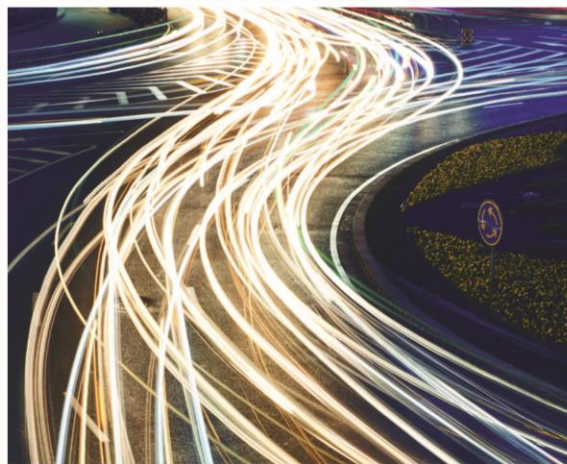



APPENDIX E (CONTINUED)

E3 – MAKING CHOICES DISPLAY BOARDS





Central County, 3/24

West County, 3/30





Choose the top three priority project categories.

Asset Preservation Maintenance Bridge Replacement and Improvements	Maintenance	
Advanced Traffic Management Systems (ATMS) New Roads/Widening Complete Streets/Corridors	Roads	
Transit/Expanded Transit Routes Expanded Transit Service Heavy Rapid Transit Expanded Transit Frequency	Transit	
Technology/Real Lanes Multi-use Trails	Bike/Ped	
Port/Regional Intermodalities	Intersection	

*Top five priority project types from "Understanding Issues" activity Notebook.



South/East County, 3/26

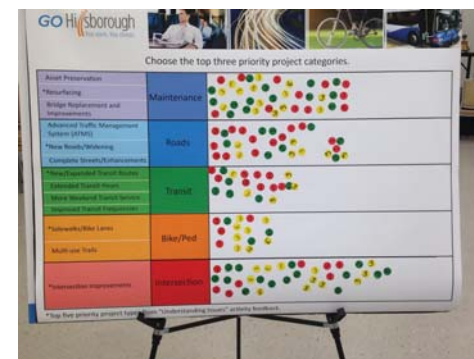
East County, 3/31

GoHillside

Choose the top three priority project categories.

Allot Preservation Pavementing Bridge Replacement and Improvements Advanced Traffic Management Systems (ATMS) New Road/Whitening Complete Streets/Collaborations New/Expanded Transit Routes Extended Transit Hours More Weekend/Tripod Service Improved Transit Frequency	Maintenance	
New/Expanded Transit Routes Extended Transit Hours More Weekend/Tripod Service Improved Transit Frequency	Roads	
Tripod/Like Lanes Multi-use Trail	Transit	
Pedestrian Improvements	Bike/Ped	
Pedestrian Improvements	Intersection	

* Top five priority projects from "Understanding Issues" activity feedback





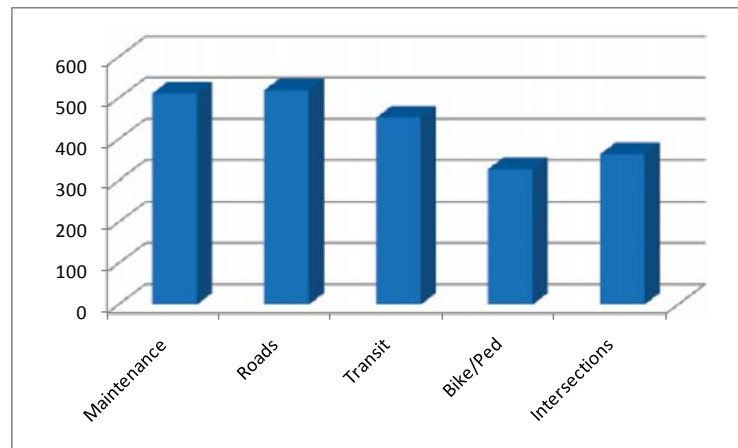
AFFIRMED TOP FIVE PRIORITIES

Understanding Issues Series Responses

	West County		Central County			East County		South County
	Northwest	West Chase/Town 'n Country/Carrollwood	West Tampa/South Tampa	Central/East Tampa	Temple Terrace/New Tampa	Northeast/Plant City	Brandon	South County Sun City
Asset Preservation	18		21			31		25
Resurfacing	76		76			121		113
Advanced Traffic Management System (ATMS)	30		58			36		60
Bridge Replacement and Improvements	17		28			8		71
Intersection Improvements	53		74			70		170
New Roads/Widening	62		28			74		220
Complete Streets/Enhancements	18		102			27		50
Sidewalks/Bike Lanes	46		109			40		74
Multi-use Trails	40		69			23		63
New/Expanded Transit Routes	56		179			83		64
Extended Transit Hours	14		37			15		20
More Weekend Transit Service	12		39			12		17
Improved Transit Frequencies	20		97			24		42
	462		917			564		989

Resurfacing is the consistent priority in all four community areas.

Exploring Options Series Responses



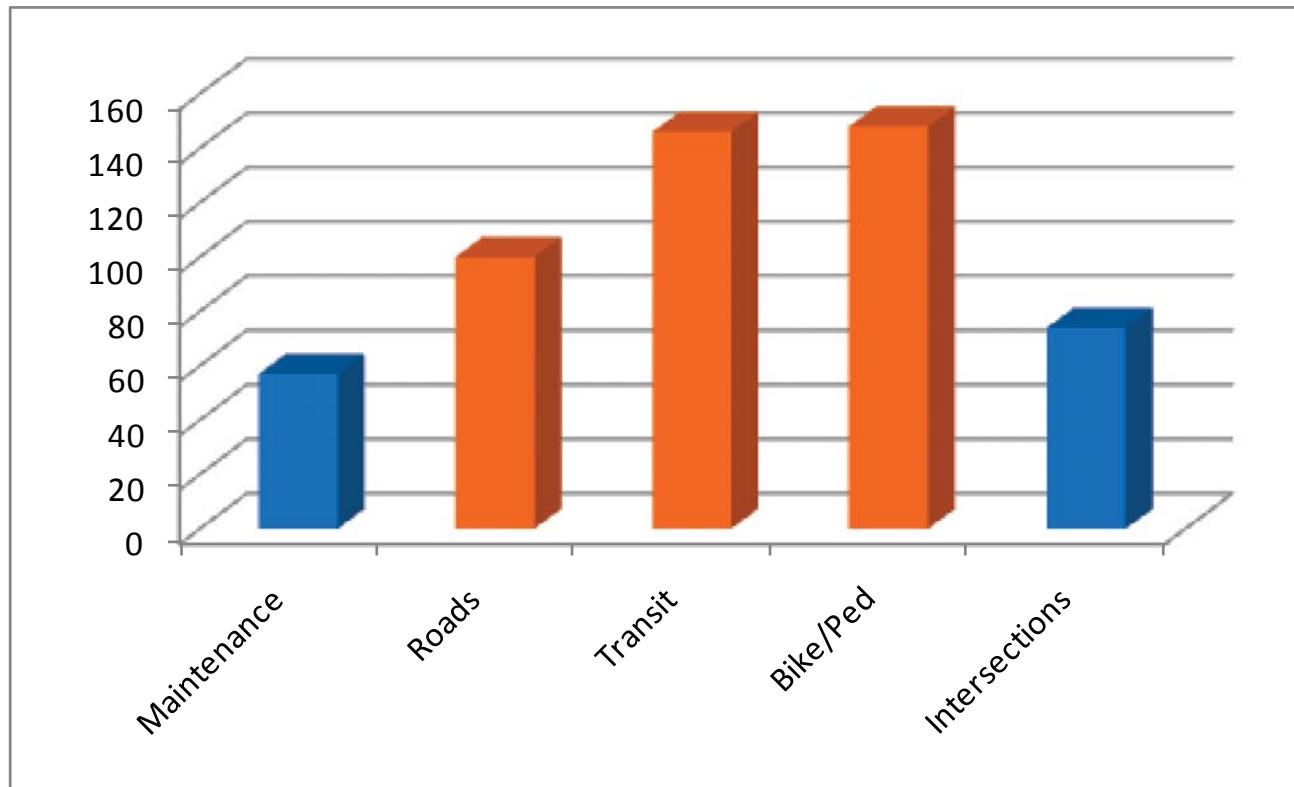
Based on a composite score from the "Exploring Options" prioritization activity.

**Affirmed consensus on
Resurfacing (Maintenance)**



CENTRAL COUNTY EXPLORING OPTIONS FEEDBACK, 3/24

West Tampa and South Tampa | Central and East Tampa | Temple Terrace and New Tampa

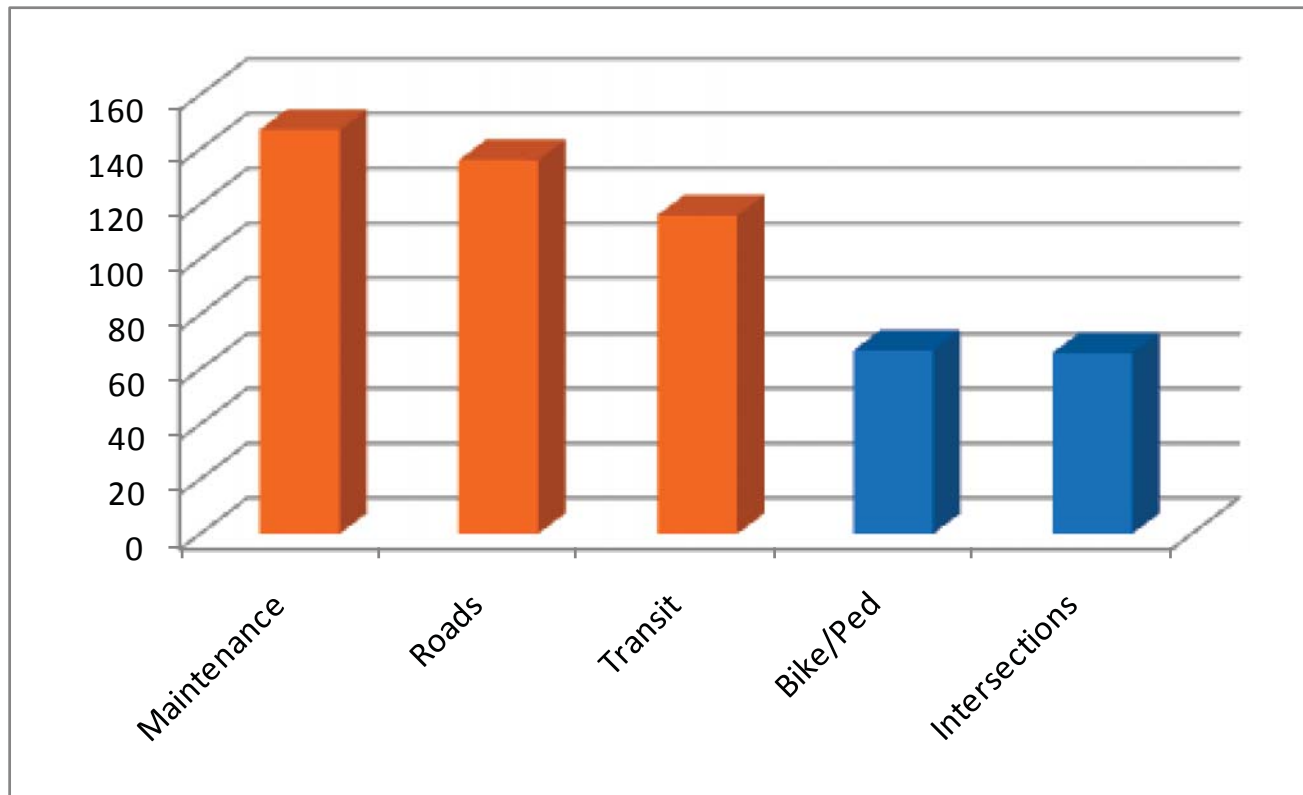


Based on a composite score from the "Exploring Options" prioritization activity.



SOUTH/EAST COUNTY EXPLORING OPTIONS FEEDBACK, 3/26

Brandon | Northeast and Plant City | South County and Sun City

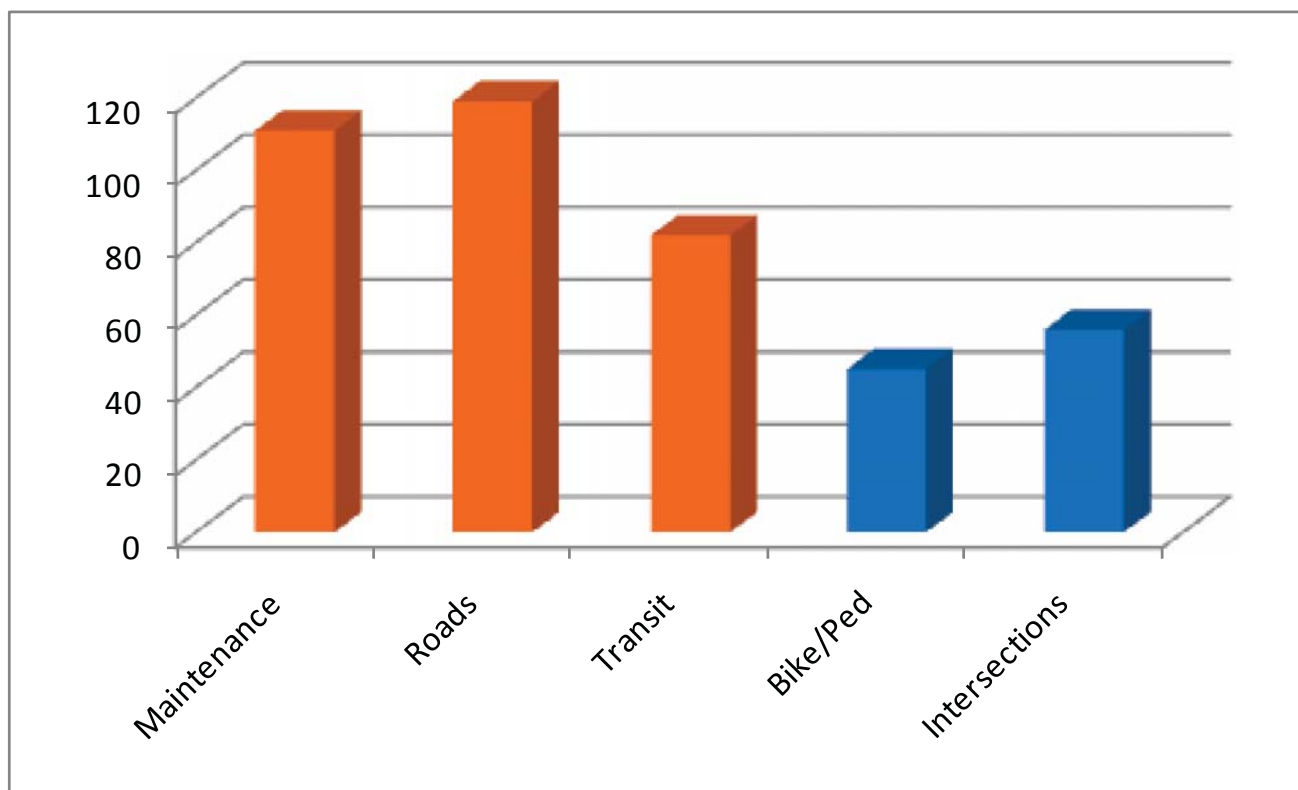


Based on a composite score from the "Exploring Options" prioritization activity.



WEST COUNTY EXPLORING OPTIONS FEEDBACK, 3/30

Northwest | Westchase, Town 'n Country, and Carrollwood

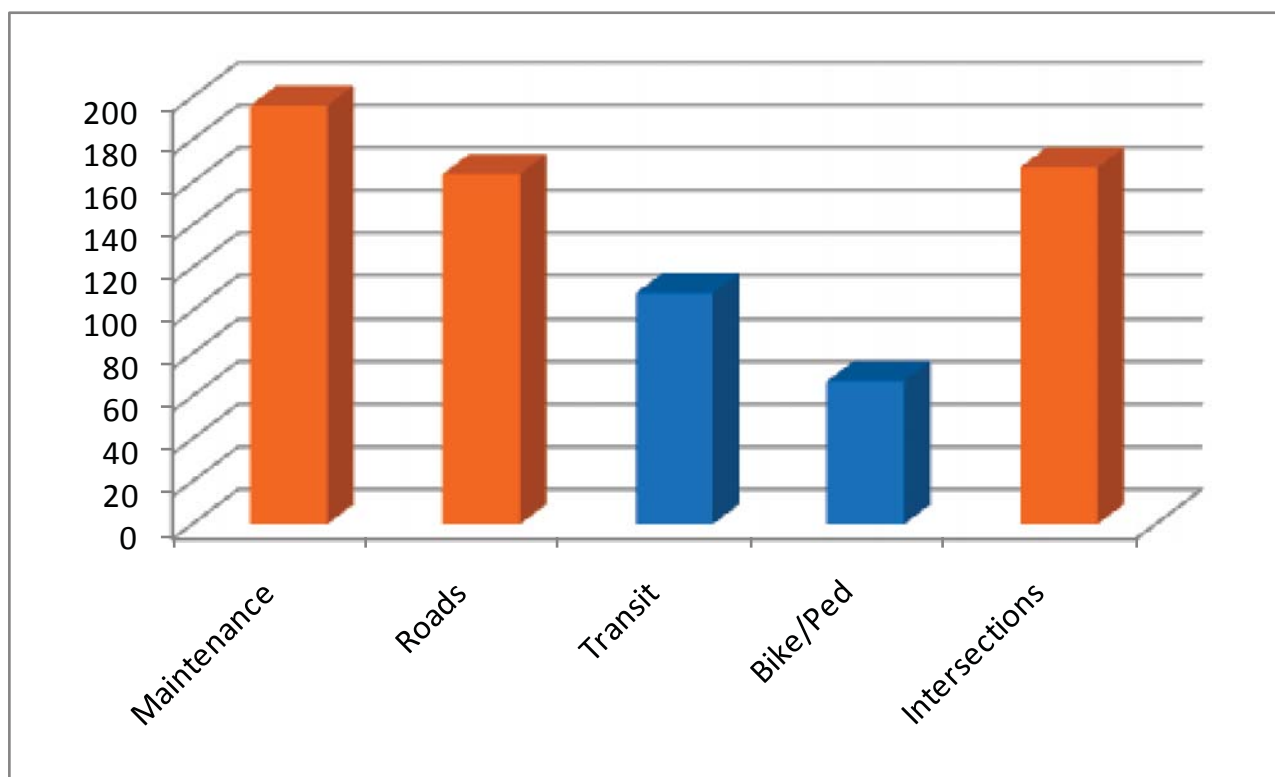


Based on a composite score from the "Exploring Options" prioritization activity.



EAST COUNTY EXPLORING OPTIONS FEEDBACK, 3/31

Northeast and Plant City | Brandon



Based on a composite score from the "Exploring Options" prioritization activity.



MAINTENANCE PROJECTS

Resurfacing

Average Resurfacing Cost: **\$225,000 - \$900,000 per mile**
Depends on road type and condition

Projects that extend the service life of existing roads and/or enhance roadway safety by restoring pavement to structural and functional adequacy.

Milling existing pavement

Surface Materials



Other Costs Not Shown:

Construction cost only
NO overhead cost included

New Pavement Markings

Bridge Replacements

Average Bridge Replacement Cost: **\$2.7 million per bridge**

Bridge replacement focuses on bridges that are considerably older and may have **compromised structural capacity**, such as bridges older than 50 years old.

Bridge Deck

Abutment

Bridge Removal



Bridge Structure

Sidewalk

Traffic/Pedestrian Barrier

Approach Slabs

Substructure

Other Costs Not Shown:

Planning, Design, and Construction
Continued Maintenance



ROADWAY PROJECTS

Advanced Traffic Management System

Average ATMS Cost: **\$200,000 - \$500,000 per mile**
(Basic System)

Projects that introduce **technology to help improve traffic flow**, congestion, and safety. ATMS can include traffic monitoring, dynamic message signs, ramp metering, and automated warning signs.

Signal Timing
Updated Controllers
Signal Communication



Other Costs Not Shown:

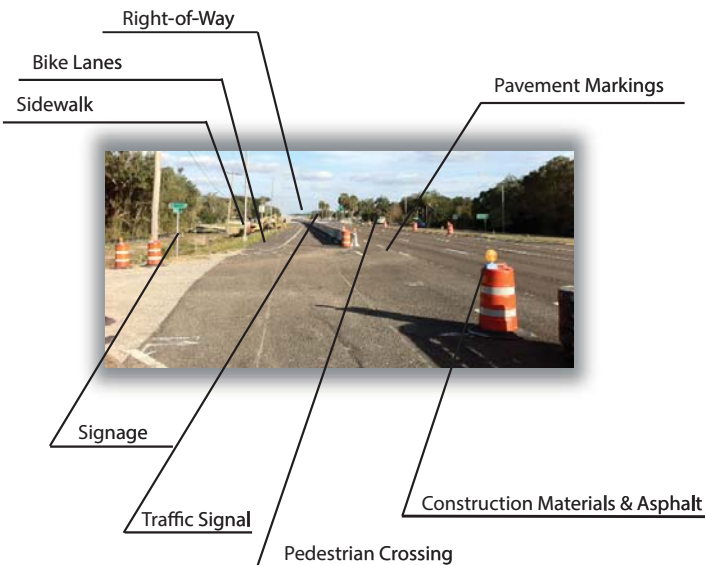
Planning, Design, and Construction
Equipment and Cabinets
Installation
Integration with Network
Continuous Monitoring and Maintenance

Planning level costs are per mile for a standard 2-lane typical roadway, (FDOT, District 7 Planning Estimates, 2014).
ATMS projects are assumed based on average ATMS project and length.

New Roads/ Widening

Average New Roads Cost: **\$15.5 million per mile**
Average Road Widening Cost: **\$14.3 million per mile**

New roads and road widening **increases the number of vehicles a road or highway can accommodate** daily. This is traditionally achieved by adding new roads, additional through lanes to existing roads, and may include other alternatives when road expansion is not feasible.



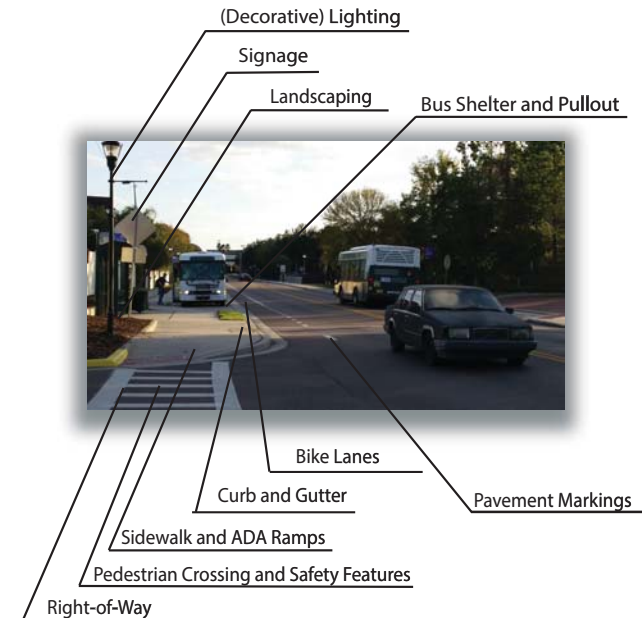
Other Costs Not Shown:

Planning, Design, and Construction
Drainage

Complete Streets/Enhancements

Average Complete Street Cost:
\$1.9 million per mile

Streets designed with every user in mind to incorporate intersection improvements, turn lanes, pedestrian and bicycle facilities, smart traffic signals, decorative street lighting, and landscaping. Enhancement vary depending on the community's design.



Other Costs Not Shown:

Planning, Design, and Construction
Intersection Improvements
Turn Lanes
Smart Traffic Signals

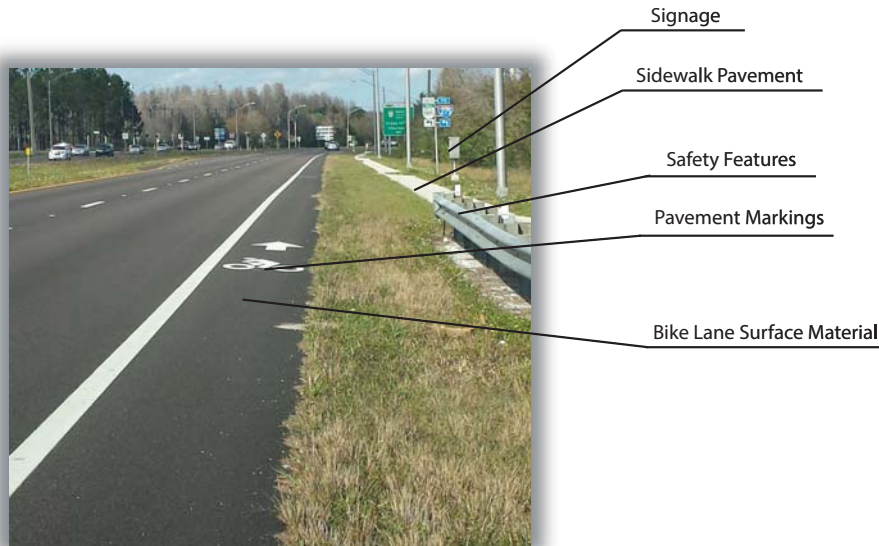


BIKE/PEDESTRIAN PROJECTS

Sidewalks/Bike Lanes

Average Sidewalks Cost: **\$241, 000 per mile**
Average Bike Lanes Cost: **\$478, 000 per mile**

Specified travel lanes or pavement designated for safe pedestrian and bicycle use. Safety features include separation from traffic, striping, and pavement markings to indicate the use.



Other Costs Not Shown:

Planning, Design, and Construction
Continued Maintenance

Multi-Use Trails

Average Multi-use Trails Cost: **\$460, 000 per mile**

A pathway that is physically separated from motorized traffic. Multi-use trails may be within roadway right-of-way or within their own designated right-of-way. Trails provide a safe recreational facility as well as transportation linkage for cyclists, pedestrians, skaters, runners, and others.



Other Costs Not Shown:

Lighting
Planning, Design, and Construction
Continued Maintenance



INTERSECTION PROJECTS

Intersections

Average Intersection Improvements \$1.1 million per intersection

Intersection changes and modifications that **enhance the flow of traffic and increase safety** for motorist, pedestrians, and bicyclists. Some improvements include but are not limited to **signal installation, additional lighting, highly visible and ADA compliant crosswalks, and pedestrian activated signals.**



Other Costs Not Shown:

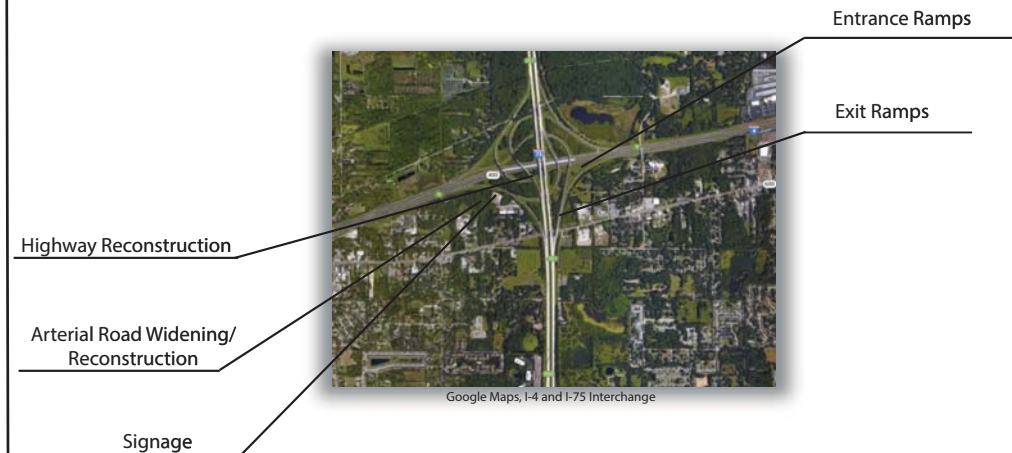
Planning, Design, and Construction
Continued Maintenance

Planning level costs are per mile for a standard 2-lane typical roadway, (FDOT, District 7 Planning Estimates, 2014).

Interchanges

Average New Interchange Costs: \$61.2 million per interchange

New or improved interchanges enhance the flow of traffic entering or exiting a highway. Interchanges assist in **allowing traffic to move freely from one road to another** without crossing a line of traffic. Improvements may include but are not limited to signal installation, additional lighting, lane reconstruction/construction, and proper signage.



Other Costs Not Shown:

Planning, Design, and Construction
Continued Maintenance
Potential Signalized Intersections



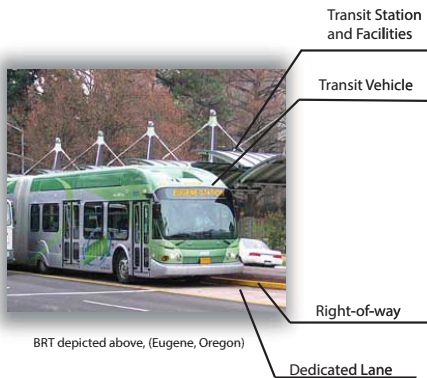
TRANSIT PROJECTS

Fixed-Guideway

Average Fixed Guideway Cost
Low (BRT): **\$54 million per mile**
High (Rail): **\$88 million per mile**

New Bus Rapid Transit (BRT)

Bus Rapid Transit (BRT) is a bus option that provides premium bus services and travels within its own dedicated lane (busway)



BRT depicted above, (Eugene, Oregon)

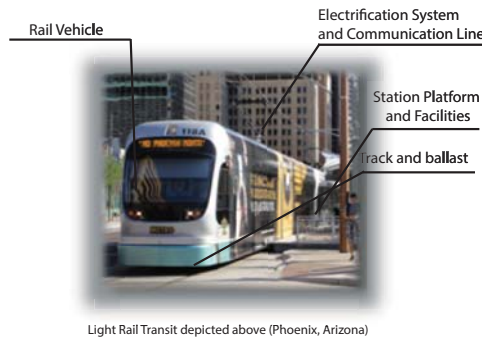
Other Costs Not Shown:

Planning, Design, and Construction
Continuous Monitoring and Maintenance
Continued Operations
Maintenance Facility/Support Facilities
Parking Facilities
Utilities, Traffic Signal System, and Communication Line

Costs do not include right-of-way.
BRT cost range based on Hillsborough County "Fixed Guideway: An Estimate of Probable Costs"

Rail Transit

Rail Transit includes vehicles within their own guideway, such as Light Rail Transit, Diesel Multiple Units, or Commuter Rail Transit. Rail transit travels along either a steel-tracked guideway, electric-power, on-board diesel engines, or traditional locomotive.



Light Rail Transit depicted above (Phoenix, Arizona)

Other Costs Not Shown:

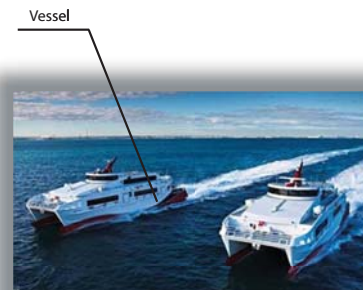
Planning, Design, and Construction
Continuous Monitoring and Maintenance
Continued Operations
Maintenance Facility/Support Facilities
Parking Facilities
Utilities and Traffic Signal System

Costs do not include right-of-way.
Light Rail Transit cost range based on Hillsborough County "Fixed Guideway: An Estimate of Probable Costs"

Water Ferry

Approximate Water Ferry Cost:
\$31 million

The potential water ferry connects south county to the MacDill Airforce Base, with additional trips to the Downtown Tampa, Channelside, and Downtown St. Petersburg.



Other Costs Not Shown:

Planning, Design, and Construction
Continuous Monitoring and Maintenance
Continued Operations
Ferry Stations and Docks
Parking Facilities

Water Ferry project cost based on current Hillsborough County project estimate.

Improved Transit Frequencies
Extended Hours
More Weekend Service
New/Expanded Service

HART Transit: **\$1.5 billion**

The HART ten year plan includes projects that address both **enhancement and expansion of the bus system** and Metro Rapid transit system.



Other Costs Not Shown:

Planning, Design, and Construction
Continuous Monitoring and Maintenance
Continued Operations
Utilities and Traffic Signal System,
Parking Facilities
Park-n-rides

Cost based on HART 10-year Transit Development Plan, Vision Plan



WE ARE ASSUMING

- New growth will pay an increased and equitable share
- Tolling will be considered where feasible
- Federal, State, and other grants will be leveraged as possible

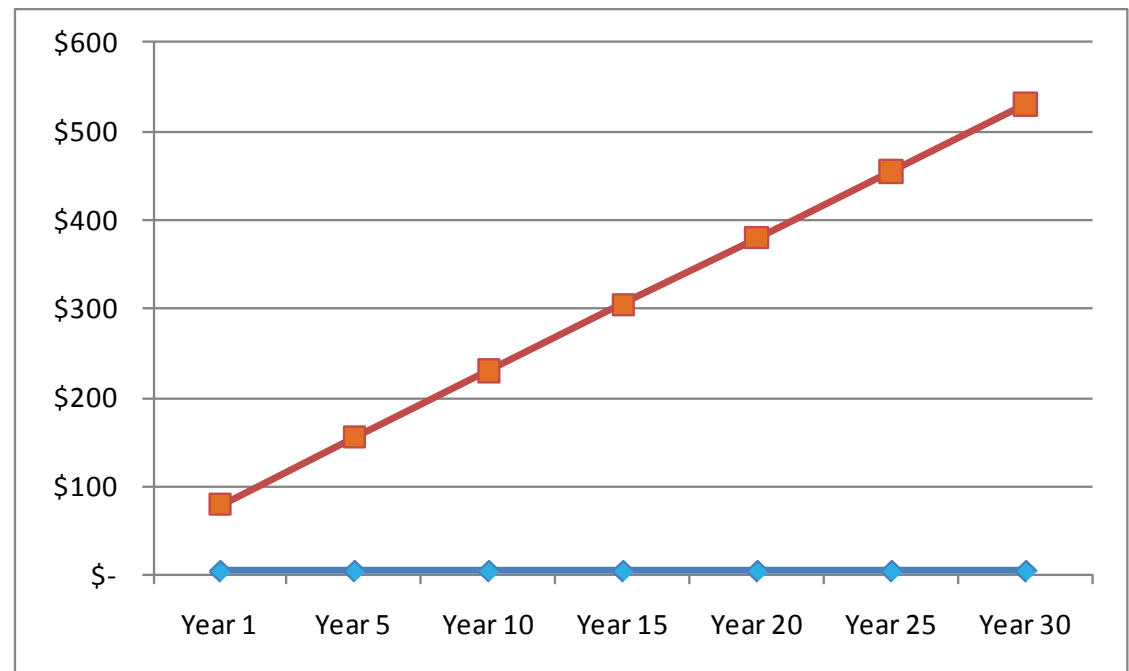
Notwithstanding, singularly or combined these sources will not adequately address Hillsborough County's transportation crisis.



WE FALL \$15 MILLION BEHIND EVERY YEAR IN ROAD MAINTENANCE

At this rate, we are unable to keep pace with maintaining our roads as infrastructure costs rise.

Current County Backlog: **\$80 million**



Current and growing County backlog of resurfacing





Current yearly County expenditure on resurfacing

*Costs shown in millions



TRANSPORTATION REVENUE SOURCES

Assumes new growth will pay an increased and equitable share, and Federal and State grants.

Revenue Sources	How does it work?	How much does it generate?	Who pays for it?
 Gas Tax	<p>Local option levied up to 5 cents per gallon of gasoline.</p> <p>May be authorized by a super majority, County Commission vote, or by referendum.</p>	<p>One penny per gallon raises approximately \$5 million every year.</p> <p>All five pennies per gallon raises approximately \$25 million annually.</p>	<p>Residents Tourists Businesses Visitors (or anyone else) Anyone that purchases gas</p>
 Property Tax	<p>Taxes levied on real estate and intangible personal property by local government. Tax amount is based on the taxable value of property.</p> <p>May be authorized by County Commission and/or City Councils. For example, in Hillsborough County 1 mill on an average home with \$165,000 assessed value yields \$115 annually.</p>	<p>\$68.4 million Countywide</p>	<p>Property Owners</p>
 Community Investment Tax (CIT)	<p>One half percent of local option sales tax levied on the purchase of goods and services at the point of sale (basic needs such as groceries and medicine excluded).</p> <p>Unavailable until 2027. May be reauthorized by countywide referendum.</p>	<p>\$0 until 2027</p> <p>\$100 million average per year</p>	<p>Residents Tourists Businesses Visitors (or anyone else)</p>
 Sales Tax (Local option Transit Surtax)	<p>One percent local option sales tax levied on the purchase of goods and services at the point of sale (basic needs such as groceries and medicine excluded).</p> <p>May be authorized by countywide referendum.</p>	<p>\$200 million average per year</p>	<p>Residents Tourists Businesses Visitors (or anyone else)</p>



WHAT REVENUE SOURCES CAN PAY FOR

Assumes new growth will pay an increased and equitable share, and Federal and State grants.

Revenue Sources		Property Tax	Gas Tax	Community ** Investment Tax	Sales Tax
Maintenance	Capital	✓	✓	✓	✓
	Operating	✓			✓
Roads	Capital	✓	✓	✓	✓
Transit	Capital	✓		✓	✓
	Operating	✓			✓
Bike/Ped	Capital	✓		✓	✓ *
Intersections	Capital	✓	✓	✓	✓

* Not all trails available

** Unavailable until 2027