

### 3. VISION STATEMENT

2035 update

#### **SUSTAINABLE ACCESSIBILITY**

The 2030 vision for the future of the Tompkins County transportation system embraces the concept of Sustainable Accessibility. This concept expands our vision, transforming transportation systems into mobility networks that are responsive to pedestrians, bicyclist, transit, rail, freight, and motorists while meeting the vehicular congestion, energy and environmental concerns that are now an impending crisis. Sustainable Accessibility can be defined as the ability to get to a destination or complete a task in an efficient, convenient, and reliable way, while using technologies and services that minimize environmental impacts, promote economic vitality and ensure equity in the provision of transportation to the community.

The challenge of Sustainable Accessibility is to identify opportunities and begin to integrate transportation modes (i.e. transit, bikes, walking, cars, car sharing, van pool, trucks, rail, etc.) so they address personal transportation and commercial needs in ways that will enhance our quality of life and promote sustainable growth in Tompkins County. Sustainable accessibility will serve as the organizing principle to develop clear transportation goals, sub-goals and objectives that respond to community needs and are implementable within an acceptable time frame. The vision of sustainability will require insight into the social structure as well as the infrastructure of the community so that the enhancements to the transportation system service all communities equitably.

The vision of Sustainable Accessibility will integrate transportation with land use planning to promote land use development patterns that reduce dependency in the automobile as a sole source of transportation. With sustainable accessibility at its core the transportation network will integrate multiple modes of transportation so that traveling by transit, walking, bicycle, car share, car pool, etc. becomes as attractive, convenient and cost effective as private car ownership and use were in the second half of the 20<sup>th</sup> century. By bringing all modes to bear, the transportation system becomes more efficient and more resilient. A vision of Sustainable Accessibility will also embrace new transportation options and technologies, which will emerge as more investments are made to address the challenges of energy descent and climate change.

The components of Sustainable Accessibility include, Mobility, Proximity, Connectivity, Integration,

Environment and Quality of Life, each of which contributes to the ultimate goal of achieving a transportation system that is sustainable and self-evolving. Sustainable Accessibility is the focus of the LRTP Vision; its component areas will assist in directing and retaining this focus as the transportation system is maintained; and will also help guide in any expansion of services.

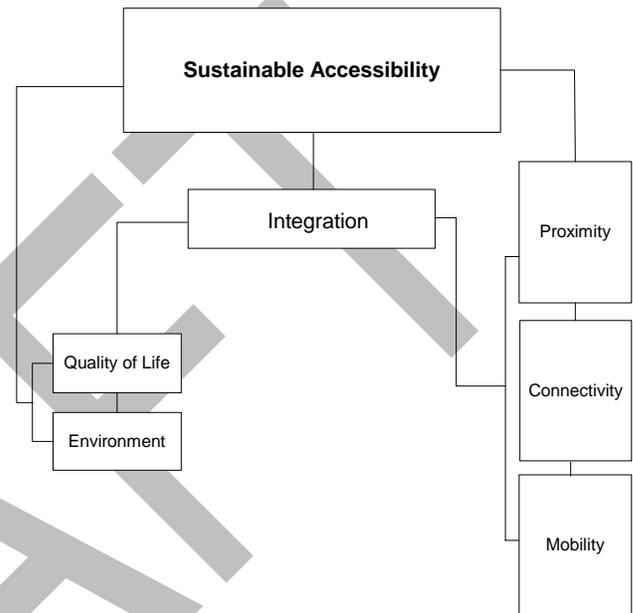


FIGURE 13-B

FIGURE 13-B lays out the general relationships that are defined as follows:

**Sustainable Accessibility:** The end goal of this plan. The LRTP lays out a process to achieve Sustainable Accessibility focusing on utilizing transportation resources in a manner that optimizes the choice of modes, minimizes environmental impact and enhances the quality of life of all users. An outcome of this approach is to expand the transportation mode choices available to travelers thus reducing dependency on the private automobile. This will result in reduced automobile and fossil fuel use per person and its related negative impacts – i.e. vulnerability to fuel supply fluctuations, congestion, vehicle emissions, health (i.e. air quality and motor vehicle related deaths and injury), etc.

**Mobility:** Mobility refers to the movement of people or goods. It assumes that “travel” applies to persons or freight, “trip” means person- or freight-vehicle trip. Mobility increases as travelers and freight have more transportation mode options and increased convenience to access their destinations. Enhanced coordination between transportation modes also leads to increased mobility.

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Modern communication and wireless technologies can serve as substitutes for travel and help individuals access their destinations and complete tasks without the need to be physically present. These technologies can be considered to increase mobility by enhancing accessibility.

**Proximity:** Refers to the location of different trip origins and destinations. Proximity is considered greater in areas with mixed land uses (i.e. residential close to shops and employment) and higher development densities. As proximity increases, travel times decrease and transportation options other than car use become more feasible. Higher proximity allows for more efficient use of transit (including fixed-route service, car share and vanpools), bicycling and even walking, resulting in a lower-cost, more accessible and resilient transportation system.

The relationship between connectivity, mobility, and proximity supports land use development patterns and development management tools that promote compact, mixed use development which can impact physical movement by both shortening travel distances and prompting travelers to use modes other than the automobile, i.e. walking, bicycling, transit, etc.

**Connectivity:** Connectivity refers to the different transportation networks serving an area and the density of connections between different origins and destinations. A well-connected area has transportation networks with many links, numerous modal options, and minimal service dead-ends. As connectivity increases, travel times decrease and route options and transportation mode options increase, allowing more direct travel between destinations, and creating a more accessible and resilient system. Connectivity is achieved through networks of infrastructure (i.e. roads & bridges, sidewalks, trails, bicycle routes, etc.) and communications (wireless services, internet, etc.).

**Integration:** The definition for transportation integration is conceptually based on the premise of increasing coordination between modes in order to achieve greater operational efficiencies and to increase the convenience to users. Coordination between modes extends to all aspects of operation including the provision of single payment forms, seamless intermodal connections, and quality information for all modes of transportation. Integration works best when it is customer based and centered on providing ease of access, comfort, reliability and convenience. Integration brings together components of connectivity (networks) and mobility (travel modes and freight) in a dynamic format that seeks to improve efficiency and convenience for users.

This concept includes integrating transportation with technologies such as the internet, wireless networks, etc., that would allow users to have access to their destinations and complete their desired tasks remotely. This not only relates to telecommuting, but also the numerous tasks that can be completed via the internet and wireless services such as bank transactions, retail purchases, and other forms of e-commerce.

Also critical to integration are the communication technologies that provide traveler information, trip planning assistance, freight tracking and many travel demand management programs.

**Quality of Life:** Quality of life is the degree of well being felt by an individual or group of people. Unlike standard of living, it is not a tangible concept, and so cannot be measured directly. It consists of two components: physical and psychological. The physical aspect includes such things as health, diet, and protection against pain and disease. The psychological aspect includes stress, worry, pleasure and other positive or negative emotional states. It is virtually impossible to predict the quality of life of a specific individual, since the combination of attributes that leads one individual to be content is rarely the same for another individual. However, one can assume with some confidence that the higher average level of diet, shelter, safety, as well as freedoms and rights a general population has, the better overall quality of life it experiences.

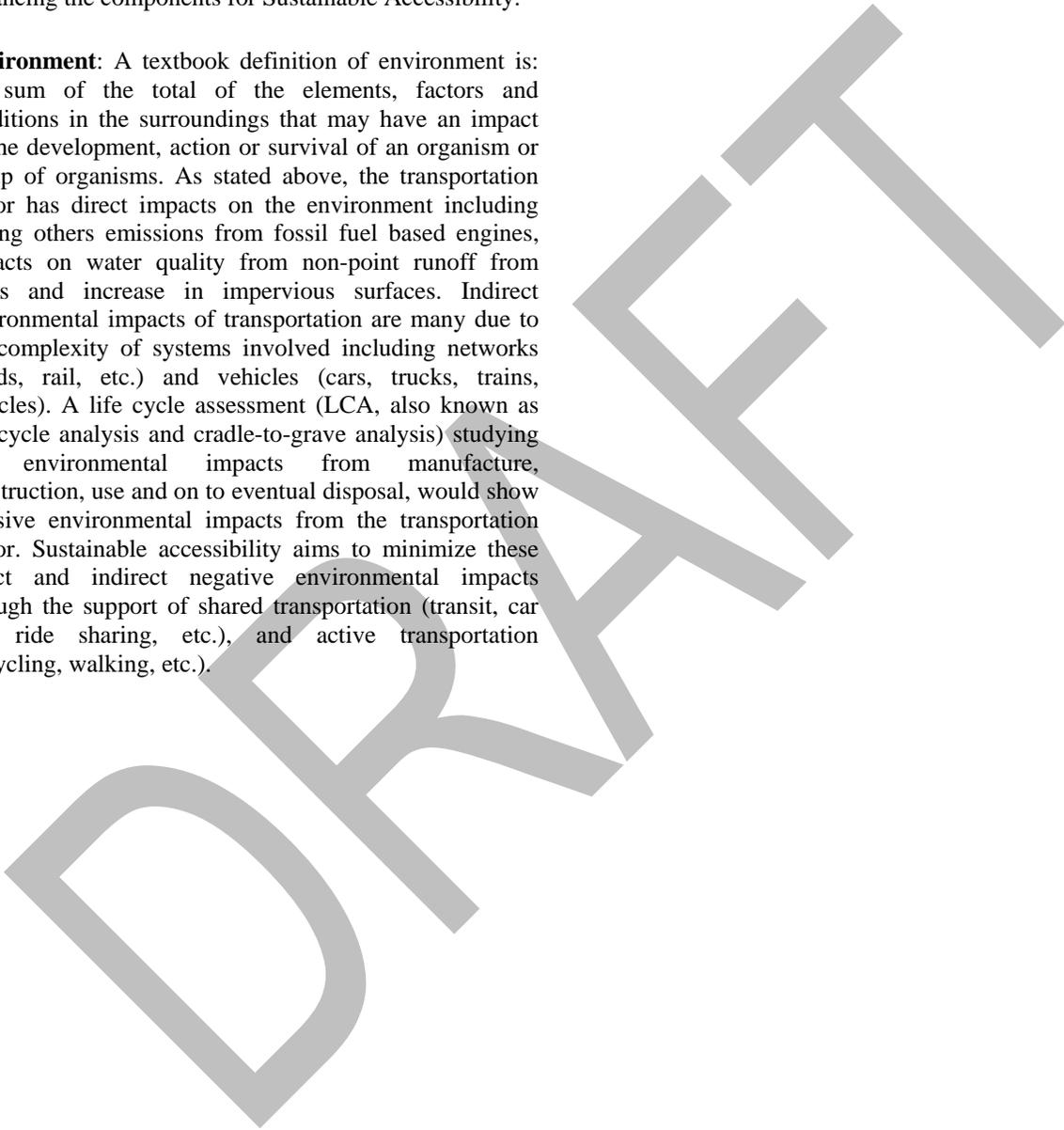
The terms Quality of Life and Livability are often used interchangeably or to describe similar relationships between transportation systems and facilities and the surrounding natural and human environment. The Victoria Transportation Policy Institute defines Community Livability as:

“the environmental and social quality of an area as perceived by residents, employees, customers and visitors. This includes safety and health (traffic safety, personal security, public health), local environmental conditions (cleanliness, noise, dust, air quality, water quality), the quality of social interactions (neighborliness, fairness, respect, community identity and pride), opportunities for recreation and entertainment, aesthetics, and existence of unique cultural and environmental resources (e.g., historic structures, mature trees, traditional architectural styles). Livability is largely affected by conditions in the public realm, places where people naturally interact with each other and their community, including streets, parks, transportation terminals and other public facilities, and so is affected by public policy and planning decisions.”

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Transportation affects quality of life and community livability in many ways. Our transportation systems generate various negative impacts - congestion, noise, water quality, air quality, health/safety (accidents) - which can negatively affect quality of life at the street, neighborhood, city or regional level. A transportation system that contributes positively to the quality of life in an area will seek to minimize the negative impacts by enhancing the components for Sustainable Accessibility.

**Environment:** A textbook definition of environment is: the sum of the total of the elements, factors and conditions in the surroundings that may have an impact on the development, action or survival of an organism or group of organisms. As stated above, the transportation sector has direct impacts on the environment including among others emissions from fossil fuel based engines, impacts on water quality from non-point runoff from roads and increase in impervious surfaces. Indirect environmental impacts of transportation are many due to the complexity of systems involved including networks (roads, rail, etc.) and vehicles (cars, trucks, trains, bicycles). A life cycle assessment (LCA, also known as life cycle analysis and cradle-to-grave analysis) studying the environmental impacts from manufacture, construction, use and on to eventual disposal, would show massive environmental impacts from the transportation sector. Sustainable accessibility aims to minimize these direct and indirect negative environmental impacts through the support of shared transportation (transit, car and ride sharing, etc.), and active transportation (bicycling, walking, etc.).



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# VISION STATEMENT GOALS AND SUB-GOALS

## *Overarching goals that pervade all other goals and sub-goals:*

- **To improve the safety of the transportation system.**
- **To enhance coordination between transportation providers to the benefit and convenience of users.**
- **To minimize negative environmental impacts of transportation**
- **To reduce vehicle miles of travel and vehicular emissions**
- **To reduce fossil fuel energy dependency**

## **INTEGRATION**

**Goal:** To develop an integrated transportation system for Tompkins County that is seamless, multimodal and coordinated to achieve greater operational efficiencies and increase the safety and convenience of users.

Sub-goal A: Promote intermodal connectivity.

Sub-goal B: Promote the efficient and effective movement of people and goods by integrating and linking various modes of transportation.

Sub-goal C: Continue development of an integrated multimodal transportation system, including public transit, bicycle and pedestrian facilities and networks, infrastructure and operations planning, construction and maintenance practices.

Sub-goal D: Support implementation of the City of Ithaca Bicycle Plan, Bicycle Boulevard Plan and other municipal bicycle plans and initiatives.

Sub-goal E: Encourage the use of Intelligent Transportation System and other technologies to improve transportation system coordination, convenience and reliability for all users.

Sub-goal F: Encourage the use of fare collection strategies and technologies that enhance customer convenience, and promote coordination between transportation providers.

Sub-goal G: Study, develop, and implement feasible transportation alternatives that provide options to and reduce dependence on the private automobile.

Sub-goal H: Promote the use of Travel Demand Management techniques in order to achieve objectives such as reduced traffic congestion, road and parking cost savings, increased safety, improved mobility for non-drivers, energy conservation and pollution emission reductions.

Sub-goal I: Promote a wide range of mobility management practices among employers in Tompkins County in coordination with transportation providers.

Sub-goal J: Support enforcement of traffic laws by facilitating the use of advanced technologies and interagency cooperation.

Sub-goal K: Promote benefits of walking and bicycling, including participation in promotional activities to encourage the increased use of walking and bicycling as modes of transportation.

Sub-goal L: Encourage all transportation system providers in Tompkins County to develop intermodal and multimodal projects

Sub-goal M: Meet the transportation needs of seniors, youth, individuals with disabilities and other population groups with special transportation needs

Sub-goal N: Target high-risk (crash) areas and propose improvements to ensure a safe environment for users of all modes of transportation.

Sub-goal O: Support the provision of safe transportation and passenger facilities capable of operating under emergency conditions.

Sub-goal P: Coordinate and plan with transportation providers to identify future maintenance, storage, administrative, informational, intermodal, customer facility, infrastructure and vehicle needs, required to meet stated goals.

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## MOBILITY

**Goal: To promote implementation of transportation services, programs and projects that enhance mobility.**

- Sub-goal A: Promote pedestrian, bicycle, ride share, car share, paratransit, vanpools, public transit and new innovative alternatives to drive-alone automobile travel.
- Sub-goal B: Encourage increased bicycle use for different trip purposes, while working to increase the skill levels of bicyclists.
- Sub-goal C: Include planning for bicycle, pedestrian and transit facilities in all bridge and road maintenance and new construction projects.
- New Sub-goal:** Promote continuing multimodal enhancements to the ITCTC designated Complete Streets network for the Ithaca urbanized area.
- Sub-goal D: Support programs, strategies and technologies that result in reduced roadway congestion and delay.
- Sub-goal E: Support programs and strategies that enhance the movement of freight throughout the Ithaca-Tompkins County metropolitan area by increasing safety and efficiency and minimizing the negative impacts of freight transport.
- Sub-goal F: Support cooperation with freight haulers to identify opportunities to improve the movement of freight within and through Tompkins County.
- Sub-goal G: Encourage expansion in the use of rail for freight movement.
- Sub-goal H: Encourage multi-modal approaches to increase bus service to meet work trip demand, while providing for general public mobility.
- Sub-goal I: Promote services to support tourism and group travel needs.
- Sub-goal J: Support regional connections for people traveling by bus.
- Sub-goal K: Plan for intermodal transportation to maximize the utility and function of each mode.
- Sub-goal L: Encourage the provision of safe and comfortable environments for public transit employees and passengers on vehicles and at shelters, stops and stations.
- Sub-goal M: Support the provision of real-time system information to customers via the internet, wireless services and at bus stops, shelters, stations and other appropriate facilities.
- Sub-goal N: Provide increased levels of transit service together with the enhancement of related bicycling and pedestrian facilities to encourage a modal shift to transit.
- Sub-goal O: Encourage innovative collaborations and coordination of public and private resources to increase availability and productivity of alternative transportation modes.
- Sub-goal P: Monitor and evaluate development of new technologies, fuels and services in the transportation sector that may have potential for local applications.
- Sub-goal Q: Target public resources to increase access to information and mobility for persons living in isolated and underserved areas of the County, low-income populations, seniors, people with disabilities and persons with limited English proficiency.
- Sub-goal Q: Support planning to evaluate and implement regional approaches to reduce drive-alone commuting such as, by increasing bus service, promoting ridesharing, and developing TDM programs to support alternative travel modes.

## PROXIMITY

**Goal: To achieve land development patterns that enable the efficient provision of multimodal transportation services.**

- Sub-goal A: Integrate transportation concerns and land use planning efforts in Tompkins County in order to protect the reliability of the transportation system through efficient land use development.
- Sub-goal B: Encourage the development of land use plans where none exist and assist in the review and update of existing plans.
- Sub-goal C: Link transportation investment with local and regional land use planning.
- Sub-goal D: Promote intergovernmental cooperation and legislative initiatives that coordinate land use and transportation infrastructure.
- Sub-goal E: Consider land use and site design as it relates to efforts to reduce relative number of vehicle trips and vehicle miles of travel.

- Sub-goal F: Encourage review of land use plans and site designs to ensure the accommodation of pedestrian, bicycle and public transit links and facilities.
- Sub-goal G: Promote compact, walkable, mixed-use land development patterns for communities in Tompkins County.
- Sub-goal H: Encourage innovative solutions in car and bicycle parking management.
- Sub-goal I: Promote trip minimization and increased vehicle occupancy rates.

**CONNECTIVITY**

**Goal: To maintain and improve transportation networks to enhance safety, multimodal and intermodal connectivity and facilitate the movement of people and goods.**

- Sub-goal A: Consider safety as the base component of all infrastructure design decisions with an end objective of reducing fatal and injury crashes.
- Sub-goal B: Improve the existing and proposed road network to safely accommodate bicycling, pedestrian and transit uses.
- ~~Sub-goal C: Seek to alleviate traffic congestion and reduce travel time between various geographical sectors of the Ithaca-Tompkins County metropolitan area.~~
- New Sub-goal:** Work with State, County and local municipal officials to maintain the safe and efficient operation of all components of the existing transportation system.
- Sub-goal D: Promote transportation system operational improvements to optimize travel time and reduce congestion.
- Sub-goal E: Promote interregional mobility through public transportation links between major points of origin and destination.
- Sub-goal F: Create a countywide system of bikeways utilizing roadway shoulder improvements, repainting shoulder stripes, and resizing lane widths; and/or building multi-use trails, dedicated bicycle paths, dedicated bicycle lanes, and bicycle priority zones.
- Sub-goal G: Utilize sidewalks, multiuse trails and paths, pedestrian bridges, roadway shoulder improvements, and other pedestrian facilities to provide needed pedestrian network links.
- Sub-goal H: Maintain a multiuse trail network plan for Tompkins County and provide assistance and incentives for its implementation.
- Sub-goal I: Support the development of an integrated countywide system of preferred truck routes in Tompkins County.
- Sub-goal J: Encourage the development and maintenance of advanced communication networks that can facilitate the use of communication technology as a substitute to travel.

**QUALITY OF LIFE**

**Goal: Develop a transportation system that sustains and enhances the quality of life for Tompkins County residents and visitors.**

- Sub-goal A: Promote transportation plans and programs that are consistent with and protect expressed community values, cultural heritage and local aesthetics.
- Sub-goal B: Apply Context Sensitive Solutions in the design of transportation projects to better support the goals of local comprehensive plans.
- Sub-goal C: The transportation system and proposed transportation projects should ensure both positive and negative environmental impacts are equitably distributed to all areas and population groups in the community.
- Sub-goal D: Promote the continuing implementation of the Tompkins County Comprehensive Plan.
- New Sub-goal E:** Encourage the provision of programs and facilities that support populations with special transportation needs including: low-income persons, seniors, youth and persons with disabilities.
- Sub-goal F: Encourage transportation initiatives that support and foster sustainable economic activity in Tompkins County.

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- Sub-goal G: Identify transportation system needs that are specific and unique to agricultural communities and businesses.
  - Sub-goal H: Encourage and support inter-municipal cooperation in the provision of transportation services and planning, including sharing of personnel time, equipment, facilities and other resources.
  - Sub-goal I: Support regional transportation initiatives, such as the Cayuga Lake Scenic Byway, which promote enhanced intercounty coordination.
  - Sub-goal J: Support programs and strategies that reduce demand for through-motor vehicle trips in residential areas.
  - Sub-goal K: Promote infrastructure designs that are sensitive to local environmental issues and preserve or enhance scenic beauty.
  - Sub-goal L: Support community-based discussions and solutions involving the relationship between transportation and affordable housing, community planning, and economic development and revitalization.

**ENVIRONMENT:**

**Goal: To work progressively towards a transportation system that will have zero-net negative impact on the environment.**

- Sub-goal A: Implement transportation initiatives that reduce or minimize the production of ozone precursors, small particulate matter, carbon monoxide, and other greenhouse gases.
- Sub-goal B: Promote alternative fuels and clean air strategies, which can be implemented in public fleets and private vehicles.
- Sub-goal C: Support the development of a transportation system that is responsive to changes in energy availability.
- Sub-goal D: Limit the impacts of transportation projects on ecosystems to ensure their sustainability.
- Sub-goal E: Preserve natural, scenic and cultural areas within the Ithaca-Tompkins County area.
- Sub-goal F: Support the replacement of the bus fleet with progressively cleaner and more energy efficient bus technologies.

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## **OBJECTIVES**

Federal transportation legislation (MAP-21) requires that ‘objectives’ included in the long range transportation plan be specific and measurable. Objectives are accompanied by a series of performance measures and targets to be achieved. The objectives of the LRTP are listed below.

MAP-21 lists seven national goals for the Federal-aid Highway Program.(listed below).

- 1. Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads .
- 2. Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair.
- 3. Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System.
- 4. System Reliability** - To improve the efficiency of the surface transportation system.
- 5. Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- 6. Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- 7. Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

The law requires the use of a performance based approach in the long-range transportation plan that will support the seven national goals. Performance-based planning and programming (PBPP) refers to the application of performance management within the planning and programming processes of transportation agencies to achieve desired performance outcomes for the multimodal transportation system. Under this directive, plan *Objectives* are specific, measurable statements that support achievement of goals. *Performance Measures* are used to support objectives and serve as a basis for comparing alternative improvement strategies (investment and policy approaches) and for tracking results over time.

The Goals and Sub-goals of the LRTP present a vision for Tompkins County that is supportive of the seven national goals included in MAP-21. The table below lists XX objectives and their associated performance measures. Together they will be used to measure progress towards implementation of the LRTP vision.

	<b>OBJECTIVES</b>	<b>FACTOR</b>	<b>MEASURE</b>	<b>Data Source</b>	<b>Preferred Trend</b>
		<b><u>Safety (and Security)</u></b>			
1	Progressively reduce the number of motor vehicle crash fatalities and injuries in Tompkins County.	Crash Fatalities	Number of annual crash fatalities	ALIS	-
		Crash Injuries	Number of annual injuries per million vehicle miles traveled	ALIS	-
2	Progressively reduce the number of bicycle and pedestrian crashes in Tompkins County.	Bicycle / Pedestrian crashes	Number of bicycle / pedestrian crashes	ALIS	-
3	Progressively reduce the number of bicycle and/or pedestrian crash fatalities to less than one per year by 2025.	Bicycle / Pedestrian	Number of bicycle / pedestrian fatalities	ALIS	-
		<b><u>Infrastructure Condition (System Condition)</u></b>			
4	Reduce the percent of structurally deficient bridges to less than 25% by 2035.	Bridge Condition	% of structurally deficient bridges	NYS DOT	-
5	Reduce the percent of state roads in 'fair or poor' condition to less than XX% by 2035	State Road Pavement Condition	% of ITCTC roads in 'fair or poor' condition	NYS DOT	-
		<b><u>Congestion Reduction (System Performance)</u></b>			
6	Reduce the percent of congested urban roadways to less than XX% by 2035.	Congestion	% of urban roadways >80% congested	TDM	-
7	Reduce the travel time annual hours of delay to XX by 2035	Travel Time	Annual hours of delay	TDM	-
			Avg travel time to work	Census	-

OBJECTIVES	FACTOR	MEASURE	Data Source	Preferred Trend
8 Progressively increase the provision and access to multiple transportation options.	<b><u>System Reliability (Accessibility/Place Making)</u></b>			
	Transit Service	TCAT: Total revenue service hours	TCAT	+
		TCAT: Avg transit boardings per hour	TCAT	+
		TCAT: number of bicycles on buses	TCAT	+
	Bicycle / Pedestrian Resources	Number of obligated transportation improvement program projects with bicycle and/or pedestrian elements.	ITCTC	+
	Bicycle/Pedestrian Facilities		Miles of multi-use trails	ITCTC
	Bicycle/Pedestrian Facilities	Miles of marked bike lanes	ITCTC	+
	Transit Proximity	% of population living within 1/2 mile of transit	ITCTC	+
Multimodal Options	% of work trips using alternative modes (transit, bicycling, walking, etc)		Census	+
Complete Streets	Miles of "complete streets" (bus, bike and pedestrian facilities)	ITCTC	+	

OBJECTIVES	FACTOR	MEASURE	Data Source	Preferred Trend
<b>9</b> Progressively reduce the environmental impact associated with the transportation sector.	<b><u>Environmental Sustainability (Climate Change / Energy Use)</u></b>			
	Vehicle Miles Traveled	Vehicle Miles Traveled per capita	TDM	-
	Carbon dioxide	Tons of system-wide carbon dioxide emitted	RREGGAE	-
<b>10</b> Working with Federal, State and local partners, reduce the amount of time it takes for projects to advance to implementation.	Land Use / redevelopment	% of population growth located in the ITCTC urbanized area	ITCTC	+
	<b><u>Reduced Project Delivery Delays</u></b>			
Years from TIP to Completion	Number of years between first inclusion in the TIP and completed construction/implementation	ITCTC & Local Sponsors	-	

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