installed bench and trash receptacle in coordinating style near the City Centre district.

Bike Racks and Storage:

Exposed bicycle storage, such as bike racks or bike bollards, provides opportunity for bicyclists to quickly and effectively secure their bikes. Exposed bicycle storage is designed for short-term use and commonly utilized at parks, shopping districts, and other destinations where visitors plan to stay for a few minutes up to a few hours. Exposed bicycle storage is available in many styles and finishes and can be installed on new or existing concrete, asphalt, landscaping, or any other surface.

Bike bollard.
Source: Reliance Foundry Co., LTD, 2011

Bike rack.
Source: Reliance Foundry Co., LTD, 2011

Sheltered bicycle storage, such as bicycle lockers or bicycle shelters, provides opportunity for bicyclists to secure and protect their bikes from the sun, rain, and snow. Available in a variety of styles and finishes, sheltered bicycle storage products are designed for longer-term bicycle storage. These storage systems are often appropriate at office complexes or other places of work, institutional facilities, etc.

Bicycle lockers (each locker holds 2 bikes).
Source: Dura Bike Locker, 2011

Outdoor bicycle storage shelter (holds 7-15 bikes).
Source: Global Equipment Company, Inc.

Employee Provided Showers:

Employers can encourage healthy, economical, and ecologically-friendly travel by providing on-site bicycle facilities. In addition to secure bike racks and/or covered storage, including accommodations for showering and/or changing clothes is a great help to those who chose to bike to work. Such accommodations can also include towels, hairdryers, and lockers. If constructing an on-site facility is not economically or physically possible, employers who promote bicycle transportation should consider turning to nearby fitness centers or gyms to make arrangements for employees to use their facilities.

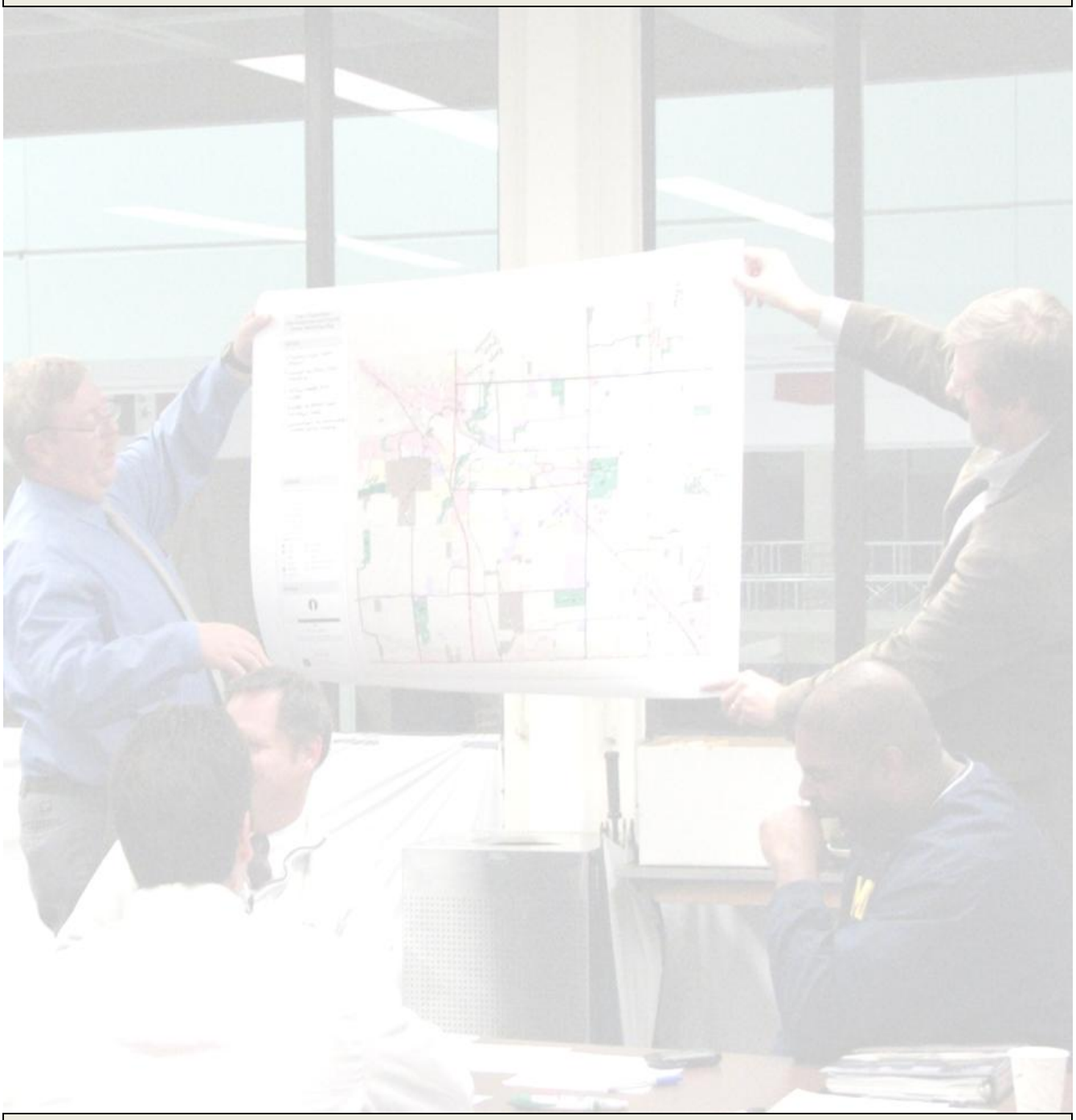
The following numbers of showers are recommended for commercial buildings:

50-100 Employees:	1 Shower
100-250 Employees:	2 Showers (one for each sex)
250+ Employees:	4+ Showers

Source: Network of Employers for Traffic Safety, 2012

Locally, Eaton Corporation has established a partnership with Lawrence Technological University (LTU) to provide shower facilities for employees. LTU allows Eaton Corporation employees to use showers at the University's Fitness and Recreation Center. In the near future, Eaton Corporation plans to renovate its current building to include employee showers.

Chapter 5



FUNDING SOURCES

CHAPTER 5 – FUNDING SOURCES

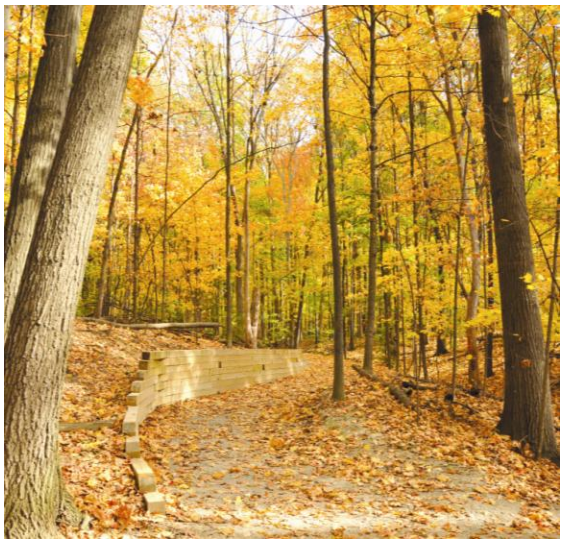
"Although the trails are small income generators compared to manufacturing, health services, and other large sectors of the local economy their impacts are concentrated in communities dependent on trail activity, and spread to other businesses in population centers and commercial hubs of the region.
– Economic Impact of Recreational Trail Use in Different Regions of Minnesota, 2009

Introduction

Amending the Comprehensive Master Plan to include the Non-Motorized Pathway and Public Transit Plan is just the first step in creating a more pedestrian, bicyclist, and transit-friendly city. The determined plan will require further funding for implementation. A variety of sources can and should be considered for such funding. It is also important to remember that implementing this plan will positively affect the City of Southfield economically as well.

Economic Benefits of Trails

Outdoor recreation is a major industry that contributes greatly to the economy through the creation of jobs and generation of tax revenue. However, the benefits of trails are not purely economical. Trails and greenways have positive effects on local communities in multiple ways:



Carpenter Lake Nature Preserve.

- Tourism
- Events
- Urban Redevelopment
- Community Improvement
- Property Values
- Health Care Costs
- Jobs and Investment
- General Consumer Spending

Communities within close proximity to public lands with trails benefit from these green assets. Once a trail system is identified, volunteers and donations from local businesses often contribute to creating and maintaining it. Coordinating the distribution of maps, signs, marketing, events, and tours helps to promote the trail system and encourage spending throughout communities shops and restaurants.

Often listed by prospective homeowners as an important amenity when considering where to purchase a new home, trails attract residents and the businesses that follow. Adding a green trail network enhances community appearance, provides safer routes for bicyclists, pedestrians, and children going to school, and has been found to raise property values.

Public health is another benefit associated with the creation of a trail system. A recent study looking at Lincoln, Nebraska, revealed that the annual cost per capita for using the community's trails was $209. The per capita annual direct medical benefit was $564, which means that every $1 investment in trails for physical activity led to $2.94 in direct medical benefit - a cost-benefit ratio of 2.94!
Source: American Trails, 2011

Available Funding Sources

Transportation Enhancement Program:

The Transportation Enhancement (TE) program was established with passage of the federal Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, reauthorized in 1998 in the Transportation Equity Act for the 21st Century (TEA-21), and again in 2005 under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

The TE program is a 10 percent set-aside of Surface Transportation Program (STP) funds and Michigan's allocation is about $20-$25 million annually. The program is administered by the Office of Economic Development (OED) of the Michigan Department of Transportation (MDOT).

SAFETEA-LU specifies the following 12 activities as eligible for TE program funding:

Non-Motorized Transportation

- Provision of facilities for pedestrians and bicycles
- Preservation of abandoned railway corridors (Including the conversion and use thereof for pedestrian or bicycle trails)
- Provision of safety and educational activities for pedestrians and bicyclists

Transportation Aesthetics

- Landscaping and other scenic beautification
- Acquisition of scenic easements and scenic or historic sites, including historic battlefields
- Inventory, control and removal of outdoor advertising
- Scenic or historic highway programs (including the provision of tourist and welcome center facilities)

Historic Preservation

- Historic preservation
- Archaeological planning and research
- Establishment of transportation museums
- Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals)

Water Quality & Wildlife

- Environmental mitigation to address water pollution due to highway runoff or reduce vehicle caused wildlife mortality while maintaining habitat continuity

Eligible applicants include county road commissions, cities, villages, transit agencies, MDOT, Native American tribes, the Michigan Department of Natural Resources, and metropolitan planning organizations. TE funding requires matching funds of at least 20% of project cost. Proposed TE projects must have a relationship to surface transportation. Applications are accepted by the Office of Economic Development at any time.
Source: Michigan Department of Transportation, 2011

The Land & Water Conservation Fund:

Carpenter Lake Nature Preserve.

Any unit of government, including Native American tribes, school districts, or any combination of units in which authority is legally constituted to provide recreation with a Michigan Department of Natural Resources and Environment (DNRE)-approved community five-year recreation plan is eligible to apply for project funding through the Federal Land and Water Conservation Fund (LWCF).

Applications are evaluated by the DNRE using four criteria: project need, applicant history, site and project quality, and alignment with the state's recreation plan. In 2010, the fourth criterion is how well a project aligns with Michigan's Statewide Comprehensive Outdoor Recreation Plan and is cumulative among the following categories: trails, community outdoor recreation, green technology in outdoor recreation, universal access or coordination and cooperation among recreation providers. This criterion was developed based on the 2008-2012 Michigan Statewide Comprehensive Outdoor Recreation Plan (SCORP). At least 50% of the total project cost in local match is required from local government applicants. The DNRE makes recommendations to the National Park Service (NPS) on which applications to fund and NPS grants final approval. Applications are accepted annually. In 2011, the minimum grant award was $30,000 and the maximum was $100,000.
Source: Michigan Department of Natural Resources, 2011

Safe Routes to School:

The National Center for Safe Routes to School (National Center) funds a local $1,000 mini-grant program that supports the goal of Safe Routes to School (SRTS) programs, which is to enable and encourage children to safely walk and bicycle to school. SRTS programs are implemented nationwide by parents, schools, community leaders, and local, state, and tribal governments.

Mini-grants may fund activities ranging from the nuts and bolts that help start or sustain a program to new ideas that explore the range of benefits of safe walking and bicycling. The National Center invites student and adult leaders to consider their school's needs and interests and to propose solutions that are also part of a broader safe walking/bicycling to school effort.

The National Center seeks mini-grant application proposals that fit a school's identified needs and interests. In order to identify which changes the school would like to accomplish and determine which corresponding activities to propose, it is often helpful to engage a variety of student and adult leaders.

The National Center has outlined general categories below to give applicants ideas about ways in which mini-grant funds can make a difference:

- Improve safety
- Increase the number of students who walk or bike to school
- Emphasize physical activity and health
- Explore environmental concerns
- Contribute to a positive learning environment
- Participate in civic discussion

The goal of the National Center's mini-grant program is to help schools identify their safe walking and bicycling needs and/or interests and enact related activities that address these needs/interests. The National Center also encourages applicants to engage student leaders and/or harness students' creativity in these steps. There are many right answers, and creativity and innovation are encouraged.

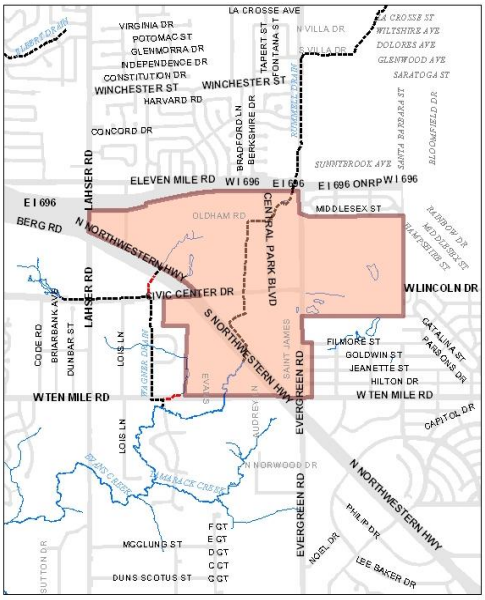
Eligible applicants include:

- Adult-supervised elementary or middle school groups or club; Faculty, staff, or parent volunteers at elementary or middle schools
- Local and Tribal governments
- Non-profit organizations that will work with a school to improve safety and/or increase participants

Source: National Center for Safe Routes to School, 2011

Special Assessment Districts:

The term Special Assessment District (SAD) describes a method of financing public improvements by distributing the cost of a project over those property owners who will reap a direct benefit. SAD improvements can include sanitary sewers, storm drains, water mains, road paving, dust control, sidewalk construction, street lighting, etc. All SADs move towards completion in five basic steps, each of which is an action taken by City Council at open meetings.



Map 5.1: Southfield City Centre District Boundaries

Established by City Council or at the request of a property owner, costs associated with establishing SADs include the cost of the services, plans, condemnation, spreading of rolls, notices, advertising, financing, construction, and legal fees, as well as all other costs incident to the making of the proposed improvement. If approved, the costs are spread throughout the SAD through one of two methods:

1. ***Unit Cost Method***
   In this option, each property is assessed an equal share of the project cost.
2. ***Front Foot Method***
   This option requires that a property owner's share of the project cost be based upon the number of feet of front or sideyard exposure to the right-of-way.

The "City Centre" is an example of a SAD. The goal of the Southfield City Centre is to fund operations, maintenance, development, and promotional activities within the designated boundaries. In 2011, the boundaries were expanded to include the Municipal Complex, commercial properties east and west of Evergreen Road between 10 Mile Road and the Municipal Complex, the Northwestern Highway Service Drive, the 11 Mile Road/I-696 Service Drive, and Lawrence Technological University. Funds collected through the SAD are used for a variety of purposes, including:

- Coordination and production of monthly concerts
- Maintenance of existing landscaping
- Payment for utility bills
- Retention of professional services
- Co-sponsorship of community events
- Development of pedestrian amenities
- Facilitating economic development

Tax Increment Financing Authority Districts:

The purpose of establishing a Tax Increment Financing Authority (TIFA) district is to promote economic development and public improvement projects that create opportunity and support the development. Once a TIFA district is approved and established, tax revenue is collected to fund the improvements.

TIFAs are governed by boards that generally consist of local business owners, property owners, and other community stakeholders. Locally, the Southfield Downtown Development Authority (DDA) is an example of a TIFA district.

The Southfield DDA follows a strategic plan to improve district:

- Connections
- Character
- Infrastructure & Aesthetics
- Development & Redevelopment
- Economic Health & Vitality

Chapter 6

MAINTENANCE

CHAPTER 6 – MAINTENANCE

"Alone we can do so little. Together we can do so much." – Helen Keller

Introduction

Once installed, the maintenance of a non-motorized pathway system can be shared among the City of Southfield and local residents, businesses, and other organizations. While upkeep such as repaving or bridge repairs will require City attention, other general maintenance such as landscape trimming, litter clean-up, and snow removal could be shared by adjacent property owners and/or other volunteer organizations.

Currently, the City of Southfield has adopted a Snow Removal Ordinance:

> **Sec. 4.75. - Sidewalks to be cleared.**
> The occupant of every lot or premises adjoining any street, or the owner of such lot or premises if same are not occupied, shall clear and keep cleared all sidewalks adjoining such lot or premises from **snow**, ice, filth and other obstructions.
>
> **Sec. 4.76. - Failure to clear.**
> If any occupant or owner shall neglect or fail to clear ice, **snow**, filth or other obstructions from the sidewalk adjoining his premises, for a period of twenty-four (24) consecutive hours or more, he shall be guilty of a violation of this chapter, and in addition the director may cause such sidewalk to be cleared and the expense of clearing shall become a debt to the city from the occupant or owner of such premises and shall be collected as a single lot assessment in accordance with section 1.13 of this Code.

The City should enforce this ordinance as well as establish other ordinances to ensure proper maintenance procedures are followed. In addition, the City can turn to other resources for additional help. Encouraging other maintenance programs and/or contracting with outside companies for assistance in maintenance should be further investigated.

Table 6.1: Annual Maintenance Costs per Mile of Pave Trail

Task	Cost
Drainage and storm channel maintenance	$500
Sweeping/blowing debris off trail	$1,200
Pick-up/removal of trash	$1,200
Weed control and vegetation management	$1,000
Mowing of grass shoulder	$1,200
Minor repair to trail furniture/safety features	$500
Maintenance supplies for work crews	$300
Equipment, fuel, and repairs	$600
Total estimated cost per mile:	**$6,500**

Source: Oakland County, Michigan Trails Master Plan, 2008

The City should also identify crosswalks in high pedestrian traffic areas and along bike routes to prioritize maintenance and painting to provide good contrast and visibility for motorists and a non-slip surface for pedestrians. Decorative crosswalks should be encouraged in the DDA and City Centre districts.

Programs and Responsibility

Adopt-A-Mile Program:

A City-sponsored Adopt-A-Mile program would allow for general maintenance of the proposed non-motorized pathway system to be addressed by a local organization. Organizations (or groups of individuals) who sign up for the program would be responsible for keeping their assigned portion of the pathway clean from debris. Participating organizations should be recognized by a name plaque along their portion of a trail. Because participants are donating their time for the benefit of the community, no fee should be charged to sign up. It is recommended that only individuals age 12 and up be permitted to participate, with one adult supervising for every three children ages 12-17.

Establish a Clean-Up Day:

Designating a specific day for pathway clean up in a specific area will allow the City and adjacent property owners to work together for routine maintenance. A City-sponsored "Clean-Up" day should invite any interested volunteers to gather during a specified time at a particular location to remove litter, trim landscaping, add or remove plant materials, etc. Then, the City of Southfield Parks and Recreation or DPW departments can aid in removing unwanted materials for the volunteers. Clean-Up days can be held several times throughout the year.

Signalized Intersections:

Source: Safe and Mobile Seniors, 2010

Pedestrian roadway crossings should be encouraged at signalized intersections. To create safer crossings, countdown signals should be installed in combination with the signalized intersection.

Crosswalks:

The City should identify crosswalks in high pedestrian traffic areas and along bike routes to prioritize maintenance and painting to provide good contrast and visibility for motorists and a non-slip surface for pedestrians. Decorative crosswalks should be encouraged in the CDA and City Centre Districts.


Example:
Easton Town Center, Ohio

Street Sweeping:

Street sweeping should be frequent along roadways that are highly utilized by pedestrians and bicyclists. Maintaining clean roadways at pedestrian crossings is vital for pedestrian safety. In addition, special attention should be given to roadways with paved shoulders designated for bicycles to ensure that bike routes remain clean and free of debris.

Pedestrian/Bicyclist Hotline and Website:

Establishing a pedestrian/bicyclist hotline and website will enable the City and residents to identify problems with the non-motorized pathway system as well as provide educational resources. Creating a hotline and interactive website would allow residents to share bike routes, identify maintenance concerns, and/or make suggestions for future improvements.

Chapter 7

RECOMMENDATIONS

CHAPTER 7 – RECOMMENDATIONS

Next Steps

The following "next steps" are recommended for the City:

- *Evaluate bicycle and pedestrian focused corridors to determine what type of improvements are feasible in the near, mid and long-term*
- *Evaluate proposed trails for feasibility and environmental impacts*
- *Field check Neighborhood Connector Routes*
- *Identify ways to improve existing freeway crossings*
- *Determine most appropriate type of crossing improvements on the primary roads (taking into account the requirements of the Jewish Orthodox Community)*
- *Evaluate and make recommendations for policies and programs regarding:*
  - *Maintenance*
  - *ADA Compliance*
  - *School Transportation*
  - *Complete Streets*
  - *Safe Routes to School (SR2S)*
  - *Bike Safety*
  - *Pedestrian and Bicycle Advisory Committee*
  - *Transit Oriented Development (TOD)*
  - *Ordinance and code standards that ensure future sidewalks and pathways will not have conflicts*
  - *Infill Non-Motorized Pathway Plan*
- *Purchase energy efficient vehicles for the TOSS program*
- *Provide additional Q'Straint training for TOSS drivers*
- *Determine the most effective education and outreach efforts*
- *Create ways to make existing strip development more walkable, bikable and have a sense of place*
- *Develop detailed non-motorized pathway & public transit plans for the Southfield DDA and City Centre districts*
- *Update City's Taxi Ordinance to allow pick-up and drop-off to and from outside communities*
- *Develop a bike share program*
- *Continue to implement bike parking infrastructure*
- *Install pedestrian crossings at strategic locations along Telegraph Road for businesses*
- *Provide connections to Telegraph Rd. and Eight Mile Rd. (bus stops) by breaking up the large block of industrial development along these corridors*
- *Work with the Police and Fire Departments to provide bicycle safety training classes for both the motorist and bicyclist*
- *Review sidewalk and pathway conditions for necessary improvement or new installation with any future road resurfacing or rehabilitation project*
- *As bridges come up for repair or replacement, ensure that they are widened to accommodate pedestrian crossings*
- *Install pedestrian amenities (e.g. pathways, benches, trash receptacles, bike racks, bike lockers, bus shelters, signage, etc.) in strategic locations throughout the City*
- *Work with DDOT and SMART to evaluate existing and future bus routes to meet the needs of Southfield residents, businesses, and visitors*
- *Upgrade and install new signs (e.g. wayfinding, route identification, and interpretation) along bike routes*
- *Increase police enforcement of speeding in school zones and yielding to pedestrians at crosswalks*
- *Utilize the City's Cable 15 channel to educate and inform residents about the non-motorized pathway system and bike safety*
- *Prepare bike route brochure and map*
- *Establish a pedestrian/bicycle hotline-website to report problems and identify resources*
- *Prior to implementation, additional Public Hearings should be held to educate and gather feedback from the Planning Commission, City Council, and general public regarding future route implementation*

Benefits of Integrating Bicycle Facilities and Transit

There are many benefits to integrating bicycles and transit for both transit agencies and travelers. Bicycling and public transit are both great transportation options that can reduce congestion, improve air quality, and reduce automobile dependency. When done in conjunction with one another, transportation options and potential destinations abound.

Benefits for bicyclists:
Combining transit use and bicycling can provide benefits to cyclists of all levels in a number of ways, including:

- Providing a contingency plan: Having transit options may give bicyclists an alternative mode home if they experience unexpected difficulties, like a flat tire or bad weather. Having multiple transportation options helps provide assurance to bicycle commuters that they will be able to get to work or get home, even if something unanticipated does happen.
- Dealing with seasonal weather: Summers in the south and winters in the north can bring extreme weather and unpleasant riding conditions. Bicyclists can ride when weather permits and use transit otherwise. Having multiple options can increase the chance that travelers will use a mode other than a personal vehicle.
- Enabling bicyclists to go longer distances: Sometimes distance can make bicycling an impractical or impossible transportation choice. In these cases, bicyclists may be able to use transit in conjunction with bicycling to make their trip more manageable.
- Jumpstarting recreation: Transit may be able to provide the missing link for riders who do not have easy access to recreational riding areas by offering a means for them to reach more desirable places to ride, such as mountain biking trails or greenways. Some areas, like Dallas, Texas and the Puget Sound area in Washington, have begun to highlight transit access to recreational trails and parks.
- Making it easier for new riders: Sometimes bicycle commuting can be intimidating or physically challenging at first. Combining bicycling with a transit ride can enable new riders or those who are uncomfortable with some sections of their trip to avoid potential barriers, like hills, bridges, or high-traffic roads.

Benefits for transit agencies:
By supporting the integration of bicycling and public transportation, transit agencies provide improved service for their riders. In turn, transit agencies may attract new riders or encourage current riders to use transit more frequently. If riders are able to bicycle to transit stops, the catchment area for transit riders increases significantly. According to a survey of bicycle on bus (BOB) riders in Florida, one quarter were new transit riders and 80 percent attributed this change of mode to the bike on bus program (Hagelin, 2005). The integration of bicycling with transit can benefit transit agencies in the following ways:

- Increases the catchment area for transit riders: Since bicyclists can travel faster than walkers, they can typically travel greater distances without increasing their commute time. Some estimates indicate that transit riders are willing to walk a quarter to a half mile to reach a transit stop, while bicyclists may travel upwards of two miles.
- Improves the public image and attractiveness of transit: By offering and effectively marketing new services, transit agencies may encourage riders and non-riders alike to think differently

about transit service. Enhanced service and new perceptions of public transportation may encourage riders to try transit for the first time or may help retain current riders.

- Captures different trip purposes: The new services and facilities that a bicycle-transit program offers may encourage riders to use transit for trips that they previously had not. For instance, users may use transit on the weekend or at night for social or recreational activities that use bicycles.
- Builds partnerships: By enhancing alternative transportation options, transit agencies may build or strengthen relationships with environmental groups, bicycle advocacy groups, and others trying to reduce the environmental impact of transportation, reduce congestion, or decrease automobile dependence.
- Saves money: Bicycle-transit integration investments can be a relatively inexpensive way for transit agencies to enhance service, improve their public image, and increase ridership.

Source: Bicyclinginfo.org

Education Programs

"Education" is relatively cheap and easy to do when compared to a major trail project or bike plan implementation . . . yet it is actually quite labor intensive and has to be repeated year after year to have a permanent impact on a large number of people. – Bicycle Friendly America, 2011

Targeted Audiences:

Focusing educational programs to professional drivers (e.g. taxi and bus drivers, truckers, delivery van drivers, and even school bus operators) can be an effective way to increasing a bicycle-friendly community. In addition, motorists and bicyclists who have been ticketed for bad behavior are prime candidates for "diversion" classes to reduce fines and remove points from their driving record.

Media:

There are many target-rich environments for bike safety messages using print, visual, electronic and social media to spread the word. Options include:

- Inserts in utility bills- especially timed to coincide with major events, National Bike Month, etc.
- Newspaper and newsletter columns, blogs, community newsletters
- Public Service Announcements (PSA's) on TV, radio, billboards, and in print media
- Company and government intranet sites as well as websites and social media pages
- Bus wraps and advertising, transit shelter posters
- Bicycle Ambassador programs-where people (often college-age, seasonal workers) are hired to deliver safety talks, ride major trails and routes offering assistance.
- Promotion at special events (e.g. cycling safety at events, festivals, fairs, etc.)

In addition to the media suggestions above, utilizing Southfield's Cable 15 to raise awareness of local bike routes, bicycle and pedestrian safety, and any special events related to non-motorized transportation is also recommended.

Traffic Skills Training:

Teaching cyclists to share the road competently and correctly is a vital part of any education program. Motorists sometimes seem almost completely unaware of what cyclists' rights are. Cyclists often run stop lights, ride the wrong way on streets and flout traffic laws. Better traffic skills education and more cyclists on the road can increase safety for all.

Safe Routes to School (SR2S) & Work:

The SR2S program provides funding to create safe routes to school, encourage children to ride, and to teach kids how to walk and bike to school.

Educating Professionals:

It is important to teach Engineers, Planners, and other allied professionals the importance of the needs and requirements of cyclists. Grants are available to fund educational programs and should be further pursued. Many times, programs relating directly to bicycle safety and cyclist needs can fulfill continuing education requirements for Engineers, Planners, and other professionals.

Rules of the Road Campaign:

Launching a City-sponsored "Rules of the Road" campaign to inform and remind motorists, pedestrians, and bicyclists of proper roadway etiquette and rules should be considered when adopting the non-motorized pathway plan. Engaging the public by hosting an event and/or providing literature to highlight general traffic laws, the importance of proper equipment and vehicle/bicycle maintenance, and safety tips are examples of topics to be covered during the campaign.

Encouragement

Bike Month:

Establishing a "Bike Month" to encourage bicycle transportation to destinations such as work, school, shopping, etc. will benefit the City. Whether sponsored by the City or other organizations (or both), marketing the Bike Month to expose the fun, healthy, and green benefits of biking is key to a successful event. To engage potential riders, the following celebration ideas can be utilized:

- Employer-provided commuter incentives;
- Energizing stations set up during morning commutes;
- Free smart cycling classes;
- Special "bike-to" events
- Route mapping assistance

Leading Advocates:

Help from employers, local officials, and even the congressional office is often needed to support non-motorized transportation. A well-recognized individual who supports pedestrian or bicycle improvements is a prime candidate to become a leading advocate.

Advocacy Groups:

"2007 was a fantastic year around here. We won a legal challenge protecting the right of the county to protect one of the most used trails in the country, the bicycle master plan was adopted, and hundreds of millions were committed to bicycling projects. It was a good year. The years have gotten better but there were a lot of firsts in that year." – Dave Douglas, Event Coordinator, Cascade Bicycle Club, from Bicycle Friendly America, 2011

Local advocacy groups are often the starting point for change in a community. Nationwide, bicycle groups and clubs, such as the Cascade Bicycle Club (CBC) in Seattle, Washington, have come together to promote bicycling as a preferred transportation and educate the public on its benefits. The CBC has been successful in sponsoring Bike to Work Days and advocating for favorable bike policy creation.

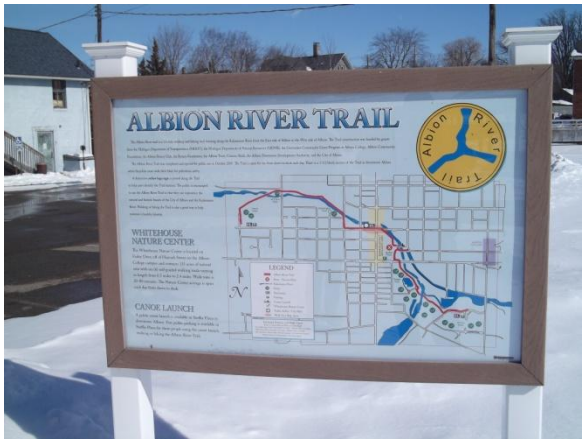
Bike Share Program:

Establishing a City-sponsored bike share program for local users will encourage bicycles as a preferred mode of transportation. Providing a fleet of bicycles available for check-out with multiple pick-up and drop-off locations as well as making bike racks/storage readily available throughout the City will raise awareness of the bicycle as an alternative to automobile travel.

Maps, Guides & Signage:

Maps, Guides and Signage encourage people to ride. Maps, guides and signs show them the way but also let bicyclists feel justified to be on the City's streets. Signage validates their route.

Tips for communities starting out the process of developing a signed bicycle route system include:



Trail/pathway map for pedestrians and bicyclists.
Example: Albion, MI

1. Start early.
2. Define the user group. Are users of the signs tourists or city residents, novice or experienced bicyclists? This influences both the routes chosen for the signs and the sign content.
3. Determine routes and route types. Have a network of routes already established before putting out signs. Once a network is established, determine what signs will best serve the network.
4. Choose destinations wisely. If you've chosen a destination based sign system, designate destinations and organize them into a hierarchy. This provides a sense of scale of the project.
5. Learn from other cities. Many cities have drafted guidelines for sign implementation. Bike along other cities' signed routes.
6. Do a challenging pilot project. Implement signs in the most difficult part of the city first. This exercise may make clear where your process could be improved.
7. Adopt a maintenance plan.

Brochures:

Providing brochures complete with a map of designated routes, destinations, and other information essential to exposing the non-motorized pathway network to local residents and visitors. Brochures should be pocket-size and include only maps and simple text/graphics for understanding the system. Relevant information regarding designated routes, improved street crossing locations, and trail/route connections to points of interest throughout the City should be included.

Pedestrian Crossing Improvements:

The following design concepts are suggested to improve pedestrian crossing safety at roadways:

- Install countdown signals
- Maintain and upgrade pedestrian cross markings
- Extend curb (bump-out) extensions
- Install pedestrian harbors in landscape medians
- Upgrade route marking signage
- Install pedestrian amenities (e.g. benches, trash receptacles, bike racks, landscaping, etc.)

Adequate pedestrian crossing complete with cross markings, signage, and pedestrian harbor.
Example: Ashville, North Carolina
Source: Zuyeva, 2011

Enforcement

Strong Laws:

Basic laws and regulations are necessary to manage pedestrian, bicycle, and automobile traffic and must be enforced properly. Adopting additional laws to reaffirm the rights of bicyclists may be necessary to prevent accidents and increase safety, rights, and funding for non-motorized transportation.

Targeted Enforcement:

Although enforcing laws that protect pedestrians and bicyclists should always be a top priority, continuous review of pedestrian and bicycle crash statistics will provide the Southfield Police Department with relevant information to designate enforcement resources accordingly. In addition, keeping direct patrol lists generated by community and police officer observation will help to narrow enforcement resources to specific areas and times.

Police Bike Patrol:

The Southfield Police Department has approximately 5 bicycles that are utilized by Police Officers for patrol during special events, such as the Fourth of July Fireworks celebration. The City's Traffic Patrol Unit currently patrols in vehicles during daytime and afternoon shifts on a regular schedule. It is suggested that Patrol Administration investigate adding bicycle patrol, coordinating with the Traffic Patrol Unit, if needed.

Incentives:

Rewards for following good bicycle behavior. Developing a program managed by the police department to reward resident bicyclists, especially children, will encourage more bicycling and increase safety throughout the City. When bicyclists follow proper etiquette and safety guidelines (such as wearing a helmet or signaling for a turn), the police department could issue a reward in the form of a gift certificate from a local business. This type of program is most effective if introduced after an education event.

Evaluation

Bike Master Plan:

A Bike Master Plan (BMP) is the foundation of a successful Bicycle Friendly community, without it progress is difficult. A BMP should set community goals, objectives, benchmarks, and performance measures for a 5-, 10-, 20-, or 30-year time frame. Suggesting policy changes and/or identifying agencies for suggested bike initiatives may also be incorporated into a BMP. A complete BMP includes "the 5 Es":

1. Engineering
2. Education
3. Encouragement
4. Enforcement
5. Evaluation

BMPs are proven to help establish relationships between community organizations and local officials, build consensus, and create public awareness of bicycling. While some communities complete BMPs internally, others turn to consultants for assistance. No matter how a BMP is completed, having a BMP enables a community to effectively and efficiently communicate the needs of bicyclists, establish guidelines, and set priorities.

Developing a BMP is a critical step in creating a roadmap for bicycle progress. The City of Southfield should continue to build upon its proposed non-motorized pathway plan to create a complete BMP.

Bicycle Advisory Committee:

Whether a bicyclist is choosing to ride for transportation, recreation, physical fitness, or another reason, the safety and well-being of that bicyclist is a major concern. Establishing a Bicycle Advisory Committee to monitor and educate Southfield residents on bicycle routes and laws will help to create a more safe environment for all types of bicyclists. In addition to education, other responsibilities of the committee should involve monitoring the enforcement of bicycle laws, working with local officials and the public to continuously expand the bicycle network, and continuous evaluation of the network.

Bicycle and Pedestrian Coordination Team:

Designate one individual each from the Planning, Police, Engineering, and Parks and Recreation Departments to manage, coordinate, promote, and report on bicycle and pedestrian activity throughout the City. Once established, the team should meet quarterly or as needed to address issues related to the non-motorized pathway system.

Data Collection:

Data relating to pedestrian, bicycle, public transit, and automobile ridership should be continuously reviewed to determine the success of Southfield's Non-Motorized Pathway and Public Transit Plan. The United States Census, SEMCOG, and other local resources such as the Southfield Police Department can provide a variety of information from simple statistics relating to car ownership to the number of people who walk to work to the number of pedestrian crashes in a given year. Southfield's Non-Motorized Pathway and Transit Plan will require continuous updating based on data review.

Data to be collected and evaluated should include:

- Mode share statistics
- Vehicle crash rates
- Pedestrian and bicycle crash rates
- Sign and route maintenance

Maintenance Recommendations

The City of Southfield should establish programs such as "Adopt-A-Mile" and sponsor "Clean-Up Days" to share maintenance responsibilities with users. In addition, turning to outside sources for low-cost assistance is also recommended. For example, Huron-Clinton Metroparks offers a program for a cost per mile or standard fee to help local communities with trail maintenance. Overall, reaching out to volunteers and other companies for assistance will ensure that the City's pathways receive adequate maintenance at the lowest cost possible.

With any future road resurfacing or bridge repair, surrounding sidewalks and pathways should be reviewed for necessary improvements or new installation. Further, ordinance and code standards should be reviewed to ensure that future sidewalks and/or pathways are installed and maintained properly, with no blind corners or conflicts with fixed objects.

Proposed Transportation Service Improvements

Bus Service:

Further analyze D-DOT and SMART ridership trends throughout the City and introduce "super stops" at high-volume points of interest. Super stops should feature amenities such as a shelter, benches, waste receptacle, lighting, newspaper stands, and a keywalk. Existing stops should be enhanced with additional amenities based on ridership volume as well.

Establishing better connections to other forms of transit and the proposed non-motorized pathway system will also necessary to improve the ease-of-use of D-DOT and SMART bus stops. For example, increasing the awareness of SMART at the Southfield Transit Center will encourage SMART ridership to-and-from the center, which will link Park-and-Ride users, Greyhound riders, and SMART riders.

Regional Transit Service:

Considering the close proximity of Amtrak train stations, regional airports, and Greyhound bus service, a stronger connection between the different forms of transportation services is needed. **It is recommended that a Southfield Regional Transit Center be considered** to join bus, taxi, pedestrian/bicycle, and automobile transportation users and link the users to other transportation services both inside and outside of the City (such as train and/or airport).

Taxi Service:

Despite the existence of only one taxi stand in the City, taxi riders need pick up at a variety of locations. Hospitals, hotels, shopping centers, and major business districts are all popular origins and destinations for riders, who vary from Southfield residents to out-of-town business people to visitors from nearby cities.

Because taxi riders often need service to or from points of interest outside of the City**, the taxi ordinance preventing unlicensed taxi service providers from picking up passengers within the City should be amended to allow for reciprocal service**. This will encourage additional taxi service providers to enter the Southfield market and provide additional options to riders.

Additional taxi stands should also be added to expose taxi service as a reliable option for transportation. Suggested locations include hotels and institutional facilities where out-of-town visitors frequent.

TOSS:

In addition to hiring a logistics consultant to review service delivery and suggest beneficial changes, discussion with TOSS staff suggests the following improvements also be considered:

Fuel-efficient and wheelchair-accessible vehicle produced by VPG.
Source: Jackson, 2010

1. **Expanded services for social gatherings (like dining out nights and going to parks)**
   TOSS's current hours of operation do not accommodate evening or nighttime travel plans. Offering service for planned evening or weekend social gatherings will provide seniors much needed transportation to events.

2. **Purchase of smaller, more fuel efficient cars**
   Because TOSS frequently provides service to a limited number of riders, the purchase of smaller, more fuel efficient cars would be cost-saving for the program. Larger vans and buses are already operated by TOSS and available when needed, but are not always utilized at full capacity. Smaller cars are well-suited to many daily TOSS activities.

3. **Additional training for drivers (relating to tying down wheel chairs Q'STRAINTS)**
   Although SMART offers free training programs, attending the programs limits TOSS from providing service because employees must attend the programs during normal hours of operation. Offering training to drivers before or after normal hours of operation would enable TOSS to provide uninterrupted service.

APPENDIX

APPENDIX

Energy Efficient Calculations

In comparison to other Michigan municipalities with populations between 70,000-8,000 residents, the City of Southfield has the lowest percentage of commuters who bike to work (refer to ***Table A.1: Commuters Who Don't Drive to Work for Michigan Municipalities with Populations between 70,000 – 80,000 Residents)*** . Kalamazoo has significantly higher percentages of bike, walk, and transit commuters, as well as a higher percentage of households without a car. However, Kalamazoo is considered a university town, which usually command higher percentages.

Table A.1: Commuters Who Don't Drive to Work for Michigan Municipalities with Populations between 70,000 – 80,000 Residents

Rank	Place	2000 Census					
		Population	% of Commuters Who				% Households w/ 1 car or less
			Bike	Walk	Use Public Transit	Don't Drive To Work	
1	Kalamazoo, Michigan	77,092	0.52	7.19	3.25	10.96	40.8
2	**Southfield, Michigan**	**78,296**	**0.06**	**1.51**	**1.17**	**2.74**	**34.8**
3	Waterford, Michigan	73,162	0.13	0.91	0.16	1.20	28.9
4	Canton, Michigan	76,310	0.07	0.53	0.30	0.90	22.8

Source: http://bikesatwork.com/carfree/carfree-census-database.html and US Census

The percentage of commuters who utilize public transit and overall percentage of commuters who do not drive to work are both relatively higher in the City of Southfield in compared to many municipalities in Metro Detroit (refer to ***Table A.2: Commuters Who Don't Drive to Work for Municipalities near the City of Southfield)***.

According to the California Department of Transportation (Caltrans) Air Resources Board, a target share of 2.0% is desirable for bike transportation in suburban communities. Introducing the Non-Motorized Pathway and Public Transit Plan in the City of Southfield will increase the number of bike users, as well as pedestrians and public transit users, ultimately reducing the number of vehicle miles traveled by automobile trips and the amount of CO2 pollution associated with vehicle trips.

Table A.2: Commuters Who Don't Drive to Work for Municipalities near the City of Southfield

Rank	Place	2000 Census					
		Population	% of Commuters Who				% Households w/ 1 car or less
			Bike	Walk	Use Public Transit	Don't Drive To Work	
1	Detroit, Michigan	951270	0.16	2.86	8.81	11.83	53.2
2	Ferndale, Michigan	22105	0.28	1.89	1.26	3.43	41.6
3	Oak Park, Michigan	29793	0.19	2.05	1.17	3.41	42.2
4	Royal Oak, Michigan	60062	0.33	1.90	1.04	3.27	39.7
5	**Southfield, Michigan**	**78,296**	**0.06**	**1.51**	**1.17**	**2.74**	**34.8**
6	Birmingham, Michigan	19373	0.18	1.43	0.57	2.18	36.9
7	Berkley, Michigan	15531	0.24	0.94	0.51	1.69	38.0
8	Farmington Hills, Michigan	82111	0.07	1.02	0.27	1.36	25.3
9	Troy, Michigan	80959	0.13	0.64	0.36	1.13	19.7
10	West Bloomfield Township, Michigan	64804	0.02	0.54	0.21	0.77	19.9
11	Beverly Hills Village, Michigan	10442	0.15	0.44	0.17	0.76	26.4
12	Bloomfield Township, Michigan	43027	0.04	0.29	0.17	0.50	21.6

Source: http://bikesatwork.com/carfree/carfree-census-database.html and US Census

Non-Motorized Pathway Construction Costs

Table A.3: Non-Motorized Pathway Construction Costs

Item	Unit	Cost per Unit	Notes
Asphalt Pavement	Square Yard	$135	3" depth
Bicycle Markings (Tape)	Each	$150	
Bicycle Markings (Thermoplastic)	Each	$60	
Bicycle Locker	Each	$1,400*	Holds 2 bicycles
Bicycle Racks	Space	$400*	Galvanized 5-loop rack; Holds 7 bikes
Colored Pavement Markings	Square foot	$10	
Concrete Pavement	Cubic yard	$142	
Crushed Stone Surface	Cubic yard	$37	3" depth
Curb Ramp	Each	$1,200	
Lane Striping	Mile	$3,405	4" white line
Pedestrian Signal (2-way)	Each	$1,900	Cost reflects installation at an existing signalized intersection
Pedestrian Signal (4-way)	Each	$3,900	Cost reflects installation at an existing signalized intersection
Sign	Each	$200	Includes post

Source: Bicyclinginfo.org/bikecost
* = Local quote

Bike Rack and Bike Parking Credit Examples

Figure A.1: City of Southfield Bike Rack Details

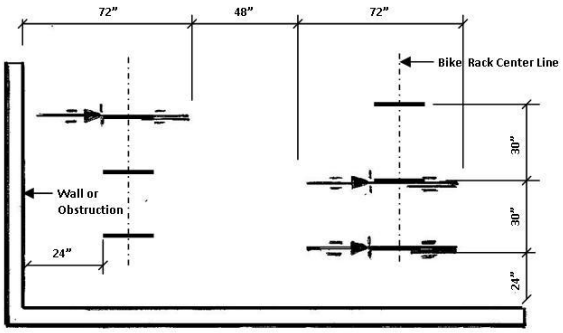
CITY OF SOUTHFIELD BIKE RACK DETAILS

Article 4 Section 5.29 (12), Chapter #45 Zoning Ordinance

Bike Racks and Bike Parking Credit: To promote non-motorized transit and to reduce impervious surfaces, the City is encouraging alternative means of transportation. The lack of a secure bike parking space keeps many people from using their bikes, thus a minimum of 4 bicycle parking spaces shall be provided for each non-residential and multi-family development.

For every bike rack which accommodates four (4) bicycles, one off street parking space, up to a maximum of five (5%) percent of the total required parking may be credited by the City Planner. Bicycle parking racks shall be located close to the building entrance, and shall be separated from vehicle parking areas to minimize motor vehicle damage to bicycles. Bicycle racks shall be securely anchored to the supporting surface, and shall be at least three (3) feet in height and able to support a locked bicycle in an upright position. Additional accommodations for bicyclists that may be considered & include, but are not limited to: bicycle lockers, employee shower facilities and dressing areas for employees. (amended: Ordinance No. 1587-11/6/2011)

All Dimensions Are Recommended Minimums



BIKE RACK PLAN VIEW
Not to Scale

BIKE RACK EXAMPLES

For Further Information, Contact the City of Southfield Planning Department at (248) 796-4150
www.cityofsouthfield.com

Figure A.2: Adopted Policy Resolution to Address Non-Motorized Path Construction

REGULAR MEETING 10 FEBRUARY 2, 2009
(conducted as a Committee-of-the-Whole)

C-10-2009 Motion by Frasier; seconded by Jordan.

BE IT RESOLVED: that as part of the City's comprehensive master planning process the Southfield City Council does hereby establish a policy to address sidewalk, non-motorized and bicycle path construction along all roads within the City of Southfield deemed a "Collector" or "Major" road (herein a "road") by the MDOT Act 51 funding maps; and

BE IT FURTHER RESOLVED: that sidewalks, or alternatively, safety paths or bicycle paths, if approved by the City's Engineering Department, shall be located along each side of a Road to provide continuity and mobility for the residents of the City as well as to encourage the non-motorized use of the public rights-of-way and to encourage exercise, recreational activities, and cohesive relationships between neighbors; and

BE IT FURTHER RESOLVED: that sidewalks, or alternatively, safety paths or bicycle paths, if approved by the City's Engineering Department, shall be installed along a Road frontage as part of a newly constructed adjacent public or private development in the City where such sidewalks, safety paths, or bicycle paths have not previously been installed; provided however, such sidewalks, safety paths or bicycle paths shall not be required when the installation thereof is determined not to be feasible by the City's Engineering Department due to topographical or environmental concerns or public safety related issues: and

BE IT FURTHER RESOLVED: that sidewalks, or alternatively, safety paths or bicycle paths, if approved by the City's Engineering Department, shall be installed upon and at the time of any Road widening or reconstruction; provided however, the installation thereof may be deferred to be installed at some future date as a distinct project when determined necessary or advisable by the City's Engineering Department; and

BE IT FURTHER RESOLVED: that the inclusion of sidewalks, or alternatively, safety paths or bicycle paths, if approved by the City's Engineering Department, shall be an integral part of any development or redevelopment plans considered by the Southfield Planning Commission and the Southfield City Council; and

BE IT FINALLY RESOLVED: that your Honorable Body determine an immediate need to act pursuant to Council Rule 10, based upon the need to meet established deadlines and keep related projects on schedule.

Motion passed unanimously.

Next was the contract extension for professional engineering services with Hubbell, Roth & Clark, Inc. and Orchard, Hiltz & McCliment, Inc.

Map 3.4: Preliminary Neighborhood Connector Routes Notes

1. Too many turns
2. Less turns
3. Need to fix pathway along south side of Civic Center Drive between Northwestern Hwy and Evergreen Road
4. Lawrence Tech University is expanding west and adding student housing
5. Tamarack is a good road for bicycling
6. Alternative Neighborhood Connector Routes between W Ten Mile Rd and Nine Mile
7. May be potential to provide connection to park using Fire Department property
8. There are issues with high traffic during school hours near many of the Charter Schools because a large majority of students are dropped off causing back-ups, Macarthur University Academy was a specific example.
9. The existing pathway along the school was noted as "very busy", Santa Barbara St is suggested as an alternative
10. It was noted that you can rent bikes at the Lawrence Technological University Rec Center
11. Proposed Nature Center off of Nine Mile
12. Bridge on Beech Road
13. Concerns with cutting through nature preserve
14. There may be wetland issues
15. Neighborhood needs traffic calming
16. Potential for a pathway along the south side of Nine Mile between Berg Road and Evergreen Road
17. There have been discussions about placing a pathway at Lawrence Tech University along W Ten Mile Road and Northwestern Service Drive
18. Create a Pedestrian Loop (0.75 miles) in City Center District that is incorporated with future mixed-use development
19. Private Golf Course
20. Provide connections to transit stops on south end of Northland Mall
21. There may be wetland issues
22. Add connection to W Twelve Mile Road
23. Transit Connection needed between Oakland Community College Southfield Campus and Royal Oak Campus

Public Hearing Notices

Figure A.3: Public Hearing Notice (November 16, 2011)

OBSERVER & ECCENTRIC and HTW NEWSPAPERS
615 W LAFAYETTE BLVD DETROIT MI 48226

BE IT MADE KNOWN THAT THE FOLLOWING LEGAL AD APPEARED IN
The Eccentric

CITY OF SOUTHFIELD
CITY CLERK
26000 EVERGREEN RD
SOUTHFIELD MI 48076-4453

REFERENCE: 1122933
8758863 PHearing 11-16-11 Am

STATE OF MICHIGAN

COUNTY OF OAKLAND

THE OBSERVER & ECCENTRIC and MIRROR Newspapers, a newspaper published in the English language for the dissemination of local or transmitted news, which is a duly qualified newspaper, and that annexed hereto is a copy of a certain order taken from said newspaper, in which the order was published on the date indicated below.

NOTARIZED BY: L.A. Marzo

(Acting in) WAYNE Notary Public in and for said County

Commission expires 12-9-2013

PUBLISHED ON: 10/30

KAREN A. MARZOLF
Notary Public, State of Michigan
County of Macomb
My Commission Expires Dec. 9, 2013
Acting in the County of WAYNE

TOTAL COST: 79.64 AD SPACE: 11.000 INCH
FILED ON: 10/30/11

All questions may be directed to Customer Service 313-222-8670 during normal business hours of Monday through Friday 8:30am until 4:30pm.

LEGAL NOTICE
CITY OF SOUTHFIELD
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a Public Hearing will be held on Wednesday, November 16, 2011, at 6:30 P.M., Daylight Saving Time, in the Council Chambers, 26000 Evergreen Road, City of Southfield, County of Oakland, Michigan, at which time and place the Planning Commission will consider the following pursuant to Article 4, Section 5.59, of Title V, Zoning and Planning, Chapter 45, Zoning, of the Code of the City of Southfield, to-wit:

Amendment to Southfield Comprehensive Master Plan – Amend the Master Plan to include a Non-Motorized Transit Study in Chapter 9 – Transportation and Circulation.

Written comments may be mailed to the City of Southfield Planning Department, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI 48037-2055, prior to the meeting.

After said public hearing is concluded the Planning Commission will make a report and recommendation concerning this matter to the City Council. City Council will then make a final decision on the proposed amendment.

Questions regarding this matter should be directed to the Planning Department at (248) 796-4150.

Nancy L.M. Banks
City Clerk

Individuals with special needs who plan to attend this meeting should contact the City Clerk's Office at (248) 796-5150 (voice) or (248) 354-4831 (TDD) if auxiliary aids or services are needed. Reasonable advance notice is required.

Published: October 30, 2011 OE08758863 DSS

Figure A.3: Public Hearing Notice (November 16, 2011) [Continued]

LEGAL NOTICE
CITY OF SOUTHFIELD
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a Public Hearing will be held on Wednesday, November 16, 2011, at 6:30 P.M., Daylight Saving Time, in the Council Chambers, 26000 Evergreen Road, City of Southfield, County of Oakland, Michigan, at which time and place the Planning Commission will consider the following, to-wit:

Adoption of a Non-Motorized Transit Plan – for the City of Southfield.

Written comments may be mailed to the City of Southfield Planning Department, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI 48037-2055, prior to the meeting.

After said public hearing is concluded the Planning Commission will make a report and recommendation concerning this matter to the City Council. City Council will then make a final decision on the proposed amendment.

Questions regarding this matter should be directed to the Planning Department at (248) 796-4150.

Nancy L.M. Banks
City Clerk

Published Date: October 30, 2011

Individuals with special needs who plan to attend this meeting should contact the City Clerk's Office at (248) 796-5150 (voice) or (248) 354-4831 (TDD) if auxiliary aids or services are needed. Reasonable advance notice is required.

Figure A.4: Public Hearing Notice (February 22, 2012)

OBSERVER & ECCENTRIC and HTW NEWSPAPERS
615 W LAFAYETTE BLVD DETROIT MI 48226

BE IT MADE KNOWN THAT THE FOLLOWING LEGAL AD APPEARED IN
The Eccentric

CITY OF SOUTHFIELD
CITY CLERK
26000 EVERGREEN RD
SOUTHFIELD MI 48076-4453

REFERENCE: 1122933 Jeff Spence
8767503 Amendment to Southfi

STATE OF MICHIGAN

COUNTY OF _____

THE OBSERVER & ECCENTRIC and MIRROR Newspapers, a newspaper published in the English language for the dissemination of local or transmitted news, which is a duly qualified newspaper, and that annexed hereto is a copy of a certain order take from said newspaper, in which the order was published on the date indicated below.

LEGAL NOTICE
CITY OF SOUTHFIELD
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a Public Hearing will be held on Wednesday, February 22, 2012, at 6:30 P.M., in the Council Chambers, 26000 Evergreen Road, City of Southfield, County of Oakland, Michigan, at which time and place the Planning Commission will consider the following pursuant to Title V, Zoning and Planning, Chapter 45, Zoning, of the Code of the City of Southfield, to wit:

Amendment to Southfield Comprehensive Master Plan – Amend the Master Plan to include a Non-Motorized Pathway & Public Transit Plan supplement.

Written comments may be mailed to the City of Southfield Planning Department, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI 48037-2055, prior to the meeting.

After said public hearing is concluded the Planning Commission will make a report and recommendation concerning this matter to the City Council. City Council will then make a final decision on the proposed amendment.

Questions regarding this matter should be directed to the Planning Department at (248) 796-4150.

Nancy L.M. Banks
City Clerk

Individuals with special needs who plan to attend this meeting should contact the City Clerk's Office at (248) 796-5150 (voice) or (248) 354-4831 (TDD) if auxiliary aids or services are needed. Reasonable advance notice is required.

Publish: February 5, 2012

OE08767503 - 2x4

NOTARIZED BY: Deborah L. Skoney

DEBORAH L. SKONEY
Notary Public, State of Michigan
County of Wayne
My Commission Expires Sep. 30, 2018
Acting in the County of Wayne

(Acting in _____ County, Michigan) and for said County of _____

Commission expires _____

PUBLISHED ON: 02/05

TOTAL COST: 86.88 AD SPACE: 12.000 INCH
FILED ON: 02/05/12

All questions may be directed to Customer Service 313-222-8670 during normal business hours of Monday through Friday 8:30am until 4:30pm.

Figure A.4: Public Hearing Notice (February 22, 2012) [Continued]

LEGAL NOTICE
CITY OF SOUTHFIELD
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a Public Hearing will be held on Wednesday, February 22, 2012, at 6:30 P.M., in the Council Chambers, 26000 Evergreen Road, City of Southfield, County of Oakland, Michigan, at which time and place the Planning Commission will consider the following pursuant to Title V, Zoning and Planning, Chapter 45, Zoning, of the Code of the City of Southfield, to wit:

Amendment to Southfield Comprehensive Master Plan – Amend the Master Plan to include a Non-Motorized Pathway & Public Transit Plan supplement.

Written comments may be mailed to the City of Southfield Planning Department, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI 48037-2055, prior to the meeting.

After said public hearing is concluded the Planning Commission will make a report and recommendation concerning this matter to the City Council. City Council will then make a final decision on the proposed amendment.

Questions regarding this matter should be directed to the Planning Department at (248) 796-4150.

Nancy L.M. Banks
City Clerk

Published Date: February 5, 2012

Individuals with special needs who plan to attend this meeting should contact the City Clerk's Office at (248) 796-5150 (voice) or (248) 354-4831 (TDD) if auxiliary aids or services are needed. Reasonable advance notice is required.

Figure A.5: Public Hearing Notice (March 19, 2012)

OBSERVER & ECCENTRIC and HTW NEWSPAPERS
615 W LAFAYETTE BLVD DETROIT MI 48226

BE IT MADE KNOWN THAT THE FOLLOWING LEGAL AD APPEARED IN
BIRMINGHAM ECCENTRIC

LEGAL NOTICE
CITY OF SOUTHFIELD
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a Public Hearing will be held on Monday, March 19, 2012, at 7:00 P.M., Eastern Daylight Savings Time, in the Council Chambers, 26000 Evergreen Road, City of Southfield, County of Oakland, Michigan, at which time and place the City Council will consider the following pursuant to Title V, Zoning and Planning, Chapter 45, Zoning, of the Code of the City of Southfield, to wit:

Amendment to Southfield Comprehensive Master Plan – Amend the Master Plan to include a Non-Motorized Pathway & Public Transit Plan supplement (MP-02)

Written comments may be mailed to the City of Southfield City Clerk, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI 48037-2055, prior to the meeting.

Questions regarding this matter should be directed to the Planning Department at (248) 796-4150.

Nancy L.M. Banks, City Clerk

MP-02 – Master Plan

Individuals with special needs who plan to attend this meeting should contact the City Clerk's Office at 248-796-5150 (voice) or 248-354-4831 (TDD), if auxiliary aids or services are needed, reasonable advance notice is required.

Publish: March 4, 2012

STATE OF MICHIGAN

COUNTY OF _____

THE OBSERVER & ECCENTRIC and MIRROR Newspapers, a newspaper published in the English language for the dissemination of local or transmitted news, which is a duly qualified newspaper, and that annexed hereto is a copy of a certain order taken from said newspaper, in which the order was published on the date indicated below.

NOTARIZED BY: _____

(Acting in) _____ Notary Public in
and for said County

DEBORAH L SKONEY
Notary Public, State of Michigan
County of Wayne
My Commission Expires Sep. 30, 2018
Acting in the County of _____

Commission expires _____

PUBLISHED ON: 03/04/2012

All questions may be directed to Customer Service 313-222-8670 during normal business hours of Monday through Friday 8:30am until 4:30pm.

Figure A.5: Public Hearing Notice (March 19, 2012) [Continued]

LEGAL NOTICE
CITY OF SOUTHFIELD
NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that a Public Hearing will be held on Monday, March 19, 2012, at 7:00 P.M., in the Council Chambers, 26000 Evergreen Road, City of Southfield, County of Oakland, Michigan, at which time and place the City Council will consider the following pursuant to Title V, Zoning and Planning, Chapter 45, Zoning, of the Code of the City of Southfield, to wit:

Amendment to Southfield Comprehensive Master Plan – Amend the Master Plan to include a Non-Motorized Pathway & Public Transit Plan supplement.

Written comments may be mailed to the City of Southfield City Clerk, 26000 Evergreen Road, P.O. Box 2055, Southfield, MI 48037-2055, prior to the meeting.

Questions regarding this matter should be directed to the City Clerk at (248) 796-5150.

Nancy L.M. Banks
City Clerk

Published Date: March 4, 2012

Individuals with special needs who plan to attend this meeting should contact the City Clerk's Office at (248) 796-5150 (voice) or (248) 354-4831 (TDD) if auxiliary aids or services are needed. Reasonable advance notice is required.

GREENWAY COLLABORATIVE, INC. ACKNOWLEDGEMENT

About

The Greenway Collaborative is a small consulting firm based in Ann Arbor, Michigan that for the past 18 years has focused on greenway, trail, open space and non-motorized transportation planning. The Greenway Collaborative is known for crafting innovative approaches that incorporate engaging public input and integrate current best practices. The firm has a passion for its work and builds strong partnerships with its clients.

The Greenway Collaborative designs each project with the underlying goals of creating a more healthy, active and sustainable community.

Staff

Norman D. Cox, LLA,ASLA
Norm Cox, the President of The Greenway Collaborative, Inc., has been in practice for twenty-five years, with the last eighteen years focused specifically on greenway, trail, open space, and non-motorized transportation planning. He has worked on projects ranging in scale from statewide efforts to local plans and is a widely recognized expert in the field.

Carolyn Prudhomme, BLA
Carolyn graduated from Michigan State University with a degree in Landscape Architecture. While attending MSU she worked for the Small Town Design Initiative where she participated in community planning projects. She has gathered many awards and honors during her time at MSU and brings great skills and enthusiasm for her work to The Greenway Collaborative, Inc.

Contact Information:
The Greenway Collaborative, Inc.
205 Nickels Arcade
Ann Arbor, MI 48104-2409
Phone: 734-668-8848 Fax: 734-668-8820
www.greenwaycollab.com

ADDITIONAL RESOURCES

American Public Transportation Association (APTA)

Website: http://www.apta.com

APTA is the leading force in advancing public transportation. To strengthen and improve public transportation, APTA serves and leads its diverse membership through advocacy, innovation and information sharing. APTA and its members and staff work to ensure that public transportation is available and accessible for all Americans in communities across the country.

Bicycle Friendly America

Website: http://www.bikeleague.org

There is a lot that goes into making your community, business, state or university a better place for bicyclists. The Bicycle Friendly America (BFA) programs provide a blueprint for action, with on-line tools, resources and in-person technical assistance that is making a difference. The BFA program can be a guide to getting started:

Michigan Complete Streets Coalition

Website: http://www.micompletestreets.org

Streets are an important part of every community and should be easily accessed by anyone – including residents of all ages and abilities. The Michigan Complete Streets Coalition documents and showcases best-practices by showcasing Michigan communities who have adopted Complete Streets principles and implemented exemplary designs.

Oakland County's Trails and Paths

Website: http://www.oakgov.com/peds/program_service/es_prgm/trail_net.html

Oakland County's Linked Trail & Path Network has evolved from local vision applied countywide. Oakland County Planning and Economic Development Services first assisted in the planning for the Paint Creek Trail in the 1980's, followed by the development of a concept for a countywide system of linked trails and paths. The County's Linked Trail & Path Network vision, as well as current maps and planned future developments can be found at:

American Trails

Website: http://www.americantrails.org/resources/benefits/index.html

American Trails is the only national, nonprofit organization working on behalf of *all* trail interests, including hiking, bicycling, mountain biking, horseback riding, water trails, snowshoeing, cross-country skiing, trail motorcycling, ATVs, snowmobiling and four-wheeling. Its members want to create and protect America's network of interconnected trails.

Supporting local, regional, and long-distance trails and greenways, whether they be in backcountry, rural or urban areas, the organization's goal is to support America's trails by finding common ground and promoting cooperation among all trail interests. Since formation in 1988, American Trails has been involved in everything from training trails advocates to increasing accessible trail opportunities for persons with disabilities. American Trails strives to enrich the quality of life for all people and the sustainable development of communities by advancing and promoting the development, preservation, and enjoyment of diverse, high quality trails and greenways.

Pedestrian and Bicycle Information Center (PBIC)

Website: http://www.bicyclinginfo.org

The PBIC is a national clearinghouse for information about health and safety, engineering, advocacy, education, enforcement, access, and mobility for pedestrians (including transit users) and bicyclists. The PBIC serves anyone interested in pedestrian and bicycle issues, including planners, engineers, private citizens, advocates, educators, police enforcement, and the health community.

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