Chapter 6: Financial Resources

Introduction

This chapter presents the project cost estimates, revenue assumptions and projected revenues for the Lake~Sumter MPO 2025 Long Range Transportation Plan. The analysis reflects a multi-modal transportation system, including roadways, public transportation, bicycle facilities, sidewalks, multi-use trails, goods movement, and access to intermodal facilities.

Cost Assumptions and Multi-Modal Costs

This section summarizes the cost assumptions used in the development of the multi-modal Lake~Sumter MPO 2025 Long Range Transportation Plan (LRTP). Following the assumptions for each mode, the estimated costs for the MPO adopted 2025 Needs Plan are presented. All costs are estimated in current year dollars (year 2004).

Roadway Costs

Project Development and Environmental (PD&E), Preliminary Engineering (PE), and Construction Engineering and Inspection (CEI) - According to the FDOT publication *2004 Transportation Costs*, engineering costs include PD&E, PE, CEI, material testing and research, and related overhead costs. The average ratio of engineering to construction costs is estimated to be 46 percent. These cost components are reported as a total percentage and are not broken down into further detail by component. This ratio (percent of construction cost) is used for projecting the engineering costs associated with capital roadway improvements for the state highway system. It is noted, however, that state revenues used to pay for design costs for state projects are funded from a different state revenue source than the revenue source used for capacity projects. Since these revenue projections were not provided as part of the state revenue projections for the LRTP, state design costs are excluded from the cost estimates for state projects included in the LRTP.

Discussions with Lake County Public Works Officials indicate that the costs for these same items for county road system projects are in the range of 17 percent of the road construction cost. Therefore, this percentage was used in the development of project cost estimates for County and local projects.

Right-of-Way Acquisition (ROW) – The ROW cost for improvements was calculated based on discussions with the Lake County Public Works Department. Based on this, ROW costs were calculated at an average of 20% of the construction costs for both State Roads and County Roads.

***Construction (CST)* -** The source for highway construction costs is the FDOT Long Range Estimate System. The FDOT Estimates Office maintains the average bid-price of items included in FDOT construction contracts. Unit construction costs for urban road improvements are provided in Table 6-1. Unit construction costs for rural road improvements are provided in Table 6-2. These costs were used when there was no other source for the costs. When a more refined cost estimate was available, such as from the Strategic Intermodal System Plan, a Corridor Study, a PD&E Study, a PE Study, a Final Design, or a Construction Bid Estimate, it was used.

County construction cost estimates were supplied by the Lake County Public Works Department, and modified based on professional judgment, as appropriate, to address unique project characteristics, such as wetlands and habitat mitigation, need for bridges, and other unique circumstances. Additionally, construction costs include amenities, such as sidewalks, bicycle lanes, and minor landscaping. The County construction cost assumptions are provided in Table 6-3 for urban roadways, and Table 6-4 for rural roadways.

Bridge construction cost estimates were supplied by the FDOT Long Range Estimate System. These costs are presented in Table 6-5.

Table 6-1

State Urban Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

	Improvement to ->	Two-Lane One-Way	Two-Lane Undivided	Two-Lane Divided	Three-Lane One-Way	Four-Lane One-Way	Four-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway	Eight-Lane Freeway
Improvement From	None	$2,830,000	$2,830,000	$3,450,000	$3,450,000	$4,188,000	$4,188,000	$5,338,000	$5,961,000	$6,163,000	$7,249,000	$8,636,000
	Two-Lane One-Way				$1,725,000	$3,087,000		$3,087,000				
	Two-Lane Undivided	$696,000	$0	$1,725,000	$1,725,000		$3,087,000	$3,087,000	$6,951,000	$6,951,000	$8,240,000	
	Two-Lane Divided			$0	$1,725,000		$3,087,000	$3,087,000	$7,168,000	$7,370,000		
	Three-Lane One-Way				$0	$1,725,000		$3,087,000				
	Four-Lane One-Way					$0		$2,070,000				
	Four-Lane Undivided				$842,000		$0	$2,070,000				
	Four-Lane Divided							$0		$3,490,000	$9,117,000	
	Four-Lane Freeway								$0		$4,003,000	$5,292,000
	Six-Lane Freeway										$4,880,000	

Source: FDOT, "2004 Transportation Costs"

Notes:
(1) A blank cell indicates that a roadway improvement is not applicable.
(2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length
(3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.
(4) The cost per centerline mile figures are based on general, statewide averages.

Table 6-2

State Rural Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

	Improvement to ->	Two-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway	Eight-Lane Freeway
Improvement From	None	$2,636,000	$4,094,000	$5,346,000	$4,609,000	$6,772,000	$7,678,000
	Two-Lane Undivided	$0	$2,544,000	$6,269,000	$5,440,000		
	Four-Lane Undivided			$6,735,000	$2,544,000	$8,353,000	
	Four-Lane Divided		$0	$6,779,000	$2,874,000	$8,385,000	
	Four-Lane Freeway			$0		$3,999,000	$5,425,000
	Six-Lane Freeway					$0	$4,415,000

Source: FDOT, "2004 Transportation Costs."

Notes:
(1) A blank cell indicates that a roadway improvement is not applicable.
(2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length
(3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.
(4) The cost per centerline mile figures are based on general, statewide averages.

Table 6-3

County Urban Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

	Improvement to ->	Two-Lane One-Way	Two-Lane Undivided	Two-Lane Divided	Three-Lane One-Way	Four-Lane One-Way	Four-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway
Improvement From	None	$950,000	$950,000	$950,000	$2,235,000	$2,000,000	$2,000,000	$2,000,000		$5,425,000	
	Two-Lane One-Way	$0			$775,000	$2,000,000	$2,000,000	$2,000,000		$3,875,000	
	Two-Lane Undivided		$0	$775,000	$775,000	$2,000,000	$2,000,000	$2,000,000		$3,875,000	
	Two-Lane Divided			$0		$775,000	$775,000	$1,550,000		$3,100,000	
	Three-Lane One-Way				$0	$775,000	$775,000	$1,550,000		$3,100,000	
	Four-Lane One-Way					$0		$775,000			
	Four-Lane Undivided						$0	$775,000		$2,325,000	
	Four-Lane Divided							$0		$1,550,000	
	Four-Lane Freeway								$0		$1,908,000

Notes: (1) A blank cell indicates that a roadway improvement is not applicable.

(2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length

(3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.

(4) The cost per centerline mile figures are from the Lake County Public Works Department.

Table 6-4

County Rural Roadway Improvement Unit Costs, in millions of dollars per centerline mile (2004)

	Improvement to ->	Two-Lane One-Way	Two-Lane Undivided	Two-Lane Divided	Three-Lane One-Way	Four-Lane One-Way	Four-Lane Undivided	Four-Lane Divided	Four-Lane Freeway	Six-Lane Divided	Six-Lane Freeway
Improvement From	None	$950,000	$950,000	$950,000	$2,235,000	$2,000,000	$2,000,000	$2,000,000		$5,425,000	
	Two-Lane One-Way	$0			$775,000	$2,000,000	$2,000,000	$2,000,000		$3,875,000	
	Two-Lane Undivided		$0	$775,000	$775,000	$2,000,000	$2,000,000	$2,000,000		$3,875,000	
	Two-Lane Divided			$0		$775,000	$775,000	$1,550,000		$3,100,000	
	Three-Lane One-Way				$0	$775,000	$775,000	$1,550,000		$3,100,000	
	Four-Lane One-Way					$0		$775,000			
	Four-Lane Undivided						$0	$775,000		$2,325,000	
	Four-Lane Divided							$0		$1,550,000	
	Four-Lane Freeway								$0		$1,908,000

Notes:

(1) A blank cell indicates that a roadway improvement is not applicable.

(2) Figures are for 2004 construction costs for one centerline mile of roadway including structures up to 20 feet in length

(3) These figures exclude costs for interchanges/structures over 20 feet, right-of-way, preliminary engineering, and construction engineering inspection.

(4) The cost per centerline mile figures are from the Lake County Public Works Department.

Table 6-5: Bridge Construction Costs (2004$)

Bridge Type		Low Cost per Square Foot	High Cost per Square Foot
Short Span	Reinforced Concrete Simple Span	$70	$90
	Pre-Cast Concrete Simple Span	$115	$168
Medium Span	Concrete Deck/Steel Girder Simple Span	$85	$110
	Concrete Deck/Steel Girder Continuous Span	$95	$160
	Concrete Deck/Pre-Stressed Girder Simple Span	$70	$110
	Concrete Deck/Pre-Stressed Girder Continuous Span	$85	$125
Long Span	Concrete Deck/Steel Box Girder (span 150-280 feet)	$115	$165
	Segmental Concrete Box Girders – Cantilever (span 150-280 feet)	$95	$140
	Movable Bridge – Bascule Spans and Piers	$800	$1,400
Demolition	Typical	$15	$25
	Bascule	$65	$65
	Bridge Widening	$85	$110

Notes: (1) Source: FDOT *"2004 Transportation Costs"*

(2) All costs in 2004 dollars

Needs Plan Roadway Capital Costs - Using the cost assumptions presented above for PD&E, PE, CEI, ROW, and CST, the cost of the Adopted 2025 Needs Plan was developed. Table 6-6 summarizes the costs of the Adopted Needs Plan. Detailed information on the costs of the Adopted Needs Plan can be found in Chapter 7. The total projected cost of the Adopted 2025 Needs Plan is $1.2 billion. This is broken out as follows: $70 million for all design and inspection activities, $193.2 million for right of way acquisition costs, $974 million for construction costs, and $20.0 million in unique costs (interchanges, bridges, major utility relocation, etc.).

Table 6-6

Cost of the Adopted 2025 Needs Plan

(Costs in 2004 dollars for the period 2011 to 2025)

	Design Costs	ROW Costs	Construction Costs	Unique Costs	Total Costs
SIS (FIHS-Interstate)	$0	$5,057,523	$25,287,616	$20,000,000	$50,345,139
SIS (FIHS-intrastate)	$0	$47,945,816	$118,330,082	$0	$166,275,898
Other State Roads	$0	$55,543,956	$320,184,978	$0	$375,728,934
County Roads	$69,927,344	$84,609,905	$510,188,104	$0	$594,798,009
Other Roads	$0	$0	$0	$0	$0
TOTALS	$69,927,344	$193,157,200	$973,990,780	$45,000,000	$1,187,147,980

Notes: (1) Unique costs for SIS (FIHS-Interstate) are for the Interchange at Florida's Turnpike and Sullivan Rd. SIS (FIHS-Interstate) costs source is FDOT FIHS System Plan, 2003 Update

(2) Unique Costs for County Roads include bridges, and utility pipelines along reconstructed roadways or bridges. Source: Lake County Public Works

Cost Affordable Plan Roadway Capital Costs – Based on the cost assumptions presented above for PD&E, PE, CEI, ROW, and CST, the cost of the Adopted 2025 Cost Affordable Plan was developed. Table 6-7 summarizes the costs of the Adopted Cost Affordable Plan. Detailed information on the costs of the Adopted Cost Affordable Plan can be found in Chapter 8. The total projected cost of the Approved 2025 Cost Affordable Plan is $591.3 million. This is broken out as follows: $47.9 million for all design and inspection activities, $115.4 million for right of way acquisition costs, $455.9 million for construction costs, and $20 million in unique costs (interchanges, bridges, major utility relocation, etc.).

Table 6-7

Cost of the Adopted 2025 Cost Affordable Plan

(Costs in 2004 dollars for the period 2011 to 2025)

	Design Costs	ROW Costs	Construction Costs	Unique Costs	Total Costs
SIS (FIHS-Interstate)	$0	$5,057,523	$25,287,616	$20,000,000	$50,345,139
SIS (FIHS-Non-Interstate)	$0	$33,358,301	$45,392,506	$0	$78,750,807
Other State Roads	$0	$18,527,343	$119,001,674	$0	$137,529,017
County Roads	$47,895,547	$58,454,236	$266,169,977	$0	$324,624,213
Other Roads	$0	$0	$0	$0	$0
TOTALS	$47,895,547	$115,397,403	$455,851,773	$20,000,000	$591,249,176

Notes: (1) Unique costs for SIS (FIHS-Interstate) are for the Interchange at Florida's Turnpike and Sullivan Rd. SIS (FIHS-Interstate) costs source is FDOT FIHS System Plan, 2003 Update

(2) Unique Costs for County Roads include bridges, and utility pipelines along reconstructed roadways or bridges. Source: Lake County Public Works

Operating and Maintenance (O&M) Costs and Life Cycle Costs (LCC) - State roadway maintenance unit costs are summarized in Table 6-8. Table 6-9 provides additional unit cost data for bridge preservation, and Table 6-10 provides costs of new traffic signals and traffic signal maintenance. Appendix 6A contains the 2025 Forecast of State and Federal Revenues for Statewide and Metropolitan plans. Within Appendix 6A there is documentation on Non-Capacity Programs, including resurfacing, operations and maintenance, among others. This documentation includes statewide objectives for these programs and tables describing these programs and the projected revenues available to support these programs.

Table 6-8

State Roadway Maintenance Unit Costs (2004)

	Maintenance Category	Cost Per Centerline Mile
State Rural Roads	**2 Lanes**	
	Milling & Resurfacing with 5' Paved Shoulders	$515,500
	Routine Maintenance (Annual)	$22,400
	4 Lanes	
	Milling & Resurfacing (Arterial) with 5' Paved Shoulders with 12' Auxiliary Lanes	$875,600
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	$848,400
	Routine Maintenance (Annual)	$42,000
	6 Lanes	
	Milling & Resurfacing (Arterial) with 5' Paved Shoulders with 12' Auxiliary Lanes	$964,200
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	$1,193,500
	Routine Maintenance (Annual)	$62,600
	8 Lanes	
	Milling & Resurfacing (Arterial) with 5' Paved Shoulders with 12' Auxiliary Lanes	$1,307,600
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	$1,324,100
	Routine Maintenance (Annual)	N/A
State Urban Roads	**2 Lanes**	
	Milling & Resurfacing, Curb to Curb	$476,600
	Routine Maintenance (Annual)	$27,000
	4 Lanes	
	Milling & Resurfacing (Arterial) Curb to Curb with 12' Auxiliary Lanes	$622,300
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	$861,900
	Routine Maintenance (Annual)	$60,300
	6 Lanes	
	Milling & Resurfacing (Arterial) Curb to Curb with 12' Auxiliary Lanes	$855,800
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	$1,301,200
	Routine Maintenance (Annual)	$118,500
	8 Lanes	
	Milling & Resurfacing (Arterial) Curb to Curb with 12' Auxiliary Lanes	$1,651,900
	Milling & Resurfacing (Interstate) with 10' Paved Shoulders	$1,315,100
	Routine Maintenance (Annual)	$133,300

Source: FDOT, 2004 Transportation Costs

Table 6-9

FDOT Bridge Maintenance Costs (2004)

Bridge Preservation (Cost per Square Foot)		
Cost Category	Low	High
Maintenance (Annual - Fixed Bridge)	$0.01	$0.04
Maintenance (Annual - Moveable Bridge)	$2.55	$3.06

Source: FDOT, 2004 Transportation Costs

Table 6-10

FDOT Traffic Signal Costs (2004)

Installation	Rural	Urban	Average
Mast Arm	$137,500	$175,000	$156,250
Strain Pole	$67,500	$82,500	$75,000
Maintenance (excluding power) (1)			$3,750

(1) Per Intersection Per Year

Source: FDOT, 2004 Transportation Costs

Public Transportation Costs

A financial plan was prepared to document the projected costs associated with the Transit in the cost affordable plan. The financial plan assumes that the 2006-2010 Transit Development Plan (TDP) will be implemented as adopted, other transit improvements will be implemented gradually from 2011 to 2025, and service will be maintained from 2011 to 2025. All costs and revenues are reflected in 2004 dollars.

Operating Characteristics and Costs for Existing and New Service - Table 6-12 presents the operating characteristics and costs associated with existing bus service, as well as future enhancements to fixed-route bus service. The table also reflects the year in which each service will be implemented. For the purpose of projecting costs and revenues, it is assumed that service enhancements to be implemented after the initial five years will be implemented gradually from 2011 to 2025. The implementation timing of these longer term enhancements will be determined by future updates of the TDP.

Table 6-11

Lake County Transit Operating Costs

(2004 dollars)

Existing Service/Service Enhancement	Total Operating Cost (2011-25) (x1,000)
Continue existing paratransit service	$35,786
Fixed-Route Services	$19,562
Marketing and Maps & Schedules	$380
Total	**$55,727**

Table 6-11 identifies the total operating costs for existing and new services from year 2011 through 2025. All costs in this table are reflected in 2004 dollars. As indicated in the table, the total operating cost from 2011 to 2025 is projected at $55.7 million.

Capital Needs and Costs for Existing and New Service - Table 6-12 summarizes the capital costs associated with the transit portion of the LRTP. Capital acquisitions include vehicles, bus stop signs, benches, shelters, and other miscellaneous capital equipment. The vehicle category reflects a vehicle replacement and expansion plan that will result in the purchase of 9 buses and 150 vans, including replacement busses and vans as well as vehicles needed for service enhancements. The busses purchased throughout the 2011 to 2025 time period will be equipped with an information display unit. The capital plan includes the provision to implement a shelter, signage, and/or bench program as necessary. The resulting total capital costs from 2011 through 2025 are $4.7 million (in 2004 dollars).

Summary of Operating and Capital Costs for 2011 to 2025 - Table 6-13 presents the annual operating and capital costs from 2011 through the year 2025. The projected costs were determined based on the assumption that expansion will occur gradually from 2011 to 2015 and that the service provided in 2015 will continue at the same level through 2025. The specific timing for implementing transit improvements will be determined as part of each update of the five-year TDP.

Table 6-12

Lake County Transit Capital Costs (2011-2025), (costs in 2004 dollars)

Year	Fixed-Route Vehicles	Paratransit Vehicles	Shelters (1)	Benches (1)	Signs (1)	Total Capital Costs
2011	$0	$292,664	N/A	N/A	N/A	$292,664
2012	$0	$295,041	N/A	N/A	N/A	$295,041
2013	$0	$297,437	N/A	N/A	N/A	$297,437
2014	$0	$299,853	N/A	N/A	N/A	$299,853
2015	$0	$302,288	N/A	N/A	N/A	$302,288
2016	$0	$304,743	N/A	N/A	N/A	$304,743
2017	$0	$307,217	N/A	N/A	N/A	$307,217
2018	$0	$309,712	N/A	N/A	N/A	$309,712
2019	$0	$312,228	N/A	N/A	N/A	$312,228
2020	$0	$314,763	N/A	N/A	N/A	$314,763
2021	$0	$317,319	N/A	N/A	N/A	$317,319
2022	$0	$319,896	N/A	N/A	N/A	$319,896
2023	$0	$322,494	N/A	N/A	N/A	$322,494
2024	$0	$325,113	N/A	N/A	N/A	$325,113
2025	$0	$327,753	N/A	N/A	N/A	$327,753
TOTAL 2011-2025	$0	**$4,648,521**	N/A	N/A	N/A	**$4,648,521**

Table 6-13

Lake County Transit Summary of Operating and Capital Costs (in 2004 dollars),

Year	Operating Cost	Capital Cost	Total Cost
2011	$4,208,997	$292,664	$4,501,661
2012	$4,130,012	$295,041	$4,425,053
2013	$4,053,138	$297,437	$4,350,575
2014	$3,978,313	$299,853	$4,278,166
2015	$3,905,484	$302,288	$4,207,772
2016	$3,834,597	$304,743	$4,139,339
2017	$3,765,598	$307,217	$4,072,815
2018	$3,698,438	$309,712	$4,008,150
2019	$3,633,065	$312,228	$3,945,292
2020	$3,569,432	$314,763	$3,884,195
2021	$3,507,491	$317,319	$3,824,810
2022	$3,447,197	$319,896	$3,767,093
2023	$3,388,505	$322,494	$3,710,999
2024	$3,331,372	$325,113	$3,656,485
2025	$3,275,756	$327,753	$3,603,509
Total	**$55,727,394**	**$4,648,521**	**$60,375,916**

Bicycle/Pedestrian Costs

Unit costs for bicycle and pedestrian facilities are also provided in the FDOT transportation cost report previously referenced. These unit costs are provided in Table 6-14.

The 2025 Bicycle and Pedestrian Cost Affordable Plan comprise bicycle and pedestrian projects that are constructed concurrently with road projects and a Rail-to-Trail conversion for one trail. The cost of sidewalk and bicycle facility projects constructed concurrently with road projects is included within the cost of the respective road project. Additionally, the 2025 Cost Affordable Plan includes $10 million of funding, primarily used to fund the Rail-to-Trail conversion, but also to provide support to Rail-to-Trail conversion and other bicycle and pedestrian facilities as approved by the MPO Board.

Table 6-14

Unit Costs for Bicycle and Pedestrian Facilities (2004)

Bicycle Facilities	**Unit Cost**
Bike Path Per Mile (12' Width), R & R Conversion	$515,500
Bike Lane Per Mile (5' Width, 2 sides), Pavement Extension	$634,900
Bike Lane Per Mile (4' Width, 2 Sides) when widening road, Urban	$205,508
Bike Lockers (for 2 bicycles)	$3,800
Pedestrian Facilities	**Unit Cost**
Sidewalks Per Mile (4 inch depth)	
5' Width, 1 side	$181,000
6' Width, 1 side	$217,000
Brickpavers (per square yard)	
Roadway	$70
Sidewalk	$44
"Walk/Don't Walk" Signal System	
Signalhead, LED, 1 Direction (each)	$520
Siganlhead, LED, 2 Directions	$975
Siganlhead, Incandescent (Each)	$381
Activator (each)	$130
Two Corners, Signalhead, LED – 2 Directions	$1,950
Four Corners, Signalhead, LED – 2 Directions	$3,900
Raised Island/Refuge Island	
Type "D" Curb (per linear foot)	$19
4-Inch Sidewalk Fill (per square yard)	$19
Handicap Curb Ramp (concurrent with construction)	$0

Source: FDOT, 2004 Transportation Costs

Development of Revenue Projections

Revenue estimates were prepared to determine the amount of transportation funding reasonably expected to be available through 2025, the time horizon for the Long Range Transportation Plan. These revenue estimates were developed through coordination with the Lake~Sumter MPO, The Lake County Public Works Department, the Lake County Office of Management and Budget, and the Florida Department of Transportation District 5. The revenue projections include the period from 2011 to 2025. Below is a summary of the process of developing the revenue projections for the 2025 Long Range Transportation Plan.

State Projections Capital

State revenue estimates were developed based on the information provided by the FDOT District 5. Lake County revenue estimates were provided for the following categories:

- SIS
- Aviation
- Intermodal Access
- Other Arterial
- Transportation Enhancement
- Transit

No Seaport Development Revenues or Congestion Mitigation Air Quality (CMAQ) revenues are available for Lake or Sumter Counties. In general, the allocation of FDOT revenues is based on statutory formula and/or population, as appropriate. State revenue estimates were developed based on FDOT direction to use prior LRTP projections inflated to 2004 dollars and adjusted by policy plan direction for SIS funding that shifts Other Arterial Revenues to the SIS over time.

State Projections for Maintenance

Maintenance programs associated with the State Highway System are documented in Appendix 6A, as provided by the FDOT.

Local Projections for Capital

County revenue projections were developed through a series of discussions with the Lake County Office of Management and Budget. Currently, the County has three primary revenue sources that are used to fund capital capacity expansion projects. These revenue sources are the First Local Option Gas Tax, the Lake County Sales Tax and Lake County Transportation Impact Fees.

Local Projections for Maintenance

Long term maintenance projections were developed with assistance from the Lake County Office of Management and Budget and the Lake County Public Works Department. Three primary sources of revenue are used to fund county maintenance of the functionally classified system. These are the Constitutional Gas Tax, the County Gas Tax, and Ad Valorem Tax revenues. Appendix 6C provides maintenance revenue projections by year for the period 2011 to 2025. The total of these revenue sources, deflated to year 2004 dollars, is $200.8 million.

Projected Revenues

Base Revenues

Base federal and state capital revenues total $255.1 million from 2011 to 2025. This includes Strategic Intermodal System facilities ($186.8 million), State Roads ($55.3 million), public transportation ($4.5 million) and bicycle and pedestrian enhancement funds ($8.5 million). Existing County funding sources consist of the First Local Option Gas Tax (LOGT) ($27.6 million), transportation impact fees ($157 million) and local option sales tax (LOST) ($26.5 million). Total County funding from these sources is $199.7 million. Of county gas tax revenues, $11.6 million is allocated to public transportation to fund the public transportation shortfall ($0.3 million for capital and $11.3 million for operations and maintenance). An additional $10 million in Bike/Pedestrian Revenues are included from Sales Tax. Appendices 6A and Appendix 6B provide maintenance revenue projections for state and county roads, respectively.

Enhanced Revenues

Because existing revenue sources would not fund all needed multi-modal improvements for the 2025 transportation system, several revenue enhancements were considered in developing the 2025 Cost Affordable plan. These sources include:

- Lake County Transportation Impact Fees were assumed to be increased by 25 percent every five years starting in 2010, generating $200 million
- The Lake County Local Option Sales Tax was assumed to be extended from 2017 to 2025, generating $40.7 million

Enhanced county revenues from these three sources total $240.6 million. Additionally, consideration was given to adopt the Second Local Option Gas Tax, but the MPO Board rejected this funding option, and voted to increase impact fees to improve funding in lieu of enacting the Second Local Option Gas Tax. These sources and amounts of revenue generated were reviewed and prioritized by the pubic at several public workshops and a transportation discussion group. Additionally, both the MPO Citizens Advisory and Technical Advisory Committees recommended approval of these funding sources and amounts, including the Second Local Option Gas Tax. The MPO Board approved these funding sources with the understanding that if other revenue options become available at the federal, state, and/or local level, the revenue assumptions and amounts presented in this 2025 LRTP could be updated and amended.

Base and Enhanced Revenues

The total base and enhanced revenues for funding the 2025 Cost Affordable Plan are $710.6 million. This includes the $242.8 million in additional county funding as discussed above.

Figure 6-1 presents a summary of the revenue sources, assumptions and projections from 2011 to 2025. This table includes revenue projections for Federal, State, County, and other sources that are reasonably expected to be available to fund the 2025 Cost Feasible Plan.

Figure 6-1 also presents the transit capital and operating revenue sources, assumptions and projections to fund the transit in the Cost Affordable Plan. Total base revenues include $34.1 million in Federal Section 5307 funds, with $8.8 million for Operating and $4.4 million for capital, $4.2 million in FDOT Block Grants, $31.5 million in other grants, and 0.3 million from Farebox Revenues. In addition, the 2025 transit revenues include $11.6 million in local funding for transit from 2011 to 2025. This funding level is consistent with the current annual level reflected in the TDP. All funding amounts are presented in 2004 dollars. The local contribution is necessary to match the state and federal funding needed to implement the transit improvements included in the cost affordable plan.

In addition, Figure 6-1 presents the revenue sources, assumptions and projections for bicycle and pedestrian facilities in 2025 Cost Affordable Plan. There are two sources of revenues available to fund stand alone bicycle and pedestrian projects. These include:

- TEA-21 Enhancement funds of approximately $8.5 million for the period from 2011 to 2025
- Lake County Sales Tax of $1.4 million for the Sales Tax from 2011 to 2017
- Lake County Sales Tax of $2.1 million for the Sales Tax from 2017 to 2025
- Lake County Sales Tax of $10 million additional directed to bicycle and pedestrian projects

Figure 6-2 illustrates graphically the base, enhanced and total capital funding of the 2025 LRTP Cost Affordable Plan. Base revenues total $456.6 million, enhanced revenues total $242.8 million and total revenues are equal to $699.4 million.

SAFETEA-LU requires a financial plan that includes all public and private resources. Base State and Federal revenue sources include Strategic Intermodal System, State Road, public transportation and bicycle and pedestrian enhancement funds. Base County funding sources consist of the First Local Option Gas Tax, transportation impact fees and the local option sales tax. As stated above, the Lake~Sumter MPO Board approved an enhanced revenue forecast that includes an extension of the current sales tax beyond its expiration in 2017, and a significant increase in transportation impact fees. The MPO Board elected not to include the second local option gas tax as an enhanced revenue source. The MPO Board approved these funding sources with the understanding that if other revenue options become available at the federal, state, and/or local level, the revenue assumptions and amounts presented in this 2025 LRTP could be updated and amended. This is all detailed in the text and tables in this chapter. As seen in Chapter 8, the Cost Affordable Plan does include some projects that are funded through alternative means, be it public or private. They are explained in that Chapter.

Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

1. All revenues deflated to 2004 dollars at an annual rate of 4 percent.

Assumptions:

Revenues are deflated to account for future increases in construction cost. This allows all construction cost estimates to be based on 2004 dollars.

2. State Intermodal System (SIS) Revenues

Total Base Revenue Available	**$186,827**
Additional Revenue Option	**-$186,827**
Total Base and Enhanced Revenue	**$0**

Assumptions:

Revenues assumed to balance costs.

3. State Roadway Revenues

Total Base Revenue Available	**$55,297**
Additional Revenue Option	**$0**
Total Base and Enhanced Revenue	**$55,297**

Assumptions:

Includes travel choices-other arterial construction and right-of-way
Includes 25 percent of State Revenues for Sumter County, based on population distribution
Incorporated FDOT adjustment to 2000 Revenue Forecast from MPO

Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

4. County Roadway Revenues

4A. Transportation Impact Fee Revenues

Total Base Revenue Available	**$157,106**
Additional Revenue Option	**$199,917**
Total Base and Enhanced Revenue	**$357,023**

Enhanced Revenue Assumptions:

Revenues based on the average annual impact fee collections for the last three fiscal years.

Impact fee rate increases and resulting single-family residential impact fee assumed to be the following:

By 2010 - Increase of 25 percent. All land uses will be increased; resulting single family fee is $3,284.

By 2015 - Increase of 25 percent. All land uses will be increased; resulting single family fee is $4,014.

By 2020 - Increase of 25 percent. All land uses will be increased; resulting single family fee is $5,130.

4B. 1st Local Option Gas Tax Revenues

Total Base Revenue Available	**$27,576**
Additional Revenue Option	**$0**
Total Base and Enhanced Revenue	**$27,576**

Assumptions:

The Constitutional Gas Tax and Ninth-Cent Gas Tax revenues are only used for roadway maintenance projects and operations within the Lake~Sumter MPO; therefore no revenues are available for capital improvements from these gas tax sources.

Assumes an annual inflation of 2.6 percent, which is based on the growth of VMT on the road system for Lake and Sumter counties. Twenty-five percent of Sumter County's 1st LOGT revenues will be spent within the boundaries of the Lake~Sumter MPO. Of the total gas tax revenue available from Sumter County, it is assumed that 25 percent will be spent on capital expansion road projects.

Revenues increased at a rate of 2 percent annually to account for increased gas tax from population increases.

Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

4C. 2nd Local Option Gas Tax Revenues (LOGT) - Five Cents	
Total Base Revenue Available	**$0**
Additional Revenue Option	**$0**
Total Base and Enhanced Revenue	**$0**
Enhanced Revenue Assumptions:	
4D. Local Option Sales Tax	
Total Base Revenue Available	**$26,530**
Additional Revenue Option	**$40,728**
Total Base and Enhanced Revenue	**$67,257**
Assumptions:	
Enhanced Revenue Assumptions:	
Assumes that the sales tax will be renewed in 2015 and carried out through at least the year 2025.	
The sales tax is increased at an annual rate of four percent to account for increases in sales from population increases	
It is assumed that the County's portion for roads remains at 28 percent of the total sales tax revenues from 2011 to 2025 Of the County's portion for roads, it is assumed that 100 percent is being used for capital roads projects	

Figure 6-1

Lake~Sumter MPO 2025 Long Range Transportation Plan Revenue Projections (2011-2025) (All Revenues x 1,000)

5. Transit Revenues (Operating)

Total Base Revenue Available	**$28,258**
Additional Revenue Option	**$0**
Total Base and Enhanced Revenue	**$28,258**

Assumptions:

Available transit revenues, as outlined in the Lake County Transit Development Plan, adopted in 2005, available through 2025.
Revenues in 2004 dollars

Transit revenues include Federal and State revenue, as well as local matching funds of $7.1 million through 2025.

6. Bicycle/ Pedestrian Revenues - State Enhancement Fund (FDOT)

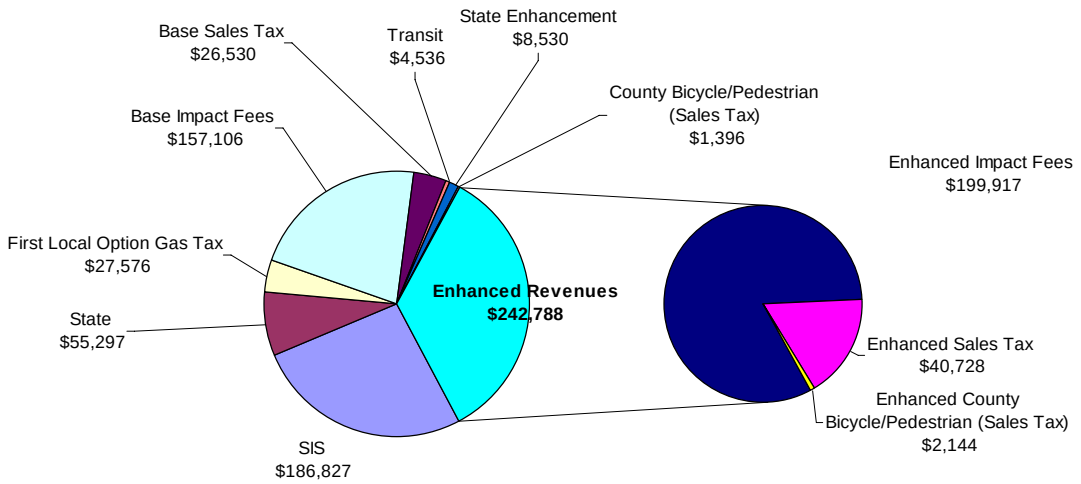
Total Base Revenue Available	**$5,935**
Additional Revenue Option	**$0**
Total Base and Enhanced Revenue	**$5,935**

Assumptions:

Source of revenue is State Enhancement Funds, FDOT.

		Transferred to operating and maintenance			
Total Base Revenue Available	**$467,798**	**-$11,217**	**$456,581**		
Additional Revenue Options	**$242,788**		**$242,788**		
Total Base and Enhanced Revenue	**$710,586**		**$699,369**	**Available Revenues**	**Capital**

Figure 6-2 Revenue Sources



Summary of Estimated Costs and Projected Revenues

An analysis comparing the 2025 Needs Plan costs to available revenues was undertaken. The results of this analysis are presented for 2011 to 2015, 2015 to 2025, and 2011 to 2025 in Tables 6-15, 6-16, and 6-17 respectively. These tables illustrate costs and revenues by mode of transportation for both capital and, operating and maintenance. With the commitment to the enhanced revenues as presented in this Chapter, the Lake~Sumter MPO has funded a large portion of its 2025 Needs Plan. Further discussion on the 2025 Cost Affordable Plan is found in Chapter 8.

Table 6-15

Cost Affordable Plan Revenues

(2011 - 2015) All Modes

CAPITAL				
Mode of Travel	**Revenue (X1000)[1]**	**Costs (X1000)**		**Difference (X1000)**
FIHS/SIS	$30,345	$30,345		$0
SIS	$0	$0		$0
SIS - Toll Facility	$0	$0		$0
State[2]	$19,846	$22,270		($2,424)
County	$131,984	$138,654		($6,670)
Subtotal - Roads	*$182,175*	*$191,269*	*87.7%*	($9,094)
Public Transportation[3]	$1,877	$1,533	0.7%	$344
Bike / Pedestrian	$4,292	$4,292	2.0%	$0
Total	**$188,344**	**$197,094**		**($8,751)**
OPERATING AND MAINTENANCE				
Mode of Travel	**Revenue (X1000)**	**Costs (X1000)**		**Difference (X1000)**
Roads, Bike / Pedestrian (County Only)[5]	TBD	TBD		TBD
Public Transportation[3]	$17,336	$20,903	9.6%	($3,567)
Total	**$17,336**	**$20,903**		**($3,567)**
Total Capital and Operating	**$205,680**	**$217,997**		**($12,317)**

(1) Revenue assumptions from LRTP Financial Analysis Chapter

(2) State road costs include total cost minus the cost of design. Design costs are funded from other State revenue sources

(3) Public Transportation shortfall of $0.3 Million in capital is funded from gas tax revenues; and $11.3 Million shortfall in operating costs is funded from gas tax.

(4) Bike / Pedestrian total revenues include an additional $10.0 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital.

(5) Roads, bike, and pedestrian operating and maintenance costs are funded with gas tax revenues

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Table 6-16

Cost Affordable Plan Revenues

Overall Summary

(2016 - 2025) All Modes

CAPITAL				
Mode of Travel	**Revenue (X1000)[1]**	**Costs (X1000)**		**Difference (X1000)**
FIHS/SIS	$0	$0		$0
SIS	$78,751	$78,751		$0
SIS - Toll Facility	$77,731	$77,731		$0
State[2]	$35,451	$115,253		($79,802)
County	$298,398	$233,127		$65,271
Subtotal - Roads	*$490,332*	*$504,862*	*89.8%*	($14,531)
Public Transportation[3]	$2,915	$3,259	0.6%	($344)
Bike / Pedestrian	$17,778	$17,778	3.2%	$0
Total	**$511,025**	**$525,899**		**($14,874)**
OPERATING AND MAINTENANCE				
Mode of Travel	**Revenue (X1000)**	**Costs (X1000)**		**Difference (X1000)**
Roads, Bike / Pedestrian (County Only)[5]	TBD	TBD		TBD
Public Transportation[3]	$40,115	$36,548	6.5%	$3,567
Total	**$40,115**	**$36,548**		**$3,567**
Total Capital and Operating	**$551,140**	**$562,447**		**($11,307)**

(1) Revenue assumptions from LRTP Financial Analysis Chapter

(2) State road costs include total cost minus the cost of design. Design costs are funded from other State revenue sources

(3) Public Transportation shortfall of $0.3 Million in capital is funded from gas tax revenues; and $11.3 Million shortfall in operating costs is funded from gas tax.

(4) Bike / Pedestrian total revenues include an additional $10.0 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital.

(5) Roads, bike, and pedestrian operating and maintenance costs are funded with gas tax revenues

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Table 6-17

Cost Affordable Plan Revenues

(2011 - 2025) All Modes

CAPITAL				
Mode of Travel	**Revenue (X1000)[1]**	**Costs (X1000)**		**Difference (X1000)**
FIHS/SIS	$30,345	$30,345		$0
SIS	$78,751	$78,751		$0
SIS - Toll Facility	$77,731	$77,731		$0
State[2]	$55,297	$137,523		($82,226)
County	$430,382	$371,781		$58,601
Subtotal - Roads	*$672,507*	*$696,131*	*89.2%*	($23,625)
Public Transportation[3]	$4,792	$4,792	0.6%	$0
Bike / Pedestrian	$22,070	$22,070	2.8%	$0
Total	**$699,369**	**$722,994**		**($23,625)**
OPERATING AND MAINTENANCE				
Mode of Travel	**Revenue (X1000)**	**Costs (X1000)**		**Difference (X1000)**
Roads, Bike / Pedestrian (County Only)[5]	TBD	TBD		TBD
Public Transportation[3]	$57,451	$57,451	7.4%	$0
Total	**$57,451**	**$57,451**		**$0**
Total Capital and Operating	**$756,820**	**$780,444**		**($23,625)**

(1) Revenue assumptions from LRTP Financial Analysis Chapter

(2) State road costs include total cost minus the cost of design. Design costs are funded from other State revenue sources

(3) Public Transportation shortfall of $0.3 Million in capital is funded from gas tax revenues; and $11.3 Million shortfall in operating costs is funded from gas tax.

(4) Bike / Pedestrian total revenues include an additional $10.0 Million in sales tax over the current and extended sales tax allocation levels for bicycle and pedestrian capital.

(5) Roads, bike, and pedestrian operating and maintenance costs are funded with gas tax revenues

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