1. PROJECT OVERVIEW

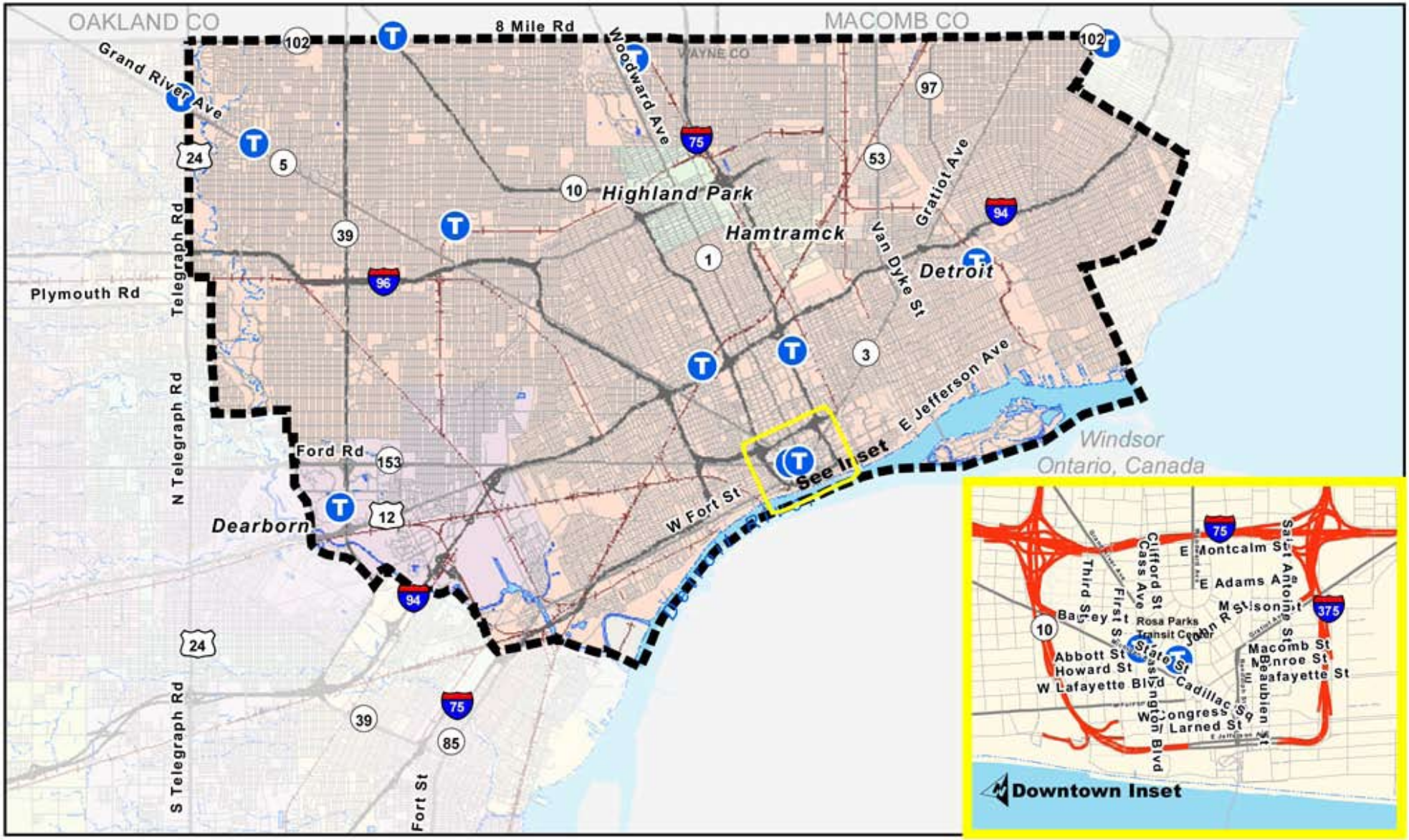
1.1 Purpose of DTOGS

The Detroit Transit Options for Growth Study (DTOGS) was conducted by the City of Detroit Department of Transportation (DDOT), along with its many planning partners, to advance the implementation of rapid transit to serve current and future population and employment centers and destinations. The DTOGS project identified and evaluated options to improve access and mobility and to foster economic development within the area as depicted in **Figure 1-1** on the following page.

This Alternatives Analysis (AA) was prepared in accordance with the Federal Transit Administration (FTA) New Starts Project Planning and Development process and guidance for major transportation capital investments, and the National Environmental Policy Act of 1969 (NEPA). The DTOGS project included:

- A cooperative and collaborative process to establish the range of alternatives which were studied.
- An evaluation of the effectiveness and cost-effectiveness of measures designed to integrate multi-modal alternatives in attaining local, state, and national goals and objectives.
- Consideration of direct and indirect costs; effects on social, economic and environmental factors; safety; operating efficiencies; land use and economic development; financing; freight movement impacts; ridership impacts; mobility improvements; and energy consumption for each alternative.
- A proactive public involvement process that provided opportunities for the diverse public and other various interests to participate in a meaningful way.
- Documentation of the consideration given to alternatives and their impacts.

The Purpose and Need Statement for rapid transit improvements in the project area defined the framework by which a wide range of transit technologies and alignments were identified and evaluated. The purpose and need statements are based on analysis of demographic and transportation conditions in the area from various resources, supplemented with feedback from project area stakeholders and the public.



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Legend

- Study Area
- Primary Road
- Secondary Road
- Connecting Road
- Neighborhood Road
- Special Road Feature
- Walkway
- Unclassified
- Railroads
- Lake, River

July 25, 2006

Figure 1-1

DTOGS Project Area

1.2 Description of Project Area

1.2.1 Initial Project Area

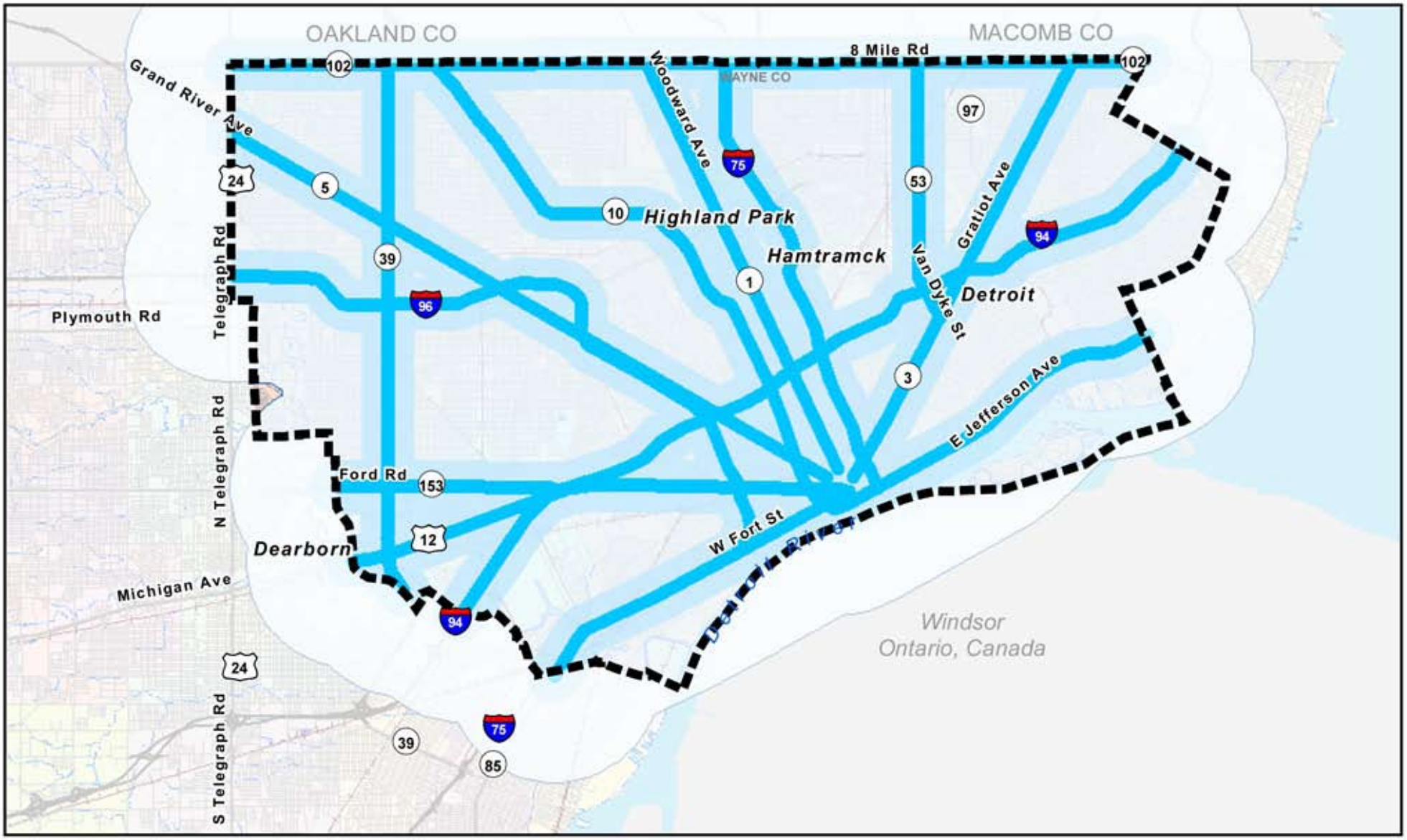
The DTOGS project area includes the cities of Detroit, Dearborn, Hamtramck, and Highland Park in Wayne County, Michigan. The total project area is approximately 160 square miles (see **Figure 1-1** on the previous page). The project area is bounded by Eight Mile Road on the north and the Detroit River on the south. The western edge of the project area travels south from Eight Mile Road along Telegraph Road to approximately I-96, then cuts at an angle over to where the Rouge River meets the Detroit River, including Ford Motor Company's River Rouge Plant. The eastern boundary of the project area is the City of Detroit's eastern border. According to the 2000 U.S. Census, the project area had a population just over one million of which approximately 330,000 were transit-dependent. The project area is home to five Fortune 500 Companies and nearly half a million jobs.

1.2.2 Identification of Potential Corridors

During the preliminary phases of the DTOGS, fourteen corridors were identified as potential corridors for rapid transit (see **Figure 1-2** on page 1-4). Eight of the initial fourteen corridors were identified as Tier 1 (rapid transit) corridors in the Southeast Michigan Council of Governments (SEMCOG) *2030 Regional Transportation Plan*. The six other corridors were studied because they are major transportation corridors in the DTOGS project area. The study corridors included adjacent primary roadways within two miles of the main roadways and were evaluated against a full range of measures that included socio-economic criteria, social equity criteria, community goals and objectives, conceptual engineering, and transportation criteria including traffic volumes and ridership. Study corridors included:

- Chrysler/Fisher Freeways (I-75)
- Eight Mile Road (M-102)[1]
- Ford Freeway (I-94)
- Ford Road (M-153)
- Fort Street (M-85)[1]
- Grand River Avenue (M-5)[1]
- Gratiot Avenue (M-3)[1]
- Jefferson Avenue[1]
- Jeffries Freeway (I-96)
- Lodge Freeway (M-10)
- Michigan Avenue (U.S. 12)[1]
- Southfield Freeway (M-39)
- Van Dyke Street (M-53)[1]
- Woodward Avenue (M-1)[1]

[1] One of SEMCOG's twelve rapid transit corridors within the DTOGS project area.



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Legend

- Study Corridor
- 1/2 Mile Buffer
- 2 Mile Buffer

N

September 19, 2006

Figure 1-2

Universe of Alternatives

1.3 Project Participants

The DTOGS project entailed the combined efforts of numerous public, private, and non-profit organizations. These organizations' participation ensured that the DTOGS project met its goals and the needs of the community. Their representatives participated through membership in the Technical Committee and Policy and Stakeholders Committee.

1.1.3 Technical Committee

The Technical Committee met monthly and at key milestones throughout the project to provide guidance, to discuss interim results, and to review draft products. Some of those milestones included development of purpose and need statement and study goals and objectives; detailed definition of alternatives; ridership forecasts; and order-of-magnitude capital and operating and maintenance (O&M) costs. The DDOT Director chaired the Technical Committee, whose membership included representatives from:

- City of Detroit – Transportation, Public Works, Planning and Development, Municipal Parking, Coleman A. Young International Airport, Environmental Affairs, and Public Lighting
- City of Dearborn
- City of Hamtramck
- City of Highland Park
- Detroit Economic Growth Corporation (DEGC)
- Eastern Market Corporation
- Federal Highway Administration
- Federal Transit Administration
- HP Devco
- Michigan Department of Transportation (MDOT)
- Regional Transportation Coordinating Council (RTCC)
- Southeast Michigan Council of Governments (SEMCOG)
- Wayne County
- United States Representative Carolyn Kilpatrick's Office.

1.3.2 Policy and Stakeholder Committee

The following Detroit area policymakers and stakeholders (a group comprised of elected officials and representatives from business, healthcare, civic, entertainment, education and public agencies) also provided guidance:

- Larry Alexander, President and CEO, Detroit Convention & Visitors Bureau
- Katherine Beebe, Executive Director, Eastern Market Corporation
- Arthur Blackwell, Financial Manager, City of Highland Park
- Richard Blouse, President and CEO, Detroit Regional Chamber
- Donna Burke (representing Gail Torreano), Vice President, External Affairs, AT&T
- Honorable Kenneth Cockrel, City Council President, Detroit City Council
- Matthew Cullen, General Manager, Economic Development and Enterprise Services, General Motors Corporation
- Peter Cummings, Chairman, RAM Development Company
- Michael Duggan, CEO, Detroit Medical Center
- John Hertel, Executive Director, Regional Transit Coordinating Council
- Harvey Hollins (representing Irvin Reid), Vice President, Government and Community Affairs, Wayne State University
- Atanas Ilitch, President, Olympia Development
- Dr. Curtis Ivey, Chancellor, Wayne County Community College District
- Denise Knobblock Starr (representing Peter Karmanos), Chief Administrative Officer, Compuware
- Saundra Nelson (representing Robert Ficano), Wayne County Department of Public Service, Wayne County
- James Nicholson, President and CEO, PVS Chemicals, Inc.
- Megan Owens, Executive Director, Transportation Riders United (TRU)
- Cynthia Pasky, President, Strategic Staffing Solutions
- Charlie Pryde, Director of Public Policy, Ford Motor Company
- Doug Rothwell, President, Detroit Renaissance, Inc.
- Shirley Stancato, President & CEO, New Detroit, Inc.
- Paul Tait, Executive Director, SEMCOG
- Reverend Marvin Winans, Senior Paster, Perfecting Church.

1.4 Summary of Local Plans

The DTOGS project is the continuation of a series of plans by various government entities in the Detroit area. Plans developed by local, regional, and state governments concluded that there is a need and a desire to provide residents of the Detroit area with a wider array of transportation options. The DTOGS project is intended to act as a key step in realizing these transportation plans.

1.4.1 Michigan Transportation Plan

While developing the State's 2030 transportation plan, MDOT sought input from the public about their values and vision for an integrated transportation system. The *2030 Preferred Vision for an Integrated Transportation System* (hereby referred to as the Michigan Transportation Plan) united the public vision with technical analysis to create a final vision for the plan that is committed to a transportation system in 2030 that will respond to the public's demand for more transit and non-motorized choices. Key values in transit call for choice in modes, improved intra- and inter-system connectivity, and services enhanced by innovation. Key characteristics of the plan for transit include reliable and effective alternatives to automobiles to assure people access to jobs and services, and, notably, that "…transit receives a balanced financial appropriation and when choices must be made, transit receives a higher priority."

The Michigan Transportation Plan's objectives[2] that are relevant to the DTOGS project include (verbatim):

- Expand intermodal connectivity and the number of modal options for freight and passengers
- Address system bottlenecks and weaknesses to reduce congestion, enhance continuity, and improve modal connections
- Respond to the unique transportation needs of economic development opportunities
- Operate systems to ensure the public has an adequate set of transportation choices.

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[2] Source: *2030 Preferred Vision for an Integrated Transportation System.* Michigan Department of Transportation.

1.4.2 2030 Regional Transportation Plan for Southeast Michigan

In 2004, SEMCOG published the *2030 Regional Transportation Plan for Southeast Michigan* (RTP), the regional blueprint for the seven-county Southeast Michigan area. The RTP provides a guide for long-range transportation planning, in cooperation with local governments and agencies, for the region's anticipated growth. Developing a transportation system that is accessible, safe, reliable, and contributes to a higher quality of life is the ultimate objective of the RTP. The RTP included analysis of transit needs and recommendations for implementation the Transit System Plan outlined in *Improving Transit in Southeast Michigan: A Framework for Action.* The RTP summarized recommendations made in the Transit System Plan, such as implementation of rapid transit or a higher level of transit service on twelve regional corridors (see **Figure 1-3** on the following page).

1.4.3 Improving Transit in Southeast Michigan: A Framework for Action

In 2001, SEMCOG published *Improving Transit in Southeast Michigan: A Framework for Action.* This document is a component of the RTP and is the foundation of a comprehensive transit system for Southeast Michigan. It outlined a four-tiered transit system plan to enhance economic competitiveness, increase mobility for the transit-dependent population, and provide a viable transportation alternative to driving alone. Tier 1 is recommended for rapid transit implementation, intended to provide fast, frequent and reliable transit service in 12 heavily traveled corridors: Eight Mile Road, 16 Mile Road, Fort Street, Grand River Avenue, Gratiot Avenue, Greenfield Avenue, Jefferson Avenue, M-59, Michigan Avenue, Telegraph Road, Van Dyke Avenue, and Woodward Avenue. The DTOGS project includes all the corridors that are within the study area; thus, it is an important step in the advancement of SEMCOG's plan towards its goal of implementing regional and local rapid transit improvements.

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Source: SEMCOG, Regional Transportation Plan, November 2004.

Figure 1-3

Proposed Transit Plan
Southeast Michigan

1.4.4 City of Detroit Master Plan of Policies Revision

The City of Detroit's 2004 *Master Plan of Policies Revision* sets transportation and mobility policies for establishing regional mass transit and increasing the diversity of transportation options. The Master Plan identifies ten routes for mass transit and defines them as "preferred routes for high-intensity transit connecting the city with the entire region." The DTOGS project corridors include nine of the ten proposed mass transit routes. Designated Master Plan routes for regional mass transit that fall within the DTOGS project area include:

- Fort Street (M-85)
- Michigan Avenue (U.S. 12)
- Grand River Avenue (M-5)
- Southfield Freeway (M-39)
- Woodward Avenue (M-1)
- Van Dyke Street (M-53)
- Gratiot Avenue (M-3)
- Jefferson Avenue
- Eight Mile Road (M-102).

1.5 Federal New Starts and NEPA Processes

The National Environmental Policy Act (NEPA) requires the lead federal funding agency – in this case, the FTA – to provide environmental review of the DTOGS project. This is crucial in the FTA's project development process (see **Figure 1-4** on the following page). Further and in the next step in FTA New Starts process, the project grantee must comply with the requirements of the State of Michigan's Department of Environmental Quality (DEQ). To satisfy NEPA and DEQ requirements, the FTA and the grantee will likely develop an Environmental Impact Statement (EIS). The EIS will address direct and indirect impacts, along with cumulative, secondary, and construction-related impacts for the No-Build, TSM, BRT, and Build alternatives.

1.5.1 Early Scoping Meetings

The purpose of the Early Scoping Process is to provide an opportunity for the public and regulatory agencies to determine the scope of the issues and the alternatives to be examined. If an EIS is warranted, the early scoping process is intended to satisfy standard NEPA scoping requirements, except that comments on the purpose and need for the proposed action, the range of alternatives to be considered, and potentially significant impacts, as described in a forthcoming Notice of Intent, will be invited and considered.

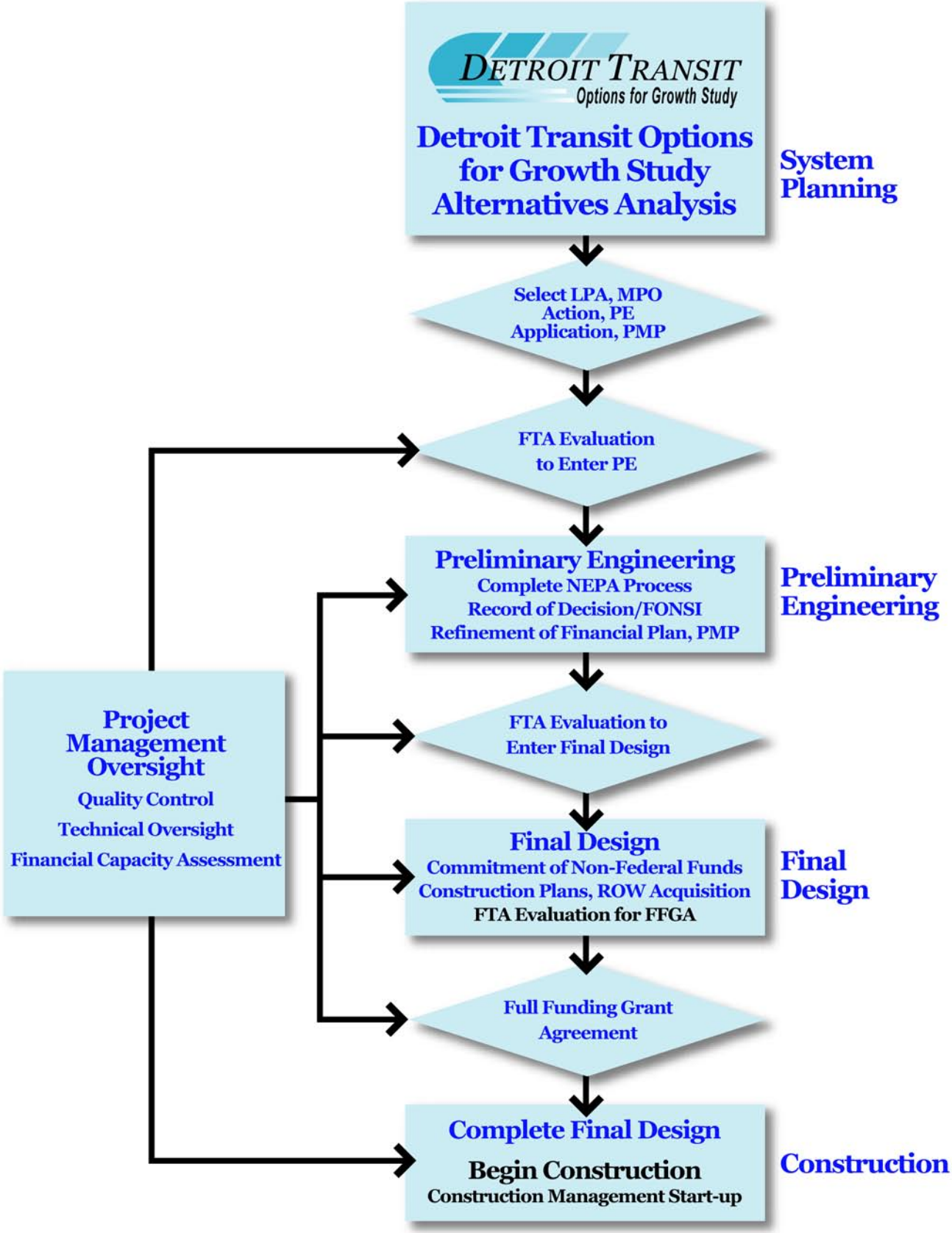

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Figure 1-4

FTA New Starts Project Development Process

Early Scoping is particularly useful in situations where a proposed action (the LPA) has not been identified and multiple broad alternatives are under consideration in several corridors. While scoping normally follows issuance of a Notice of Intent (NOI), which must describe the proposed action, it "may be initiated earlier, as long as there is appropriate public notice and enough information available on the proposal so that the public and relevant agencies can participate effectively."[3]

As part of the DTOGS project, an Early Scoping Notice was placed in the Federal Register on July 17, 2007, and four public scoping meetings at downtown, central, east side and west side locations were conducted. These hearings began with an hour-long open house, followed by a presentation and public comments. An interagency meeting was also held. Each hearing included the following elements:

- Development and distribution of the Scoping Booklet
- Description of the scoping process as part of the DTOGS project and environmental review process
- Identification of transportation issues within the DTOGS project area
- Description of the three alignment alternatives, including maps and drawings
- Description of corridor evaluation categories including socio-economic, social equity, community goals and objectives, conceptual engineering, and transportation
- Solicitation of public and agency comments.

1.5.2 Scoping Decision

Following the close of the scoping comment period on August 29, 2007, a *Scoping Summary Report* was prepared that detailed all elements of the Early Scoping Process. The report was submitted to DDOT to serve as the basis for defining alternatives and issues to be considered in the Draft EIS (DEIS).

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[3] Council on Environmental Quality, ''Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations,'' 46 FR 18026, 18030 (1981) (Answer to Question 13).

1.5.3 Identification of Locally Preferred Alternative

The DTOGS project began in the summer of 2006 and concluded in spring of 2008 with the selection of an LPA that included the locally preferred alignment and transit mode. (**Figure 1-5** on the next page presents the timeline for the DTOGS project.) Selection of the LPA entailed development of refined definition of transit alignments, transit modes, service plan, order-of-magnitude capital and operating and maintenance (O&M) costs, ridership forecasts, assessment of economic development potential, and identification of potential environmental impacts. These factors will be refined as part of preliminary engineering (PE) and the DEIS.

1.6 Transportation Deficiencies

According to a recent study by the Texas Transportation Institute, the Detroit metropolitan area has the eighth worst congestion among major metropolitan areas in terms of annual delay per driver[4]. In 2005, traffic congestion cost the Detroit area an estimated $2.1 billion. Moreover, the Surface Transportation Policy Project[5] found that in 2005, the average household in Detroit spent the third highest percentage of household income on transportation, and was one of only six metropolitan areas where the average transportation expenditure exceeded 20 percent of the median household income.[6] This translates to a potential annual savings for the Detroit metropolitan area of $1 billion if the percent of household income spent on transportation were lowered to the national average of 19.1 percent.

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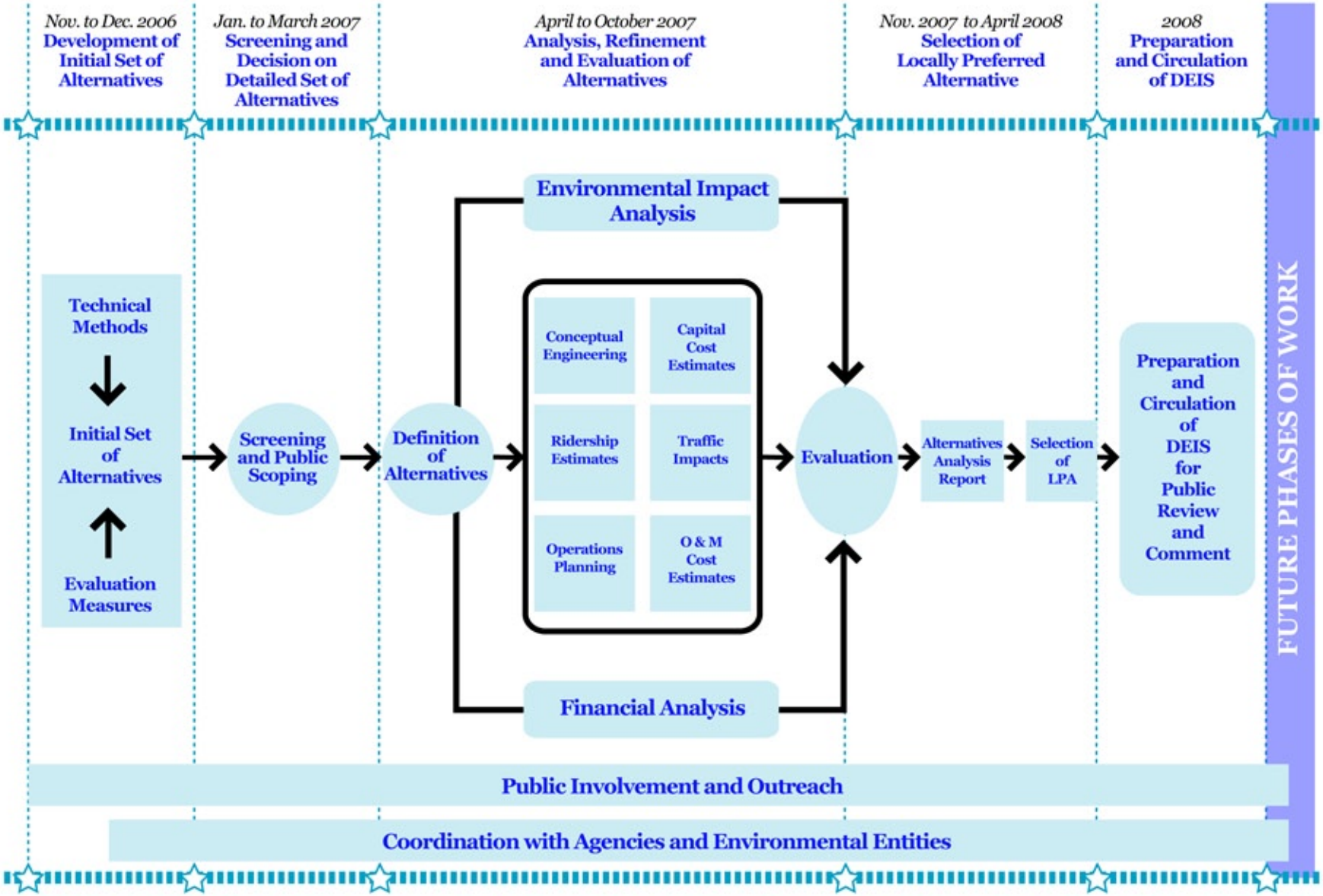
4 *The 2007 Urban Mobility Report*, Texas Transportation Institute, The Texas A & M System. September 2007.

5 The Surface Transportation Policy Project (STPP) is a "diverse, nationwide coalition working to ensure safer communities and smarter transportation choices that enhance the economy, improve public health, promote social equity, and protect the environment. STPP is a 501(c)(3) non-profit organization funded by individual donations and a range of national and regional foundations." Source: http://www.transact.org/who.asp

6 *Driven to Spend: Pumping Dollars out of Our Households and Communities*, Center for Neighborhood Technology: Strategies for Livable Communities. Surface Transportation Policy Project. June 2005.



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May 2008

Figure 1-5

DTOGS Project Timeline and Process

According to SEMCOG forecasts, the region will gain approximately 575,000 more people and 436,000 more jobs, between years 2000 and 2030. This growth would exacerbate existing traffic congestion in the region. By 2030, Wayne County – where Dearborn, Detroit, Hamtramck and Highland Park are located – will incur 26 miles of bottleneck congestion and 331 miles of congested roadways. In 2030, all seven counties in the region will have congested corridors, with Wayne County having the second highest percentage of congestion 23 percent of its mileage, or nearly one in every four miles. Congested corridors in the seven-county Southeast Michigan region for year 2005 and projection year 2030 are shown in **Figure 1-6** on the next page. Currently, congested corridors in the project area include Ford Freeway and segments of Jeffries Freeway, Chrysler Freeway, Michigan Avenue, and Ford Road in the western portion of the DTOGS project area. Additionally, Southfield Freeway, a north-south freeway in Dearborn, is also a congested corridor.

1.7 Project Goals and Objectives

The DTOGS project's transportation vision is to innovate and to implement rapid transit in order to facilitate economic development and redevelopment in the Detroit area and the region. Following are the Goals and Objectives developed in collaboration with DDOT, the DTOGS project Technical Committee, stakeholders, and public to realize this and to provide a framework for evaluating transit alternatives.

1.7.1 Transportation and Mobility

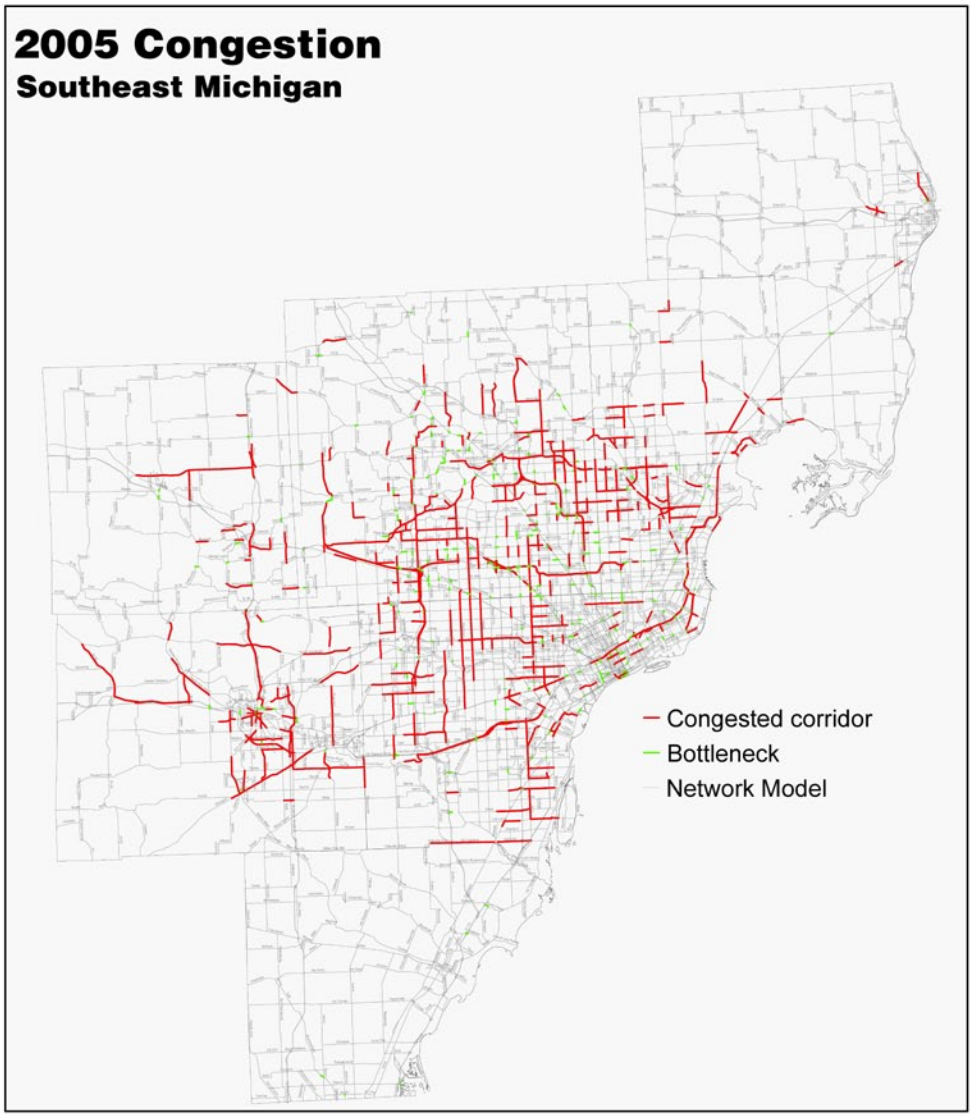
Goal: Create transportation improvements that add people-carrying capacity as necessary, minimize operating costs, improve operating efficiency, provide high quality rapid transit alternatives, reduce travel times, and strengthen the project area's transportation system.

Objective: Provide a customer-focused transportation system that is integrated, responsive, flexible, and adaptable to technological advancements and changes.

Objective: Expand opportunities for diverse populations to move freely to, through, and within the project area.

Objective: Enhance the existing transportation infrastructure to serve the high number of transit-dependent persons in the project area.

Objective: Attract choice riders and offer alternatives to single-occupancy vehicles (SOV).



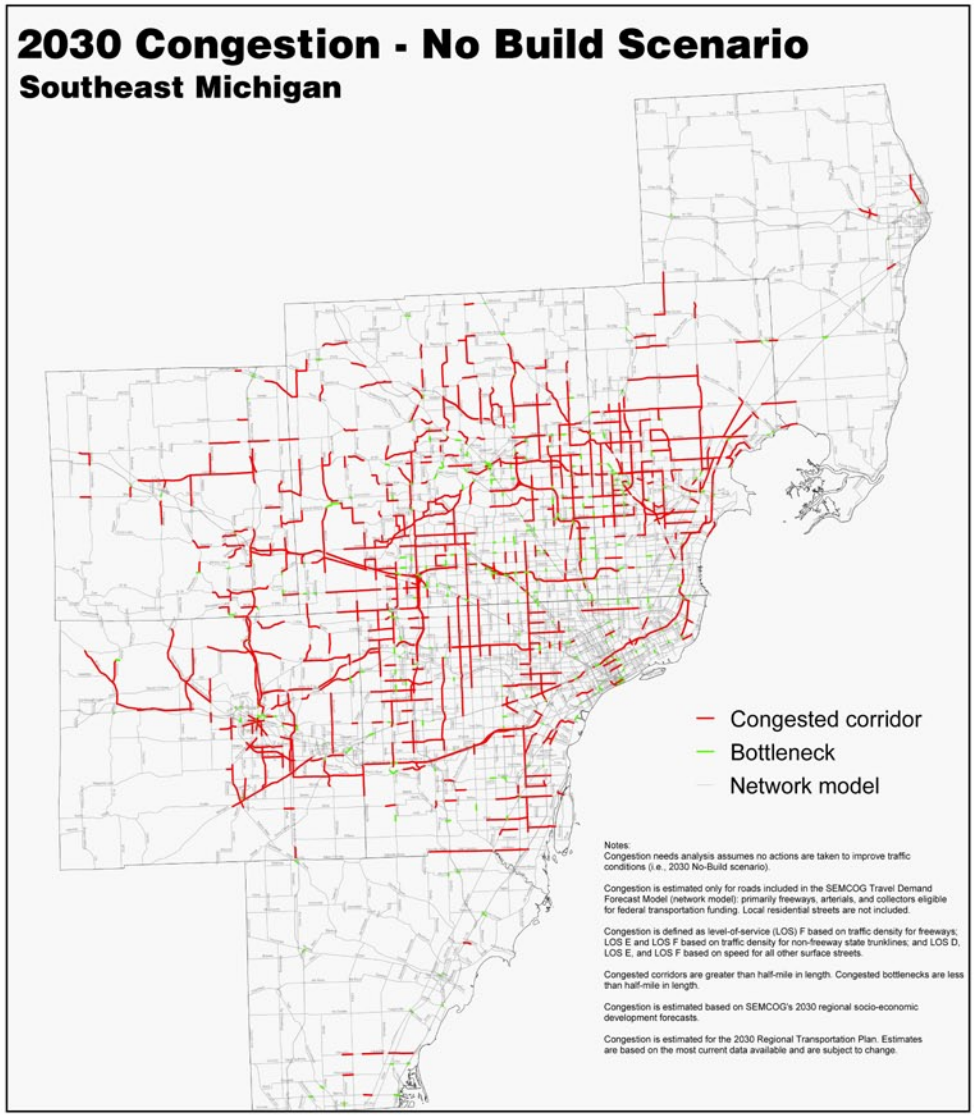


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Figure 1-6

Congested Corridors and Bottlenecks in SEMCOG Area

1.7.2 Economic Opportunity and Investment

Goal: Support investments in infrastructure, business, and community that sustain the heart of the region.

Objective: Create a reliable rapid transit system that:

- Supports an efficient, effective land use development pattern in major activity centers.
- Reduces the need for parking facilities downtown.
- Facilitates the highest and best use of adjacent properties.

Objective: Strengthen transit linkages within the project area that support economic development and redevelopment investments.

Objective: Equip employers with the confidence that their employees have reliable, fast transit options to travel to and from work.

Objective: Attract new residents and promote residential development in the project area.

1.7.3 Communities and Environment

Goal: Facilitate the preservation and enhancement of Wayne County's diverse communities by supporting economic and strategic goals of those areas.

Objective: Acknowledge the individual character, identity, and aspirations of each place served, in addition to the vision for the project area.

Objective: Support regional goals for cleaner air and water, more efficient energy use, a safer and healthier environment, and the sustainable use of resources.

1.7.4 Public Involvement

Goal: Engage the community in a manner that educates and generates informed consent.

Objective: Establish and maintain a partnership between residents, the business community, and the core area stakeholders.

Objective: Connect with the communities and local units of government early and at key junctures throughout the study.