

Transportation Service Standards

Transportation



Background

One of the most critical public services provided by a community is the community's transportation system. An effective transportation system enables a community to move within and through a community with ease. Establishment of such a system requires communities to coordinate land use, transportation service, and capital budget planning so that the city may establish a set of appropriate transportation service system and effective transportation level of service standards.

The most important element that addresses issues involved with the development of effective transportation services is the Transportation Service Element. Through the establishment and adoption of roadway level of service standards, the Transportation Service Element establishes the planning framework for the planning and development of a functional transportation system.

Planning Framework

The objectives and policies established in the Transportation Services Element provide the foundation for a planning framework which:

- Makes all planned land uses accessible.
- Provides for the safe and efficient movement of people and goods while preserving, enhancing, or reclaiming community livability.
- Offers alternatives to transportation concurrency that support the city's infill development and redevelopment.
- Reduces reliance on single passenger occupied automobiles and per capita vehicle miles traveled.
- Guides the use of the city street system to control air pollution and traffic.
- Achieves the community planning vision established through the Horizon 2030 EAR and 2010 Comprehensive Plan.
- Addresses the guiding issues and community concerns identified in the 2009 EAR.
- Provides for local, regional, and state planning priorities, principles, and practices.

The Transportation Services Planning Framework accomplishes its goal to "provide for the mobility needs of the city's residents, businesses, and visitors by supporting a safe, accessible, and efficient transportation system" through planning directives aimed at:

- Ensuring that transportation decisions, strategies and investments are coordinated with land use goals and support West Melbourne's community planning strategy.

Transportation Service Standards Framework

Three components of West Melbourne's Transportation and Service Standards Framework are:

- 1) Support the community's residents, businesses, and visitors ability to easily move throughout the city.
- 2) Provide for appropriate levels of service on the city's roadways and other transportation systems such as pedestrian, bicycle, and transit.
- 3) Coordinate land use, transportation service, and capital budget planning.



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- Coordinating transportation facility and infrastructure needs with development demands.
- Establishing an effective roadway network which safely balances capacity among competing uses and multiple users.
- Establishing transportation service standards that promote a safe and effective system.
- Addressing the community's transportation development needs, service standards, and financial capabilities.
- Coordinating a system of roadways which will be maintained and improved to meet the area's 2035 traffic demands.

Through the implementation of the Transportation Services Element and adherence to the service standards established herein, the community will ensure that its transportation system supports its quality of life and future community planning vision.

The Land Use - Transportation Services Connection			
Indicator	Multi-Modal	Transportation Options	Auto Oriented
Vehicle Trips	<50%	50-80%	>80%
Land Use Patterns	Highly compact & mixed	Moderately compact & mixed	Dispersed & separated
Commercial Areas	Oriented to street	Along street front	Strip plazas & business centers
Residential Areas	Highly integrated	Moderate connections	Separate & gated
Transportation System	Many alternatives & highly integrated	Options & connected	Automobile Focus
Roadway Design	Complete Streets -- All Users and Modes	Provides for options	Maximizes car speeds & volumes
Roadway Integration	Grid network	Connectors	Arterials & local
Mode for errands	Mostly walking, cycling, transit	Mixed	Automobile Focus



Donley Associations

Transportation Service Standards Goal:

Provide for the infrastructure mobility needs of the city's residents, businesses, and visitors by supporting a safe, secure, accessible, and efficient transportation system.

Objective 1: Transportation and Land Use Coordination

Ensure that transportation decisions, strategies and investments are coordinated with land use goals and support West Melbourne's community planning strategy by:

- Providing adequate accessibility to all planned land uses.
- Providing for the safe, secure and efficient movement of people and goods while preserving, enhancing, or reclaiming community livability.
- Offering alternatives to transportation concurrency that support the city's infill development and redevelopment.
- Reducing reliance on the automobile and per capita vehicle miles traveled.
- Guiding the use of the city street system to control air pollution, traffic, and livability problems.

Transportation Goal

Provide for the infrastructure mobility needs of the city's residents, businesses, and visitors by supporting a safe, secure, accessible, and efficient transportation system.



Policies

1.1 Transportation Improvements and Land Use Connection

Ensure future transportation infrastructure improvements support the city's land use goals and community planning vision by providing for:

- Interconnected community neighborhoods.
- Linked commercial areas and employment centers.
- Accessible public spaces, gathering centers, and civic resources.
- Integrated city-wide development patterns.

1.2 Transportation Infrastructure Facilities

Make the design and scale of transportation facilities compatible with surrounding land uses and with consideration for the character anticipated by the city's adopted community planning vision.



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1.3 Siting Considerations

Utilize transportation location criteria to establish appropriate locations for all new transportation infrastructure systems and facilities. Criteria include:

- Land uses in surrounding area.
- Vehicle trips per day.
- Congestion constraints.
- Funding.
- Right-of-Way availability.
- Safety of people using all modes of transportation.

1.4 Transportation Concurrency Exception Area Designation

By 2011, the city shall coordinate the funding source and mobility strategies for non-local roads with Brevard County, Florida Department of Transportation (FDOT), and Space Coast Transportation Planning Organization (TPO) in support of state priorities for transportation concurrency in dense urban land areas such as the City of West Melbourne.

Objective 2: Coordinated Transportation Facilities and Development Demands

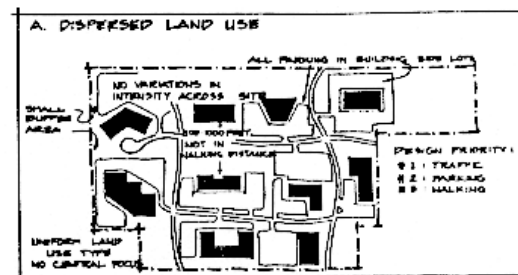
Coordinate transportation facility and infrastructure needs with development demands to minimize the impacts from existing or proposed roadways within existing neighborhoods and the natural environment.

Policies

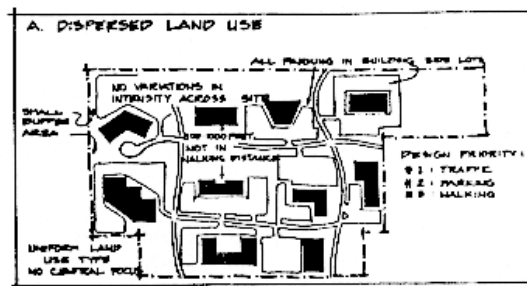
2.1 Increased Transportation Sustainability

Recognize the influence transportation planning has on land use practices, community livability, and long term sustainability by:

- Reducing greenhouse gas emissions.
- Encouraging land development activities that optimize access to two or more transportation modes.
- Minimizing adverse environmental and community impacts caused by auto-centric land uses.
- Improve street livability by providing multiple transportation alternatives.



By recognizing the connection between land use and transportation planning decisions, the West Melbourne's New Horizon 2030 Comprehensive Plan seeks to ensure it provides community members, business people, and visitors variety highly diverse, efficient, and integrated modes of travel.



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2.2 Adequate Public Facility and Development Coordination

Ensure the analysis of future roadway impacts of new developments. Some of the issues to be considered are:

- Impacts of proposed developments on roadway LOS standards.
- Impact on specific roadway segments or intersections.
- Accessibility between and within development areas, such as; activity centers/intermodal hubs and neighborhoods.
- Safety issues—i.e.: motorists, pedestrians, bikers, and other system users.



2.3 Developer Contributions

Utilize developer agreements or other legally binding documents to ensure private developers pay for the impacts caused to the city's transportation infrastructure system. Agreements shall be utilized to acquire, expand, and maintain existing and new transportation facilities including:

- Pedestrian and biking facilities.
- Right-of-way needs.
- Roadways.
- Intersection or roadway improvements.
- Traffic signals improvements.
- Contribution to roadway needs.
- Bus shelters.
- Area for park and ride facilities or shared facility agreements.



2.4 Large Impacting Developments

Developments that meet the thresholds of being a Development of Regional Impact shall address countywide transportation impacts as follows:

- Coordination meetings and a binding agreement shall be provided with FDOT, ECFRPC, Brevard County, the TPO, and adjacent impacted municipalities or with the most directly impacted entities.
- DRI size non-residential development shall provide public transportation ridership amenities including bus shelters, seating, and route information and provide incentives to encourage public transportation and ridesharing.
- Park and ride facilities shall be provided or coordinated with existing park and ride facilities in a 1-mile radius, or the developer shall provide a justification study and alternate traffic demand programs.

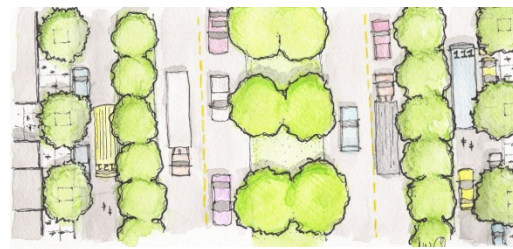


2.5 Development Roadway Coordination

The city shall coordinate with the appropriate developer(s) on a regular basis to ensure that major roadway segments that are required as part of their development approval with other transportation projects are completed.

Norfolk Parkway is an example of how the City of West Melbourne partners with private developers to construct needed roadway facilities.

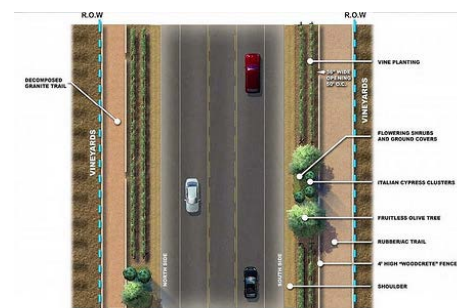
Sample of Roadway Plans



Olsen Planning and Landscaping



Watershed Companies



Ranchero, CA



Copely Wolff Design Group



VHB

2.6 Infill and Redevelopment Considerations

Utilize the development process to ensure that transportation concerns are addressed for all infill and redevelopment projects including:

- Impacts on existing road systems.
- Need for new transportation infrastructure including new streets, sidewalks, landscaping, bike lanes, parking, bus shelters or waiting areas, and rest areas.
- Implementation of multi-modal transportation infrastructure and streetscape design.
- Coordination of TCEA mobility plan and multi-modal strategies.

2.7 Accessory Facility Standards

Utilize the development order process to determine accessory transportation needs including:

- Parking.
- Right-of-ways.
- Streetscape.
- Street trees and landscaping.
- Stormwater systems.
- Utility infrastructure.

2.8 Buffering and Landscaping Considerations

Utilize the development process to promote community character by buffering residential and community areas from major transportation systems. Buffering and landscaping criteria that ought to be considered include:

- Visual appeal of roads, bus shelters, and other facilities to the surrounding area.
- Potential noise, unattractive views, and nuisance issues associated with the roadway.
- Xeriscaping practices such as use of native vegetation materials.
- Grouping plant material with similar water needs.

2.9 Environmental Impacts

Utilize the site and development process to minimize transportation infrastructure impacts on the environment by addressing the following concerns:

- Stormwater runoff and flooding.
- Extensive impervious surface areas.
- Habitat fragmentation.
- Removal of shade trees.

Objective 3: Effective and Efficient Roadway Network

Establish an effective and efficient road network which safely and efficiently allows for all modes and users to utilize the roadways and balances limited street capacity among competing uses.

Policies

3.1 Roadway for All Uses and Users

Allocate street space among various uses (i.e.: vehicular traffic, public transportation, trucks, bicycles, parking, and pedestrians) to enhance the functionality of a street for all users.

3.2 Roadway Network Classification

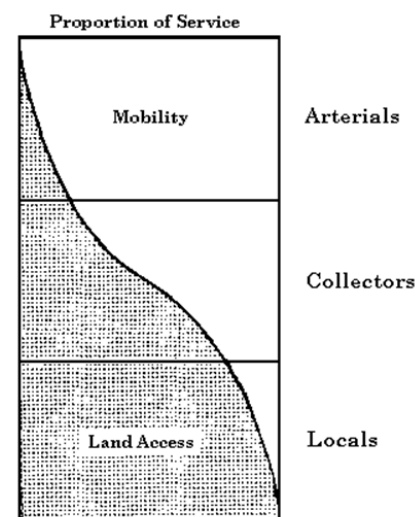
Designate, in the transportation roadway network that defines interstate freeways, regional, principal, minor and collector arterial streets, commercial and residential access streets, and alleys as follows:

- a. Interstate Freeways: roadways that provide the highest capacity and least impeded traffic flow for longer vehicle trips.
- b. Regional Arterials: roadways that provide for intra-regional travel and carry traffic through the city or serve important traffic generators, such as regional shopping centers, employment centers, a major university, or sports stadia.
- c. Principal Arterials: roadways that are intended to serve as the primary routes for moving traffic through the city connecting neighborhoods and business areas, and employment centers to one another, or to the regional transportation network.
- d. Collectors: roadways that collect and distribute traffic from principal and minor arterials to local access streets or provide direct access to destinations.
- e. Local Access Streets: streets that provide access to local residences, businesses, and other local destinations.
- f. Alleys: travelways that provide access to the rear of residences and businesses that are not intended for the movement of through trips. Where a continuous alley network exists, it is the preferred corridor for utility facilities.

Arterial roads provide high speed, but low accessibility.

Collector roads provide moderate speed and access.

Local roads provide low speeds and high access.



3.3 Roadway Classification Network

Designate, in the Transportation Roadway Classification Network which identifies which roadways are appropriate to different uses. A classification network will help ensure that all system users have safe and efficient use of the roadway network. The classification shall address the need for:

- a. Single use automobiles.
- b. Truck and commercial use vehicles.
- c. Mass public transportation.
- d. Alternative street legal vehicles.
- e. Bicycles.
- f. Pedestrians.

3.4 Safe Speeds for All Roadways

Use appropriate traffic control devices and strategies to ensure all roadways provide safe speeds according to the uses, traffic volumes, and users expected to utilize a particular roadway.

3.5 Roadway Expansion

Increase capacity on roadways only if needed to improve safety, improve connectivity of the transportation network improve isolated connections to regional roadways, or where other measures are impractical to achieve level-of-service standards. The city will manage capacity of principal arterials where and as appropriate and will not attempt to provide street space to meet latent demand for travel by car.

3.6 Right-of-Way Acquisition

Right-of-way for future roadway improvements on city and county roads which are necessary for adequate traffic flow and arterial spacing shall be actively pursued. The following strategies shall apply:

- a. The city shall coordinate with Brevard County on the acquisition and funding of the St. Johns Heritage Parkway (identified on the "Local Future Traffic Circulation Plan" map located in the data and analysis for the Transportation Service Standards Element).
- b. Right-of-way shall be pursued for dedication as far in the future as possible for planned roadway projects (public or private) to minimize excessive costs for land purchases and to coordinate placement and road design standards.
- c. Dedication of rights-of-way shall be required from private sector developers on existing roads that are required to meet adequate levels of service. The value of land taken (if the transfer of property is to be compensated by the entity building the roadway) being assessed at a rate which does not consider an inflated value due to the improved or new roadway being presented, but is based on the value of the land in its condition and use prior to the roadway improvements.

Multimodal street classification systems categorize a jurisdiction's streets into a hierarchy of classifications organized by function and community context, taking into account all road users, not just automobiles. Streets of different scales serve different purposes. To maintain the highest levels of safety, the function of the road must be clearly identified and the needs of all its users must be addressed.



Montana DOT

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3.7 Alleys

Recognize the important function of alleys in the transportation network. Consider alleys, especially continuous alleys, a valuable resource for access to abutting properties to load/unload, locate utilities, and dispose of waste.

Objective 4: Service Standards

Establish transportation roadway service standards that provide a safe, effective, environmentally sensitive, financially sound, and integrated multi-modal transportation system.

Policies

4.1 Level of Service Standards

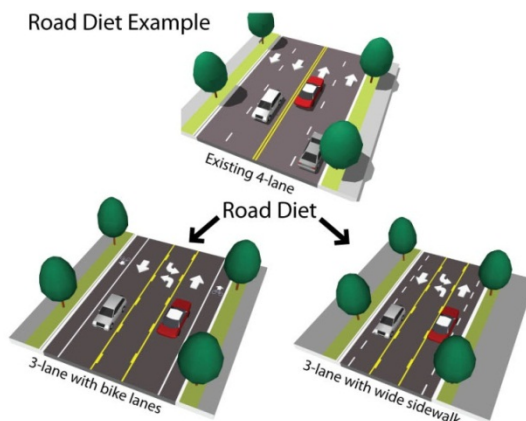
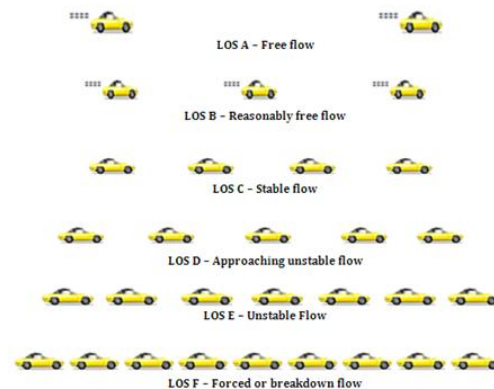
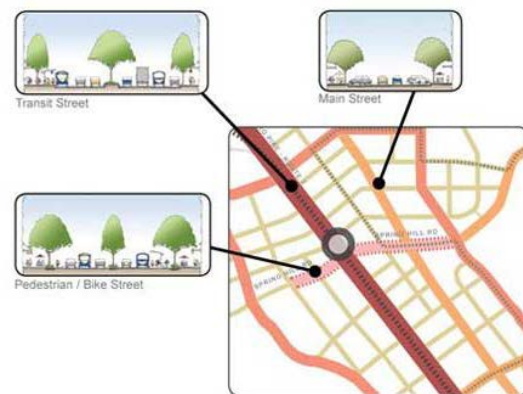
The following peak hour level of service standards are adopted for roadways within the City of West Melbourne:

- The minimum level of service standard for the city's arterial, collector, and local roads shall be "E".
- The minimum level of service standard for the county's arterial, collector, and local roads located within the City of West Melbourne shall be "E".
- The minimum level of service standard for the state roadways located within the City of West Melbourne shall be the same operating LOS standards as adopted by the Florida Department of Transportation in the FDOT 2009 Quality/Level of Service Handbook.

4.2 Transportation Concurrency Exception Area Development

In coordination with Brevard County and the TPO, the city shall identify a mobility plan, funding source, and level of service and development standards for the city's future Transportation Concurrency Exception Area. Once the TCEA has been developed, the city shall enact the TCEA standards and provisions as an amendment to the comprehensive plan. TCEA mobility strategies for the city will include, but not be limited to:

- Transportation demand management program.
- Revised parking standards/regulations.
- Community public transportation service.
- Parking facilities that enhance pedestrian and bicycle facilities.
- Pedestrian and bicycle facilities enhancements.
- Transit facilities enhancements.
- Complete streets policy implementation.
- Neighborhood traffic management program.
- Transit and pedestrian oriented site design regulations.



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4.3 Parallel Roadways

The city will assist in relieving capacity on the arterials and collectors owned by the County or State by constructing parallel or alternative link roads by the year 2035. The schedule for the design and construction of these roads will be listed in the Capital Improvements Element as funding becomes available for the following roads:

Roadway	From	To
Florida Avenue (Constructed in 2009)	Hollywood Blvd	Dairy Road
Henry Avenue Ext	.Park Hill Road	Dairy Road
Fell Road	Hollywood Blvd	Dairy Road
Doherty/Fell Road	Henry Avenue	East to Hollywood and Possibly east to Minton

4.4 Roadway Deficiencies

Development which impacts an overcapacity Brevard County roadway as defined in this plan shall provide a traffic study that identifies necessary improvements to the impacted road. These improvements shall be in place no later than three years after the city approves a building permit or its functional equivalent.

4.5 Roadway Improvements

Incorporate needed roadway improvements identified or in FDOT and TPO adopted budgets into the Capital Improvements Program, provided they are consistent with all other policies in this plan.

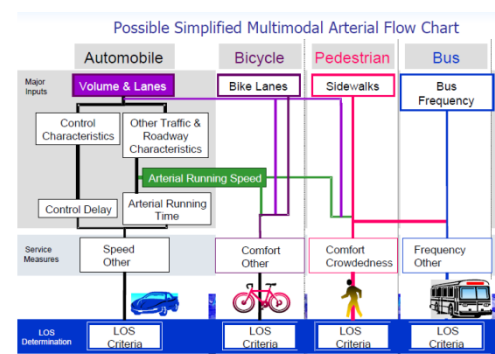
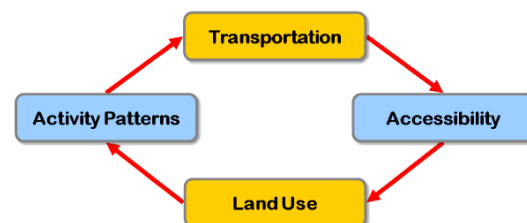
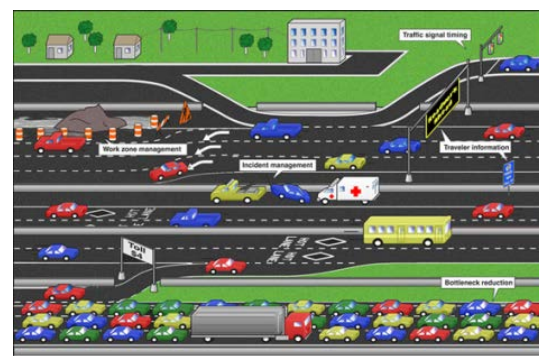
4.6 Concurrency Management System

Utilize the concurrency management system regulations for all required development orders on Brevard County roads until such time that the TCEA mobility plan and funding strategies have been determined for county roads and the County's comprehensive plan has been amended to address the plan.

Objective 5: Transportation System Operations

Ensure that the transportation system addresses the community's development needs, service standards, and financial capabilities.

Transportation service standards are maintained by evaluating 1) the system's effectiveness, safety, and efficiency, 2) land use accessibility, and 3) multi modal service needs.

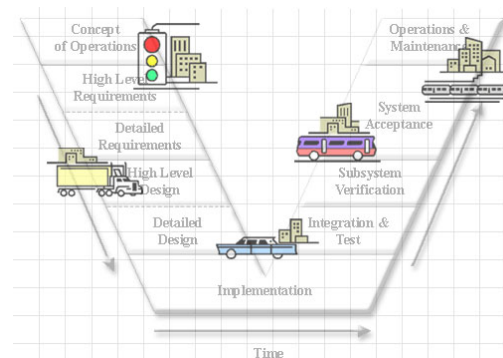


Policies

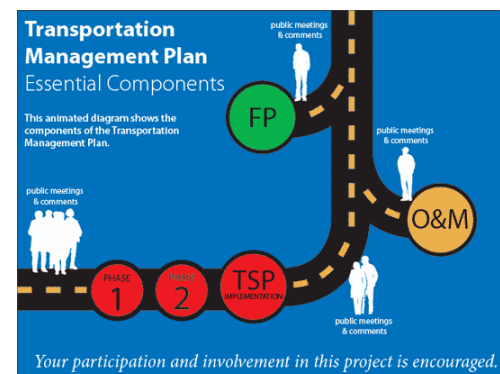
5.1 Access Management Strategies

Utilize city's access management strategies to improve the city's transportation system that includes:

- Coordination of public works projects – road improvements with streetscape, stormwater, and utility enhancements.
- Implementation of traffic management systems.
- Utilization of safe street practices in the siting and design of roadways.
- The issuance of access and connection permits to the roadway network being limited to the minimum necessary to provide safe and reasonable access.
- Deceleration lanes being required along collectors, minor arterials, principal arterials, and expressways.
- Sharing of access driveways whenever possible to minimize curb-cuts on all classifications of roadways.



As shown above and below, transportation planning and project coordination involves coordination between budgets and financial planning (FP), operations and management (O&M), and community transportation needs planning (TSP).



5.2 Transportation Monitoring

The city will maintain an updated inventory of transportation needs. Such efforts should be coordinated with the TPO's 2035 Long Range Transportation Plan and should include the following information:

- Thoroughfare System Map.
- Future Traffic Circulation Map.
- Traffic counts.
- Existing Road Classification, Travel Lane, and LOS Maps. trans
- Major Traffic Generators Map.
- Traffic Volumes Map.
- Traffic crash data.
- Problem Intersections and Travel Corridors Maps.

5.3 Roadway Capital Improvements

The city shall require identification of new and improved roadways to be included on the updated Capital Improvement Program (CIP) that will list publicly and privately planned roadways.

- Improvements that appear in the first 3 years of the 5-year CIP are funded by committed funding sources.
- Improvements that appear in year 4 and 5 of the 5-year CIP are funded by planned funding sources.

5.4 Project Coordination

Transportation project scopes of work, schedules, and work plans should be coordinated with other infrastructure improvements that are needed in the same area. Examples of coordinated transportation enhancements include:

- Street projects that include utility, stormwater, sidewalk, and streetscape.
- Utility projects that include community, park, sidewalk, stormwater, or roads.
- Stormwater projects that include roads, utilities, and sidewalks.

5.5 Long-Range Transportation Concurrency

As part of the city's concurrency management system, the city will consider the application of a 10-year planning period for the improvement of roadways in designated districts or areas where significant backlogs exist.

5.6 Long-Range Transportation Planning

Require large scale comprehensive plan amendment petitions to prepare a pre-concurrency transportation analysis. Evaluate such analysis according to the following concerns:

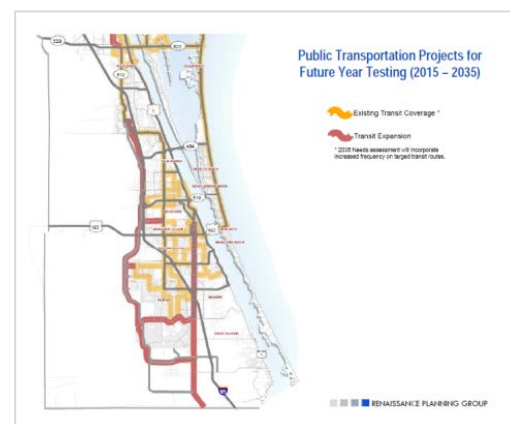
- Access management, right-of-way acquisition, and capital improvement programming.
- Goals, objectives, and policies established in the City of West Melbourne and Brevard County Transportation and Capital Improvement Elements.
- The provision of an updated transportation timeline for any planned improvements or construction identified therein by the developer.

5.7 Road Operation Maximization

Traffic signalization, roadway signage, and operational capacities shall be designed by the following methods to optimize traffic flow and enhance the levels of service throughout the roadway network.

- The city shall act upon identified local streets when determined necessary, and shall petition the county and state, as appropriate, for action on county and state roadways.
- Traffic signals being computer-coordinated or fully actuated to effect optimal flow to the maximum extent possible.
- Roadway signage conforming to the Manual of Uniform Traffic Control Devices and providing a safe, clear indication of roadway design geometrics, traffic hazards, upcoming roadways, and other applicable standards.
- Roadway intersection design including adequate storage lanes and turning lanes to facilitate movement through intersections.

West Melbourne coordinates its road improvements with state, regional, and local governments and development companies in order to ensure efficient and effective project management.



5.8 Proportionate Share Contributions

The Capital Improvements Element shall be reviewed annually and updated as necessary to reflect proportionate share contributions.

5.9 Transportation Capital Improvements

The city is responsible for ensuring the financial feasibility of all city transportation projects identified in the adopted Capital Improvements Element.

5.10 Intermodal Access and Connectivity

Improve economic vitality through better access and intermodal connectivity for people and goods.

- Enhance accessibility to regional economic generators and Strategic Intermodal Systems (SIS)/Emerging SIS hubs.
- Improve extent and continuity of modal networks.
- Improve number of transportation choices.
- Improve connectivity of intermodal hubs.

5.11 Transportation System Safety and Security

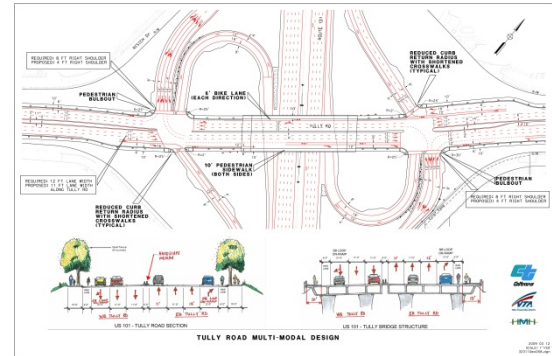
Improve the safety and security of the transportation system by:

- Reducing crash and injury rates for all modes on the transportation system.
- Improving crash response and clearance times of the transportation system.
- Improving the ability to monitor the safety and security of the roadway network.
- Improve the safety and security of the pedestrian and bicycle network.
- Improve the safety and security of the public transportation system.
- Improve the ability to evacuate during an emergency event.

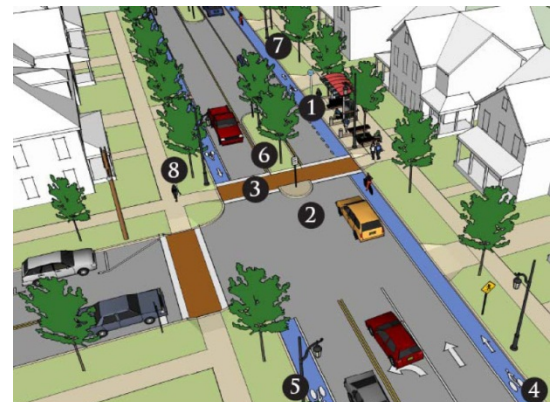
5.12 Transportation System Operations and Management

Improve mobility through effective management and operations of the transportation system by:

- Reduce system wide delay for cars, trucks, and transit.
- Reduce corridor delays for cars, trucks, and transit.
- Improve reliability and predictability of travel.
- Improve real time traffic and transit management.
- Improve real time traffic and transit information.



Improve the safety and operations of roads by providing for the needs of all users as illustrated above by including 1) transit facilities, 2) dedicated turn lanes, 3) defined cross walks, 4) bike lanes, 5) proper lighting, 6) planted medians, 7) proper landscaping or defined street edges, and 8) sidewalks or pedestrian access ways.



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Objective 6: Traffic Circulation Coordination

The adoption of a system of roadways which will be maintained and improved to meet the 2035 traffic demands consistent with the travel demand forecast models of the TPO and with the roadway system established by Brevard County and with the five-year Transportation Plan of the Florida Department of Transportation.

Policies

6.1 Traffic Circulation Map Series

The Traffic Circulation Map series, contained in this plan or as subsequently amended, is hereby adopted as the future roadway system for West Melbourne. The map series is consistent with the travel demand forecast model of the TPO and with the roadway system established by Brevard County.

6.2 Traffic Circulation Map Series Amendments

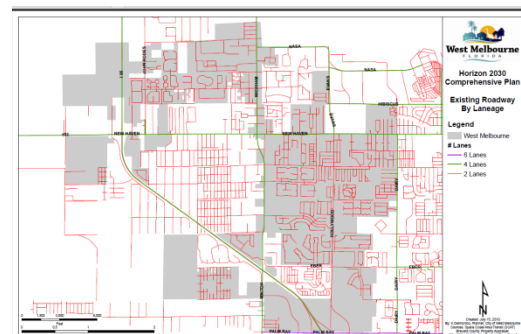
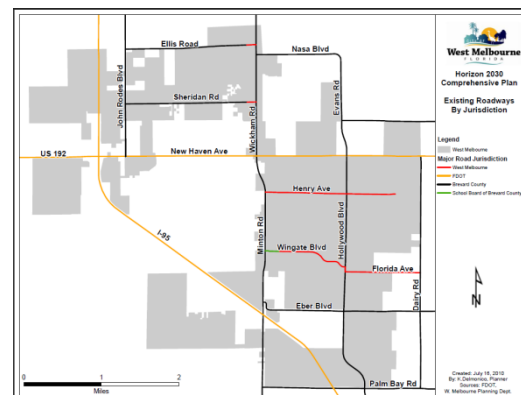
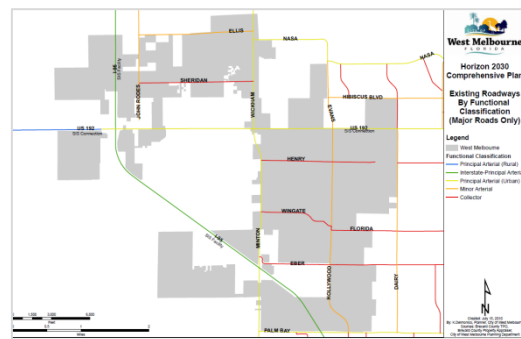
The Traffic Circulation Map series and subsequent amendments shall be consistent to the extent possible with the travel demand forecast model of the TPO and with the roadway system established by Brevard County. Final approval shall only be completed by action of the City Council after a finding by Council that the Amendment is consistent with this plan.

6.3 Traffic Circulation Map Series Function

The Traffic Circulation Map series and subsequent amendments shall show the function of each roadway within the system and established right-of-way widths necessary for each functional classification. The functional classifications and right-of-way widths shall be consistent to the extent possible with those established by Brevard County.

The following map series show the city's current transportation system.

Larger versions are available in Volume 2 – Data and Analysis.



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Objective 7: Transportation Coordination

The city shall coordinate with intergovernmental partners in the development, maintenance, and delivery of a multi-modal transportation system that meets the needs of the Greater West Melbourne Area and entire Brevard County.

Policies

7.1 Regional Transportation Planning

The city shall coordinate with transportation partners including Brevard County, TPO, and FDOT to promote:

- a. Funding for roadway improvements listed in the TPO 2035 Long Range Transportation Plan and FDOT Five-Year Work Program.
- b. Infrastructure capital improvement and impact fee expenditures within extra jurisdictional planning areas are coordinated with Brevard County.
- c. Establishment of development agreements requiring development to address impacts on all roadways including Brevard County and FDOT facilities.

7.2 Site and Development Reviews

Coordinate site and development plan reviews with regional transportation planning partners including Brevard County and the TPO.

7.3 Regional Public Transportation

Coordinate provision of mass public transportation services with SCAT, including coordination of public transportation accessibility for land uses that locate in the city with are large impacting developments.

7.4 Emergency Evacuation Support

Coordinate with the Brevard County Office of Emergency Management on the planning of evacuation routes and timing. The city support shall work to ensure that residents have time and transportation resources to evacuate safely. Additionally, the city shall assist residents obtain maps and other information needed to evacuate safely and efficiently.



As a city located at the crossroads of 2 majors roadways in Central Florida's Atlantic Coast (I-95 and US 192), the City of West Melbourne must work with its state, regional, and local partners to ensure effective transportation planning for the city and region.

