

Congestion Management Process (CMP)

Policies and Procedures Manual

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Congestion Management Process (CMP) Policies and Procedures Manual

The Congestion Management Process (CMP) Policies and Procedures Manual provides an overview of the federal and state requirements pertaining to the CMP and describes how the Pinellas County MPO will address such requirements through an approach that uses performance measures and coordinates with the policies, plans and processes of State and local governments. This manual serves as a guideline for future CMP project selection and plan development.

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EXECUTIVE SUMMARY

Congestion management is the application of strategies to improve transportation system performance and reliability by reducing the adverse impacts of congestion on the movement of people and goods. A congestion management process (CMP) is a systematic and locally-accepted approach for managing congestion that provides accurate, up-to-date information on transportation system performance and assesses alternative strategies for congestion management that meet state and local needs. The CMP is intended to move these congestion management strategies into the funding and implementation stages.

The CMP, as defined in federal regulation, is intended to serve as a systematic process that provides for safe and effective integrated management and operation of the multi-modal transportation system. The process includes:

- *Development of congestion management objectives*
- *Establishment of measures of multi-modal transportation system performance*
- *Collection of data and system performance monitoring to define the extent and duration of congestion and determine the causes of congestion*
- *Identification of congestion management strategies*
- *Implementation activities, including identification of an implementation schedule and possible funding sources for each strategy*
- *Evaluation of the effectiveness of implemented strategies*
- *Collaboration with transportation partners and public involvement*

A CMP is required in metropolitan areas with population exceeding 200,000, known as Transportation Management Areas (TMAs). Pinellas County is part of a TMA that includes Hillsborough and Pasco counties. Federal requirements also state that in all TMAs, the CMP shall be developed and implemented as an integrated part of the metropolitan transportation planning process.

The purpose of this document is to identify and describe the process used by the Pinellas County MPO to respond to the federal and state CMP requirements. This document is not intended to serve as a congestion management “plan,” but rather a “process” that provides for the safe and effective integrated management and operation of the multi-modal transportation system – countywide. The CMP is intended to use an objectives-driven, performance-based approach to planning for congestion management.

The CMP is an on-going process, continuously progressing and adjusting over time as goals and objectives change, new congestion issues arise, new information sources become available, and new strategies are identified and evaluated. The Pinellas County MPO collects transportation system performance field data and archives crash data gathered from law enforcement reports. These data sets are combined with Federal, State and local data to create the MPO’s biennial State of the System Report, which establishes the foundation of the CMP. Project selection and monitoring of the implementation of specific CMP projects is performed by MPO staff with input from federal and state agencies, the county and municipal governments, the MPO’s advisory committees and through public involvement activities.

Since 1997, the Pinellas County MPO has implemented a CMP (originally called a “Congestion Management System”). The MPO’s CMP is not a stand-alone process, rather it integrates and is integrated with other plans and studies, including the MPO’s Long Range Transportation Plan (LRTP) and Transportation Improvement Program (TIP), and the Florida Department of Transportation’s Strategic Highway Safety Plan. Additionally, this CMP is integrated with regional plans and programs, including the Regional CMP developed by the West Central Florida MPOs Chairs Coordinating Committee (CCC).

The U.S. Department of Transportation/Federal Highway Administration studies show that congestion has grown substantially over the past 20 years in cities of every size, particularly in heavily populated areas.

In the context of transportation, the term “congestion” implies stopped or stop-and-go traffic, slow travel speeds and prolonged travel times. Secondary effects may include motorist frustration, elevated crash frequencies, aggressive driving, delays in providing transit and emergency services, reductions in air quality due to an increase in vehicle emissions, and a diminished potential for economic growth in industries directly or indirectly dependent on the movement of people and goods.

The Texas A&M Transportation Institute’s **2012 Urban Mobility Report** states that the annual delay for an auto commuter in the Tampa-St. Petersburg urban area was 38 hours in 2011, which earned a ranking of 30th highest in the nation; the average annual congestion cost per auto commuter was \$791, which earned a ranking of 37th; and finally, the total peak period travel time was 43 minutes, which earned a ranking of 30th highest in the nation. The average annual congestion cost in the Tampa-St. Petersburg urban area associated with truck delay was estimated to be \$246 million, which earned a ranking of 21st highest in the nation.

Traditionally, roadway expansion has been considered a primary remedy for congestion. However, in recent years, with rising costs of available land and construction, it has become increasingly apparent that communities can no longer “build their way” out of congestion. In response to these issues, federal requirements were introduced by the *Intermodal Surface Transportation Efficiency Act* (ISTEA) of 1991, and continued under the *Transportation Equity Act for the 21st Century* (TEA-21), which was advanced through the 2005 *Safe Accountable,*

Congestion can be defined as an excess of vehicles on a portion of roadway at a particular time resulting in speeds that are slower. sometimes much slower – than normal.

Flexible, and Efficient Transportation Act: A Legacy for Users (SAFETEA-LU). As these legislative acts were implemented over the years, the requirements that all MPOs have a “Congestion Management System” (CMS) also evolved, becoming the “Congestion Management Process (CMP).” This change represented a revision in perspective and practice by requiring close investigation into lower cost, less aggressive strategies as primary approaches for alleviating traffic congestion, with road building or expansion reserved as a secondary strategy to be used in situations where more conservative alternatives were determined to be inadequate, inappropriate or impractical. The federal *Moving Ahead for Progress in the 21st Century Act* (MAP-21), which became effective in October 2012, makes essentially no change in the requirements for the CMP.

The Congestion Management Process (CMP)

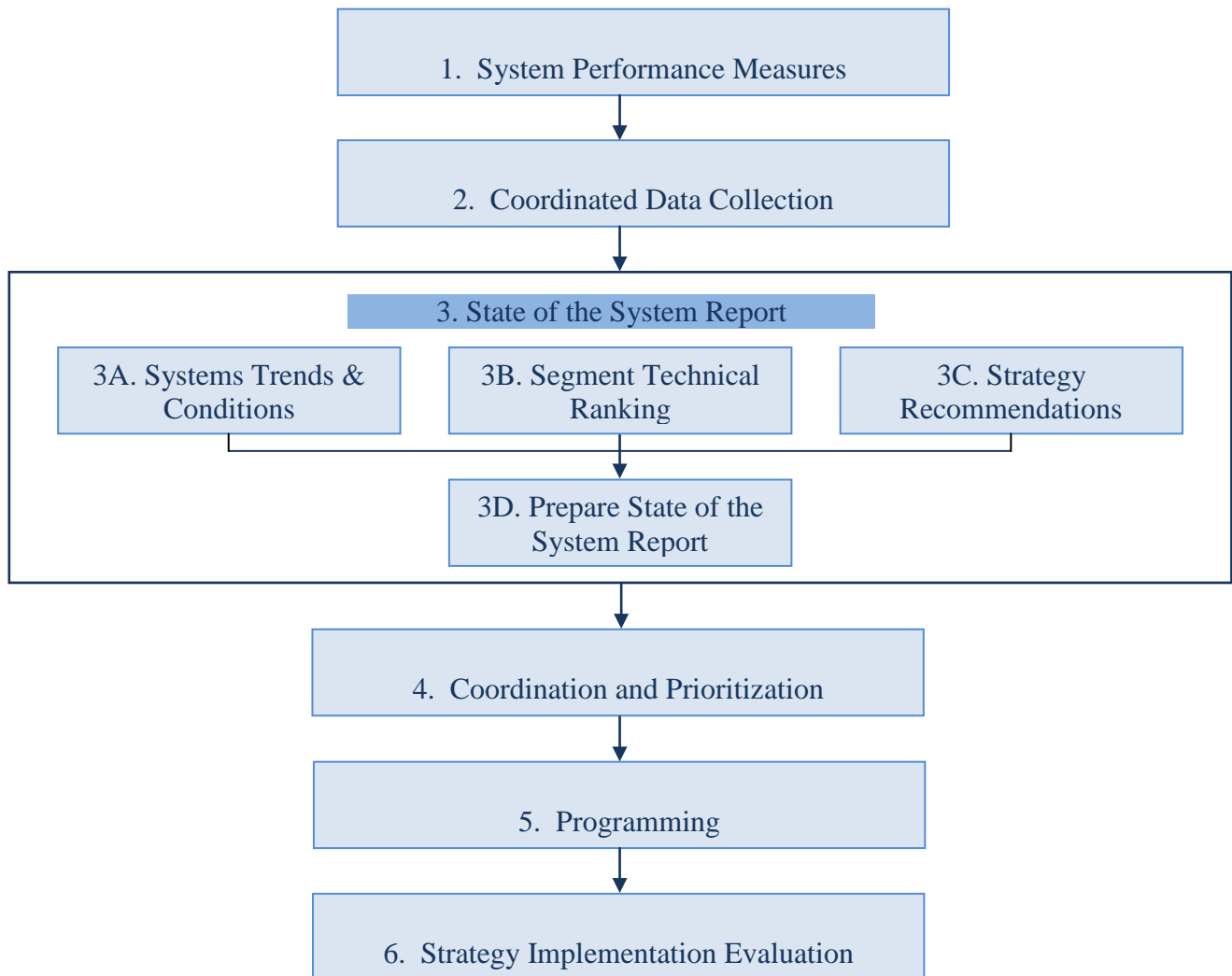
The Federal Highway Administration (FHWA) identifies the Congestion Management Process (CMP) as a systematic, multi-modal, collaboratively developed and coordinated program that provides for the safe and effective management and operation of new and existing transportation facilities.

Rather than addressing congestion through a process aimed at identifying needs for road building or expansion – solutions that can be costly and environmentally invasive - the CMP approach emphasizes the need for a broader range of lower cost strategies aimed at enhancing systemwide mobility and regional connectivity (Figure 1). The components of this process include:

- Identification of objectives
- Data collection and system performance monitoring
- Measures of performance
- Identification of strategies (short, medium and long range)

- Implementation activities, including funding and scheduling of strategies
- Evaluation of strategy effectiveness
- Collaboration with agencies and public involvement

Figure 1 – The Congestion Management Process



Congestion Defined by Cause and Occurrence

The root causes of congestion have been identified through studies conducted by the U.S. Department of Transportation (DOT), shown in Figure 2. The causes of congestion include the following:

Bottlenecks – Traffic experiences reduced speeds and delays on localized sections of highway where there is narrow or obstructed physical capacity. Examples may include narrowing or converging of lanes and shoulders, interchange merging, grade changes, or severe curves. Some of these are classified as “operational influenced deficiencies,” such as on- and off-ramps, merge areas, weave areas, lane drops, tollbooth areas, and traffic signals; or design constraints, such as curves, climbs, underpasses, or narrow or non-existent shoulders. As shown in Figure 2, the most frequent cause of congestion, nationwide, is bottlenecks (40%), followed by traffic incidents (25%).

Traffic Incidents – Includes road incidents such as crashes or obstructions, breakdowns or debris on the road.

Work Zones – There is temporary traffic stoppage or slow down due to construction.

Weather Conditions – In Florida, this category typically involves heavy rain or fog.

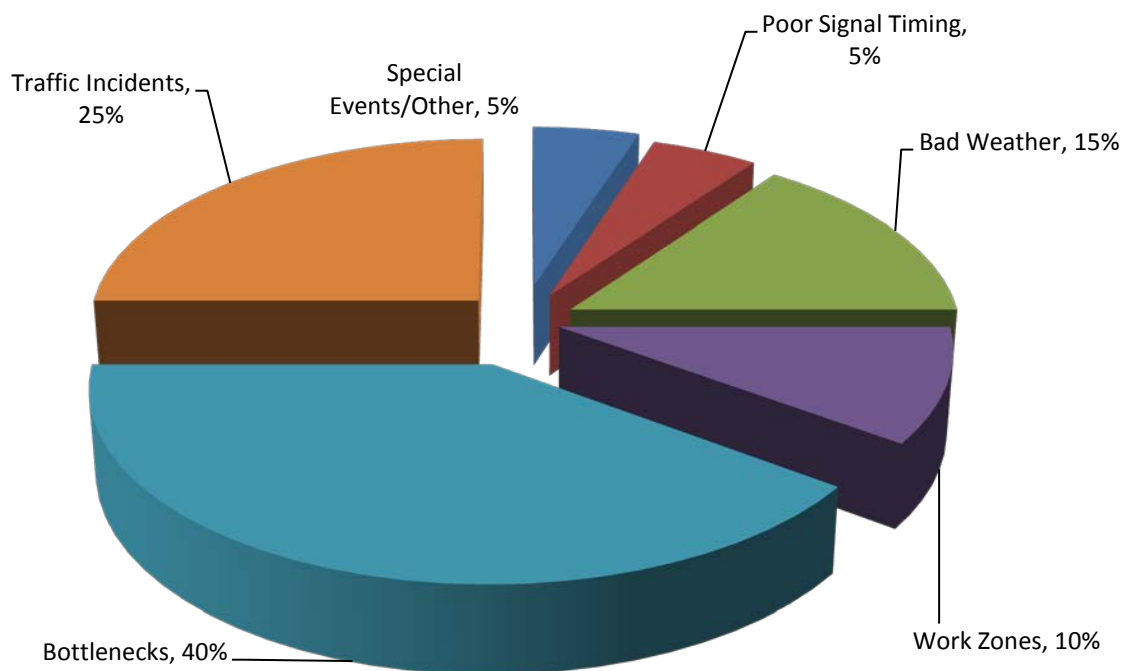
Special Events – Congestion may result from temporary “spikes” in volume due to arts & cultural and sports events, or seasonal peaks due to winter tourism or holiday shopping.

Fluctuations in Normal Traffic – Day-to-day variability results in some days with higher volumes than others for a variety of reasons, which may result in unreliable travel times.

The studies acknowledge that local conditions can vary widely. For example, when compared to northern locations, Pinellas County may be less likely to be affected by extreme weather conditions of longer duration, such as snow or ice. However, it may have a higher percentage of “Special Events/Other” than colder locations, due to seasonal tourism.

It was noted that these root causes can combine to further complicate the identification of a primary cause. For example, a bottleneck can lead to a crash, and the resulting congestion may continue long after the crash has been cleared. Identifying the initial, root causes of congestion on a specific roadway may provide valuable insight into preparing relevant objectives and corrective strategies.

Figure 2: Causes of Congestion, Summary of a Nationwide Study



Source: US Department of Transportation (DOT)/Federal Highway Administration (FHWA)

Recurring and Nonrecurring Congestion

FHWA subdivides the root causes of congestion into two categories: “recurring” and “nonrecurring.” Recurring congestion implies that the volume of vehicles consistently exceeds the capacity of the road. Two causes of recurring congestion are bottlenecks, the single most frequent cause of congestion (40%), and poor signal timing (5%). With recurring congestion, it is likely that some self-correction may occur as travelers come to anticipate delays and adjust their travel times and routes accordingly. For this reason nonrecurring congestion is considered more complicated to mitigate.

It is estimated that over half of all congestion is nonrecurring. Traffic incidents, including crashes and breakdowns, are the most frequent cause of nonrecurring congestion, accounting for 25% of all road congestion, followed by weather (15%), construction (10%) and special events/other (5%).

Travel Time Reliability

Congestion is never the same every day on a specific roadway. Recent empirical studies suggest that travelers are interested not only in travel time savings, but also in reduction in travel time variability. The term “travel time reliability” applies to travelers’ ability to predict their travel times by including a buffer, an allowance for unanticipated delays. This capability is particularly important to commuters and freight shippers. Nonrecurring congestion is a threat to travel time reliability.

Benefit/Cost Analysis

Due to budgetary constraints and an increasingly competitive fiscal environment, state, regional and local transportation planning organizations around the country are being asked more than ever to justify their programs and expenditures. Transportation System Management and Operations (TSM&O) programs have not escaped this scrutiny and system operators are

routinely asked to rank their projects against traditional capacity expansion projects, as well as conduct other value-related exercises. Use of traditional benefit/cost analysis frameworks for assessing operations projects can face numerous challenges, including: How can new and emerging performance measures (e.g., travel time reliability) be leveraged to provide a more complete picture of the benefits of operations strategies? How can the benefits of integrating various operations strategies be captured? What are the benefits of supporting backbone infrastructure (e.g., communications, traffic management centers)? How can the life-cycle costs of operations strategies be accounted for? How can the benefits of operations strategies targeted at non-typical or non-recurring conditions be estimated?

The Pinellas County MPO's CMP planning presented here will use the *Benefit/Cost Analysis for Operations Desk Reference*, produced by FHWA Office of Operation, to provide guidance on strategies to overcome these unique demands and better estimate benefits that fully capture the impacts of operations strategies.

The CMP is a federal requirement that encourages a single, integrated approach to managing congestion. Successful implementation requires the coordination and balancing of priorities at a variety of levels, i.e. among transportation modalities (roadways, transit, pedestrian and bicycle); between the MPO's CMP and its other programs and plans; and between State, regional and local governments and their implementing agencies. (See Appendix for Title 23, Section 450.320, CFR.)

As noted in the April 2011 *CMP Guidebook*, published by the U.S. Department of Transportation/Federal Highway Administration, regulations for the CMP are not intended to be prescriptive. Instead, MPOs are encouraged to define and address congestion by taking into consideration the needs and values of their respective communities. Mitigation of congestion may not always be possible or, in some cases, even desirable. Instead, the appropriate goal should be one of defining (and periodically redefining) “acceptable levels of congestion,” as appropriate for a location, and setting objectives that take into consideration such factors as mobility, livability, accessibility, multi-modal connectivity, economic vitality and community values.

A CMP is required in metropolitan areas with population exceeding 200,000, known as Transportation Management Areas (TMAs). Pinellas County is part of a TMA that includes

23 CFR 450.320

The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective, integrated management and operation of the multi-modal transportation system, based on a cooperatively developed and implemented metropolitan- wide strategy, of new and existing transportation facilities eligible for funding under title 23 U.S.C. and title 49 U.S.C. Chapter 53 through the use of travel demand reduction and operational management strategies.

Hillsborough and Pasco counties. Federal requirements state that in all TMAs, the CMP shall be developed and implemented as an integrated part of the metropolitan transportation planning process, while Section 339.177, Florida Statutes, indicates that each MPO must develop and implement a traffic congestion management system. CMP requirements for TMAs can be summarized as “a coordinated program for monitoring and evaluating the performance of the multi-modal transportation system,” with the goals of:

- Identifying specific causes of congestion,
- Identifying appropriate remedial strategies, and
- Evaluating the effectiveness of strategies implemented.

Congestion management is one of the MPO's primary responsibilities. Partnerships with state and county agencies, municipal governments, transit and other regional agencies, as well as meaningful relationships with citizens, are essential ingredients for a successful transportation program that includes congestion management.

To this end, the MPO implements a Public Participation Plan (PPP) that is updated and evaluated regularly to remain current and relevant. The following objectives cited in the PPP also pertain to the Congestion Management Process:

- Raise the level of understanding of the transportation planning process in the region and identify how interested citizens can participate.
- Maximize opportunities for public participation in the transportation process.
- Maintain contact with interested citizens and key stakeholders throughout the process of developing MPO plans and projects.
- Be responsive to citizens.
- Involve traditionally underserved persons, including minority, low-income and elderly citizens or those addressed by the Americans with Disabilities Act (ADA) in the development and review of transportation plans and projects.
- Inform and educate incoming MPO Board and advisory committee members regarding the MPO's functions, responsibilities and programs.

The MPO partners with local, county, regional and state agencies and organizations to plan and implement numerous transportation initiatives, including those related to congestion

MAP-21 calls for the MPO to provide citizens, affected public agencies, representatives of transportation agencies, private providers of transportation and other interested parties with a reasonable opportunity to comment on their transportation plans and programs.

MAP-21 also requires MPOs to consult with affected local, regional, state and federal agencies in the course of planning and program development.

management. Much of this task is accomplished through the MPO's standing advisory committees, in addition to other focused activities involving informal meetings, work groups and ad hoc committees.

Pinellas County MPO and its Advisory Committees

The Pinellas County MPO is presently governed by an 11-member board of elected officials representing municipal governments, the Pinellas County Board of County Commissioners and the Pinellas Suncoast Transit Authority (PSTA). The Florida Department of Transportation (FDOT) District 7 Secretary, or a designee, serves the board as a non-voting technical advisor. All meetings of the MPO and its committees are open to the public. A reapportionment plan approved by the MPO in July 2013 will add two additional seats, subsequent to the passage of House Bill 869 (Chapter 2012-245, Laws of Florida) by the Florida legislature in March 2012. The purpose and intent of the legislation is to “unify” the MPO board and the Pinellas Planning Council (PPC) board so that a single policymaking body oversees both land use and transportation planning in Pinellas County.

Advisory committees provide input to the MPO to help identify and address transportation planning issues, including congestion. To achieve a broad representation of ideas and perspectives, members are drawn from three categories: citizens, professionals (includes technical, social service, law enforcement, municipal agencies, private industry, etc.), and elected officials. MPO committees include the Technical Coordinating Committee, Intelligent Transportation Systems Advisory Committee, Citizens Advisory Committee, Bicycle Advisory Committee, Pedestrian Transportation Advisory Committee, School Transportation Safety Committee, Local Coordinating Board and the Pinellas Trail Security Task Force.

While each of these contributes periodically to the CMP, as needed, primary oversight for CMP planning is assigned to the MPO's Technical Coordinating Committee (TCC) and the Intelligent Transportation Systems (ITS) Committee.

Technical Coordinating Committee (TCC) - The TCC meets monthly and assists the MPO by reviewing and making recommendations on transportation improvement programs and plans; by participating in the TIP prioritization process; and by ensuring that recommended CMP strategies are consistent with local plans and initiatives. Additionally, the TCC plays a key role in the CMP by participating with the ITS Committee in project selection, and by providing updates and reviewing tracking reports on the implementation of CMP projects. Members are mostly planners and engineers, and other professionals representing local governments, the Pinellas Suncoast Transit Authority (PSTA), the Pinellas Planning Council (PPC), the Tampa Bay Regional Planning Council (TBRPC), the Tampa Bay Area Regional Transportation Authority (TBARTA), the Florida Department of Transportation (FDOT), the St. Petersburg-Clearwater International Airport, and the Pinellas County School Board.

Intelligent Transportation Systems (ITS) Advisory Committee – The MPO has turned to technology as a way to deal with some of the traffic challenges that create congestion and burden the surface transportation network. In addition to providing prioritization and policy direction for general transportation system management and operations planning, the ITS Committee provides valuable assistance to the MPO by providing direction and guidance for improving efficiency and enhancing safety, planning and evaluating congestion strategies, and CMP project selection. Members include transportation planners, engineers, elected officials and representatives from a variety of transportation-related specialties including traffic management, emergency management, law enforcement, public transit and communications, as well as members involved in tourism and interested citizens. The committee assists in coordinating the planning and deployment of a broad-spectrum ITS program, the components of which include the management of the signal system, incident detection and deployment of emergency and law enforcement teams, coordination of traveler advisory functions, and pedestrian crosswalk and transit applications.

Citizens Advisory Committee (CAC) – Members represent a geographic cross-section of the community, including business and civic organizations, senior and minority populations, and the disabled. The CAC meets monthly to evaluate and recommend strategies and generally raise awareness concerning a wide variety of transportation related issues, including ITS projects and the CMP, and it should be noted that a CAC member sits on the ITS Advisory Committee. The CAC also provides input on TIP funding priorities and the development of the LRTP.

Bicycle Advisory Committee (BAC) and Pedestrian Transportation Advisory Committee (PTAC) – The BAC and PTAC support the CMP by promoting safety and accommodations for their respective transportation modalities. A primary responsibility for both committees is participating in the development and update of the MPO’s *Bicycle and Pedestrian Master Plan*. Both committees are made up of private citizens, public and business sector representatives, law enforcement officials and others who have experience or simply an interest in bicycle and pedestrian issues.

School Transportation Safety Committee (STSC) – The STSC Committee participates in developing transportation initiatives aimed at mitigating congestion in areas surrounding schools and promoting safety for all students, including bicyclists, pedestrians/walkers, school bus riders and vehicle passengers/motorists. The School Pool program currently available to parents at select schools in Pinellas and Hillsborough counties offers rideshare-matching services, which among other things, removes car trips from the surrounding roadway network, thus reducing congestion. STSC members represent the School Board, the Board of County Commissioners, local governments and citizens.

Local Coordinating Board (LCB) – The LCB serves as the policy and oversight board for the MPO’s Transportation Disadvantaged Program, which provides non-emergency wheelchair and ambulatory transportation as well as PSTA bus passes for individuals who are low income or physically or mentally impaired.

Pinellas Trail Security Task Force (PTSTF) – PTSTF members monitor and address safety issues/concerns specifically related to the Pinellas Trail. Members represent law enforcement agencies, emergency management, Pinellas County Animal Services, and local government planning and parks & recreation personnel. The purpose of the Task Force is to provide a safe environment for trail users, and to encourage biking & walking as a transportation alternative thereby reducing demand on the roadway system.

Collaboration with Local and County Partners

In the performance of its daily responsibilities, the MPO regularly partners with local agencies, and the county and municipal governments in planning programs and strategies that are designed to mitigate congestion and to promote livable communities.

Partnerships are achieved through the participation of Pinellas County and municipal governments on the MPO's Board and committees, which have been previously described. Additionally, MPO staff participates in numerous planning efforts and activities hosted by county entities and municipal governments and serves on many of their advisory committees, e.g., the PSTA hosted Advisory Committee for Pinellas Transportation (ACPT), MPO/PPC Joint Land Use/Transportation Working Group, and the St. Petersburg Bicycle and Pedestrian Advisory Committee.

The MPO collaborates with all of the local governments within Pinellas County in identifying and prioritizing TIP projects that address congestion, as well as concurrency policies, the countywide transportation impact fee ordinance, and the emerging multi-modal mobility plan. Such collaborations occur between the MPO and individual governments, and through groups such as the Barrier Islands Governmental Council ("BIG-C") which represents 10 beach communities. The purpose and intent of the BIG-C is to stimulate communications between the

barrier island cities and towns in order to focus on issues and opportunities common to all, including tourism, traffic congestion, safety initiatives associated with pedestrian and bicycle facilities, and public transportation. Ideally, the BIG-C unites and acts as one voice when approaching and addressing various state and county agencies and organizations on matters of mutual concern.

Pinellas Planning Council (PPC) – Created by a Special Act of the Florida legislature in 1988, the PPC provides a forum for representatives of the county’s 24 municipalities, the unincorporated area and the Pinellas County School Board to address countywide land use issues. The PPC administers the Countywide Plan, Countywide Future Land Use Map and Countywide Rules to help ensure consistent planning and development across Pinellas County. A PPC staff member serves on the on MPO’s Technical Coordinating Committee (TCC), and as described earlier, subsequent to the passage of House Bill 869 (Chapter 2012-245, Laws of Florida) by the Florida legislature in March 2012, the MPO board and the PPC board are to be “united” so that a single policymaking body oversees both land use and transportation planning in Pinellas County.

The updated Countywide Plan, Rules and Map will encourage compact and mixed-use development, and interconnected streets to accommodate safe and convenient walking, bicycling and public transit use. Higher density transit oriented development will be permitted around the proposed light rail and bus transit hubs, as well as within activity centers and mobility corridors, thereby reducing the number of roadway trips and increasing the likelihood that more residents and visitors will choose transit.

Pinellas Suncoast Transit Authority (PSTA) – PSTA presently provides bus service on 42 routes, including two express routes, to 21 of 24 municipalities and the unincorporated area of Pinellas County. A PSTA Board representative serves on the MPO, and there is often considerable overlap between the MPO and PSTA Boards. In addition to bus service, PSTA provides special services to low income persons and to those who qualify as disabled through the Americans with Disabilities Act (ADA). PSTA is advised by its Transit Advisory Committee

(TAC), with membership that includes mostly bus riders. PSTA, the MPO, the Pinellas Planning Council (PPC), the Tampa Bay Area Regional Transportation Authority (TBARTA), and the Florida Department of Transportation (FDOT) work cooperatively to plan premium transit for the region, including bus and light rail services, and to identify local opportunities for transit oriented development. Presently underway is the preparation of a Community Bus Plan, which is an in-depth study of the PSTA bus system that will identify strengths, areas for improvement, and make suggestions to improve efficiency and increase ridership. The Bus Plan will also look at the changing mobility needs of the county's residents, workers and visitors.

Pinellas County School (PCS) System – As the provider of public education in Pinellas County, the school system has an interest in supporting safe and efficient transportation in areas surrounding schools for walkers, bicyclists, bus riders, motorists and their passengers. To this end, the MPO and the PCS system partner through the School Transportation Safety Committee (STSC), as well as the Technical Coordinating Committee (TCC).

Achieving Regional and State Coordination

Regional coordination within the greater Tampa Bay area includes the counties comprising the Transportation Management Area (Pinellas, Pasco and Hillsborough), as well as Citrus and Hernando counties. Together, these five counties make up FDOT's District 7. Additionally, the FDOT District 1 counties of Polk, Manatee and Sarasota are also considered part of the region. The West Central Florida MPOs Chairs Coordinating Committee (CCC), described below, is another "umbrella" entity created to achieve regional coordination. Organizations and entities that participate with the MPO in achieving such coordination include the following:

Florida Department of Transportation (FDOT) – The MPO and FDOT District 7 are partners in numerous local, regional and statewide initiatives. As previously mentioned, FDOT's District 7 Secretary, or a designee, participates in MPO Board meetings as a non-voting technical advisor, moreover, FDOT representatives routinely attend meetings of the MPO advisory committees and other entities that are also attended by MPO staff, such as the Chair's Coordinating Committee (CCC).

FDOT committees that involve the MPO as members include the Traffic Incident Management (TIM) Committee, the Community Traffic Safety Team (CTST) that meets in Pinellas County and the Regional Goods Movement Advisory Committee (GMAC). FDOT also “hosts” the Technical Review Team (TRT), which is a collaborative group that includes both FDOT and MPO staff. These aforementioned groups provide opportunities for the MPO to share information and perspectives with other agencies, such as law enforcement, transit, emergency management, county and municipal governments, economic development groups and the freight industry. FDOT also partners with the MPO on transit, through the Advisory Committee for Pinellas Transportation (ACPT).

West Central Florida MPOs Chairs Coordinating Committee (CCC) – Established by Section 339.175, F.S., the CCC represents eight counties in an effort to address a variety of transportation challenges on a regional, long-range basis. Issues such as personal mobility, access to jobs, goods movement, emergency evacuation, growth management, as well as congestion, are some of the concerns addressed by the CCC, which is made up of the chairpersons (or their designees) from Metropolitan Planning Organizations (MPOs) and Transportation Planning Organizations (TPOs). CCC members represent the Citrus TPO, Hernando MPO, Hillsborough MPO, Pasco MPO, Pinellas MPO, Polk TPO and Sarasota/Manatee MPO.

FDOT Secretaries (District 1 and District 7), Florida's Turnpike Enterprise, four Regional Planning Councils, and the Tampa Bay Area Regional Transportation Authority (TBARTA) are also represented on the CCC in a non-voting, advisory capacity. Among the CCC's responsibilities are the development and coordination of the Regional Congestion Management Process and the Transportation Regional Incentive Program (TRIP). Additionally, members of this MPO's Citizens Advisory Committee represent their MPO as members of the CCC's Joint Citizens Advisory Committee. MPO staff participates in bi-weekly Staff Directors Meetings and meetings of the Regional Multi-Use Trails Committee, the TRIP Working Group, as well as ad hoc committees and work groups.

As a subset of the CCC, Pinellas County is assigned to an urbanized area that includes the counties of Hillsborough and Pasco. The Pinellas County MPO has historically worked cooperatively with its MPO neighbors, as well as with other area MPOs through the CCC. Additionally, the Pinellas County MPO recognizes the need for a coordinated and collaborative regional transportation planning process and is committed to working with the Hillsborough and Pasco MPOs to identify ways to enhance the regional process. The three MPOs have recently agreed to the formation of a working group to develop and evaluate ways to improve coordination and focus on priorities for the urbanized area.

Tampa Bay Area Regional Transportation Authority (TBARTA) – In response to rapid development and resulting congestion, the Florida legislature established TBARTA in 2007 to develop and implement a Regional Transportation Master Plan for the purpose of improving mobility and expanding multi-modal transportation options for passengers and freight throughout the seven-county West Central Florida region, consisting of Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas and Sarasota counties. The Chairs Coordinating Committee is represented on the TBARTA Board, and MPO staff participates in workgroups, including the Transit Management Committee and the Land Use Working Group, the latter which served as the primary forum for coordination between the Master Plan and local land use planning concerns such as existing land use patterns, long-range land use plans, growth projections, and local community goals. TBARTA is represented on the MPO's Technical Coordinating Committee, Bicycle Advisory Committee and Pedestrian Transportation Advisory Committee.

TBARTA also operates the multi-county transportation demand management (TDM) Commuter Services program, providing a number of simple and easy-to-use tools to help commuters and school children get where they need to go. Using the free online ride-matching program, commuters connect with each other to share the ride to and from work or school via carpool, vanpool or school pool. Other commuter services programs include Emergency Ride Home and Tele-work, in addition to assisting commuters with connecting to the local transit systems.

Tampa Bay Regional Planning Council (TBRPC) – TBRPC is responsible for coordinating and conducting a variety of regional planning activities within the Tampa Bay region, which is comprised of Hillsborough, Manatee, Pasco and Pinellas counties. The MPO partners with the TBRPC through membership in the Chairs Coordinating Committee and through support for community visioning and strategic planning initiatives.

Metropolitan Planning Organization Advisory Council (MPOAC) – The MPOAC provides a forum for discussion of Federal and State requirements for CMPs, and also facilitates statewide training programs for MPO staff. The Pinellas County MPO participates as a member of the MPOAC governing board and as a member of the Staff Directors Advisory Committee. The Policy and Technical Subcommittee annually prepares legislative policy positions and develops initiatives to be advanced during Florida's legislative session.

West Central Florida Air Quality Coordinating Committee – The West Central Florida Air Quality Coordinating Committee was formed in 1992 as a means to coordinate the air quality planning and regulatory activities around the Tampa Bay region and surrounding counties in response to the Clean Air Act Amendments of 1990. Committee membership was comprised of staff from the region's MPOs as well as county environmental management staff, industry representatives and public health groups. The committee convened for several years when the air quality within the region fell below federal standards. Federal and State emission reduction actions resulted in improved air quality and an “attainment” designation for the regional airshed. In 2010 it was decided that the committee will transition from its previous advisory role into a working group that will address, when the time comes, the (anticipated) Environmental Protection Agency’s (EPA) revisions to the ozone standards.

Public Participation

As detailed in the Public Participation Plan, the MPO uses a wide variety of media to provide information about its programs and to collect input from citizens.

Stakeholder Groups, Workshops and Public Hearings – The MPO conducts forums, public hearings and workshops in conjunction with many of its planning activities. Community level forums are conducted at transportation accessible locations that comply with standards set by the Americans with Disabilities Act. All hearings and workshops are publicized and considerable efforts are made to connect with potential stakeholders by specifically targeting community associations, libraries, neighborhood newspapers, etc. Opportunities are also provided to individuals who cannot attend through web surveys and by providing other alternatives for MPO contact. Focus groups, charettes and eTownHalls are also conducted by the MPO to better engage the community and obtain input on projects and planning activities.

MPO Website – Visitors to the site can read and download this CMP document and other MPO planning documents and publications, including corridor studies and State of the System and Level of Service reports. A “Transportation Survey” web link makes it possible for citizens to report congestion problems as well as recommend solutions.

Social Media – The MPO began utilizing social media tools such as Facebook and Twitter in 2011 to provide updates and collect citizen feedback, including comments/complaints about congestion and safety. In addition, the MPO utilizes MindMixer, which is an on-line public engagement platform (branded as *TellUsPinellas*) to gather public input in the development of the 2040 LRTP.

Printed Materials – While the MPO still develops printed materials such as brochures, flyers, comment forms, fact sheets, press releases and newsletters for placement in information racks at the MPO office and other facilities including the County Courthouse and libraries, electronic distribution is the primary means for getting the material delivered to the residents of Pinellas County. Community events, neighborhood association meetings, public workshops, conferences and public forums provide additional opportunities for distributing materials and answering questions. Included in these publications are instructions on how to contact the MPO with any questions or comments.

Government Access Channel - All MPO meetings are televised live and then rebroadcast on the government access channel, Pinellas County Connection Television (PCC-TV). Additionally, an online web archive is provided to permit citizens to instantly access web videos by agenda topic, including those related to congestion management.

Speakers Bureau - The MPO receives requests for speakers directly from community groups and via requests submitted through the Pinellas County Communications Department. Groups that request speakers include local chapters of Rotary and Kiwanis clubs, Chambers of Commerce, business organizations and neighborhood associations. Congestion management issues are among the topics most frequently requested by groups or asked about during public outreach events.

Surveys - The MPO also utilizes surveys on occasion to gather public opinion concerning its planning activities and programs and to assess the public's level of awareness and understanding of them. Surveys are typically distributed at public events, workshops, libraries and at the MPO office. They are also posted on the MPO website where respondents can complete and submit them electronically.

Public Comment at MPO Board Meetings – Opportunities for the public to comment are provided at the beginning of every MPO board meeting. Citizens may address any item on the MPO's consent agenda, or any issue not already scheduled for a public hearing.

The Pinellas County MPO has had a Congestion Management Process (formerly called a Congestion Management System) in place since September 1997. The process was modified in 2008 to reflect SAFETEA-LU requirements. *Congestion Management Process: A Guidebook*, was published by the U.S. Department of Transportation/ Federal Highway Administration in 2009, and modified in 2011. The guidebook provides information on how to create an objective-driven, performance-based congestion management process (CMP). **The process described herein is consistent with the guidebook.** As stated previously, the federal *Moving Ahead for Progress in the 21st Century Act* (MAP-21), which went into effect in October 2012, makes essentially no change in the requirements for the CMP.

The Pinellas County MPO's CMP is intended to be dynamic in that it is subject to on-going reevaluation and adjustment; comprehensive in that it is both multi-modal and systemwide in its analysis and strategies; fiscally conservative in that costly improvements are considered only *after* less expensive alternatives have been determined to be inappropriate, inadequate or impractical; cooperative in that it actively seeks participation from stakeholders; and coordinated with other local and regional plans, studies, reports and processes.

Florida Statute, 163.3177

...A local government that has all or part of its jurisdiction included within the metropolitan planning area of a metropolitan planning organization (M.P.O.) pursuant to s. 339.175 shall prepare and adopt a transportation element consistent with this subsection. The element shall be coordinated with the plans and programs of any applicable metropolitan planning organization, transportation authority, Florida Transportation Plan, and Department of Transportation adopted work program.

Coordination and Integration with Pinellas County MPO Plans and Studies

Long Range Transportation Plan (LRTP)

The LRTP serves as the basis for the MPO's planning programs and activities. The LRTP provides a systemwide, broad-based approach that defines the goals, objectives and policies to guide transportation planning over the next 25 years. The LRTP is typically updated in five year intervals. In 2009, the MPO adopted the 2035 LRTP. An update to the 2035 LRTP began in 2012, with adoption scheduled for December 2014. Due to the fact that the 2040 LRTP will be adopted in less than 18 months, the CMP policies and procedures presented in this document focus on the *proposed* 2040 LRTP goals and objectives, rather than the 2035 LRTP goals, objectives and policies. Table 1 lists the proposed 2040 LRTP goals and objectives. The MPO's 2040 LRTP will also provide for the following:

- Identification of the multi-modal transportation network;
- Systemwide goals and objectives, strategies and performance measures for the efficient and safe operation of the transportation network;
- An assessment of future demographic and economic viability trends and needs, including transit and goods movement;
- Identification of the concepts and values that provide the underpinning of transportation planning, such as livable communities, complete streets, air quality, environmental protection, and environmental justice;
- Assessment of the linkage between land use planning and transportation planning in Pinellas County; and
- Cost estimates, funding strategies and revenue sources for transportation projects, including those derived from the CMP.

**Table 1: Proposed Goals and Objectives
for the 2040 Long Range Transportation Plan (LRTP)**

Goal 1: Support and further economic development.
<i>Objective 1.1: Integrate transportation and land use planning to ensure future decisions support keeping Pinellas County a place where people and business want to be.</i>
<i>Objective 1.2: Provide cost effective travel and commute options.</i>
<i>Objective 1.3: Improve access to and from major activity centers.</i>
<i>Objective 1.4: Create and promote opportunities for public-private partnerships.</i>
<i>Objective 1.5: Improve roadway operations for the movement of goods.</i>
Goal 2: Provide a balanced and integrated multi-modal transportation system for local and regional travel.
<i>Objective 2.1: Consider facilities for, and the connectivity between, all modes in the planning, design and construction of transportation projects.</i>
<i>Objective 2.2: Increase transit ridership by providing more frequent and convenient service.</i>
<i>Objective 2.3 Increase bicycle and pedestrian travel by providing sidewalks, bike lanes and multi-use trails throughout the county.</i>
<i>Objective 2.4: Coordinate and collaborate with transportation partners to provide for multi- modal options for local and regional travel.</i>
Goal 3. Provide for a safe and secure transportation system for all users.
<i>Objective 3.1: Reduce the rate and frequency of fatal and incapacitating crashes for all modes of travel.</i>
<i>Objective 3.2.: Provide for efficient emergency evacuation that responds to threats to Pinellas County and the Tampa Bay area.</i>
<i>Objective 3.3: Coordinate safe travel to and from schools.</i>
<i>Objective 3.4: Ensure security plans are in place.</i>
Goal 4: Provide for, manage and operate an efficient transportation system.
<i>Objective 4.1: Improve the performance of the transportation system through intersection modifications, access management strategies, Intelligent Transportation Systems applications, and other management and operational improvements.</i>
<i>Objective 4.2: Achieve consistency among transportation plans and programs.</i>
<i>Objective 4.3: Maintain transportation infrastructure in a state of good repair.</i>
<i>Objective 4.4: Facilitate timely implementation of projects.</i>
<i>Objective 4.5: Provide real-time information to support the efficient movement of people and goods.</i>

Goal 5: Encourage public participation and ensure that the transportation plan and other MPO planning activities reflect the needs of the community, particularly those that are traditionally underserved.
<i>Objective 5.1: Provide opportunities to engage citizens, particularly the traditionally underserved populations, and other public and private sector entities.</i>
<i>Objective 5.2: Consider and respond, as appropriate, to all comments received.</i>
Goal 6: Enhance the quality of life and promote sustainability.
<i>Objective 6.1: Protect the environment from any adverse impacts of the transportation system, and mitigate as appropriate.</i>
<i>Objective 6.2: Plan for, and adapt to, the potential impacts of rising sea levels and climate change on the transportation system.</i>
<i>Objective 6.3: Ensure that benefits and impacts of transportation investments are equitably distributed.</i>
<i>Objective 6.4: Provide better transit access to a greater number of people including those who are transit dependent, minority, low income, and/or disabled.</i>

The 2040 LRTP will include a list of CMP projects and identify funding for those projects, where feasible.

Also, an Environmental Justice (EJ) analysis for the Pinellas County MPO is included in the LRTP. EJ builds on Title VI of the Civil Rights Act of 1964, which is designed to ensure non-discrimination in Federal programs. Maps and summary data are spatially analyzed to determine how low income and minority populations are benefitting from the transportation projects being proposed.

Transportation Improvement Program (TIP) – The TIP is a federally required five-year program of transportation improvements adopted annually by the MPO that incorporates the work programs of FDOT, PSTA, and the county and local municipalities. The TIP is based on the State’s fiscal year (July 1 to June 30). The TIP’s detailed work program/project descriptions include:

- Location and limits (to/from) of all scheduled projects, including CMP and multi-modal projects;

- Identification of improvements (i.e. road construction, ITS implementation, transit, resurfacing, etc.); and
- Information concerning the cost, funding source and timeline for the completion of each project.

The adopted TIP also includes a list of unfunded CMP projects that is reviewed on an on-going basis for prioritization and implementation (see Appendix). For example, a roadway or intersection that is congested may not receive a CMP priority status if it is already scheduled for capacity improvements. Likewise, resurfacing projects identified in the TIP may provide additional opportunities for enhancements such as sidewalks and bicycle lanes at congested locations.

Level of Service (LOS) Report – The MPO monitors approximately 2,280 lane miles, including major freeways, signalized arterials, signalized collectors and non-signalized collectors (State, County and local). Using vTIMAS software, the MPO provides an annual inventory on the performance of these roadways, including volume-to-capacity ratios and AADT (average annual daily traffic), in addition to operating conditions, graded on six levels: “A” (best) through “F” (failing). These data are then used in the CMP to help identify “constrained” and “deficient” roads. Constrained roads are roads for which no additional widening (i.e., addition of one or more through lanes) - beyond what is included in the adopted LRTP, is planned. Deficient roads are those roads that operate at a level of service (LOS) “E” or “F,” or a volume-to-capacity ratio of 0.90 or greater. The Pinellas County MPO’s acceptable LOS standard is LOS “D,” or better.

The MPO’s Level of Service Report and Crash Facts Report are used as input to the biennial State of the System (SOS) Report.

Long Range Advanced Traffic Management System/Intelligent Transportation Systems (ATMS/ITS) Master Plan (2006) and Intelligent Transportation Systems/ Advanced Traffic Management System Implementation Plan (2009) – ITS/ATMS is a valuable strategy for

addressing congestion management in Pinellas County. ITS is the application of ever emerging technologies that assist agencies in the operation and management of transportation facilities. It has been demonstrated that ITS projects have increased operational capacity, improved efficiency and enhanced safety. ITS covers all transportation modes and is commonly divided into subcategories, based on services, which include Advanced Traffic Management Systems (ATMS) for arterials and freeways. Specifically, the focus is on the arterial road system within Pinellas County with consideration given to the freeway system as necessary to address regional traffic management needs during recurrent congestion, major incidents, evacuations, and other transportation related emergencies. ITS tools utilized by the county's transportation professionals to optimize management of traffic operations, travel demand and roadway capacity include:

- detection system;
- traffic monitoring and surveillance;
- data capture and archiving and information dissemination;
- signal preemption for fire trucks;
- operational strategies, such as fully actuated traffic signals, optimized traffic operations; and
- traffic responsive control, traffic adaptive control, incident management, travelers' information, and special event management.

ITS/ATMS have become a cost-effective, alternative strategy for managing congestion. ITS/ATMS solutions do not replace the traditional capacity building investments such as new lanes or new roads, nor are they substitutes for conventional traffic engineering and traffic operations strategies. Rather, ITS/ATMS offer transportation agencies a broad set of transportation related technologies that encompass more than smart traffic signal systems.

Crash Facts Report – This annual report, which is a compilation of motor vehicle crash data from the MPO's Crash Data Management System, provides municipal governments, county and

regional agencies and private sector companies and businesses with information and statistics for future safety planning and project prioritization. Data are drawn from local law enforcement agency crash reports. As shown previously in Figure 2, traffic incidents, including crashes, accounted for approximately 25 percent of nonrecurring congestion in a nationwide survey. The Crash Facts Report assists the MPO in identifying those roadway facilities and segments that have high crash rates, which lead to nonrecurring congestion in Pinellas County. Moreover, as discussed in the next chapter, safety/crash data is used in the overall analysis of congestion problems and the scoring which determines the most congested roadway facilities and segments. Also, the MPO's analysis of crash data directly addresses the FDOT's 2012 Strategic Highway Safety Plan (SHSP), specifically the SHSP's emphasis areas of vulnerable users, lane departure and intersection crashes, as well as traffic data.

State of the System (SOS) Report – The MPO's biennial State of the System (SOS) Report contributes to the foundation of the CMP, using data drawn from the MPO's Transportation Planning Inventory (TPI), Crash Data Management System (CDMS), and other sources. The SOS provides an inventory of the transportation network, including roads, trails, sidewalks, bicycle lanes and transit. Trends analyzed include demographics; vehicle miles and hours traveled segmented by planning sector; congested miles segmented by planning sector; duration of congestion hours for SIS/Non-SIS roadways; crash frequencies; bike lane and sidewalk coverage, trail usage; ozone readings, etc. The SOS also reports on the current status of strategies identified through previous CMP studies, and provides data used in the preliminary screening phase for the CMP priority list.

CMP Corridor, Hot Spot Studies, and Safety Studies – CMP analysis may indicate a need to study a specific corridor, segment or "hot spot," to be initiated by the MPO, FDOT or a local government. The purpose of the study is to identify the conditions that may be contributing to congestion and crashes, and to identify corrective strategies, some of which may require MPO approval and prioritization for funding. Following this study, progress reports tracking the implementation of strategies are submitted to the Intelligent Transportation Systems (ITS)

Committee and to the Technical Coordinating Committee (TCC). See Appendix for Congestion Management Process (CMP): Corridors and Hot Spots Studies Map.

Countywide Bicycle & Pedestrian Strategies – The Pinellas County MPO has long supported non-motorized transportation strategies, including bicycle and pedestrian facility improvements, to encourage modes other than the single-occupant motor vehicle. Specific strategies include increasing sidewalk connectivity and bike lane coverage, improving bicycle facilities at transit stations and other trip destinations, improving the safety of existing bicycle and pedestrian facilities, and supporting a complete streets policy to assist in the creation of a countywide transportation network that gives citizens choices other than the automobile. An update to the MPO’s Bicycle and Pedestrian Master Plan, anticipated for publication in 2013, will include a report and analysis of crash data and trends affecting bicycling and pedestrian activity in the county, while also addressing facility design issues, safety policies, and education and law enforcement measures. With regard to safety, the MPO’s Pedestrian Safety Action Plan identifies strategies and policy initiatives aimed at improving pedestrian safety - countywide.

Goods Movement – A concern for the efficiency and safety of goods movement is routinely interwoven through a variety of MPO initiatives and programs. While the County and municipal governments each have individual local ordinances that document and manage the movement of truck traffic, the MPO reviews the operational performance of freight mobility corridors, and makes recommendations for short-term, low-cost improvements and long-term alternative strategies to alleviate congestion. The MPO coordinates with each jurisdiction and maintains a Countywide Truck Route Plan Map. (See Appendix for the Truck Route Plan Map.)

The Tampa Bay Regional Strategic Freight Plan identifies strategic investments and low cost operational improvements needed for better mobility and accessibility for trucks. The MPO considers and refers to the recommendations of this plan, and other studies, during the review of roadway and intersection construction plans submitted by the various implementing agencies. The recommendations from the local and regional freight studies are considered along with high crash and congestion locations in the development of CMP project priorities, moreover, the

recommendations provide the opportunity to include operational enhancements in the projects. The MPO seeks to implement the improvements primarily through construction and resurfacing projects; however, there may be instances when these improvements would need to be advanced as stand-alone projects - the same as other management and operations (e.g. CMP) projects.

Coordination and Integration with State, Regional and Local Plans and Studies

The CMP is coordinated with a broad spectrum of state, regional and local plans and studies, including but not limited to:

Highway Safety Improvement Program (HSIP) – Crash reduction is an important strategy for reducing congestion. Section 1401 of the *Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users* (Public Law 109-59) amended Section 148 of Title 23, United States Code, and created a new Highway Safety Improvement Program (HSIP) as one of the Federal Highway Administration's "core" programs. The goal of the program is to achieve a significant reduction in traffic fatalities and serious injuries on public roads. As part of the new HSIP, states were required to submit an annual report describing not less than five (5) percent of their highway locations exhibiting the most severe safety needs. However, while MAP-21 continued HSIP as a core Federal-aid program, it no longer requires the five (5) percent report.

Strategic Highway Safety Plan (SHSP) – The Florida Department of Transportation, in partnership with the Federal Highway Administration, has a Strategic Highway Safety Plan (SHSP), which was updated in 2012. Florida's SHSP is a statewide, data-driven plan that addresses the "4 E's" of safety – engineering, enforcement, education, and emergency response, and the following eight (8) Emphasis Areas:

- Aggressive Driving;
- Intersection Crashes;

- Vulnerable Road Users (pedestrians, bicyclists and motorcyclists);
- Lane Departure Crashes;
- Impaired Driving;
- At-Risk Drivers (aging road users and teens);
- Distracted Driving; and
- Traffic Data

As discussed previously, traffic incidents, including crashes, accounted for approximately 25 percent of nonrecurring congestion in a nationwide survey.

Regional Congestion Management Process - The Pinellas County MPO's CMP is coordinated with the Regional Congestion Management Process that is the product of the Chairs Coordinating Committee (CCC). A Regional CMP Steering Committee is made up of representatives from the MPOs, FDOT and other stakeholder agencies within the region. For the most recent update to the Regional CMP, the Regional CMP Steering Committee provided concurrence on the regional goals and objectives, and agreed with producing the State of the Systems Report. With each update of the State of the System Report, a limited number of congested corridors will be selected by the Steering Committee and evaluated in detail to identify strategies for congestion or safety mitigation benefits. The Pinellas County MPO's CMP is also coordinated with the following:

- West Central Florida Multi-Use Trails Plan (WCFMUT) – Non-motorized transportation strategies that can reduce congestion include bicycle, pedestrian and trail facility improvements that encourage non-motorized modes instead of single-occupant motor vehicle trips. The Multi-Use Trails Plan serves as the foundation for regional coordination and inter-jurisdictional review of bicycle and pedestrian issues. All six MPOs in West Central Florida have extensively analyzed bicycle and pedestrian needs as part of their long-range planning programs. These activities include the inventorying and analysis of existing facilities, and studying the location of bicycle/pedestrian trip attractors and generators. The Multi-Use Trails Plan

provides a regional perspective and linkage among MPO bicycle planning and other non-motorized programs.

- **Transportation Regional Incentive Program (TRIP)** - The Transportation Regional Incentive Program (TRIP) was created through Florida's growth management legislation to help improve regionally significant transportation facilities. State funds are made available through the TRIP program to help local governments and other transportation partners pay for transportation projects that benefit regional travel. Examples of TRIP projects that aid in the reduction of congestion include regional vanpool programs, regional bus transfer facilities, ITS trunk line infrastructure, ATMS signal system improvements, intersection improvements, as well as capacity improvements.

Tampa Bay Regional ITS Architecture - Provides a roadmap for integrating the intelligent transportation systems in the Tampa Bay/FDOT District 7 region, which includes Citrus, Hernando, Hillsborough, Pasco and Pinellas counties, for a 20 year period. Developed through a cooperative effort by the region's transportation agencies, it represents a shared vision of how agencies' systems will work together, sharing information and resources, to provide a safer, more efficient, and more effective transportation system.

Locally Preferred Alternative (LPA) – Following a multi-year Alternatives Analysis study conducted by the MPO, PSTA, FDOT and TBARTA, the Locally Preferred Alternative (LPA) was identified. The LPA includes 24 miles of light rail service connecting Clearwater, Largo, the Greater Gateway Area, Pinellas Park, and St. Petersburg with a connection to Hillsborough County across the Howard Frankland Bridge. The LPA is supported by a premium bus transit network that includes frequent bus service with expanded hours of service, trolleys, regional connectors, and community circulators. The adopted LPA will also provide opportunities for transit oriented development in the light rail station areas and along premium bus corridors. Implementation of the LPA is expected to increase transit

ridership, alleviate congestion, encourage economic development and promote and protect the quality of life in Pinellas County.

Linkage with Local Governments

The MPO has historically played a major role in countywide transportation planning, through a variety of programs and initiatives, described as follows:

Growth Management and Transportation Concurrency - In 2006, the MPO developed a model proportionate fair share ordinance for use by local governments. The local government implementing transportation concurrency must provide a means to assess a landowner its proportionate share of the cost of providing the transportation facilities necessary to serve the proposed development, but the landowner shall not be held responsible for mitigation necessary to achieve an adopted level of service standard on an impacted transportation facility.

In 2011, the Florida Legislature made significant changes to Chapter 163, Part II, Florida Statutes, known as the "Community Planning Act" that involved changes to the requirements for transportation and mobility planning in local governments' comprehensive plans. The changes in the law were intended to encourage economic development by providing flexible transportation mobility options to Florida communities. Transportation concurrency is now optional, and if a local government chooses, it can eliminate the transportation concurrency provisions from its comprehensive plan. However, if transportation concurrency is eliminated, level of service standards for roads must still be retained for capital improvement planning; the standards must be appropriate and based on professionally accepted studies, and the capital improvements that are necessary to meet the adopted levels of service standards must be included in the 5-year schedule of capital improvements. The MPO is assisting Pinellas County's 25 local governments through this transition primarily through the preparation of a Multi-modal Mobility Plan, discussed below.

Multi-modal Mobility Plan – At the request of the county’s local governments, the MPO is leading the effort to develop a countywide multi-modal Mobility Plan that will be coordinated with the MPOs’ Long Range Transportation Plan. The vision for the Mobility Plan also overlaps with the goals and objectives of the CMP in that both seek to identify low cost operational improvements, transit service enhancements and expansion of facilities for bicyclists and pedestrians. With regard to the LRTP, the Mobility Plan will provide a mechanism for developers to fund CMP projects identified in the LRTP to help mitigate congestion issues. The proposed Mobility Plan/Mobility Fee integrates the existing impact fee ordinance with growth management requirements. The countywide Transportation Impact Fee Ordinance (TIFO) will be maintained, with the fee renamed Multi-modal Impact Fee. The fee would continue to be applied to all development adding new trips to the surrounding road network.

Access Management Standards – The MPO works with FDOT to ensure consistent application of access management standards on state roads. The MPO works with local government and state traffic operations engineers to assess access needs, including the need for signalization and median openings on major roads to serve adjacent businesses. The MPO seeks to balance roadway operations, and safety with the access needs of businesses. However, much of this work is the responsibility of, and accomplished through, the respective local government’s site plan review process.

Coordination of Transportation and Land Use Plans – The MPO has a number of strategies in place to better integrate transportation and local land use plans. Through its planning for premium transit service in the county, the MPO is working with local governments to develop comprehensive plan policies for Transit-Oriented Development (TOD). Several local governments including Pinellas County and its largest cities have adopted TOD policies. Others are utilizing policies developed by the Pinellas Planning Council (PPC), the agency responsible for administering the Countywide Future Land Use Plan Map and Rules. The PPC is a dependent special district created by special act of the Florida legislature several decades ago for the purpose of undertaking land use planning

functions for all of Pinellas County. As described earlier, in March 2012 the Florida legislature passed House Bill 869, seeking to implement land use and transportation planning functions in Pinellas County in a more integrated manner. The bill combined the leadership of the MPO with the leadership of the PPC so that a single policymaking body oversees both land use planning and transportation planning in Pinellas County.

Simply stated, congestion management is the application of strategies to improve transportation system *performance and reliability* by reducing the adverse impacts of congestion on the movement of people and goods.

As stated previously, the purpose of this document is to identify and describe the process used by the MPO to respond to the federal and state CMP requirements. This document is not intended to serve as a congestion management “plan,” but rather a “process” that provides for the safe and effective integrated management and operation of the multi-modal transportation system – countywide. The CMP *is* intended to use an objectives-driven, performance-based approach to planning for congestion management.

Congestion Management Process: A Guidebook, published by the U.S. Department of Transportation/ Federal Highway Administration in 2009 and modified in 2011 provides an Eight Step process to assist MPOs in setting up a CMP. The guidebook was intended to be adapted to meet the unique conditions and requirements of MPOs and their respective communities. It should be noted that these steps are compatible with the process historically used by the MPO.

The Eight Step Process:

- Step One: Develop System-wide Objectives for Congestion Management
- Step Two: Define the CMP Network
- Step Three: Develop Multimodal Performance Measures
- Step Four: Collect Data/Monitor System Performance
- Step Five: Analyze Congestion Problems and Needs
- Step Six: Identify and Assess CMP Strategies
- Step Seven: Program and Implement Strategies
- Step Eight: Evaluate the Effectiveness of Strategies

Congestion Management Process: A Guidebook, published by the U.S. Department of Transportation/Federal Highway Administration in 2009 and modified in 2011

Definitions:

- Goal – A long-term, broad-based, general statement of intention.
- Objective – An intended outcome (systemwide or site specific) that represents a step or an approach to reaching a goal. Objectives may be expressed broadly, (i.e. improve system reliability), or expanded through the application of “SMART” concepts (specific, measurable, agreed upon, realistic, time-bound) for additional definition and commitment.
- Systemwide – Pertains to the transportation network as addressed by the Pinellas County MPO, which includes Pinellas County and 24 local governments.
- Regional – Pertains to the following counties: Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas, Polk and Sarasota.
- Community values – The shared ideas or concepts that contribute to the quality of life, or that are commonly regarded as essential to the character, aesthetics or operation of a community or neighborhood.
- Environmental Impact – The National Environmental Policy Act (NEPA) of 1969 requires that all federally funded projects be made with consideration of the impact to the natural and human environment. The MPO extends this consideration to all of its planned improvements.
- Environmental Justice (EJ) – EJ is based on Title VI of the Civil Rights Act of 1964, which is designed to ensure nondiscrimination in Federal programs, including transportation. EJ analysis addresses how low income and minority populations are benefitting from or are adversely affected by transportation projects.
- Transit – (“mass transit”) Refers to public transportation by bus, rail, trolley, etc. In this county, the transit system is operated by the Pinellas Suncoast Transit Authority (PSTA).

Step One: Develop System-wide Objectives for Congestion Management

Federal regulations require congestion management objectives as part of the CMP (23 CFR 450.320(c) 2). As was previously described, the LRTP serves as the basis for the MPO's planning programs and activities, including congestion management, and it is typically updated in five year intervals. As previously described, an update to the 2035 LRTP began in 2012, with adoption scheduled for December 2014. Due to the fact that the 2040 LRTP will be adopted in less than 18 months, the following CMP goal and objectives have been cross-referenced with the relevant *proposed* 2040 LRTP objectives, rather than the 2035 LRTP goals, objectives and policies. Table 2 lists the cross-referenced (proposed) 2040 LRTP objectives.

CMP Goal and Objectives

CMP Goal : To ensure the safe and efficient movement of people and goods by successfully addressing areas of recurring and non-recurring congestion with low cost and cost effective operational and multi-modal improvements, before considering any capital intensive capacity improvements.

CMP Objective 1: To increase the number of low cost and cost-effective operational improvements in areas characterized by recurring congestion, i.e., roadways and intersections with bottlenecks and/or poor signal timing. (*Proposed 2040 LRTP Objectives 3.1 and 4.1*)

CMP Objective 2: To increase the attractiveness and efficiency of transit service to draw more choice riders and reduce dependency on the single occupant vehicle (SOV). (*Proposed 2040 LRTP Objectives 1.2, 2.2 and 6.4*)

CMP Objective 3: To increase or improve the coverage of bike lanes, trails, sidewalks and crosswalks in areas characterized by congestion *and* where shorter automobile trips can be readily converted to foot and bicycle modes. (*Proposed 2040 LRTP Objectives 2.1 and 2.3*)

CMP Objective 4: To increase public awareness of, and participation in, transportation demand management programs, including but not limited to carpooling, vanpooling, school pool and telecommuting, in order to reduce dependency on the single occupant vehicle (SOV). *(Proposed 2040 LRTP Objective 1.2)*

CMP Objective 5: To effectively manage scheduled and unscheduled traffic incidents associated with non-recurring congestion, including reducing the frequency and severity of accidents in high crash areas. *(Proposed 2040 LRTP Objectives 3.1, 4.1 and 4.6)*

CMP Objective 6: To improve the safe and efficient movement of goods. *(Proposed 2040 LRTP Objectives 1.5, 3.1 and 4.6)*

Table 2: Proposed 2040 LRTP Objectives Associated with the CMP Objectives

LRTP Objective 1.2: Provide cost effective travel and commute options.
LRTP Objective 1.5: Improve roadway operations for the movement of goods.
LRTP Objective 2.1: Consider facilities for, and the connectivity between, all modes in the planning, design and construction of transportation projects.
LRTP Objective 2.2: Increase transit ridership by providing more frequent and convenient service.
LRTP Objective 2.3 Increase bicycle and pedestrian travel by providing sidewalks, bike lanes, and multi-use trails throughout the county.
LRTP Objective 3.1: Reduce the rate and frequency of fatal and incapacitating crashes for all modes of travel.
LRTP Objective 4.1: Improve the performance of the transportation system through intersection modifications, Intelligent Transportation Systems applications, and other management and operational improvements.
LRTP Objective 4.6: Provide real-time information to support the efficient movement of people and goods.
LRTP Objective 6.4: Provide better transit access to a greater number of people including those who are transit dependent, minority, low income, and/or disabled.

Step Two: Define the CMP Network

The CMP covers all of Pinellas County, which is approximately 280 square miles in size, and comprised of 25 local governments and a 2010 population of 916,452 (see Appendix for Pinellas County Urban Boundary Map). Pinellas is bounded by Pasco County to the north, the Gulf of Mexico to the west, Tampa Bay and Hillsborough County to the east, and the Sunshine Skyway Bridge and Manatee County to the south. Local governments include Pinellas County and the following 24 municipalities: Belleair, Belleair Beach, Belleair Bluffs, Belleair Shore, Clearwater, Dunedin, Gulfport, Indian Rocks Beach, Indian Shores, Kenneth City, Largo, Madeira Beach, North Redington Beach, Oldsmar, Pinellas Park, Redington Beach, Redington Shores, Safety Harbor, St. Pete Beach, St. Petersburg, Seminole, South Pasadena, Tarpon Springs and Treasure Island.

Consistent with federal guidelines, the CMP covers a multi-modal transportation network. In addition to evaluating the roadway network, the CMP addresses transit, bike/ped/trail facilities and goods movement.

CMP Network: The following describes the CMP network, with the relevant maps provided in the Appendix.

- The MPO partners with State, County and local governments and transportation related agencies, providing planning support and monitoring for slightly less than 587 centerline miles of functionally classified roadway (see Appendix for Major Road Network map). This network includes freeways, arterials and collectors, and some local roads. Functionally classified residential streets are excluded. Strategic Intermodal System (SIS) roadways comprise approximately nine percent of the centerline miles.

Definitions:

The major road network includes:

Freeways – Multilane, divided highways with at least two lanes of traffic in each direction

Arterials – Roadways (excluding freeways) serving thru traffic with average signal spacing of 2 miles or less

Collectors – Roadways providing access and traffic circulation with residential and industrial areas

Segments – Single sections of a roadway, operationally defined

Corridors – Multiple, contiguous segments, operationally defined

Hot Spots – Individual points or intersections on a roadway identified through CMP study as severely congested

Regional Transportation Network – Roadways, railways and transit routes designated as regionally significant by the West Central Florida Chairs Coordinating Committee (CCC).

In Pinellas County, the State and Federal roadways are managed by the Florida Department of Transportation (FDOT), while the County maintains all county and local roads in unincorporated area. The remaining local roads are maintained by the respective municipality, with the signal systems controlled by Pinellas County, with the exception of St. Petersburg. Sidewalks and bicycle lanes are maintained by the local government responsible for the adjacent roadway.

- Pinellas County operates the Intelligent Transportation Systems/Advanced Traffic Management System (ITS/ATMS) program, under an interlocal agreement with all cities

except St. Petersburg, which controls its own signal system. (See Appendix for ITS Corridors Map.)

- Most of the county is served by one transit system, the Pinellas Suncoast Transit Authority (PSTA), which also operates its own transportation technologies, including ITS applications. Property owners in cities not assessed for PSTA service, thus not served by PSTA, are St. Pete Beach, Treasure Island, Belleair Bluffs, Belleair Shore, and Kenneth City. However, St. Pete Beach and Treasure Island do receive bus service via a special contract. PSTA presently provides bus service along 40 routes, including two express routes. Routes are subject to periodic change and update, as determined by ridership numbers, etc. (See Appendix for Transit Development Plan map.)
- Except within the City of Dunedin, Pinellas County maintains the Pinellas Trail and the Progress Energy Trail, countywide. Local governments construct and maintain trails within their respective boundaries. (See Appendix for Pinellas Trailways Plan map.)
- Roadways within the CMP network that have been identified by the local governments as being appropriate for the routing of trucks are identified on the MPO Countywide Truck Plan Map. The local governments maintain ordinances to impose restrictions on these routes, including restrictions on time of day, vehicle weights, and hazardous materials. The MPO also acts as a forum for matters related to truck routing, seeking to coordinate any changes to the Plan at a countywide level to ensure consistency as trucks move from one jurisdiction to another. Performance of roads that serve as truck routes are included in the major road network, and as a result, are routinely monitored for congestion and safety. (See Appendix for Pinellas County Truck Route Plan with Railroad Corridor Map.)
- The six Metropolitan Planning Organizations (MPOs) that comprise Chairs Coordinating Committee (CCC) are required by federal regulations and Florida statutes to implement a Regional CMP to address congestion of regional significance. The Regional CMP is a



systematic and regionally-accepted approach for managing congestion that provides accurate, current information on transportation system performance and assesses alternative strategies for congestion management that meet state and regional needs. The August 2012 Regional Congestion Management Process, Policy & Procedures Handbook is the working tool that the CCC embraces to effectively integrate both the Regional and each MPO's project prioritization processes, TIPs and LRTPs (see Appendix for CCC Regional Road Map).

Step Three: Develop Multi-modal Performance Measures

When Performance Measures are Applied

Performance measures are applied throughout the Congestion Management Process. According to federal regulation, the CMP must include appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of *congestion reduction and mobility enhancement strategies* for the movement of people and goods (23 CFR 450.320 (c) 2). The MPO uses systemwide multi-modal performance measures to evaluate changes on an aggregated basis to the entire transportation system over time, and determines whether the implemented strategies are achieving the desired objectives. The CMP objectives and performance measures are shown in Table 3.

Definitions:

Multi-modal – Includes all modes of transportation, including automobile, transit, pedestrian, bicycle.

- Performance measures – The use of data and other evidence to determine progress toward specifically defined, organizational objectives. This includes both quantitative evidence (statistical data such as the measurement of travel times) and qualitative evidence (such as the measurement of customer satisfaction, collected citizen comments, etc.).

For the purpose of this report, reference will be made to two types of performance measures:

- Systemwide Performance Measures assess the overall multi-modal availability, safety and efficiency of the transportation network, identifying locations where congestion is a problem.
- Site Specific Performance Measures are used to determine if an implemented strategy has been successful in meeting its predefined objective.

TABLE 3

CMP Goal : To ensure the safe and efficient movement of people and goods by successfully addressing areas of recurring and non-recurring congestion with low cost and cost effective operational and multi-modal improvements, before considering any capital intensive capacity improvements.

CMP Objective 1: To identify and increase the number of low cost and cost-effective operational improvements in areas characterized by recurring congestion, i.e., roadways and intersections with bottlenecks and/or poor signal timing.

Potential Performance Measures: Percent of VMT and roadway miles operating below an acceptable level of service; V/C ratios; duration of congestion; travel speed; identification and ranking of high crash intersections and roadways; analysis of crash data, including frequency and severity of crashes, and crashes involving vulnerable users; crashes caused by lane departure and aggressive driving; clearance time per incident; and number of *congestion report forms* entered on the MPO's web site.

CMP Objective 2: To increase the attractiveness and efficiency of transit service to draw more choice riders and reduce dependency on the single occupant vehicle (SOV).

Potential Performance Measures: Percent of congested roadway centerline miles with transit service; passenger trips per revenue hour; average service frequency; on-time performance; annual ridership; transit mode share; percentage of population within ¼ mile of a transit stop; real-time bus info; and number of buses and routes.

CMP Objective 3: To increase or improve the coverage of bike lanes, trails, sidewalks and crosswalks in areas characterized by congestion *and* where shorter automobile trips can be readily converted to foot and bicycle modes.

Potential Performance Measures: Percent of congested roadway centerline miles with bike lane and sidewalk coverage; miles of multi-use trails; number of individuals who walk or bike to work; trail usage; road safety audits; percentage of Pinellas Trail Loop completed; and population and jobs within ¼ mile of the Pinellas trail.

CMP Objective 4: To increase public awareness of, and participation in, transportation demand management programs, including but not limited to carpooling, vanpooling, school pool and telecommuting, in order to reduce dependency on the single occupant vehicle (SOV) and thereby reduce congestion.

Potential Performance Measures: Number of TDM programs, and participation rates.

CMP Objective 5: To effectively manage scheduled and unscheduled traffic incidents associated with non-recurring congestion, including reducing the frequency and severity of accidents in high crash areas.

Potential Performance Measures: Identification and ranking of high crash intersections and roadways; analysis of crash data, including frequency and severity of crashes, crashes involving vulnerable users; crashes caused by lane departure and aggressive driving; clearance time per incident; number/percentage of ITS/ATMS projects implemented; and number of variable message signs.

CMP Objective 6: To improve the safe and efficient movement of goods.

Potential Performance Measures: Truck route V/C ratios; location, frequency and severity of crashes involving heavy/commercial vehicles; number of variable message signs; and number of completed operational improvements for trucks.

Types of Datasets Used for Performance Measures

Datasets commonly applied to CMP performance measures include the following:

Roadway Performance Data – The MPO routinely performs field studies and data gathering activities to monitor roadways for the purpose of obtaining data on the systemwide performance of the transportation network. This activity is intended to identify the location of a congestion problem, or the measures of effectiveness of an implemented strategy. Data collected is supplemented by data received from the Florida Department of Transportation, Pinellas County, and other local governments. Results are published in MPO reports, including the annual *Level of Service Report* and biennial *State of the System Report*. Performance measures generated include vehicle miles of travel and hours of travel, volume to capacity ratios, miles over capacity, level of service, and duration of congestion.

Technologies, including those related to Intelligent Transportation Systems (ITS), are generating increasingly precise data, and advancements such as Bluetooth, GPS and other vehicle onboard technologies hold even greater promise for expanding the list of available performance measures.

Data relating to corridor and hot spot study locations receive additional review and analysis to assess current performance and to track the effectiveness of implemented CMP strategies. These reports are submitted for review to the TCC and ITS advisory committees, responsible for implementing the CMP. (See Appendix for Status Report: Implementation of Recommendations – CMP.)

In addition to roadway data, other data classes used by the MPO for the CMP include:

Multi-modal Data – Pinellas Suncoast Transit Authority (PSTA) provides statistics on the number of buses, routes and annual ridership, as well as on-time performance data. The MPO's *State of the System Report* includes trail, sidewalk and bike lane coverage data.

Safety Data – The MPO's Crash Data Management System (CDMS) archives crash reports, as submitted by local law enforcement agencies. Data can be segmented according to date, location, and by characteristics including aggressive driving, intersection crashes, vulnerable road users, and lane departure crashes.

Other Types of Quantitative Data – The CMP approach also requires the design of strategies that are responsive to the needs of the citizens of Pinellas County. Data useful for studying congestion and safety is collected by the MPO from other agencies and organizations, including the U.S. Bureau of the Census (population and other demographic data), Florida Dept. of Highway Safety and Motor Vehicles (crash data, vehicle registrations, licensed drivers), and the Tourist Development Council (tourism data).

Qualitative Data – Chapter Three of this document (Partnerships) focuses on how the MPO works with advisory committees, local governments, public and private agencies and organizations, and the general public to obtain qualitative input pertaining to community values and needs, satisfaction with existing CMP initiatives and projects, and suggestions for improvement.

Step Four: Collect Data/Monitor System Performance

Data collection and system monitoring are needed to provide information to make effective decisions, and are an on-going activity. According to Federal regulation, the CMP must include an established, coordinated program for data collection and system performance monitoring to:

- 1) define the extent and duration of congestion;
- 2) contribute in determining the causes of congestion; and
- 3) evaluate the efficiency and effectiveness of implemented actions (23 CFR 450.320 (c) 3).

Table 4 shows the types of data used for monitoring systemwide performance and the agencies responsible for contributing to the system-wide screening.

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Table 4 – Monitoring and Reporting Data/Performance Measures and Responsible Agencies		
Type of Data	Monitoring Agency	Notes
Roadway Performance (AADT, DOC, V/C, VMT, VHT, etc.)	MPO, FDOT	Field data collected on an ongoing basis. Analyzed annually for the Level of Service Report, biennially for the State of the System Report, and periodically for CMP updates provided to the TCC and ITS Committees.
Inventory of road lane miles, existing lanes, constrained lanes, etc.	MPO, FDOT	Field data collection is ongoing for MPO.
Inventory of regional roads, SIS/Non-SIS & trails	MPO, CCC, FDOT, TBARTA	Monitored on an ongoing basis with revisions, as needed.
Inventory of bike lanes, sidewalks, trail network	MPO and local governments	MPO coordinates data for the LRTP and the SOS Report. County maintains data for Pinellas Trail/Progress Energy Trail.
Status of current construction projects	MPO, FDOT, Pinellas County & cities	FDOT, County and local governments submit; MPO tracks and posts on the public website.
Status of planned projects	MPO, FDOT and Local Governments	MPO produces the TIP in conjunction with FDOT, County and local governments.
Inventory of ITS/ATMS implementation	MPO	Implementation status is submitted by FDOT, Pinellas County, and local governments. The MPO ITS map and associated table are updated annually and submitted to the ITS and TCC committees for review and approval.
ITS and operations data, studies (travel time, etc.)	Pinellas County	Pinellas County submits reports periodically to the TCC and ITS committees as data become available.
Crash Data	MPO Crash Data Management System (CDMS)	Crash reports from law enforcement agencies are submitted through Florida Department of Highway Safety and Motor Vehicles.
Transit data, including bus routes, on-time studies, ridership, etc.	PSTA	PSTA updates maps as changes occur and reports are issued annually. Analysis is included in the biennial SOS Report.
Truck routes	MPO	The MPO coordinates routes with local governments and FDOT, and maintains Truck Route Maps.
Red light camera installations/locations	Municipalities report to MPO	Red Light Camera Map on the MPO website is updated as installations occur.
CSX Railroad Corridors and Stops	CSX	Inventory of CSX lines is adjusted as changes occur.
School-related transportation access and safety issues	Pinellas County Schools	MPO's School Transportation Safety Committee (STSC)
Locations of fire stations and hospitals	Pinellas County/local governments	Municipal governments and County submit updates as needed.
Hurricane evacuation routes	Pinellas County Emergency Management and Tampa Bay Regional Planning Council	Routes are designated and Evacuation Plans are adjusted annually as needed.
Environmental Justice	U.S. Census, MPO (under Federal law)	EJ supports protection from environmental hazard and discrimination due to race, national origin or income.
Qualitative data	MPO	Obtained through interagency coordination, committee input and public involvement activities.
Transportation Demand Management, including school pool, vanpool, carpool, tele-commuting	TBARTA	TBARTA operates the multi-county transportation demand management (TDM) Commuter Services program.

Step Five: Analyze Congestion Problems and Needs

Before congestion management strategies can be identified, it is necessary to identify what the problems are, where are they located, and what is causing them (e.g., bottlenecks, incidents, work zones, weather, special events). The answers to what, where and why serve as the critical link between data collection and strategy identification. Federal regulations require that the CMP include *methods to monitor and evaluate the performance of the multi-modal transportation system and identify the causes of recurring and nonrecurring congestion* (23 CFR 450.320(c)1).

Annual monitoring efforts are used by the MPO to review LOS on the roadway network to identify recurring congestion. The MPO's Crash Data Management System (CDMS) is also used to identify corridors or intersections with a high frequency of crashes that result in non-recurring congestion. There are several issues taken into account when analyzing data for the purpose of defining or locating congestion problems:

- Locations of major trip generators
- Seasonal traffic variations
- Time-of-day traffic variations
- Work trips vs. non-work trips

Once the data has been translated to allow comparisons of the various levels of congestion in the county, the MPO will begin to apply the SWEEP scoring formula to the individual sections of the transportation system (i.e., certain corridors or roadway segments). The result will be the identification and priority ranking of a set of corridors defined as “congested” based on the scoring and performance measures, and it is these corridors where activities to address congestion are necessary and appropriate. Another result may be a ranking of corridors to determine which are in greater need of congestion relief.

In order to understand which congestion mitigation strategies are appropriate within the context of a specific congested corridor, it is also necessary to understand the causes of congestion, marking an appropriate point for comparison of recurring and non-recurring congestion issues.

Executing the Congestion Management Process requires a periodic review of data to *identify and prioritize* congested corridors, segments and/or hot spots that can benefit from CMP study and strategy implementation. A five-step review process *originated* by the Pinellas County MPO is described as a SWEEP analysis, as follows:

- ✓ **Screen** level of service, traffic count and duration of congestion data, freight “hot spot” data and other State of the System (SOS) Report data; data from FDOT, PSTA and other transportation partners; and local input to determine which segments may be experiencing severe congestion, based on roadway performance.
- ✓ **Weigh** road performance data and safety/crash data for selected facilities/corridors/segments to achieve a single, combined score (rank) for each, based on a 60:40 (congestion: crash) ratio.
- ✓ **Evaluate** segments based on the highest combined raw scores and consideration of neighborhood and environmental impacts, economic development needs, and other local input.
- ✓ **Eliminate** locations, with MPO advisory committee input, that do not meet established criteria or are already programmed in the TIP for improvement.
- ✓ **Prioritize** remaining locations for programming in the TIP or LRTP or for implementation by local governments.

The MPO’s SWEEP analysis provides the opportunity to identify, evaluate and prioritize congested corridors and locations throughout the County for not only inclusion in the CMP, but also the MPO’s TIP and LRTP. As described above, the congested roadways and intersections are identified based on local input, including a review of county and municipal roadway and intersection projects, freight hot spots, top crash locations, top congested SIS and non-SIS roadways, and the enhanced corridors recognized in the LRTP. Enhancements may include

bicycle and pedestrian features, intersection and safety improvements, or aesthetic improvements.

The locations identified are evaluated to determine the primary cause of congestion and the appropriate multi-modal mitigation strategies. Strategies include the introduction or expansion of transportation demand management programs, public transit improvement as well as bike/ped and trail improvements, access and incident management, and ITS investments. Planning level cost estimates are developed for the recommended CMP strategies or projects.

The evaluation step of the five-step SWEEP process includes the scoring of roadway facilities and segments. The SWEEP scoring formula is based on a 60:40 (congestion:crash) ratio. As shown below, the formula involves adding the congestion factor and the crash factor together to arrive at an overall score. The congestion portion of the 60:40 ratio is comprised of two measures: duration of congestion (DOC) and the volume-to-capacity ratio (V/C). The DOC and V/C ratio are multiplied to determine the congestion factor. In those instances when the subject corridor/facility is comprised of multiple segments, the highest DOC reading and V/C ratio within the overall corridor/facility is used. The crash factor is determined by calculating the average number of crashes in the subject corridor/facility over a three year period, and dividing that number by the length of the corridor. With regard to the crash portion of the 60:40 ratio, crash rates were substituted as performance measures for crash frequencies. In summary:

- Congestion Factor = $DOC \times V/C$
- Crash Factor = Three year crash totals/3, then divide this number by the length of corridor
- Assuming Congestion Factor at 60% weight and Crash Factor at 40% weight:

$$\text{Congestion Factor} \times 1.6 \text{ plus } \text{Crash Factor} \times 1.4 = \text{Score}$$

Table 5 provides examples of the data used in the SWEEP process and the data sources.

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Table 5 – Types of Data Used in the SWEEP Analysis

Criteria	Purpose	Data Used as Performance Measures	Data Sources
Roadway Performance	Identify where congestion is occurring, severity, and prognosis for future congestion level.	Duration of congestion (DOC); volume to capacity ratio (V/C); modeling data in the Level of Service (LOS) Report	MPO's Transportation Planning Inventory (TPI) Database; State of the System Report; Level of Service Report; Long Range Transportation Plan
Safety	Identify segments that have disproportionate number of crashes, resulting in nonrecurring congestion	Crash frequencies or rates (including types and causes of crashes); citations issued for safety related issues such as red light running, etc.	MPO's CDMS database; FDHSMV crash database; content analysis of various safety studies and reports, including the FDOT 5% high crash report; law enforcement data
Funding Status	Eliminate CMP candidates already scheduled for short term improvements; identify segments scheduled for resurfacing, which may provide opportunities for additional enhancements, e.g., bike lanes.	Funding and implementation schedules	Transportation Improvement Program (TIP) and Long Range Transportation Plan (LRTP), reports from local governments
Value to the Community	Ensure that candidate projects and strategies are compatible with local values and visions, (includes livable communities, Environmental Justice (EJ), economic development, historic landmarks and districts, etc.)	Content analysis of local plans and programs; surveys; qualitative data obtained through individual and committee (group) input	Local government comprehensive plans; LRTP policies; public involvement activities; MPO's Technical Coordinating Committee, Intelligent Transportation Committee and Citizens Advisory Committee; Community Traffic Safety Team; citizen comments
Value to the Transportation System	Assess the significance of impact on the entire transportation network, including the regional network.	Designation as an activity center, Strategic Intermodal System (SIS), regional road, truck route, evacuation route, economic development or tourism site, etc.	Goods Movement Study (Freight Hot Spots); Truck Route designations; Long Range Transportation Plan; State of the System Report; emergency plans; MPO technical committees input
Multi-modal Availability	Promote and support the use of alternative modalities.	Transit travel time and ridership data; sidewalk, crosswalk, trail and bicycle lane coverage and trail usage data	LRTP; State of the System Report; Transit Plans; MPO's TPI Database; Pinellas County database; National Transit Database; PSTA Database; Transit route maps; FDOT and local government reports
Intelligent Transportation Systems	Identify where ITS is already operational, where scheduled, and its effectiveness.	Tentative schedules for ITS implementation; ITS travel time reduction and other follow-up studies	State of the System Report; Transportation Improvement Program; periodic ITS Reports from FDOT and Pinellas County; ITS/ATMS Master Plan

Step Six: Identify and Assess CMP Strategies

The identification and assessment of appropriate congestion mitigation strategies is a key component of the CMP. At this point in the process, the data and analysis is turned into a recommended set of strategies/ solutions to effectively manage congestion and achieve the CMP objectives. The Federal regulation states that the CMP shall include *“Identification and evaluation of the anticipated performance and expected benefits of congestion management strategies that will contribute to the more effective use and improved safety of the existing and future transportation system. Examples of strategies to consider include: demand management measures; traffic operational improvements; public transit improvements; Information Technology Services (ITS) technologies; and where necessary, additional system capacity.”* (23 CFR 450.320(c)4)

Community context and public involvement play an important role in determining the types of strategies that are appropriate for a specific corridor, roadway segment or intersection. Moreover, the MPO relies on the actions of its “partners” in implementing the strategies, including FDOT, PSTA and the local governments.

A wide range of congestion management strategies is available and can be broadly grouped into the following categories:

- ***Demand Management Strategies*** provide commuters with more options and reduce the numbers of vehicles or trips during congested periods. Strategies include programs that encourage transit use and ridesharing, and employers who permit telecommuting or flexible working hours.
- ***Traffic Operations Strategies*** focus on “getting more out of what we’ve got,” rather than building new infrastructure. Strategies include access management, optimizing traffic signal timing, restricting turns at key intersections, traffic calming, road diets, and traveler information or Intelligent Transportation Systems (ITS). Other operations strategies include improved management of work/construction zones, anticipating and

addressing special events, and FDOT's Traffic Incident Management (TIM) teams, Rapid Incident Scene Clearance (RISC) program and Road Rangers.

- ***Public Transit Strategies*** largely involve improving transit operations, improving access to transit, and expanding transit service – all which make transit more attractive, leading to increased ridership and thereby reducing the number of vehicles on the roadway network. Public transit strategies include realigning the service schedules and stop locations, providing real-time arrival and departure information, enhanced amenities and safety/security, offering express routes and bus rapid transit (BRT), more frequent service and extended hours of operation, improved bike/ped facilities at transit hubs/stops, and expanding the bikes-on-buses program.
- ***Road Capacity Strategies*** involve adding more base capacity to the road network by adding new lanes, building new roads, or redesigning roadway segments or intersections where bottlenecks occur, in order to increase capacity. *It should be noted that management and operational strategies should be considered before additional capacity is considered.*

Table 6 summarizes the variety of congestion management strategies that can be considered. The MPO's techniques for evaluating and ultimately selecting congestion mitigation strategies include collaboration with its "partners" (FDOT, PSTA, TBARTA and the local governments), and input from primarily two advisory committees: Technical Coordinating Committee (TCC) and the Intelligent Transportation Systems (ITS) Committee.

Table 6 – Congestion Management Strategies

Demand Management Strategies	Transportation Demand Management
	Alternative Work Hours/Flexible Hours
	Telecommuting
	Ridesharing/Vanpool/ School Pool
	Emergency Ride Home
	Safe Routes to School
	Park & Ride Lots
	Public Transit Improvements
	Reduced /Discounted Transit Fares
	Increased Route Coverage/Frequency
	Real-Time Data
	Premium Transit/BRT/Passenger Rail
	Exclusive Bus Right-of-Way
	New/Modern Vehicles
	Transit User Amenities
	Park & Ride
	Bike/Pedestrian/Trail
	New Sidewalk Connections/Crosswalks
	Bike Lanes, Paved Shoulders
	Multi-Use Trails
	Improved Facilities at Major Attractors/Racks/Lockers
	Improved Safety & Security, Road Safety Audits
	Signing/Striping/Lighting
	Land Use/Growth Management
	Pedestrian and Transit Oriented Development Guidelines
	Mixed-Use Development
	Activity Centers/Overlay Districts
	Complete Streets/Livable Communities/Smart Growth Land Development Regulations
Operational Management Strategies	Access Management
	Frontage Roads, Consolidated Driveways, Channelized Medians
	Increases in Capacity
	New Road Construction/New Lanes/Road Widening
	Incident Management
	Incident Detection and Management System
	Road Rangers
	Traffic Incident Management (TIM) Team
	RISC (Rapid Incident Scene Clearance) Program
	ITS and Transportation Systems Management
	Traffic Signal Coordination
	Red Light Camera Enforcement
	Intermodal Enhancements
	Dynamic Messaging/Improved Signage
	Transit Signal Priority
	Intersection Improvements
	511 Traveler Info
	Road Signage/Pavement Marking

Step Seven: Program and Implement Strategies

Federal regulations require that the CMP include “*identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy, or combination of strategies proposed for implementation*” (23 CFR 450.320 (c) 5).

The responsibility for programming and funding the operational and demand management strategies identified in Table 6 falls into the purview of federal, state, local and private entities. Because projects are most often implemented by agencies other than the MPO, e.g., various local governments, FDOT or PSTA, oversight by the MPO staff and input from the MPO’s advisory committees help ensure the sharing of information and the coordination requisite to measuring the effectiveness of the strategies being implemented. Such information and coordination is crucial to achieving the full realization of the CMP as a continuous process. The CMP does not over-ride or “trump” existing programming or funding responsibilities, but rather highlights those responsibilities already reflected in the long-range transportation plan (LRTP).

Some Florida MPOs exercise programming authority regarding the menu of operational and demand management strategies outlined in their CMP. For example, the METROPLAN Orlando MPO has set-aside funding for quick response operational improvements, while the Miami-Dade

The LRTP identifies the long-term transportation system projects and improvements that are to be implemented to provide for the future mobility needs of Pinellas County residents, workers and visitors over the next 25 years. As funding becomes available, the projects become part of the adopted TIP, which contains the five-year schedule of work programs of FDOT, PSTA, Pinellas County and the municipalities. It should be noted, however, that some projects identified in the TIP, such as resurfacing, safety or operational projects, may not be specifically referenced within the LRTP due to their short-term nature.

Improvements listed in the TIP are consistent with MPO priorities and the FDOT Work Program.

MPO is expanding an earlier set-aside program to take a more comprehensive corridor-wide approach to funding congestion management improvements, and better integrating them with one another and the adopted LRTP improvements. The Pinellas MPO has a set-aside in the 2035 LRTP for CMP projects starting in 2015. That set aside however is not tied to specific projects. A comprehensive list of management and operations projects is under development. Once completed, the MPO with input from its advisory committees will be asked to establish an annual set-aside of federal funds to be used in combination with state and local funds to pay for CMP operations and management improvements.

Pinellas County MPO CMP funding policy to be inserted here.

As noted previously, the CMP approach emphasizes the need to consider a broad menu of low cost improvements as primary strategies, reducing the need for, or the cost of, more expensive improvements wherever possible and practical. The agency that bears the cost of such projects is typically the State, County or local government responsible for maintaining the roadway.

Some CMP improvements may require relatively little expense to implement, such as adding signage or pavement markings, or trimming trees and hedges to improve visibility thus reduce crashes at certain intersections. Also, for bicycle or sidewalk enhancement projects, opportunities may become available at a reduced cost when initially included in a TIP resurfacing project. More costly capacity improvements, such as adding turn lanes, may require additional funding through the TIP and the LRTP.

The TIP selection process is a collaborative effort between the Pinellas County MPO, the Florida Department of Transportation (FDOT), Pinellas Suncoast Transit Authority (PSTA), Pinellas County Government, and the municipalities within the urbanized area. The existing TIP prioritization process includes consideration of the following:

- Concurrency management requirements *and levels of traffic congestion (emphasis added)* - Roads operating at peak hour level of service (LOS) E or F; roads with high volume to

capacity ratios or durations of congestion; and roads identified through the Congestion Management Process;

- Safety - Frequency and type of crashes that occur along a particular corridor or intersection, with particular emphasis on school access needs;
- Impact on Strategic Intermodal System (SIS) – Facility improvements necessary to improve the operations of the Strategic Intermodal System (SIS);
- Emergency evacuation – Improvements on roads needed to expedite the process of evacuating people in a hurricane event;
- Connectivity/consistency with Regional Long Range Transportation Plan;
- Intermodal access – Access to airports or seaports, transit terminals;
- Environmental impact – Impacts on the natural environment;
- Goods movement – Accommodation for freight-carrying vehicles, such as heavy trucks and cargo planes in the transportation of goods;
- Access to major trip generator or activity center – The extent to which a transportation improvement would improve access to destination points that attract a high level of traffic activity (e.g., airport, regional shopping center, major employment center, etc.).

Step Eight: Evaluate the Effectiveness of Strategies

Federal regulations require that the CMP include *“Implementation of a process for periodic assessment of the effectiveness of implemented strategies. Results of this assessment shall be provided to decision-makers and the public to provide guidance on the selection of effective strategies for future implementation”* (23 CFR 450.320 (c) 6). Evaluation of strategy effectiveness can be seen as either a sequential step within the CMP process or as an on-going process. Findings that show improvement in congested conditions due to specific implemented strategies can be used to encourage further implementation of these strategies. Due to the fact that the Pinellas County MPO does not have sufficient resources to conduct many detailed studies to measure the effectiveness of particular congestion strategies or projects, and because “partner agencies” are primarily responsible for the implementation of CMP strategies, the most reasonable approach is to have the local project sponsors conduct the evaluations of their projects and programs, with MPO funding support when available. This information is shared with the MPO staff and then reported to the TCC and the ITS committees, and other advisory committees, as appropriate.

The biennial State of the System (SOS) Report serves as the foundation of the MPO’s CMP. The SOS Report provides a detailed assessment of countywide trends and conditions pertaining to roadway, transit, and bicycle/pedestrian/trail performance in Pinellas County. Arguably, the SOS Report tracks the effectiveness of the congestion mitigation strategies implemented by the various “partners” and the effectiveness of the multi-modal transportation system as a whole. Many of the CMP performance measures identified in Table 3 are tracked in the SOS Report:

- ✓ **Roadway Performance Measures**, including roadway traffic volume to capacity ratios, duration of congestion, and number/location of crashes.
- ✓ **Public Transit Performance Measures**, including passenger trips per revenue hour, average peak service frequency, on-time performance, and annual ridership.

- ✓ **Bicycle/Pedestrian/Trail Facility Performance Measures**, including increase in the percent coverage of bike lanes and sidewalks; and increase in the miles of multi-use trails.
- ✓ **TDM Performance Measures**, including the number of carpools, vanpools and school pools, and the participation rates.

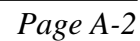
The MPO prepares a strategy tracking report that is updated periodically and presented to the ITS and TCC advisory committees as changes occur. (See Appendix for Status Report: Implementation of Identified Strategies – CMP Corridor and Hot Spot Studies.)

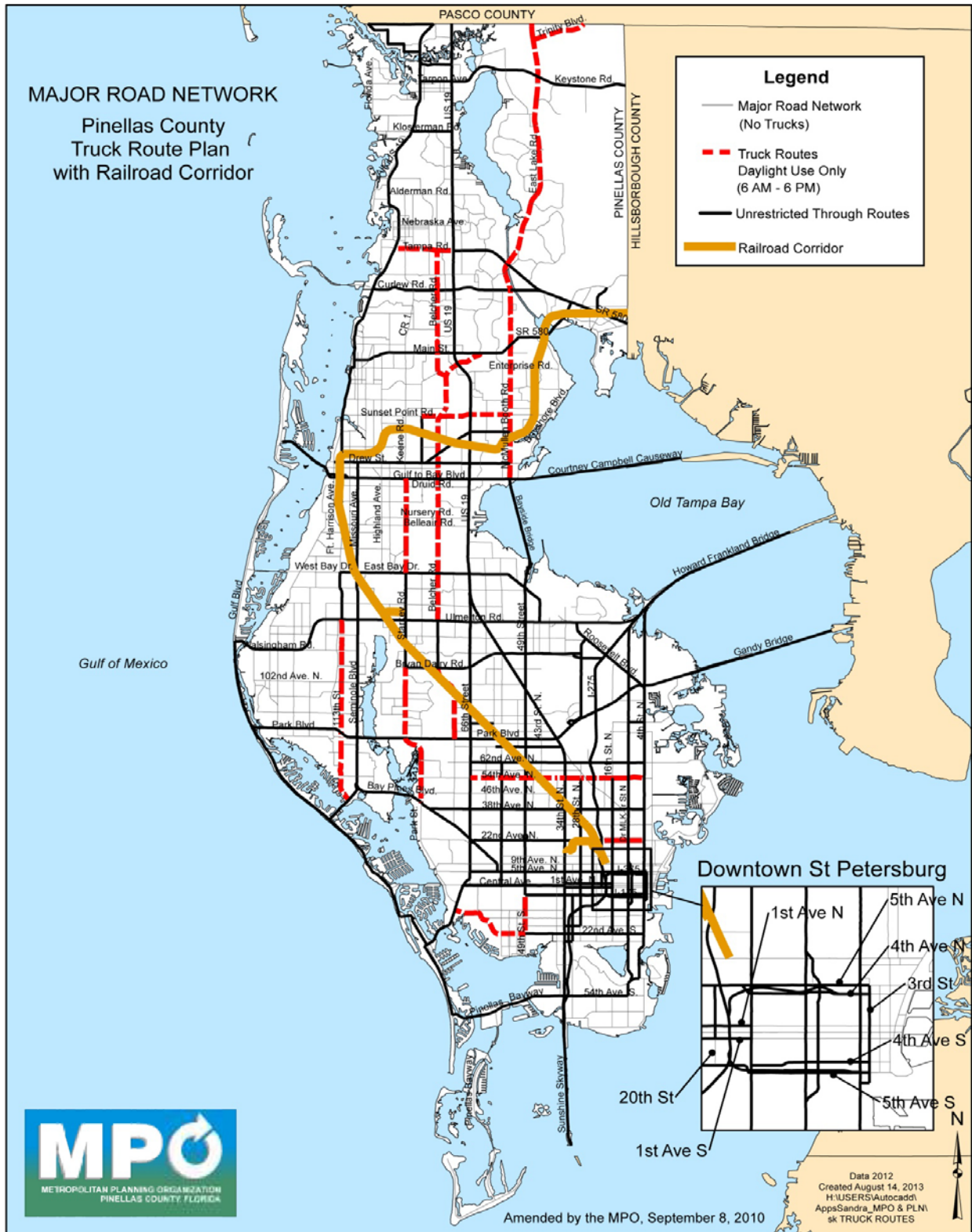
MAPS

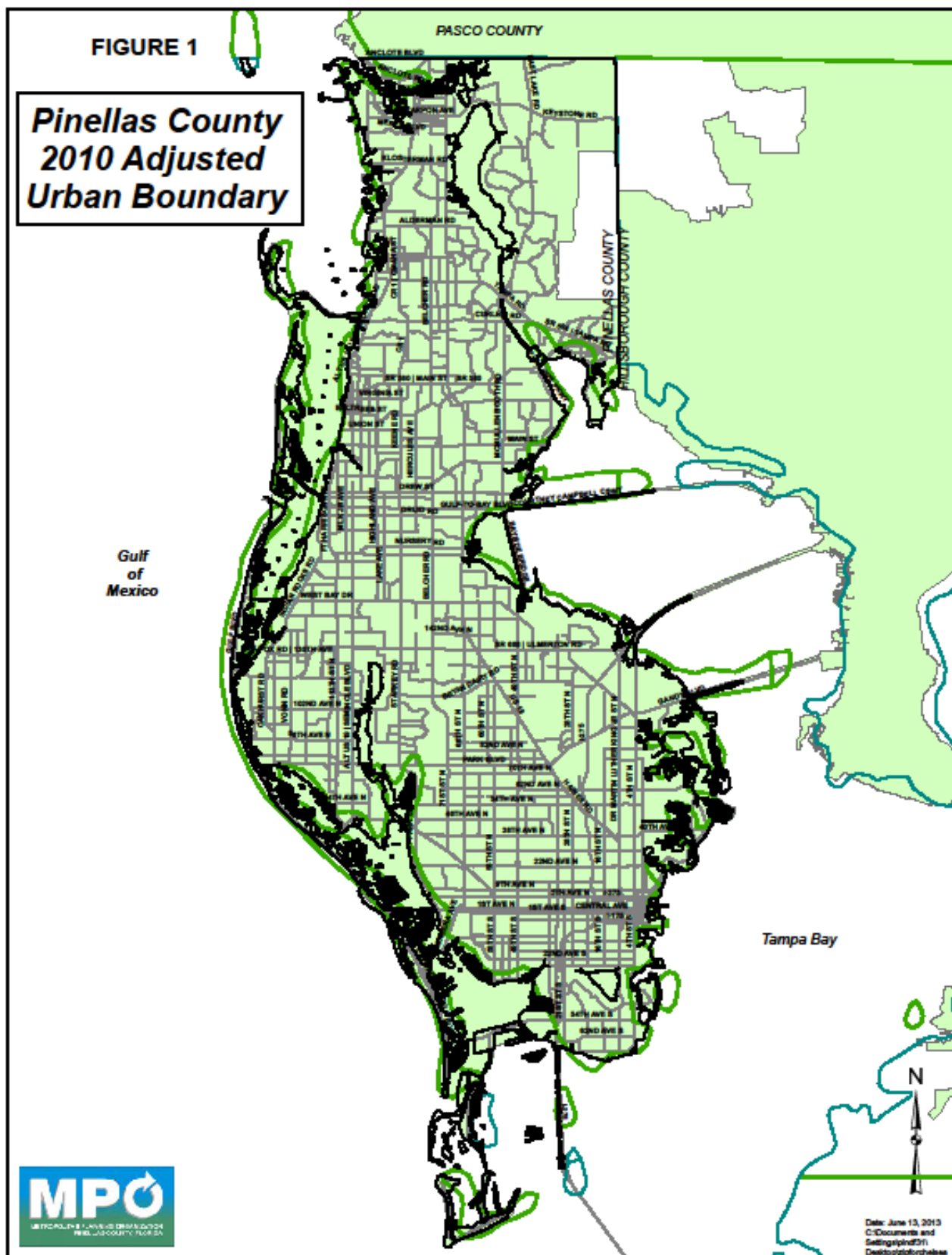
- Major Road Network: Congestion Management Process (CMP) Corridor and Hot Spot Studies
- Major Road Network: Pinellas County Truck Route Plan with Railroad Corridor
- Pinellas County Adjusted Urban Boundary
- Major Road Network by Jurisdiction
- Intelligent Transportation Systems (ITS) Corridors
- PSTA Transit Development Plan FY 2012 – FY 2021
- Pinellas County Trailways Plan
- CCC Regional Road Map

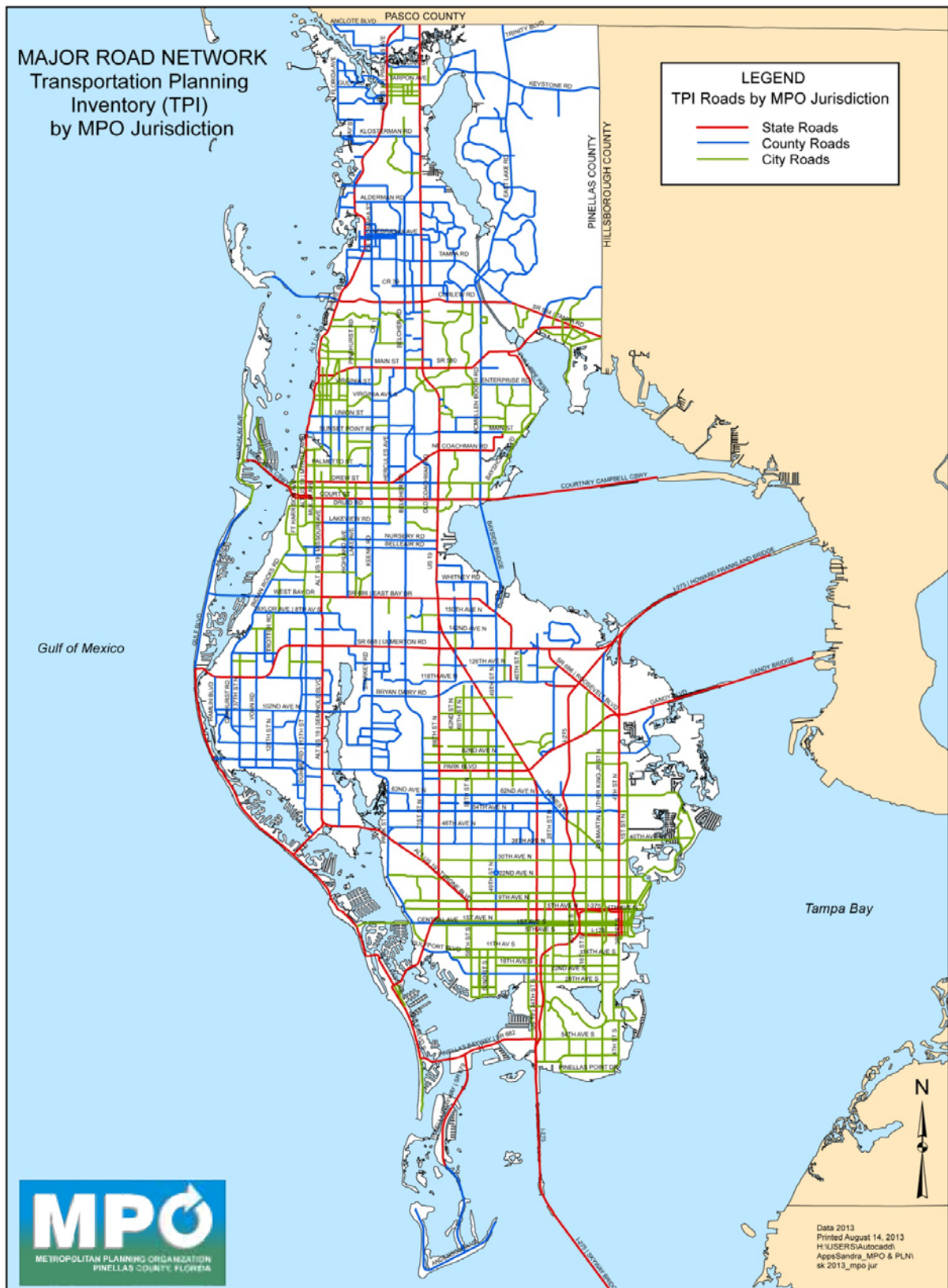
Regulations/Reports

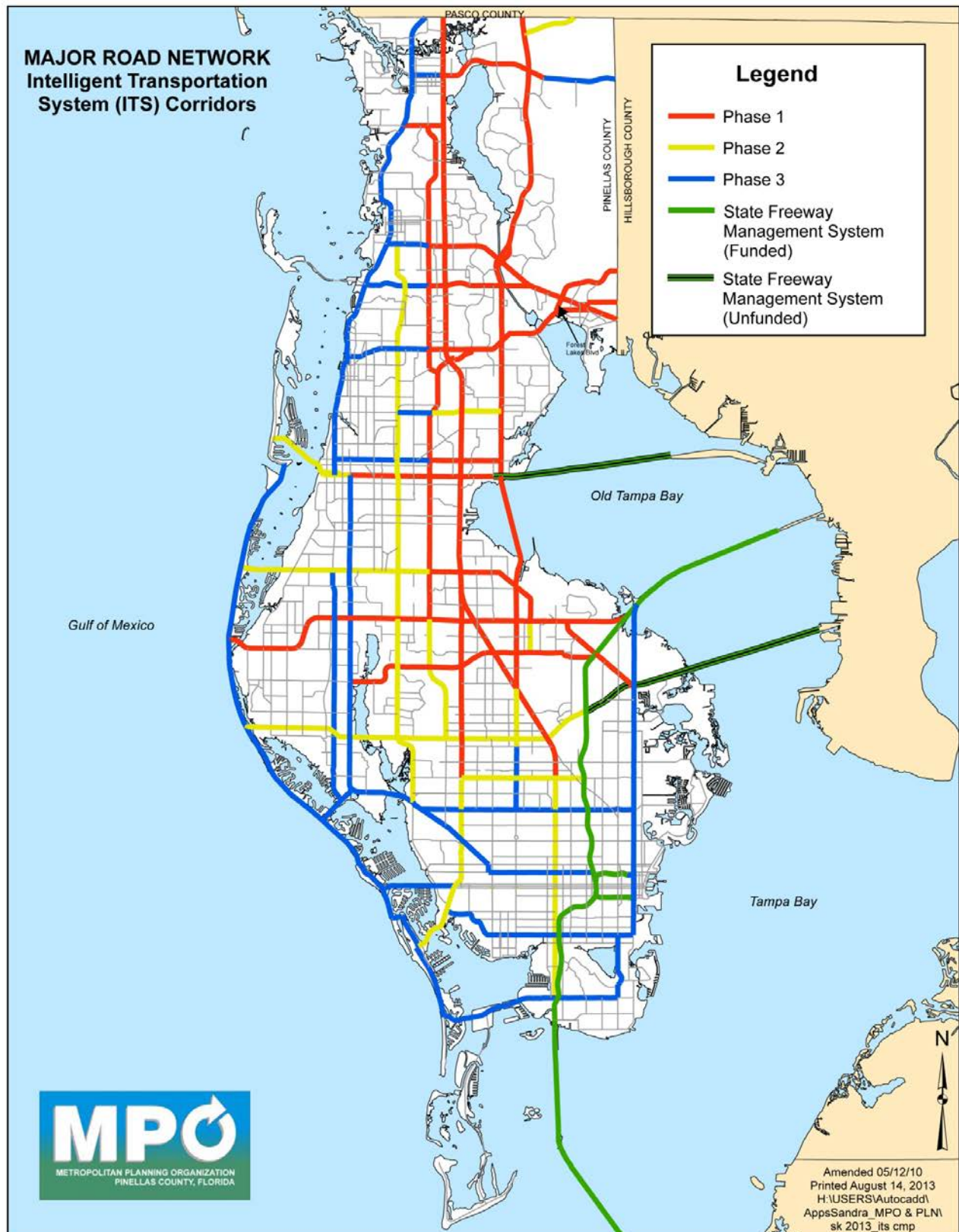
- Title 23, Section 450.320 of the U.S. Code of Federal Regulations: Congestion Management Process in Transportation Management Areas
- Status Report: Implementation of Identified Strategies – CMP Corridor and Hot Spot Studies
- Unfunded CMP Projects from 2013/14 to 2017/18 TIP



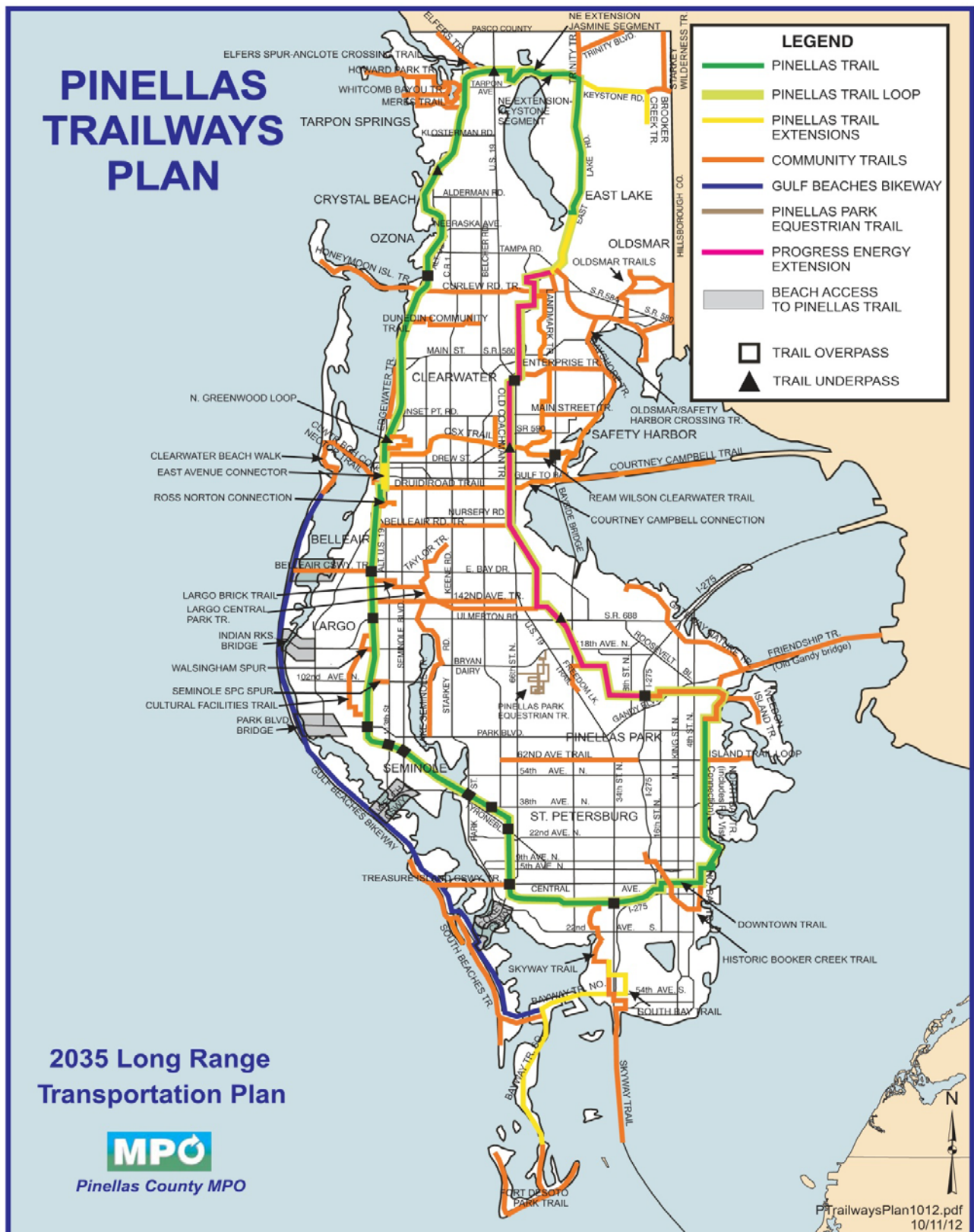


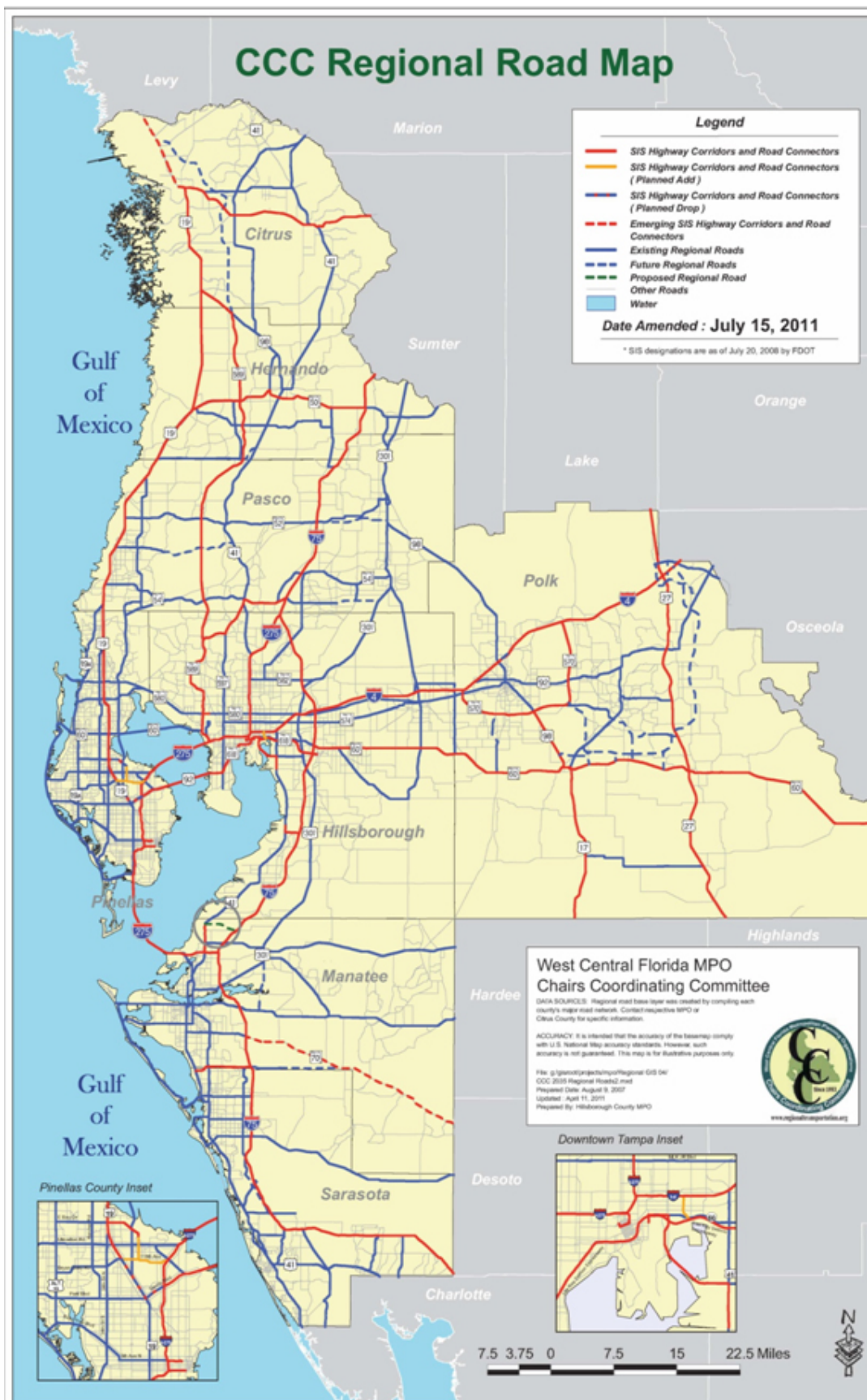












Title 23, Section 450.320 of the U.S. Code of Federal Regulations: Congestion Management Process in Transportation Management Areas

- a. The transportation planning process in a TMA shall address congestion management through a process that provides for safe and effective integrated management and operation of the multi-modal transportation system.
 - Cooperatively developed and implemented
 - Travel reduction strategies
 - Operational management strategies
- b. The CMP should result in multi-modal system performance measures and strategies.
 - Acceptable levels of service may vary from area to area
 - Consider strategies that:
 - I. Manage demand
 - II. Reduce single occupant vehicle travel
 - III. Improve transportation system management and operations
 - Where general purpose lanes are determined to be appropriate, must give explicit consideration to features that facilitate future demand management strategies.
- c. The CMP shall be developed, established, and implemented in coordination with Transportation Systems Management (TSM) and operations activities. The CMP shall include:
 - Methods to monitor and evaluate the performance of the multi-modal transportation system
 - I. Identify the causes of congestion
 - II. Identify and evaluate alternative strategies
 - III. Provide information supporting the implementation of actions
 - Definitions of congestion management objectives and appropriate performance measures to assess the extent of congestion and support the evaluation of the effectiveness of strategies. Performance measures should be tailored to the specific needs of an area. Establishment of a coordinated program for data collection and system performance monitoring to define the extent and duration of congestion. To the extent possible, this program should be coordinated with existing sources.
 - Identification and evaluation of the anticipated performance and expected benefits of congestion management strategies that will contribute to the more effective use and improved safety of the existing and future transportation system. Examples of strategies to consider include:
 - I. Demand management measures, including growth management and congestion pricing
 - II. Traffic operational improvements
 - III. Public Transit improvements
 - IV. Information Technology Services (ITS) technologies
 - V. Where necessary, additional system capacity
 - Identification of an implementation schedule, implementation responsibilities, and possible funding sources for each strategy.

- Implementation of a process for periodic assessment of the effectiveness of implemented strategies. Results of this assessment shall be provided to decision makers and the public to provide guidance on the selection of effective strategies for future implementation.
 - TMAs designated nonattainment for ozone or carbon monoxide may not program federal funds for any project that will result in a significant increase in the carrying capacity of Single Occupant Vehicles (SOVs), with the exception of safety improvements or the elimination of bottlenecks (within the limits of the appropriate projects that can be implemented).
- d. In TMAs designated nonattainment for ozone or carbon monoxide, the CMP shall provide an appropriate analysis of reasonable (including multi-modal) travel demand reduction and operational management strategies for a corridor in which a project with a significant increase in SOV capacity is proposed to move forward with federal funds.
- e. State laws, rules, and regulations pertaining to congestion management systems or programs may constitute the congestion management process, if FHWA and Federal Transit Administration (FTA) find that these are consistent with the intent of this process.

Status Report: Implementation of Identified Strategies - CMP Corridor and Hot Spot Studies

Study Limits	Study Performed	Updates/Notes	Remaining
ALT US HWY 19 Lakeview RD to Pasco County Line	Oct. 1998 Updated Mar. 2004	<ul style="list-style-type: none"> Alignment changed in Clearwater and Largo in 2007. TIP: Resurfacing from Whisper Lake RD to Harry ST CST 2012/2013 Tentative Work Program – Resurfacing from N of Curlew Rd to N of Whisper Lake PE 2012/2013, CST 2014/2015 Gulf Beach Trolley service to Dunedin, Tarpon Springs, etc begun in 2010. 2035 LRTP: Forecasts severe congestion; transit enhancements have been implemented and segment has been identified for premium transit routes between beaches, Largo, St. Petersburg, Tampa and US HWY 19; roadway enhancements between Anclote BLVD and Live Oak ST and between Klosterman RD and Brevard ST. Phase III ITS Truck route (unrestricted) 	Previously identified improvements mostly completed, with the exception of southbound right turn lane at Dodecanese BLVD and southbound left turn lane at Curlew PL. Recent request to look at pedestrian safety and transit access at Florida AVE and Alt 19 in Palm Harbor.
22nd AVE N Park ST to Dr. M.L. King Jr. ST	Oct 2003	<ul style="list-style-type: none"> Implemented at Dr. Martin Luther King, 16th ST and 28th ST - pedestrian signal heads at trail crossings. Solar powered crossing equipment installed at Pinellas Trail. Implemented at I-275 - mast arms on both sides with backplate. Truck route (unrestricted) Bike lane system expanded in area. FDOT performed extensive study in summer, 2012 	Provision of an additional eastbound left turn lane to the northbound on-ramp at I-275 has been programmed. Construction to occur 2014/15.
54th AVE S 28th ST S to 41st ST S	Mar 2007	<ul style="list-style-type: none"> Implemented signalization improvements. Phase III ITS. Bicycle lanes between 34th ST to east of 41st ST underway Truck route (unrestricted) 	In November 2013, funding approved for the construction of an exclusive right-turn lane on the eastbound side of 54 th Ave. S. at 31 st St.; extend westbound lane and modify it to a shared through/right turn lane. At 34 th St., modify the southbound approach to two exclusive left-turn lanes, one through lane and one right turn lane.
McMullen-Booth RD Gulf-to-Bay BLVD to Tampa RD	Jul 2003	<ul style="list-style-type: none"> ITS in 2009. Identified in 2035 LRTP for premium bus Truck route (daylight) Safety study of signal at Briar Creek RD complete Intersection improvements Drew ST, complete Modifications for Enterprise Rd complete, 	County on-road bike lanes completed.
East Lake RD Tarpon Woods BLVD to Keystone RD	Sept 2008	<ul style="list-style-type: none"> 2035 LRTP: Forecasted for significant congestion; premium bus lines. Safety Audit - Tampa RD to Trinity RD 2009 (Identified Keystone RD as highest crash. Overall, highest type was rear-end.) ITS 2009. Keystone RD widening underway Truck route (daylight). Safety related improvements at Tarpon Woods intersection. 	2008 CMP study recommended access management, but 2009 Safety Audit Report concluded that access was “very good,” with a minimum of openings. Implementation of recommendations drawn from 2009 safety audit to be identified by County.

Belleair RD Intersection Belcher RD	at Sept 2008	<ul style="list-style-type: none"> • Interchange at US HWY 19 under construction; • 2035 LRTP: intersection improvements and other enhancements planned for Belleair RD; planned Progress Energy Trail extension (Belleair RD to Ulmerton RD). • In Tentative Work Program intersection improvements PE 2012/2013; CST 2014/2015 • Eagle Lake Park opened 2010 at Keene RD, making this intersection link between trail and park. • CIP: County will do intersection improvements. 	Bicycle and pedestrian safety improvements and signalization.
East Bay DR Intersection Belcher RD	at Sept 2008	<ul style="list-style-type: none"> • ITS 2010-2011. • 2035 LRTP: Forecasted for significant congestion; identified for premium bus network, including to Downtown Tampa. • Truck route (unrestricted) • County performed safety study in 2011 	Pedestrian refuge and other safety improvements. ITS due to be operational in 2012 or slightly later. County performed a road safety audit on July 2011.
N.E. Coachman RD Intersection at Old Coachman RD	Sept 2008	<ul style="list-style-type: none"> • Upgraded signal and pavement 2009. • Progress Energy Trail expansion to US HWY 19 at Enterprise RD • Truck route (unrestricted) • Super Walmart provided some modifications to turn lanes west of US Hwy 19. • Tentative Work Program - Resurfacing PE 2012-2013, CST 2014-2015 may provide opportunities 	Intersection improvements including left turn lane, protected turn signal and bicycle facility/safety improvements. (Needs to be included in LRTP prior to FDOT consideration for PD&E study.)
Drew ST. Intersection Betty LA	at Sept 2008	<ul style="list-style-type: none"> • Bicycle lane in 2035 LRTP. • ITS Phase III • Truck route (unrestricted) • Resurfacing, Tentative Work Program from Alt US 19/Myrtle to Mariva Ave. may provide opportunity for improvement. CST 2012/2013 • Drew St/Betty Lane lot is currently under residential development, but this will not address road improvements. • City permitted use of golf course property for left turn storage, but FDOT was not able to provide full funding for construction, and Clearwater did not have funds available for remainder. • Sidewalk improvements will be made to eliminate gap. • Alternative bike route was established at Cleveland Street. (Road is too narrow for bike lane at Drew St.) Clearwater was asked to consider signage to reroute bicyclists to Cleveland Street. 	Provide left turn storage lane. Eliminate gaps in the sidewalk.

Rev: November 2013

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Pinellas County MPO FY 2013/14 – 2017/18 TIP: Unfunded Congestion Management Process (CMP) Projects

- Alt. 19 @ Dodecanese Blvd (Add a southbound right-turn lane)
- Alt. 19 @ Curlew Place (Add a southbound left-turn lane)
- McMullen Booth @ SR 60 (Add a northbound right-turn lane)
- McMullen Booth @ Sunset Point Rd (Add a northbound right-turn lane)
- McMullen Booth @ Curlew Rd (To be determined)
- 54th Ave S @ 31st St (Add an exclusive eastbound right-turn lane; Extend the westbound right-turn lane and modify it to a shared through/right-turn lane)
- 54th Ave S @ 34th St (Modify the southbound approach to two exclusive left-turn lanes, one through lane, and one right-turn lane; Eastbound and westbound approach improvements)
- Belleair Rd @ Belcher Rd (Near term - Signalization/signing improvement; Bicycle facility improvement)
- East Bay Dr @ Belcher Rd (Near term - pedestrian refuge area and other safety improvements; Long term – Transportation demand management and access management strategies)
- East Lake Rd from Tarpon Woods Blvd to Keystone Rd (Near term - Access management; Long Term - Implement transportation demand management strategies)
- NE Coachman Rd @ Old Coachman Rd (Long Term – Add left-turn lanes, protected left turn signal and bicycle facility improvement)
- Drew St @ Betty Lane (Long term - Provide exclusive left turn storage lanes pending redevelopment)

Note: List includes the FDOT five (5) percent High Crash Locations on Local Roads.