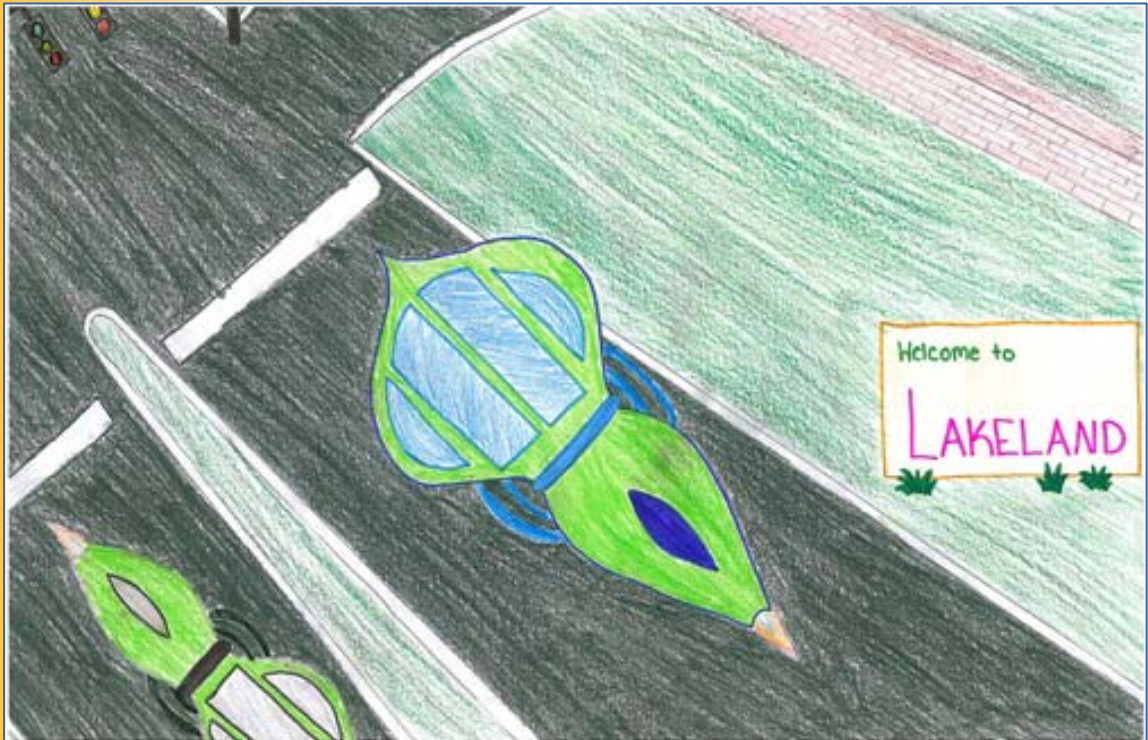


## Chapter 7.0 Financial Plan



**“The Green Machine will run on trash and go up to 70 mph. It is made of metal and is environmentally friendly. The Green Machine would eliminate the landfills and save you money. “**

**Amanda Brown, 8<sup>th</sup> grade at Lawton Chiles Middle Academy**

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## 7.0 FINANCIAL PLAN

The 2035 MVP is fiscally constrained, which means that the cost of needed projects must be balanced against funding currently in place or, “reasonably expected to be available.” The term “reasonably expected to be available” includes existing funding sources that can be projected into the future. It may also include new sources of funding that depend on legislative or executive approval (e.g., from a public referendum) as long as such actions are clearly spelled out and can demonstrate a history of governmental and public support.

### 7.1 REASONABLY AVAILABLE REVENUES

Transportation funding in Polk County comes from a variety of federal, state, and local sources each of which have limitations on the types of projects and programs that support. For example, transit operations and capital projects, local road improvements, and state highway projects all have their own specific sources.

Revenue forecasts for the 2035 MVP cover the period from 2016 through 2035 because funding for 2010 through 2015 is already programmed in the TIP. To take inflation into account, revenues and costs are portrayed in Year of Expenditure (YOE) terms, which means inflated dollars, unless specifically noted as present day costs (PDC), which means 2010 dollars.

#### 7.1.1 State and Federal Highway Funding

Year-by-year projections of existing and new revenues were assembled for the 2035 MVP from a number of documents. Projects to be funded by FDOT’s SIS come from the SIS Long Range Capacity Plan (approved 2009) or other sources as noted in the project funding tables. Other federal and state funding projections came from FDOT’s Revenue Forecasting Handbook (2008) and District and Metropolitan Estimates furnished as Attachment A to the Handbook. **Table 7-1** provides the forecast of federal and state highway funding sources.

**TABLE 7-1: FEDERAL AND STATE FUNDING (IN YOE MILLION \$)**

Source	2016-2020	2021-2025	2026-2030	2031-2035
Other Arterials	\$84.70	\$95.40	\$102.70	\$112.40
Transportation Enhancement	\$3.00	\$3.00	\$3.00	\$3.00
Strategic Intermodal System	\$ ---	\$135.51	\$48.25	\$102.53
Florida’s Turnpike Enterprise	\$ ---	\$52.07	\$ ---	\$ ---
Transportation Regional Incentive Program	\$11.10	\$11.10	\$11.10	\$11.10
<b>Total</b>	<b>\$98.80</b>	<b>\$297.08</b>	<b>\$165.05</b>	<b>\$229.03</b>

Source: FDOT Revenue Forecasting Handbook, Attachment A.

**7.1.2 County and City Roadway Funding**

Local roadway funding projections were compiled by the TPO with input from Polk County and city budget offices and are shown in **Table 7-2**.

**Figure 7-1** summarizes highway funding available from all sources.

**FIGURE 7-1: HIGHWAY FUNDING FORECAST BY SOURCE**

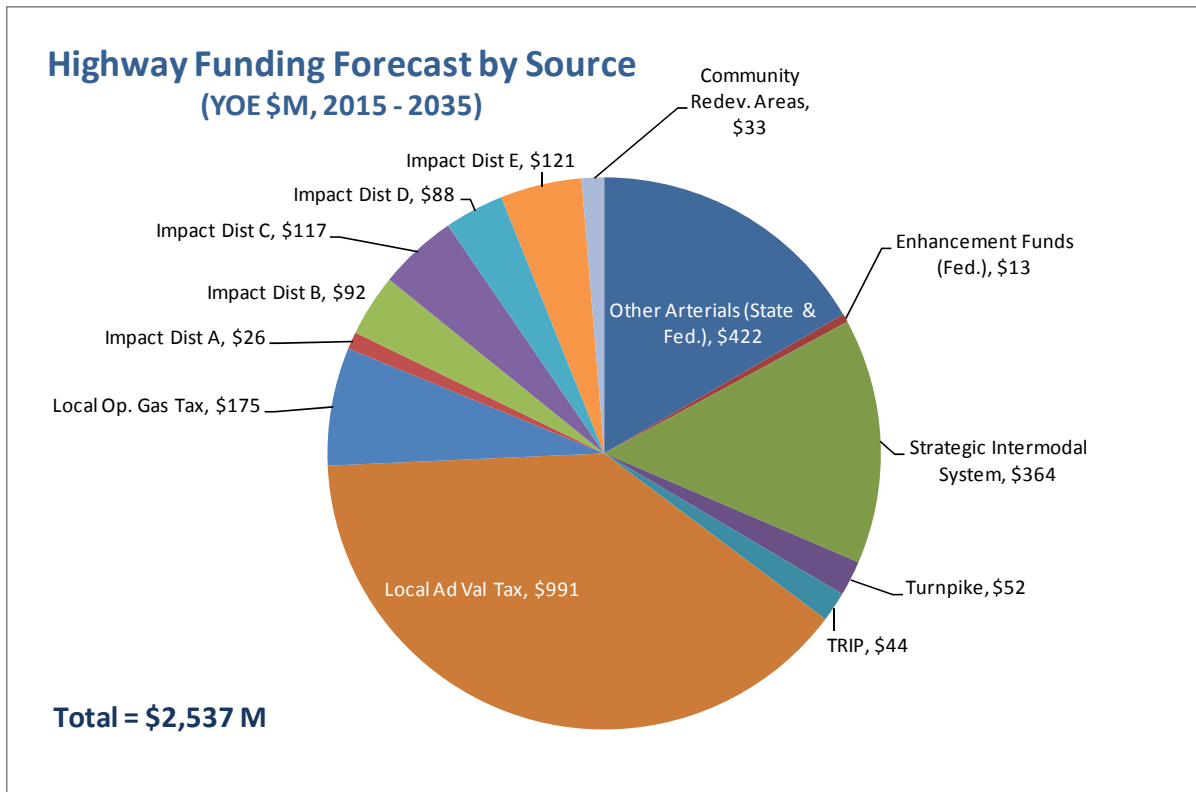


TABLE 7-2: LOCAL ROAD AND HIGHWAY FUNDING SOURCES

Year	1 Mil Ad Valorem Available for Transportation Capacity Projects		Local Option Gas Tax Available for Transportation Capacity Projects		Impact Fee District A		Impact Fee District B		Impact Fee District C		Impact Fee District D		Impact Fee District E		North Ridge CRA		Polk Harden CRA	
	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)	YOE \$	Five-Year Subtotal (YOE \$)
2015	20,575,266	20,575,266	4,478,336	4,478,336	471,599	471,599	1,694,199	1,694,199	2,153,616	2,153,616	1,626,914	1,626,914	2,227,162	2,227,162	1,001,427	1,001,427	58,423	58,423
2016	22,122,526		4,746,959		511,892		1,838,951		2,337,621		1,765,917		2,417,451		1,107,244		63,127	
2017	23,809,368		5,034,108		556,171		1,998,020		2,539,825		1,918,669		2,626,560		1,222,943		68,260	
2018	25,599,834		5,330,897		603,690		2,168,731		2,756,828		2,082,600		2,850,974		1,346,931		36,209	
2019	27,551,821		5,648,145		655,909		2,356,326		2,995,294		2,262,745		3,097,583		1,482,457		41,228	
2020	29,652,647	128,736,195	5,981,696	26,741,805	712,646	3,040,308	2,560,149	10,922,178	3,254,386	13,883,954	2,458,473	10,488,405	3,365,524	14,358,092	1,629,138	6,788,713	46,685	255,509
2021	31,913,660		6,332,336		774,289		2,781,602		3,535,891		2,671,131		3,656,642		1,191,897		35,077	
2022	34,347,078		6,700,893		841,265		3,022,210		3,841,745		2,902,183		3,972,941		1,306,343		39,372	
2023	36,966,042		7,088,230		914,035		3,283,631		4,174,056		3,153,222		4,316,601		1,430,106		44,036	
2024	39,784,702		7,495,254		993,099		3,567,665		4,535,112		3,425,976		4,689,987		1,563,909		49,096	
2025	42,818,286	185,829,769	7,922,907	35,539,621	1,079,002	4,601,691	3,876,268	16,531,377	4,927,400	21,014,205	3,722,323	15,874,835	5,095,670	21,731,840	1,708,533	7,200,788	54,585	222,166
2026	46,083,181		8,372,187		1,172,336		4,211,566		5,353,620		4,044,304		5,536,446		1,864,820		60,536	
2027	49,597,023		8,844,126		1,273,743		4,575,866		5,816,708		4,394,136		6,015,348		2,033,674		66,985	
2028	53,378,796		9,339,815		1,383,921		4,971,679		6,319,853		4,774,229		6,535,676		2,216,069		73,972	
2029	57,448,930		9,860,389		1,503,631		5,401,729		6,866,520		5,187,200		7,101,012		2,413,055		81,538	
2030	61,829,411	268,337,341	10,407,040	46,823,557	1,633,695	6,967,325	5,868,978	25,029,817	7,460,474	31,817,174	5,635,892	24,035,761	7,715,250	32,903,732	2,625,762	11,153,379	89,730	372,761
2031	66,543,903		10,981,013		1,775,009		6,376,645		8,105,805		6,123,397		8,382,619		2,855,405		98,596	
2032	71,617,876		11,583,613		1,928,548		6,928,225		8,806,957		6,653,071		9,107,715		3,103,294		108,188	
2033	77,078,739		12,216,207		2,095,367		7,527,516		9,568,759		7,228,562		9,895,533					
2034	82,955,993		12,880,221		2,276,616		8,178,646		10,396,457		7,853,832		10,751,496					
2035	89,281,387	387,477,897	13,577,152	61,238,207	2,473,543	10,549,083	8,886,099	37,897,131	11,295,750	48,173,729	8,533,189	36,392,051	11,681,501	49,818,863		5,958,699		206,784
		990,956,468		174,821,525		25,630,006		92,074,702		117,042,678		88,417,965		121,039,690		32,103,007		1,115,643

\* Based on Errata and Revisions to the FDOT Revenue Forecasting Handbook, 2035 Revenue Forecast (October 31, 2008).

### 7.1.3 Transit Funding

The transit component of the 2035 MVP is built around the Master Business Plan prepared for the PTA in 2010. The Master Business Plan provides a forecast of transit funding sources and uses through 2020, and these sources were projected to 2035.

#### 7.1.3.1 Dedicated Transit Funding and Other Assumptions

Polk County is working toward an additional local revenue source forecast to be in place by 2014. This new funding source will be used to fund the proposed cost affordable projects in the 2035 MVP.

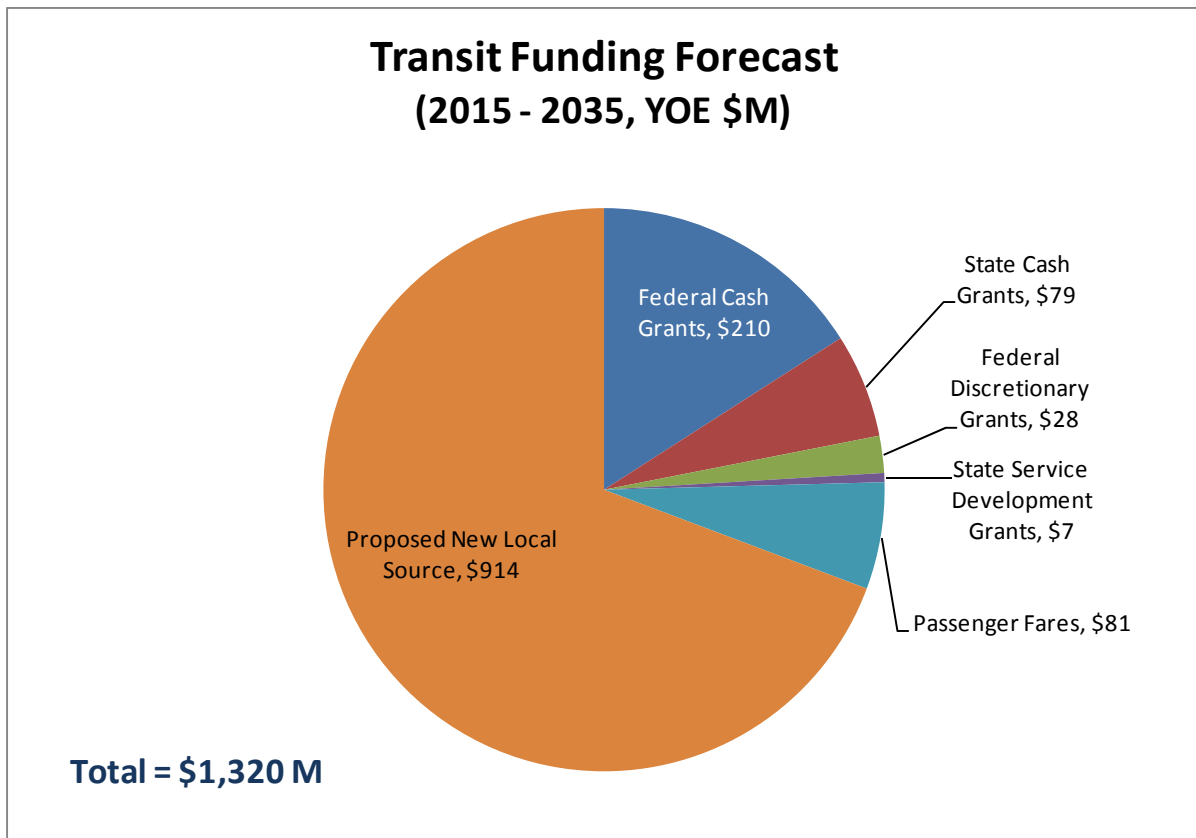
Polk County has had a history of successful transportation initiatives, the latest in 2005 when the Polk County BoCC enacted a one-mil ad valorem property tax levy to fund road and highway improvements. In addition, LAMTD has expanded incrementally by different areas in and around Lakeland voting themselves into the transit district, along with an ad valorem tax levy to support expansion of transit service to their area.

In addition to a new funding source dedicated to transit other key assumptions include:

- The LAMTD dedicated ad valorem is discontinued with approval of a new dedicated funding source;
- Polk County general funds are discontinued with approval of a new dedicated funding source;
- The PTA will be successful in attracting \$1 million in federal discretionary funds annually;
- FDOT will continue its strong support with block grants and service development grants; and
- Local contributions by the various municipalities would be discontinued with the approval of a new funding source.

Taking these assumptions into account and projecting existing funding sources into the future, **Figure 7-2** shows the transit funding forecast in Polk County for the 2015-2035 period. **Table 7-3** provides a year-by-year projection of these sources.

FIGURE 7-2: TRANSIT FUNDING FORECAST



**TABLE 7-3: YEAR-BY-YEAR PROJECTION OF TRANSIT FUNDING SOURCES  
(YOE \$)**

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Federal Cash Grants	\$7,486,779	\$7,644,685	\$7,805,922	\$7,970,559	\$8,138,669	\$8,310,325	\$8,470,256	\$8,633,265	\$8,799,411	\$8,968,755	\$9,141,357	\$9,313,891	\$9,489,681
State Cash Grants	\$2,808,480	\$2,867,715	\$2,928,199	\$2,989,958	\$3,053,020	\$3,117,413	\$3,177,407	\$3,238,556	\$3,300,881	\$3,364,406	\$3,429,154	\$3,493,876	\$3,559,819
Federal Discretionary Grants	\$1,000,000	\$1,021,091	\$1,042,628	\$1,064,618	\$1,087,072	\$1,110,000	\$1,131,362	\$1,153,135	\$1,175,327	\$1,197,946	\$1,221,000	\$1,244,045	\$1,267,525
State Service Development Grants	\$250,000	\$255,273	\$260,657	\$266,154	\$271,768	\$277,500	\$282,840	\$288,284	\$293,832	\$299,486	\$305,250	\$311,011	\$316,881
Passenger Fares	\$1,409,751	\$1,470,290	\$1,508,849	\$1,538,103	\$2,360,818	\$2,403,569	\$3,266,434	\$3,332,547	\$3,393,368	\$3,462,051	\$3,528,677	\$3,595,277	\$3,663,135
Proposed Local New Source	\$0	\$0	\$0	\$0	\$35,451,986	\$36,093,973	\$36,788,597	\$37,533,206	\$38,218,206	\$38,991,751	\$39,742,143	\$40,492,235	\$41,256,484

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Federal Cash Grants	\$9,668,789	\$9,851,277	\$10,037,210	\$10,200,439	\$10,366,323	\$10,534,904	\$10,706,227	\$10,880,336	\$11,047,057	\$11,216,333	\$11,388,202	\$11,562,705	\$11,739,882
State Cash Grants	\$3,627,007	\$3,695,463	\$3,765,211	\$3,826,443	\$3,888,670	\$3,951,909	\$4,016,176	\$4,081,489	\$4,144,030	\$4,207,530	\$4,272,002	\$4,337,463	\$4,403,927
Federal Discretionary Grants	\$1,291,448	\$1,315,823	\$1,340,658	\$1,362,460	\$1,384,617	\$1,407,134	\$1,430,018	\$1,453,273	\$1,475,542	\$1,498,152	\$1,521,108	\$1,544,417	\$1,568,082
State Service Development Grants	\$322,862	\$328,956	\$335,164	\$340,615	\$346,154	\$351,784	\$357,504	\$363,318	\$368,885	\$374,538	\$380,277	\$386,104	\$392,020
Passenger Fares	\$3,732,272	\$3,802,715	\$3,874,488	\$3,937,496	\$4,001,529	\$4,066,604	\$4,132,736	\$4,199,945	\$4,264,301	\$4,329,643	\$4,395,987	\$4,463,348	\$4,531,740
Proposed Local New Source	\$42,035,158	\$42,828,528	\$43,636,873	\$44,346,513	\$45,067,693	\$45,800,602	\$46,545,430	\$47,302,370	\$48,027,191	\$48,763,119	\$49,510,324	\$50,268,978	\$51,039,257

## 7.2 ANTICIPATED COSTS

### 7.2.1 *State Infrastructure Preservation, Operating, and Maintenance Costs*

Federal regulations require the TPO ensure that the LRTP is cost affordable. This means that expected funding must be sufficient to cover all projected capital, operating, and maintenance costs for the entire transportation system. This must encompass both existing and new facilities and services through the year 2035.

Therefore, before allocating any future funds to capacity or other improvements, the cost of preserving existing infrastructure, operating, and maintaining the transportation system has to be deducted from available revenues. In other words, annual operations and upkeep of the system take priority over any future expansion.

In the case of roads and highways maintained by FDOT, these are called non-capacity programs. These refer to FDOT programs designed to support, operate, and maintain the state highway system to include safety, resurfacing, bridge, product support, operations and maintenance, and administration. Metropolitan area estimates have not been developed for these programs. Instead, FDOT has included sufficient funding in the 2035 Revenue Forecast to meet the following statewide objectives:

- **Resurfacing Program:** Ensure that 80 percent of state highway system pavement meets FDOT standards;
- **Bridge Program:** Ensure that 90 percent of FDOT-maintained bridges meet FDOT standards while keeping all FDOT-maintained bridges open to the public safe;
- **Product Support:** Reserve funds for product support required to construct improvements (funded with the forecast's capacity funds) in each district and metropolitan area;
- **Operations and Maintenance Program:** Achieve 100 percent of acceptable maintenance condition standard on the state highway system; and
- **Administration:** Administer the state transportation program.

FDOT has reserved funds in the 2035 Revenue Forecast to carry out its responsibilities and achieve its objectives for the non-capacity programs on the state highway system in each district and metropolitan area. Statewide, about \$120 billion (50 percent of total revenues) is forecasted for the non-capacity programs.

The *2035 Forecast of State and Federal Revenues for Statewide and Metropolitan Plans*, available as Appendix D of this document, provides more detail.

### 7.2.2 SIS and Other State and Local Roadway Capacity Project Costs

The estimated cost of improvements to SIS facilities in Polk County came from the *SIS Long Range Capacity Plan* (FDOT, 2009) and FDOT's *Tentative Work Program for FY 2012 to 2016*. In some cases, such as projects related to the CPP, project cost estimates came from the ongoing PD&E study.

The LRTP costing tool provided by FDOT District One as described in Chapter 2 was used to calculate the cost of proposed other roadway capacity projects. The costing tool uses lookup tables and drop-down menu options that utilize standardized inputs for various roadway, intersection, and interchange typical sections based on a per-mile cost in present day dollars.

The costs for specific projects were developed as for:

- **Project Description:** A list of project descriptions was provided to FDOT District One for unit cost development. FDOT developed the *Project Development Typical Sections, Intersections, and Interchanges* document (April 2010) including diagrams of the various typical sections and right-of-way (ROW) needs;
- **Unit Costs:** FDOT provided the unit costs for each of the typical sections that were used in the LRTP costing tool. Additionally, the county and municipalities provided project costs based on recently completed projects within their jurisdictions including ROW;
- **ROW Costs:** The minimum ROW needs were determined by the difference between the existing ROW and the ROW required for each typical section as described in the *Project Development Typical Sections, Intersections, and Interchanges* document. The cost per square foot for new ROW, based on location, was applied to the ROW needs in the LRTP costing tool; and
- **Other Costs:** Other costs included PD&E and Project Engineering. These costs were historical unit costs provided by FDOT District One.

The FDOT Long Range Estimate (LRE) lookup provides drop-down menus for the following inputs:

- Project area type (rural, suburban, urban);
- Project type (various types including roadway widenings, intersection improvements, and interchanges); and
- Project description (proposed final typical section and lane additions).

The LRE is linked to a matrix that provides the inputs for the drop-down tables based on prior selections made so that the menus change dependent on previous selections. The inflation cost lookup table applies inflation factors for the project costs using 2010 as the base year to produce Year of Expenditure (YOE) cost estimates. ROW inflation factors are provided for urban, suburban, and rural areas for 2015 and for five-year ranges through 2035 with a factor for unfunded ROW.

The LRE automatically provides the cost, units, and default ROW width based on the selected combinations. The default ROW width can be manually over-ridden if necessary. The analyst manually inputs the existing ROW and the costing tool calculates ROW needs as well as the estimated cost based on the selection of a high, medium, or low estimate range. The total construction cost includes 10 percent for Maintenance of Traffic, 10 percent for Mobilization, 15 percent for Construction Engineering and Inspection (CEI), and 25 percent for project unknowns.

The costing tool also forecasts phased project funding within inflation-adjusted YOE funds in five-year ranges through 2035. One or more funding sources are assigned based on available funds in each of the five-year ranges and the tool automatically reduces the fund balances by the YOE cost of the project until no funds remain in the five-year range from all sources.

Where available, unit costs provided by FDOT District One, Polk County, and the various municipalities within the county were applied to estimate typical ROW, PD&E, design, and construction costs.

#### **7.2.2.1 Local Road Infrastructure Preservation, Operating, and Maintenance Costs**

The vast majority of roads in the TPO's network are maintained by Polk County. The county dedicates one mil of its county-wide ad valorem property tax to transportation, which in 2010 is projected to raise \$25.7 million. Of this, one-third is devoted to operating and maintenance costs. Therefore, only 66 percent of the revenue from this source is available for capacity projects.

#### **7.2.2.2 Debt Service**

In addition to deducting operating and maintenance costs, a portion of the county's gas tax revenue is pledged to debt service reduction. Therefore, \$3 million per year is deducted from the revenue available from this source.

#### **7.2.2.3 Transit Costs**

Transit cost estimates were based on unit costs derived from a number of different sources, including the TDP, PTA, and TBARTA planning documents. **Tables 7-4** and **7-5** provide the transit unit costs assumed for the 2035 MVP.

**TABLE 7-4: BUS COST ASSUMPTIONS**

Item	Unit Cost	Unit Year	Inflation	2009 Unit Cost	Source
Bus	\$380,000	2007	6.70%	\$405,460	2008 TDP
Hybrid Bus	\$610,000	2007	6.70%	\$650,870	2008 TDP
Paratransit Bus	\$95,000	2007	6.70%	\$101,365	2008 TDP
Operation per Revenue Hour LAMTD	-	-	-	\$90	PTA Plan
Operation per Revenue Hour WHAT/PCTSD	-	-	-	\$53	PTA Plan
Operation per Revenue Hour New Routes (Average)	-	-	-	\$71	PTA Plan
Spare Vehicle Ratio	20%	-	-	-	2009 TDP Update
Annual Paratransit Operating Cost	\$2,857,793	2008	6.70%	\$3,049,265	2009 TDP Update
Paratransit Buses per Fixed Route	-	-	-	1	2009 TDP Update
Superstops	\$69,300	2007	6.70%	\$73,943	2009 TDP Update
BRT Enhanced Stops	\$42,000	2007	6.70%	\$44,814	2009 TDP Update
BRT Designated Stations	\$252,000	2007	6.70%	\$268,884	2009 TDP Update
Bus Stop Improvement Program-Shelters	\$18,480	2007	6.70%	\$19,718	2009 TDP Update
Intermodal Centers/Park-and-Ride	\$630,000	2007	6.70%	\$672,210	2009 TDP Update
Eastern Polk Operations Facility Land and Design	\$4,991,300	2007	6.70%	\$5,325,717	2009 TDP Update
Eastern Polk Operations Facility Construction	\$15,293,631	2007	6.70%	\$16,318,304	2009 TDP Update

TABLE 7-5: RAIL CAPITAL COSTS

Cost Category	Unit Costs
<b>Construction</b>	
Long Distance Rail in Freight Corridor (Cost per Mile)	\$11,750,000
Stations and Facilities	
At-Grade Commuter Rail Station (Cost per Station)	\$3,800,000
At-Grade Park-and-Ride Lot (Cost per Lot)	\$1,050,000
Commuter Rail Maintenance Facility	\$25,000,000
Passenger Cars	
Commuter Rail Passenger Car (Cost per Vehicle)	\$1,950,000
Locomotives	
Commuter Rail Locomotives (Cost per Vehicle)	\$4,200,000
Bridges	
Double-Track Commuter Rail (Cost per Mile)	\$53,850,000
ROW	
Land (square feet (sf)) - Eastern Hillsborough (Cost per sf)*	\$15
CSX - Purchase with Freight Easement (Cost Per Mile)	\$4,920,000
<b>Contingencies and Costs</b>	
Design	10% of Construction
Construction Management	12% of Construction
Contingency - Construction	50% of Construction
Contingency - Land	200% of ROW Costs
Mitigation and Other Factors	
Drainage	5% of Construction
Utility Relocation	4% of Construction
Noise Mitigation	2% of Construction
Wetlands Mitigation	2% of Construction
Hazardous Materials	2.5% of Construction
Signing and Striping	1% of Construction
Urban Design and Landscaping	1.5% of Construction
Maintenance of Traffic	2% of Construction
Pedestrian and Non-Motorized Access	7% of Station Cost

All costs are the average of high and low TBARTA projected costs.

\* Land cost estimates for eastern Hillsborough County were utilized in the absence of land cost estimates for Polk County as the nearest geographical area with the most similar economic attributes.

### **7.2.3 Road and Highway Capacity Improvement Costs (Funded/Unfunded Project Listings)**

A highway needs analysis described in Chapter 5 was conducted to determine the need for capacity-related road improvements through the year 2035. Capacity improvements are defined as the addition of new roads or widening of existing roads. Projects identified in the 2035 MVP Transportation Needs Plan are candidates for funding under the 2035 MVP Cost Affordable Plan.

#### **7.2.3.1 Roads and Highway Projects**

Based on the criteria described in Section 6.1.1, the road and highway needs were prioritized to provide the greatest possible benefit under the limitations of available funds. A spreadsheet costing tool provided by FDOT District One was used to allocate available funds to the highest priority projects.

Projects were funded in five-year increments through 2035 and the baseline cost for each project was projected to the YOE cost based on inflation factors provided by FDOT that were included in the costing tool. Projects that could not be fully funded in one five-year increment were split and carried forward to the next five-year increment to complete the funding. Funds remaining for each five-year increment that could not be applied to a project phase were rolled over to the next five-year increment until all funds were expended as much as possible through 2035.

Chapter 8 discusses the road and highway capacity needs and the projects funded through year 2035 including the project type, funding source(s), phasing, and YOE cost for the project. Partially funded projects may have early phases funded but are not completely funded through construction. Projects for which funds were unavailable are shown as unfunded needs. Project phases are PD&E, Project Engineering, ROW, and Construction.