

2045 LONG RANGE TRANSPORTATION PLAN

EXECUTIVE SUMMARY



Adopted
September 10, 2020

The Space Coast Transportation Planning Organization (SCTPO) complies with various nondiscrimination laws and regulations, including Title VI of the Civil Rights Act of 1964 and the Americans with Disabilities Act (ADA). Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons wishing to express their concerns relative to SCTPO compliance with Title VI may do so by contacting:

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The preparation of this report has been financed in part through grant(s) from the Federal Highway Administration and Federal Transit Administration, U.S. Department of Transportation, under the State Planning and Research Program, Section 505 [or Metropolitan Planning Program, Section 104(f)] of Title 23, U.S. Code. The contents of this report do not necessarily reflect the official views or policy of the U.S. Department of Transportation.

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Mission

To develop and foster realization of regional multi-modal transportation projects and programs that improve the quality of life for Brevard residents, businesses, and visitors.

INTRODUCTION

The Space Coast Transportation Planning Organization (SCTPO) has one of the most unique opportunities to collaborate and coordinate among five transportation modes. Brevard County is quinti-modal as its system is comprised of roadways (includes cars, bicycles, pedestrians, and transit), airports, a seaport, a spaceport, and a rail system. Brevard County's economy is largely built on and around transportation assets.

This Executive Summary provides a high level overview of the 2045 Long Range Transportation Plan (LRTP). This document reviews the Goals and Objectives, summarizes the Public and Stakeholder Involvement, showcases how the SCTPO is planning for Safety, the Environment, Pedestrians, Bicycles, Transit, Freight, Ports, and Tourism, and provides an overview of the final 2045 Cost Feasible Plan. The full Plan Document can be found on the SCTPO's website here: <https://spacecoasttpo.com/plans-programs/long-range-transportation-plan/>



1 COUNTY:

Brevard County Board of County Commissioners



16 CITIES + TOWNS:

Cape Canaveral	Melbourne Beach
Cocoa	Melbourne Village
Cocoa Beach	Palm Bay
Grant-Valkaria	Palm Shores
Indialantic	Rockledge
Indian Harbour Beach	Satellite Beach
Malabar	Titusville
Melbourne	West Melbourne



2 AIRPORTS:

Melbourne International Airport
Space Coast Regional Airport



1 SEAPORT:

Port Canaveral



1 SPACEPORT:

Cape Canaveral Spaceport (Kennedy Space Center and Cape Canaveral Air Force Station)



The Spa is
OPEN

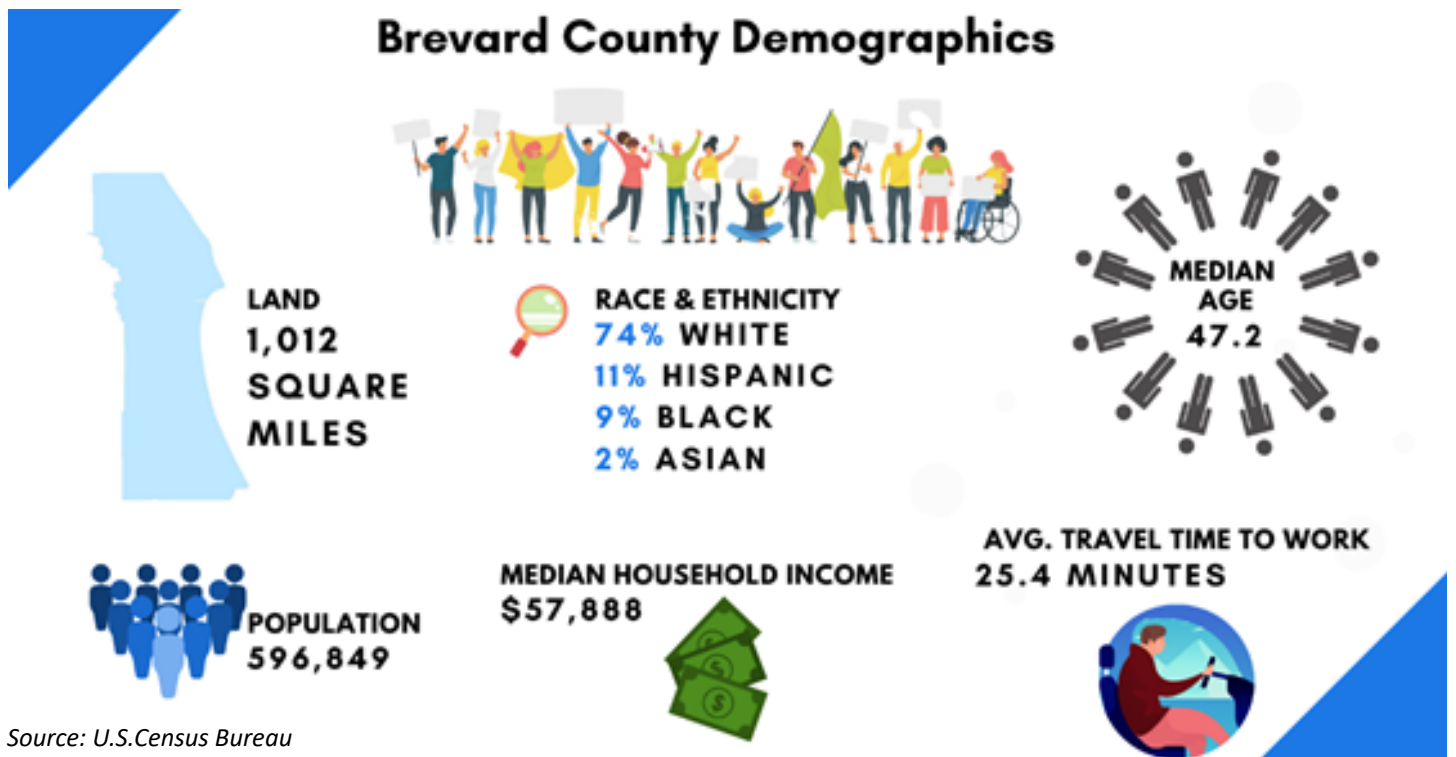
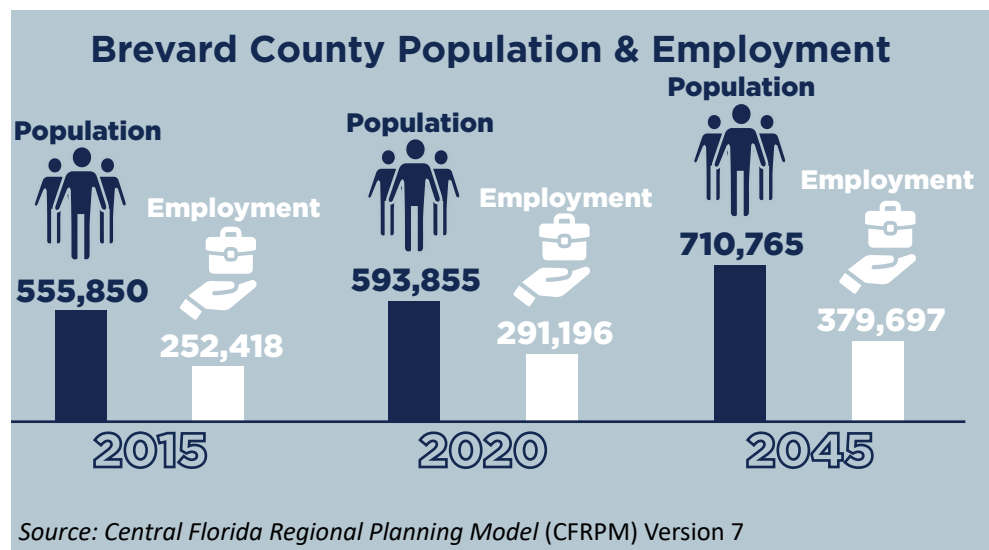
TRADE
LEG

BIERMATT'S

BREVARD COUNTY'S DEMOGRAPHICS

Tracking demographic trends provides understanding of how well the existing transportation system is supporting and enhancing the quality of life of Brevard County communities. Relating transportation facilities to demographic trends like population growth helps the County better position future transportation investments in response to changing social, economic, and demographic conditions. Below are some quick facts about Brevard according to the U.S. Census Bureau.

Population and employment growth has a significant impact on the need for transportation infrastructure. The figure below displays the county-wide population and employment in 2015, 2020, and projected population and employment in 2045 as per the Central Florida Regional Planning Model (CFRPM) Version 7.





WHAT IS A LONG RANGE TRANSPORTATION PLAN?

Every five years, the SCTPO adopts a new LRTP. This Plan provides a common vision for the community's future transportation needs and guides the investment of public funds in transportation facilities, over the next 20 or more years.

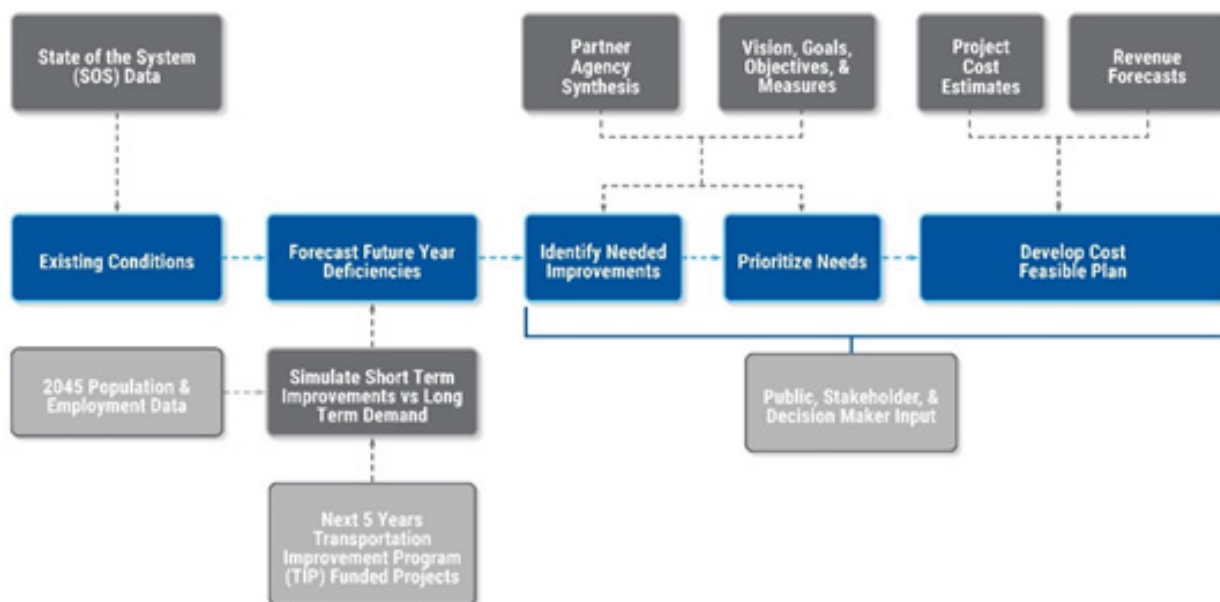
The Plan includes both short and long term transportation strategies using multiple modes of transportation for moving people and goods. The figure below shows the LRTP update process.

What are the LRTP Objectives?

- Details a comprehensive plan for transportation needs
- Includes long and short range goals and strategies
- Identifies funding sources and estimates costs
- Provides framework for choosing transportation projects

What Does the LRTP Include?

- Producing the LRTP is a federal requirement for all metropolitan areas with a population >50,000
- The plan must be updated every five years
- The plan must look at least 20 years in the future
- The plan must include a financial analysis demonstrating cost affordable improvements
- Any projects requiring federal funds for infrastructure improvements must be included in the LRTP



The LRTP and Project Implementation Timeline

The LRTP is the principle document guiding project development in Brevard County.

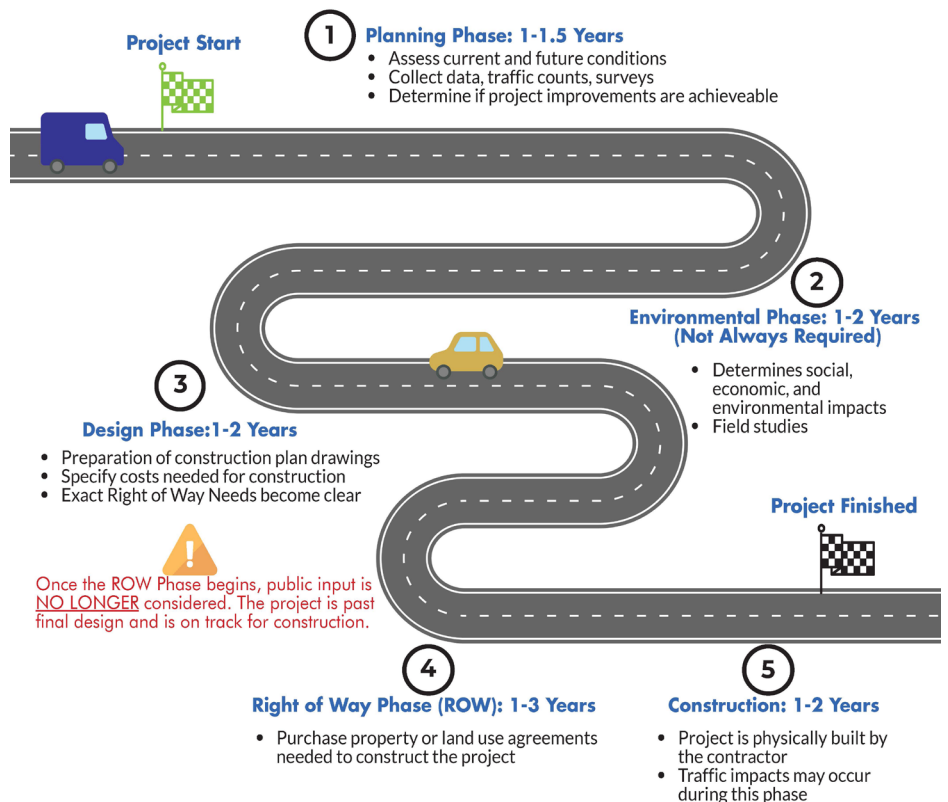
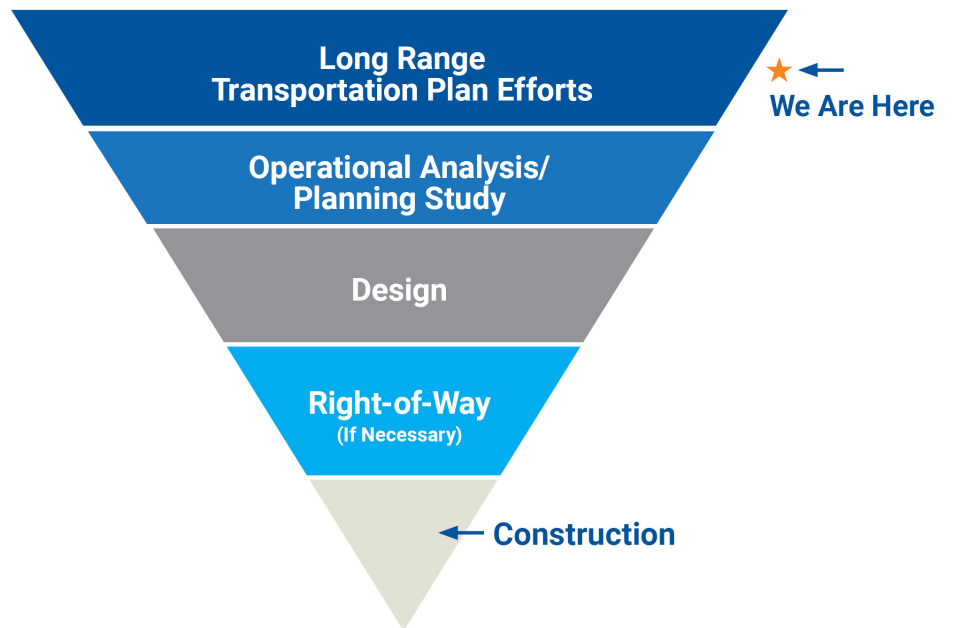
In order for a project to move into other development phases (like Planning, Design, or Construction), it must first be identified and documented in the LRTP.

The figure on the right shows where the LRTP stands in relation to other project phases.

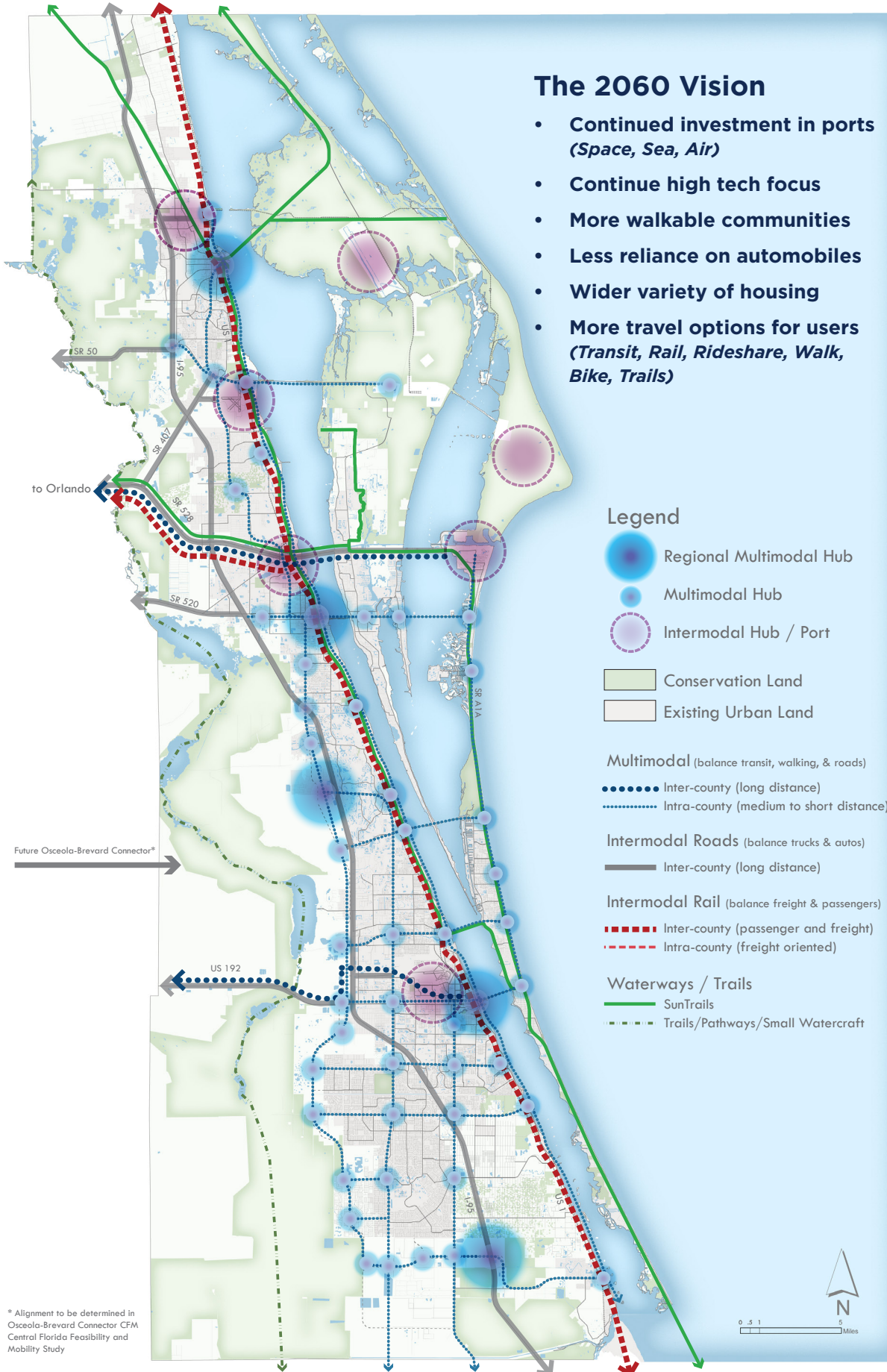
The figure to the right shows the major phases of the road building process.

Many of the tasks included within each phase occur concurrently.

Each project's unique circumstances, requirements, risks, and complexities tailor the project development process to the individual project.



Continuing the 2060 Vision



The 2060 Vision

- Continued investment in ports (*Space, Sea, Air*)
- Continue high tech focus
- More walkable communities
- Less reliance on automobiles
- Wider variety of housing
- More travel options for users (*Transit, Rail, Rideshare, Walk, Bike, Trails*)

Legend

- Regional Multimodal Hub
- Multimodal Hub
- Intermodal Hub / Port
- Conservation Land
- Existing Urban Land
- Multimodal (balance transit, walking, & roads)
 - Inter-county (long distance)
 - Intra-county (medium to short distance)
- Intermodal Roads (balance trucks & autos)
 - Inter-county (long distance)
- Intermodal Rail (balance freight & passengers)
 - Inter-county (passenger and freight)
 - Intra-county (freight oriented)
- Waterways / Trails
 - SunTrails
 - Trails/Pathways/Small Watercraft

* Alignment to be determined in Osceola-Brevard Connector CFM Central Florida Feasibility and Mobility Study



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GOALS & OBJECTIVES

The 2045 LRTP includes Goals, Objectives, and Evaluation Criteria formulated as a framework to guide the Plan update process.

After Plan adoption and throughout the planning process, these goals and objectives are routinely reviewed and monitored through an annual process that reports on system performance.

The LRTP Goals, which represent the desired outcomes of the planning process, are shown in the figure below.

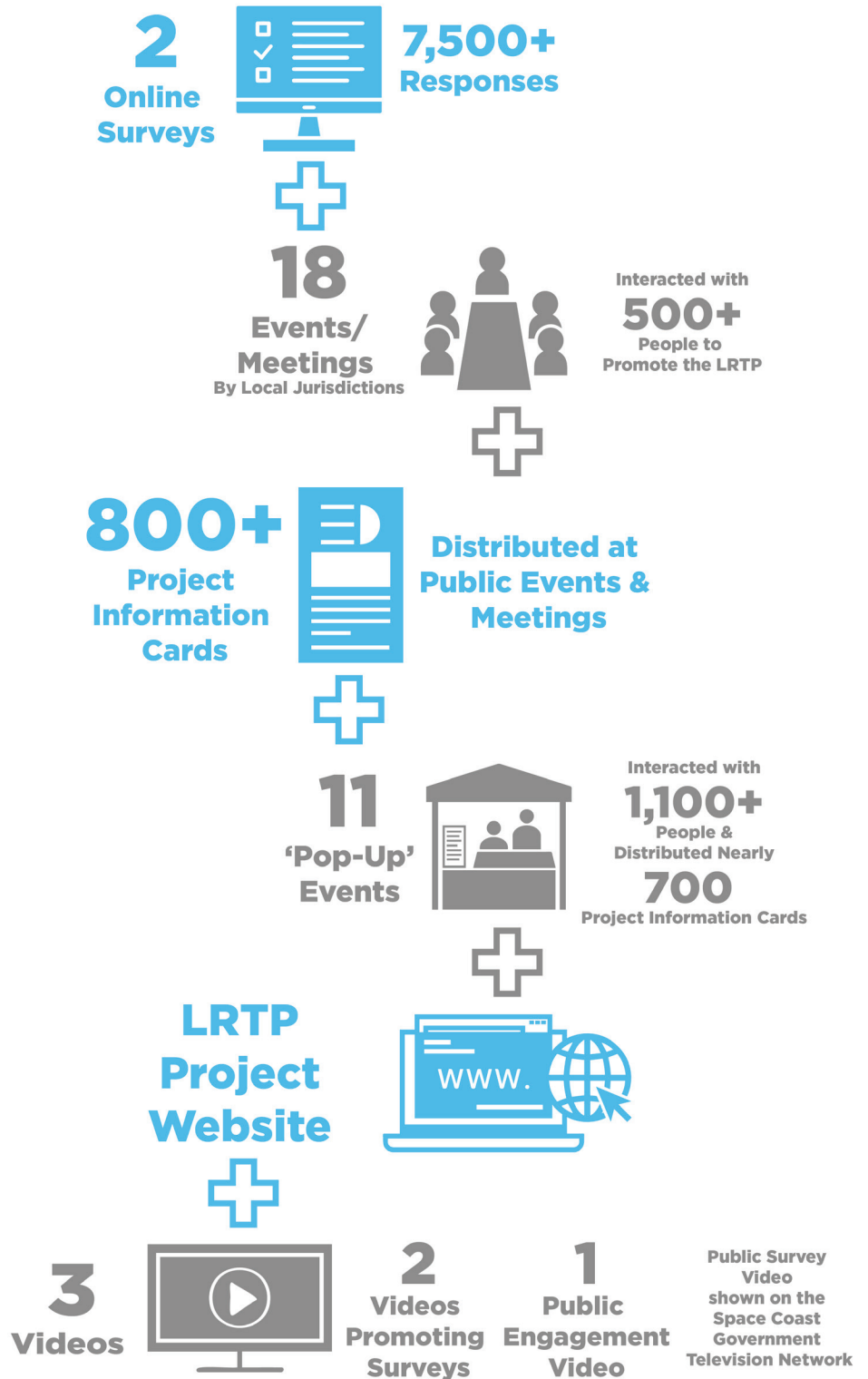


PUBLIC & STAKEHOLDER INVOLVEMENT

Public participation is an integral component of transportation planning, the LRTP process, and the SCTPO's philosophy. The intention is to collect, review, and utilize diverse viewpoints to help in the decision-making process. This in turn creates the ideas that help engineer the framework for improvements to the existing transportation system.

A Public Involvement Plan (PIP) was developed specifically for the 2045 LRTP. The PIP focused on identification of key issues, outreach techniques and the tools to be used in soliciting public input. The use of social media outlets played a key role in this particular plan update.

The figure on the right summarizes the public involvement during the LRTP planning process.



Open House Promotions via Social Media



Facebook Events & Promotional Posts for Open Houses Seen By

4,972
Unique Users



Facebook Live Event At

South Brevard Open House



Twitter Announcements of Open Houses & Live Tweets During the Event Seen By

1,137 Impressions + **31** Engagements



Nextdoor Posts to reach neighborhoods in key target locations Received

21,717
Impressions



Used Constant Contact as a Communication Tool to Share News & Updates to Stakeholders + Citizens

The Public Open House Announcement via Constant Contact had

2,994 Deliveries + **38%** Email Open Rate

Social media was utilized as the primary outlet for promoting the public open houses, and the figure on the left provides a summary of the reach for the social media promotion.

Stakeholder Involvement

Three key groups were identified for targeted involvement throughout the LRTP update process:

- Local agency partners such as the ports, environmental groups, and modal agencies.
- A Technical Committee comprised of local jurisdiction representatives that reviewed/commented on technical documents produced during the LRTP.
- SCTPO Board and Committees (Bicycle/Pedestrian/Trails Advisory Committee (BPTAC), Citizens Advisory Committee (CAC), and Technical Advisory Committee (TAC)).

This targeted involvement came in the form of meetings, presentations, and solicitation for review of various LRTP materials/documents during the course of the LRTP.

The figure on the right provides a summary of stakeholder involvement throughout the LRTP update.



Stakeholder Meeting With

(Feb. 5, 2020)

10
Agencies/Departments

- Brevard County Public Schools
- NASA
- Canaveral Port Authority
- Space Florida
- Kennedy Space Center
- Melbourne International Airport
- Titusville Cocoa Airport Authority
- Space Coast Office of Tourism
- US Space Force
- FDOT Freight Coordinators



3

Stakeholder Meetings

(Feb. 2020)

Coinciding with
3 Public Open Houses:

- North Brevard
- Beaches
- South Brevard

to Discuss Needs List Development with Local Jurisdictions



Meeting with

Environmental Stakeholders

(March 11, 2020)

to Discuss LRTP Needs Project List from an Environmental Lens



2

Technical Committee Meetings

to Discuss

8

Technical Memos & Documents + Reviewed Needs Lists & Cost Feasible Plan



LRTP Progress Presented at

1

Bicycle/Pedestrian/Trails Advisory Committee (BPTAC) Meeting

5

Board Meetings

5

Citizens Advisory Committee (CAC)/ Technical Advisory Committee Meetings



Verbal Announcements

about Surveys & Other Opportunities to Provide Input at

1

Bicycle/Pedestrian/Trails Advisory Committee (BPTAC) Meeting

4

Citizens Advisory Committee (CAC)/ Technical Advisory Committee Meetings



Due to

COVID-19

In-person Meetings were Replaced by

Virtual Meetings on GoTo Meetings

Starting in April 2020

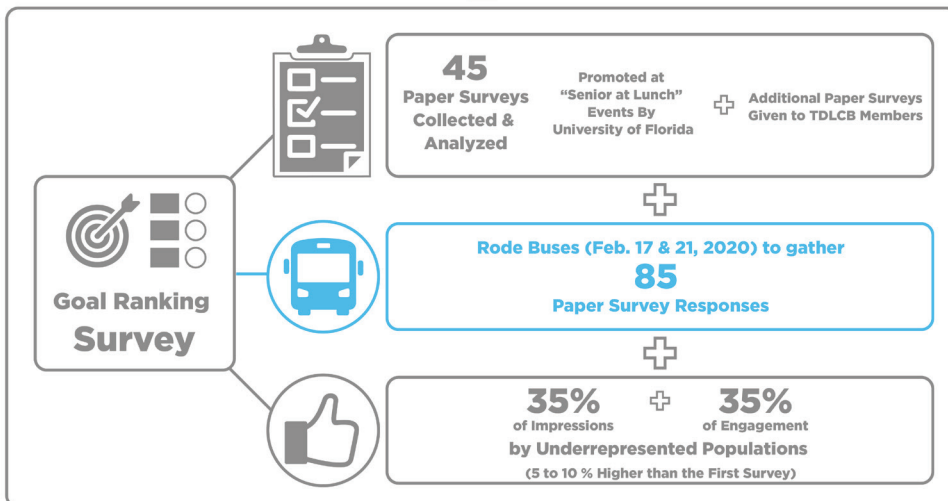
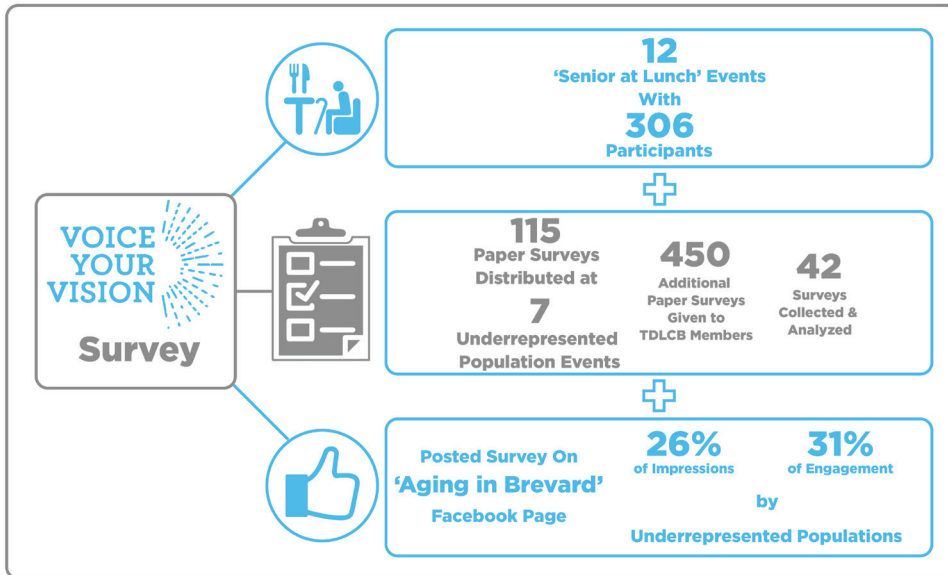
Outreach to Underrepresented Populations



2
Presentations
To
Transportation
Disadvantaged
Local Coordinating
Board (TDLCB) Meetings



800
Project
Information
Cards
Distributed at
Events in
Underserved
Population Areas &
Local Libraries



Underrepresented/underserved populations typically rely on more aspects of the transportation system, thus soliciting input from these populations plays a critical role in LRTP development.

The Transportation Disadvantaged Local Coordinating Board (TDLCB) was the primary conduit for getting materials out to these populations.

Throughout the LRTP, marketing/outreach efforts also specifically targeted these populations and it resulted in tremendous engagement/input from these groups, as shown in the figure to the left.



PLANNING FOR SAFETY

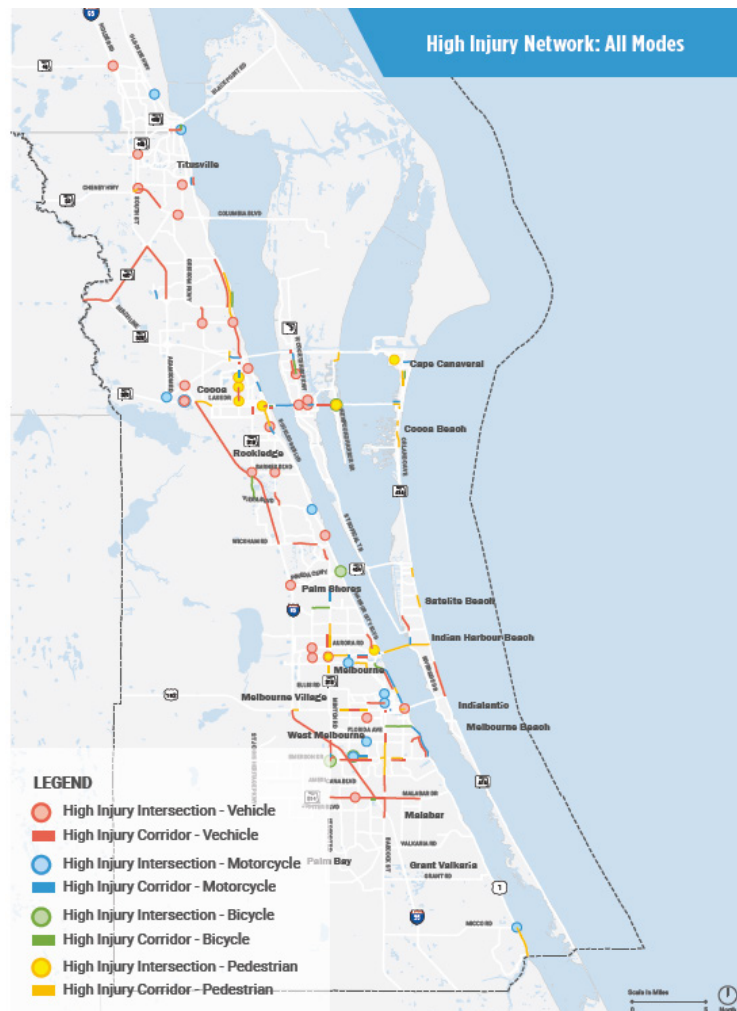
SCTPO Safety Planning Efforts

- 2014 Countywide Safety Analysis Report – identified crash trends, types, and high crash locations
- 2015/2016 Pedestrian/Bicycle Safety Field Reviews and Road Safety Audits (RSAs) on high crash locations
- 2019/2020 School Routes Analysis on 9 school sites
- Safe School Access Committee- multi-jurisdictional groups work to address traffic congestion and safety around schools
- Multiple Complete Streets and Corridor Studies with a safety emphasis
- Continued system safety monitoring in the annual SOS Report

Vision Zero

Vision Zero is a strategy to eliminate all traffic fatalities and severe injuries. Vision Zero recognizes that people will make mistakes, so the road system and related policies should be designed to anticipate those mistakes and reduce severe injuries and fatalities.

As part of the SCTPO's Vision Zero Project, an interactive map was created to track public comments. A fatal and severe injury crashes dashboard was also created which provides a look at crash statistics. The interactive dashboard is shown in figures to the right. To assist the SCTPO in prioritizing projects with safety concerns, the Vision Zero Action Plan identified High Injury Networks (HIN) for vehicles, bicyclist, pedestrians and motorcyclist.



PLANNING FOR THE ENVIRONMENT

The SCTPO has strategies in place to consider environmental issues systemically – from the inclusion of environmental measures in the selection of LRTP projects to working with resource agencies to explore environmental mitigation opportunities at a regional scale.

In addition to these strategies, the SCTPO and the FDOT engage with environmental stakeholders to identify regional needs, discuss challenges to specific projects, and develop solutions that have the greatest positive effect on the environment.

The key processes for considering the environment is summarized in the figure on the right.

Integrate



Environmental Measures
Into Goals/Objectives & Project Selection Criteria

Review Environmental Impacts in Coordination with



Environmental Stakeholders
During Project Priorities Process & at Project Level

Policies and Strategies to
Balance Environmental Needs
Through Programs Such as



ETDM Process



ITS Master Plan
Bicycle & Pedestrian Master Plan
State of the System Report



Natural Resources

Next Steps for Continued Engagement

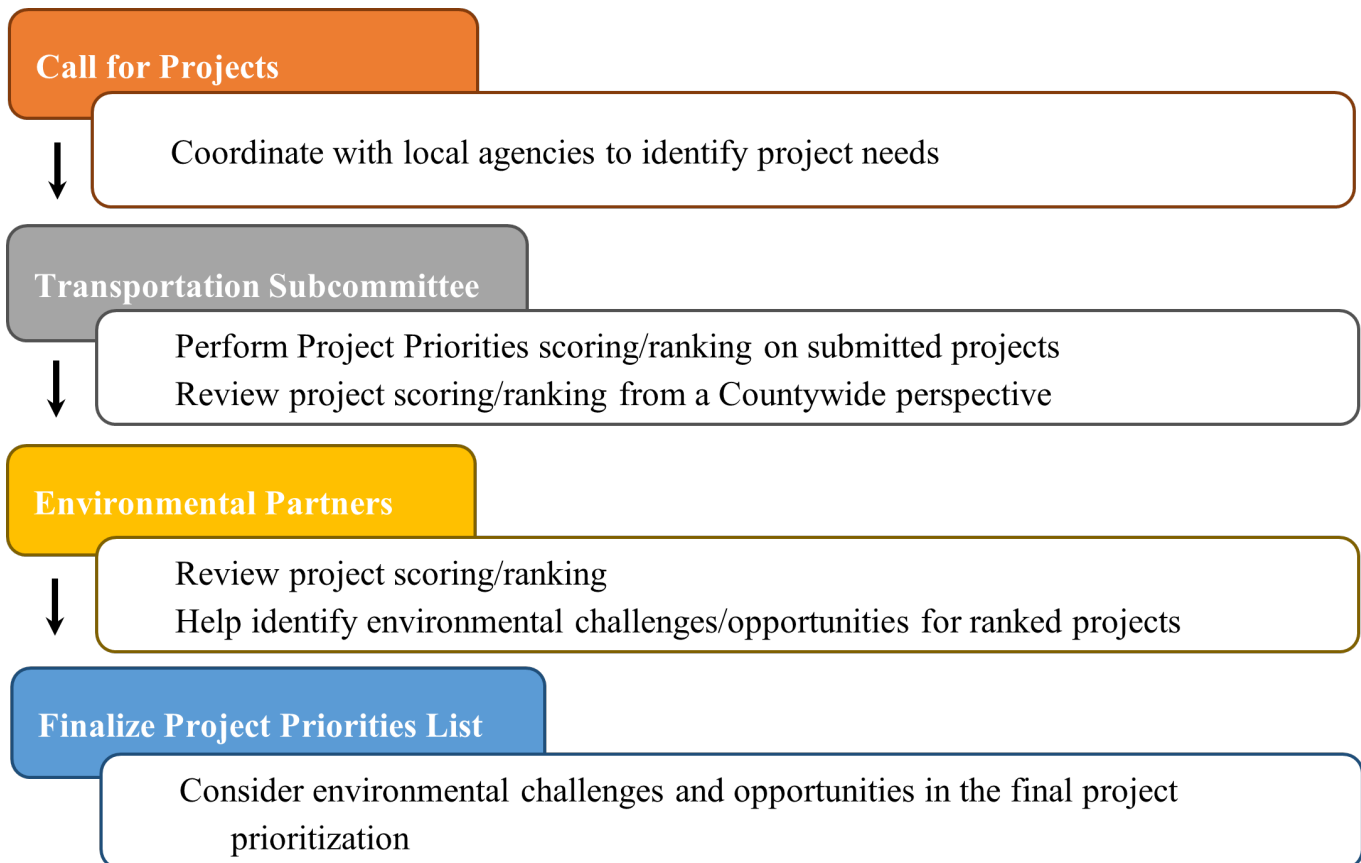
The March 2020 environmental stakeholder meeting spurred the development of a plan to continue to engage with environmental stakeholders regularly.

This plan includes ways to annually engage environmental stakeholders to identify environmental needs, opportunities, and challenges for upcoming transportation projects. The goal of engaging with environmental stakeholders regularly is to:

- Develop new partnerships with environmental stakeholders and provide opportunities for intergovernmental coordination;

- Identify opportunities to apply mitigation strategies in alignment with environmental agency goals; and
- Identify potential challenges to projects to adjust timeline and budgetary considerations, or prioritize other alternatives.

The draft process for engaging with environmental stakeholders on a regular basis is summarized in the figure below.





WELLS FARGO

NO PARKING BIKE LANE

BIKE LANE

White crosswalk lines on the asphalt road.

PLANNING FOR BICYCLES, PEDESTRIANS, AND TRANSIT

The SCTPO recognizes the growing importance of bicycle, pedestrian, transit accessibility, mobility and safety to the region's economic vitality, sense of community identity, and quality of life. Building on the Complete Streets work performed in the early/mid 2010's, the SCTPO completed an update to

the Bicycle/Pedestrian Master Plan, performed an Americans with Disabilities Act (ADA) assessment of the transit stops within Brevard County, and identified context classifications for the functionally classified roadways in the County.

Bicycle & Pedestrian Master Plan

The SCTPO adopted the Bicycle & Pedestrian Master Plan (BPMP) in November 2019, which updated the 2013 Bicycle, Pedestrian, and Trails Mobility Plan.

The BPMP updated the inventory of current conditions, identified priority corridors, and ranked corridors for bicycle and pedestrian improvements. Improvements identified in the BPMP are included in the bicycle/pedestrian boxed funds program.

Transit

Space Coast Area Transit is the transit service provider for Brevard County. Their Transit Development Plan (TDP) presents baseline transit conditions in Brevard County and explores potential alternative services and capital investments. The vision statement of the plan is to maintain the current level of transit service in the County and expand service to better respond to key emerging service market needs of students, seniors, the disabled, technology and tourism industry by:

- Developing new routes;
- Enhancing flexible service; and
- Developing partnerships with transit providers in adjacent counties for improved regional access.

One of the primary shortfalls that Space Coast Area Transit has identified is the lack of operations and maintenance funding to expand the existing transit system. The Cost Feasible Plan section discusses how additional boxed funds are being reserved for transit operations and maintenance for future transit service expansion.





703

703

FLORIDA EAST COAST

703

714

714

PLANNING FOR FREIGHT & PORTS

Freight movement to and from the major port hubs is critical to Brevard County's growth and status in the Central Florida region.

As part of the Plan Synthesis, FDOT freight studies and future port (airport, seaport, and spaceport) master plans were reviewed with the goal of understanding how the LRTP could better support these efforts.

Two of the LRTP Goals directly focus on freight and ports, and projects incorporating these goals should be prioritized to aid in the future growth of the County.

Our robust transportation system is largely driven by activities supporting Brevard's Port centers. These Strategic Intermodal System hubs and the transportation corridors that support them are considered the backbone of Florida's transportation system.

They connect Central Florida's economy to the world and beyond.





PLANNING FOR TOURISM

LRTP recognizes that tourism is one of the primary sources of revenue for Central Florida, and Brevard County is no exception.

Brevard County boasts of major tourist destinations like Kennedy Space Center, Port Canaveral, and over 70 miles of beaches. As part of the annual SOS Report, SCTPO documents yearly trends for Orlando-Melbourne International Airport (MLB) passengers and Port Canaveral cruise passengers.

Tourism isn't just limited to MLB and Port Canaveral. The Kennedy Space Center and Cape Canaveral Spaceport attract hundreds of thousands of visitors each year to both the Visitors Center and to watch private shuttle launches. While traveling to space is just limited to astronauts, traveling to Brevard County to watch space launches is beginning to increase at a rapid rate. On February 6, 2018, SpaceX launched a Falcon Heavy spacecraft while almost 115,000 visitors watched. Annually, the Kennedy Space Center hosts 1 to 1.5 million visitors.





COST FEASIBLE PLAN

Developing a Cost Feasible Plan involves multiple steps with the end goal of funding as many prioritized Needs List projects as possible based on the financial forecasts. The Cost Feasible Plan is separated into five 5-year time periods that include various projects/project phases. In addition to the roadway projects

from the prioritized Needs List, Boxed Funds Programs are also included in the Cost Feasible Plan. Boxed Funds are a mechanism that can be used to set aside funding for specific project types, such as bicycle/pedestrian or ITS. Also included in the Cost Feasible Plan are a list of Grant Funded projects.

Steps in Developing a Cost Feasible Plan

- **Create cost estimates for each Needs List project**
- **Identify project phases (PD&E, Design, Right-of-Way, Construction) for each Needs List project**
- **Projects only needing later phases (like construction) get moved to the top**
- **Identify and apply funding from specific sources to each project**
- **Provide a set-aside amount for each of the Boxed Funds Project Lists**
- **Review funding allocations and balances**

Cost Feasible Plan Structure

- **Includes five 5-year time periods:**
 - **2021-2025 (first 5 years)**
 - **2026-2030**
 - **2031-2035**
 - **2036-2040**
 - **2041-2045**
- **Roadway projects, cost estimates, and funding sources identified for each 5-year time period**
- **Boxed Funds Programs also included**
- **Separate list for Grant Funded projects**

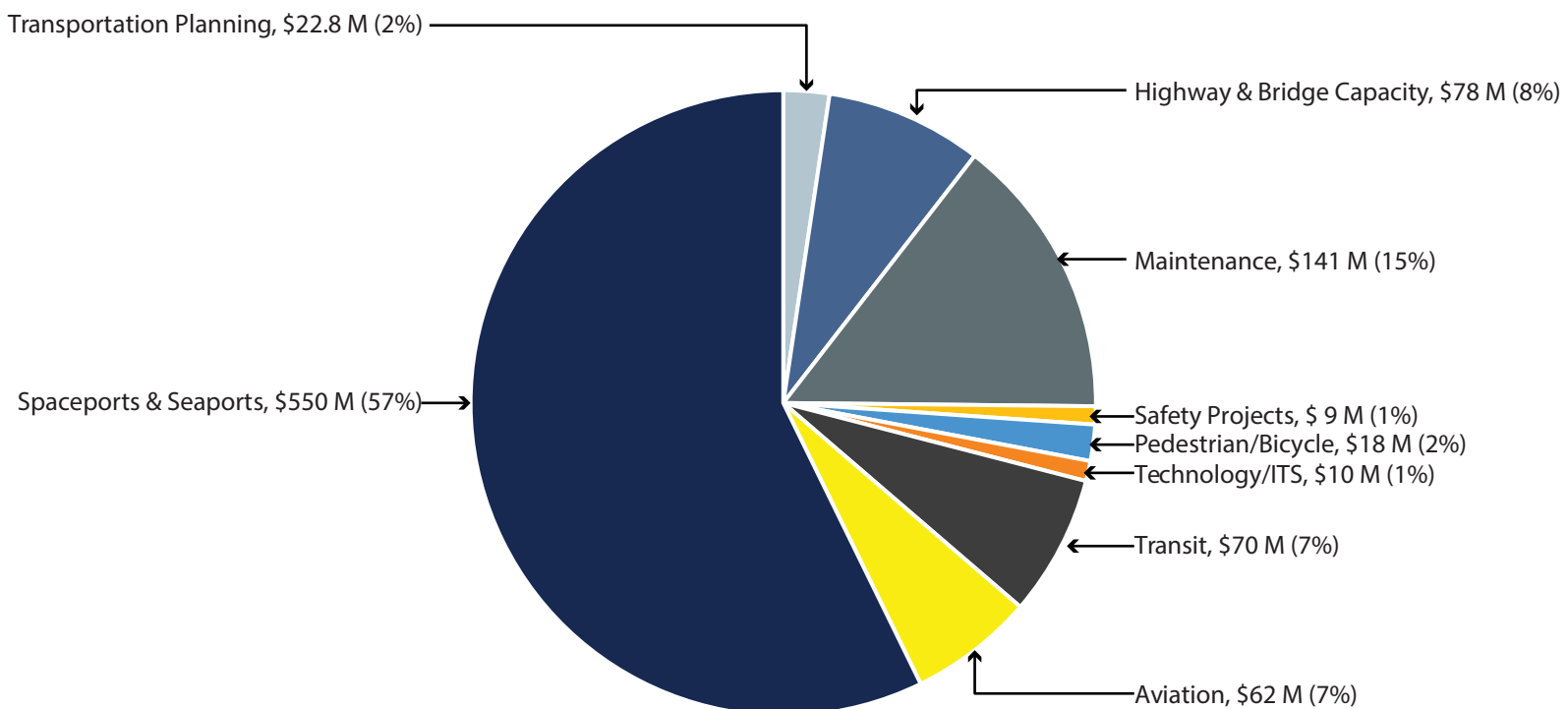
First Five Years (2021-2025) – What Is Happening Now

The SCTPO’s 2021-2025 Transportation Improvement Program (TIP), which is the first five years of the 2045 LRTP Cost Feasible Plan, was adopted by the SCTPO Board on July 9, 2020.

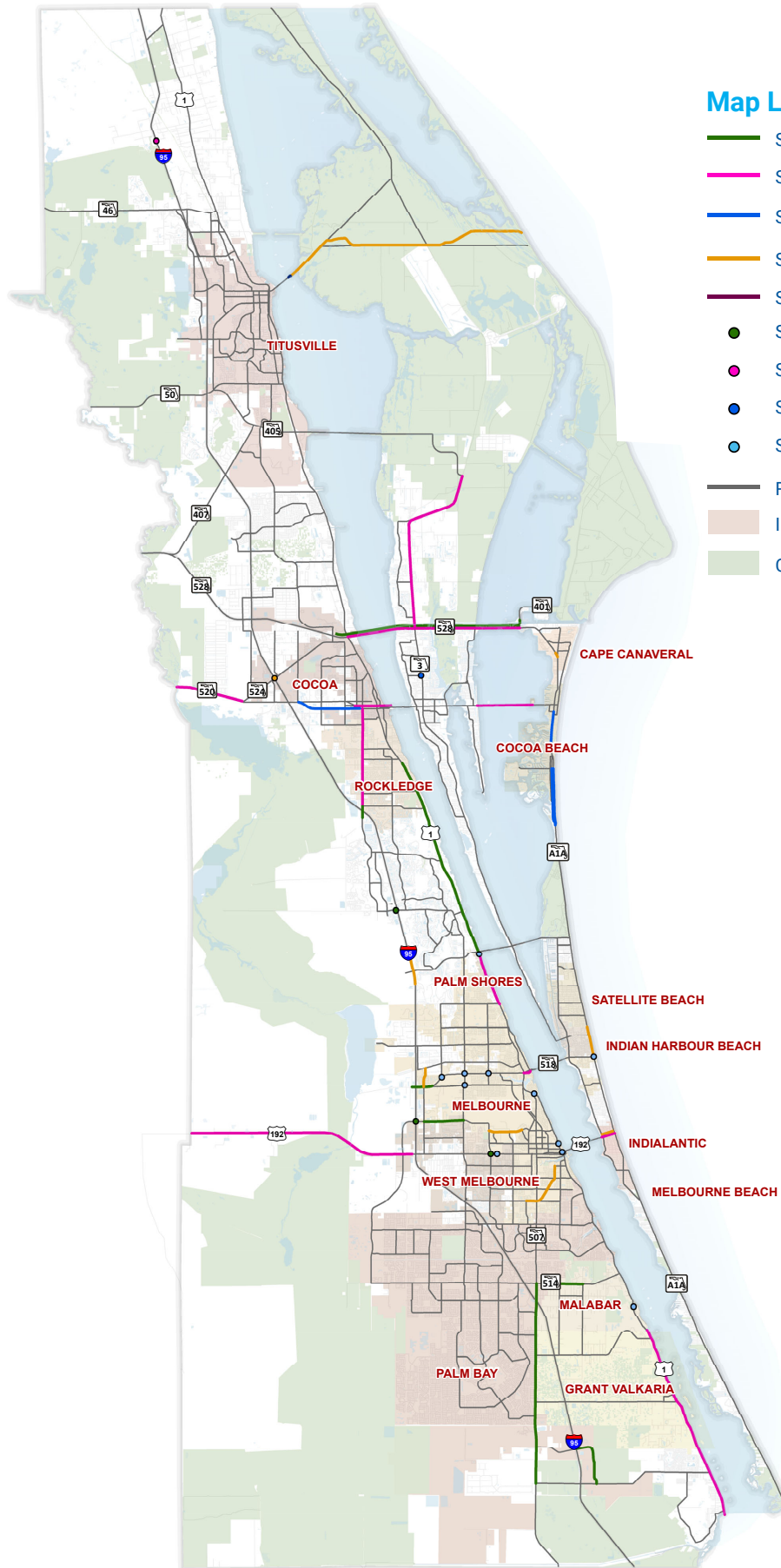
In total, Federal, State and Local Matching funding in the TIP equals \$964,524,208.

The chart below shows the breakdown of those funds into the various project categories. The projects included in the first five years of the 2045 LRTP Cost Feasible Plan are shown in the figure on the facing page. Only projects that could be mapped (like capacity and complete streets projects) are shown in the figure.

Dollars (in Millions) Programmed by Category FY 21 - FY 25 (TIP)

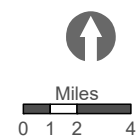


Cost Feasible Plan 2021-2025 Projects



Map Legend

- Section A - Highway and Bridge Capacity
- Section B - Maintenance (Bridge and Pavement)
- Section C - Safety Projects and Programs
- Section D - Bicycle and Pedestrian Projects
- Section J - Federal Lands Highway Program
- Section A - Highway and Bridge Capacity
- Section B - Maintenance (Bridge and Pavement)
- Section C - Safety Projects and Programs
- Section E - Intelligent Transportation Systems
- Roadway Network
- Incorporated Cities/Towns
- Conservation Areas



Last 20 Years (2026-2045)

The 2045 LRTP longer term Cost Feasible Plan begins in 2026 and consists of four 5-year time periods out to 2045.

The Cost Feasible Plan consists of roadway and intersection capacity projects, boxed funds programs, and grant funded projects.

Figures on the facing page show the construction time periods for the roadway and intersection capacity projects for the Cost Feasible Plan.

The chart below provides the funding summary for the roadway and intersection capacity projects.

The draft Cost Feasible Plan was available for public comment from June 19, 2020 through July 19, 2020.

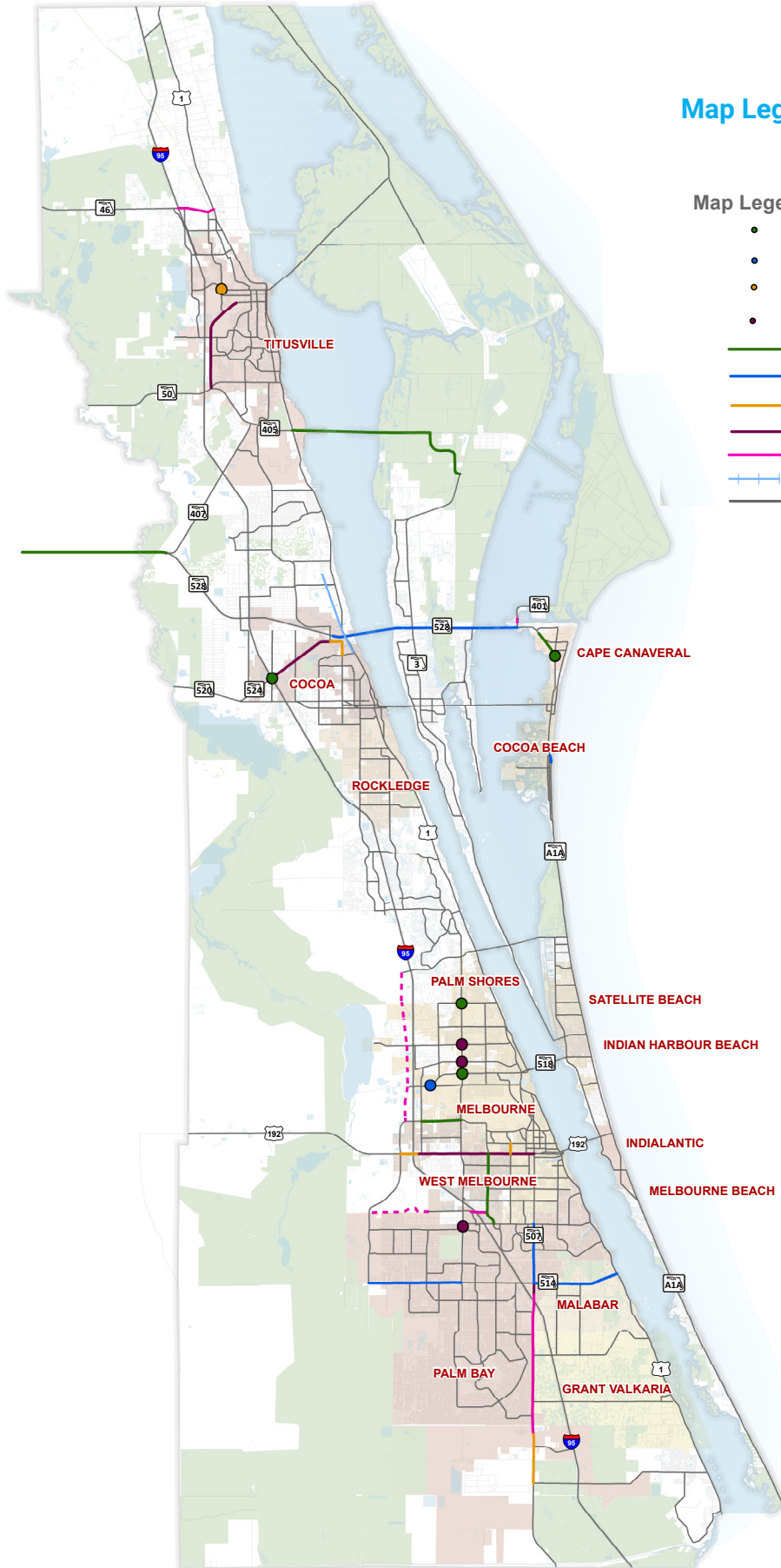


Cost Feasible Plan 2026-2045 Projects

Map Legend

Map Legend

- 2025-2030 Construction Intersection Projects
- 2030-2035 Construction Intersection Projects
- 2035-2040 Construction Intersection Projects
- 2040-2045 Construction Intersection Projects
- 2025-2030 Construction Roadway Projects
- 2030-2035 Construction Roadway Projects
- 2035-2040 Construction Roadway Projects
- 2040-2045 Construction Roadway Projects
- Unfunded Construction Roadway Projects
- Railroad Grant Funded
- Roadway Network



Environmental Justice (EJ) Analysis of Cost Feasible Plan Projects

Environmental Justice (EJ) addresses fairness of federal actions in regard to disadvantaged persons, particularly low-income and minority populations.

FHWA’s FY20 Program Accountability Results (PAR) Review of three non-Transportation Management Area (TMA) Metropolitan Planning Organizations (MPOs) in Florida identified a need to conduct a “benefits and burdens” analysis as part of a LRTP.

The EJ analysis helps equitably distribute transportation infrastructure investments to avoid disproportionate impacts to particular groups.

An EJ analysis was performed for the Cost Feasible Plan projects using the same methodology as the review for the Needs List. The table below shows the number and percentage of roadway/intersection capacity and Boxed Funds Program projects within or intersecting the EJ areas.

Project List	Projects in EJ Areas	Total Projects	% of Projects in EJ Areas
Roadway Capacity	6	28	21%
Intersection Capacity	3	9	33%
Bicycle & Pedestrian Boxed Funds Program	50	137	36%
ITS Boxed Funds Program	16	51	31%
Corridor Implementation Boxed Funds Program	10	19	53%
Safety Studies Boxed Funds Program	5	7	71%
Total	90	251	36%

Boxed Funds Projects

In addition to roadway and intersection capacity projects, the 2045 LRTP Cost Feasible Plan has set aside Boxed Funds for specific programs/project types.

The Bicycle and Pedestrian Boxed Funds Program will target improvements on priority corridors identified in the BPMP.

ITS Boxed Funds will be utilized for projects from the ITS Master Plan.

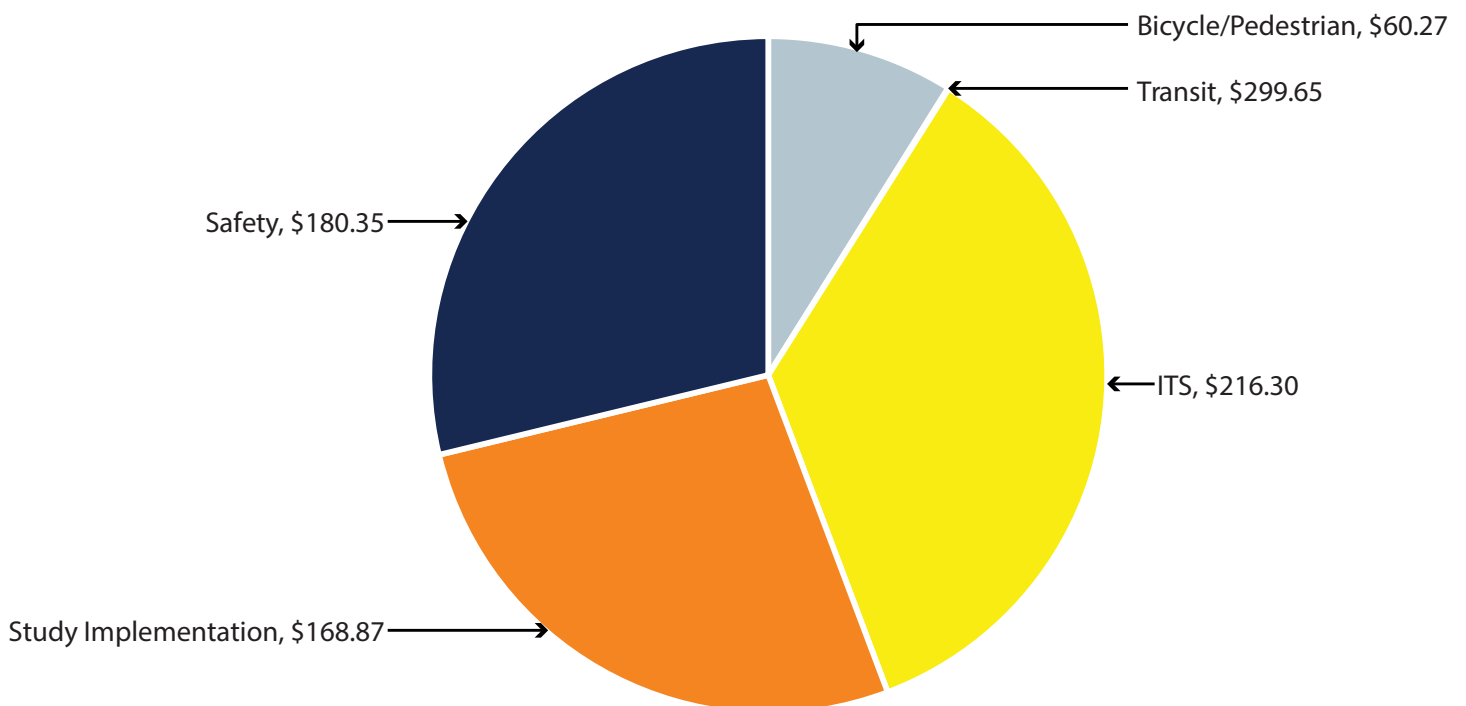
The Transit Operations & Maintenance Boxed Funds Program sets aside additional monies for operations and maintenance to support future Space Coast Area Transit route expansion. Note that the Transit

Operations and Maintenance Boxed Funds Program does not have a specific list of projects, as these funds would be utilized for the entire Space Coast Area Transit system.

The SCTPO and FDOT has performed numerous corridor planning studies and safety projects. The Study Implementation and Safety Boxed Funds Programs will be providing funding to implement the recommendations from these studies/projects. Chart below provides the funding summary for the Boxed Funds Programs.

The specific projects for each of these Boxed Funds Programs are shown in figures on next four pages.

Cost Feasible Plan - Boxed Funds Funding Summary (in Millions)







FINAL REPORT:

Please visit the following website to view the complete final report:
spacecoasttpo.com/plans-programs/long-range-transportation-plan/



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