



SR 520 CORRIDOR PLANNING AND CONCEPT DEVELOPMENT STUDY



Title VI and Related Statutes

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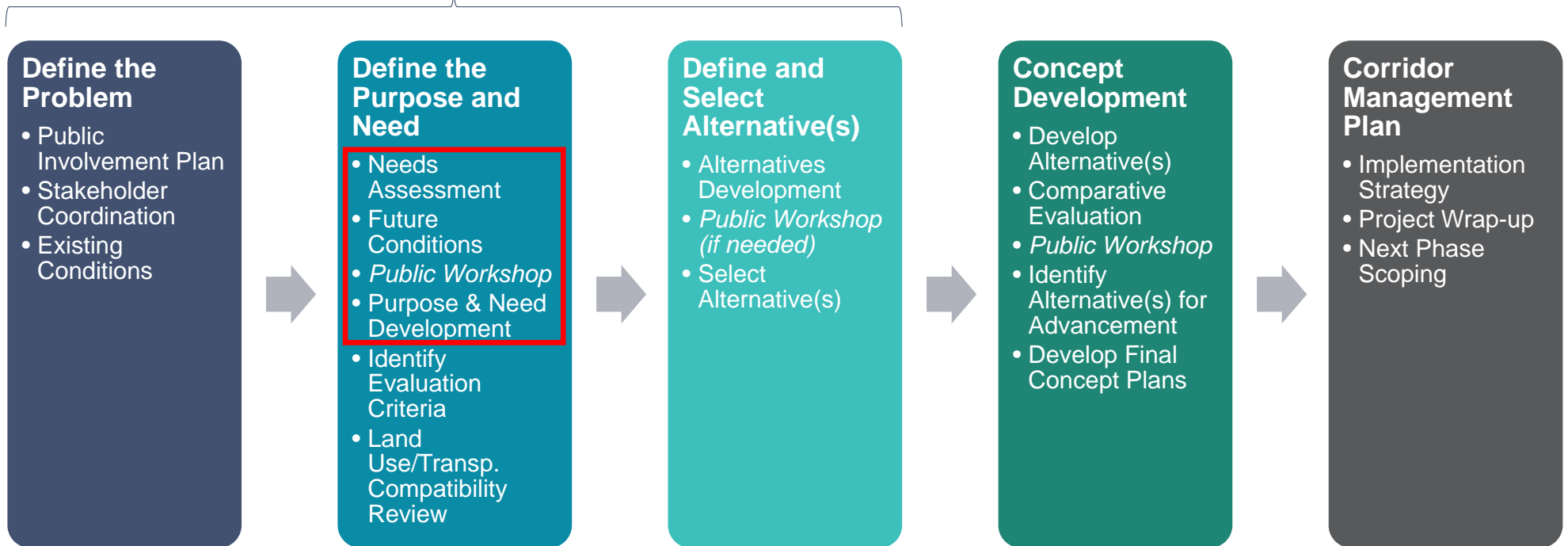
Today's Agenda

- Welcome
- Existing Conditions Overview
- Alternatives Discussion / Workshop



PLANNING PROCESS

PLANNING PHASE



PRESENTATION OVERVIEW

1 STUDY AREA PROFILE

2 TRANSPORTATION CHARACTERISTICS

3 ISSUES & OPPORTUNITIES

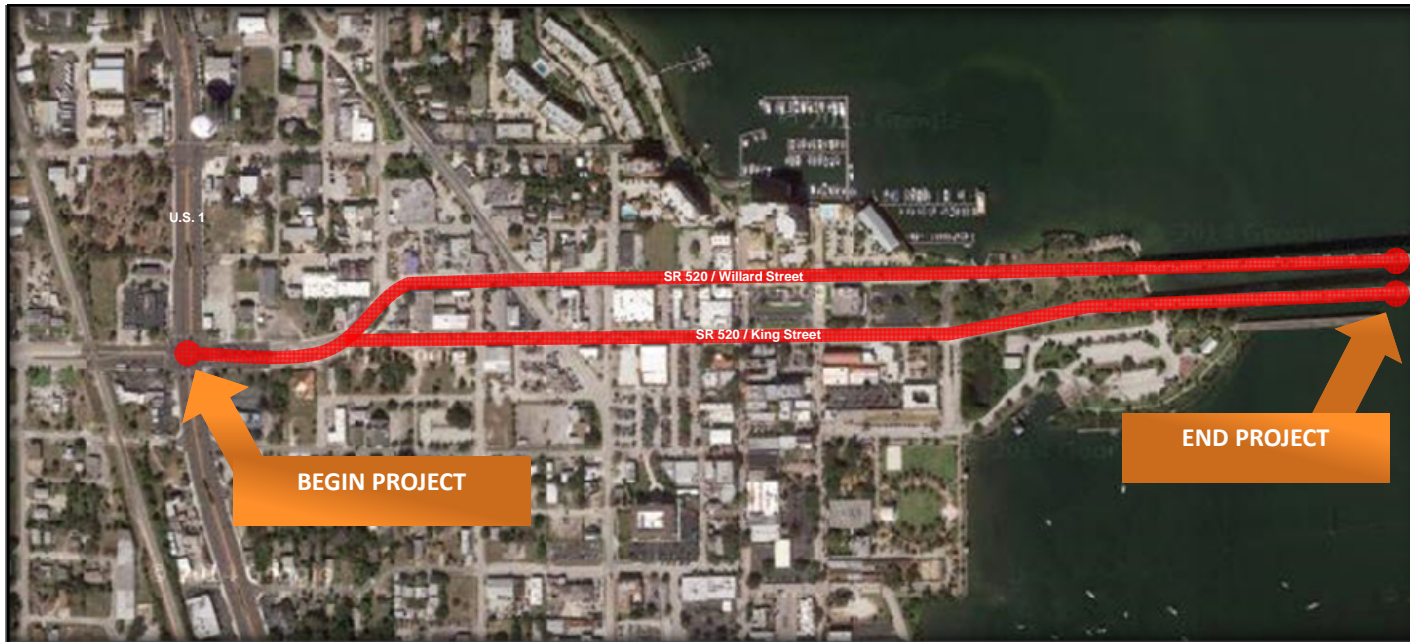
4 WORKING VISION & NEED

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STUDY AREA PROFILE

Demographics, land use, and key features

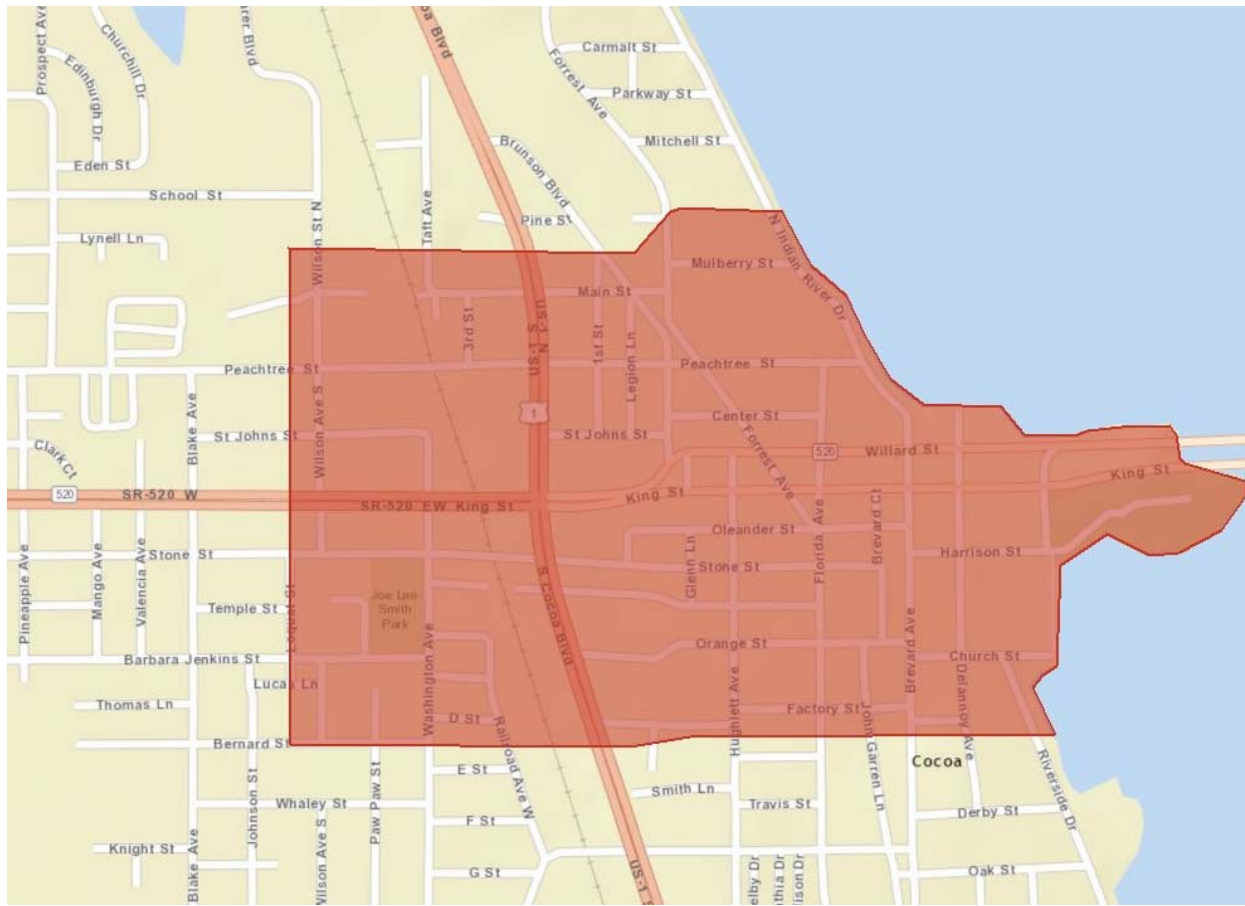
PROJECT STUDY AREA



SR 520 CORRIDOR

- 1 mile long
- From US 1 to the Indian River
- Primarily made up of 2 one-way roads:
 - Willard: 2 or 3 lanes
 - King: 3 lanes
- Over 23,000 vehicles per day in each direction
- Posted speed: 35 mph
- Also used by pedestrians, bikes, and transit

STUDY AREA



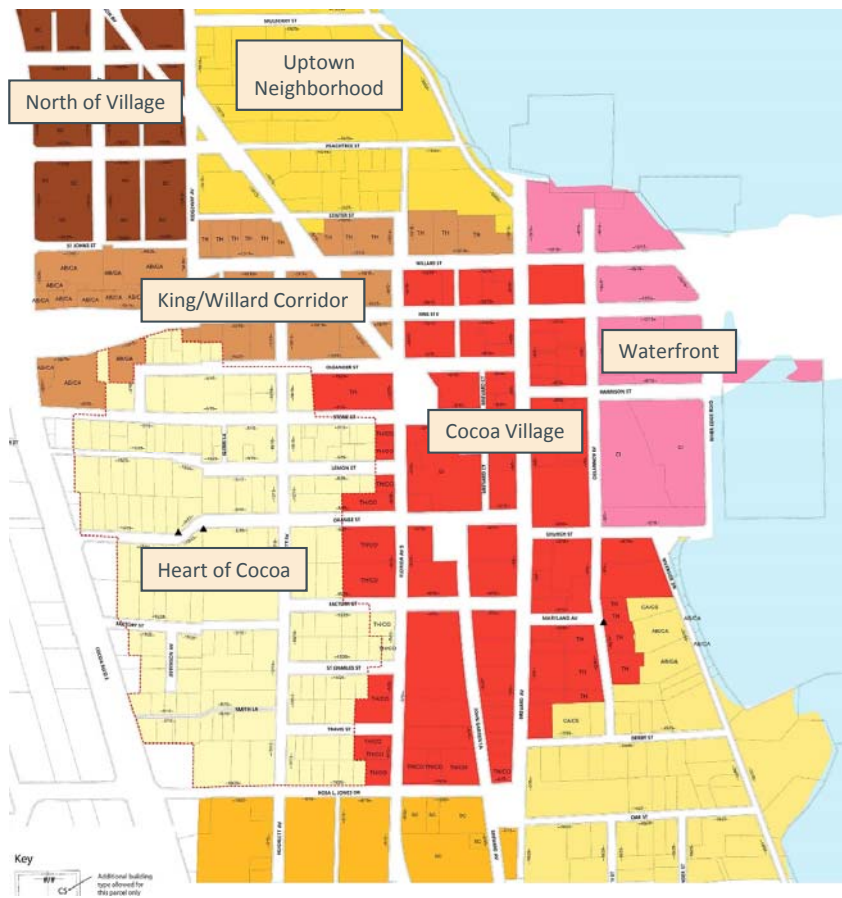
- Study area boundaries drawn ¼ mile from corridor in all directions
- Approximately 0.4 square miles in area

DEMOGRAPHICS

- Small residential population – just over 800 people
 - Over 3 times more jobs than housing in the area
 - Almost 1/3 are over age 65
- Almost ½ of households have only one person in them; 83% have 2 or fewer people
- 36% of housing is owner-occupied, 42% rental, and 21% vacant (including seasonal homes)
- 468 businesses employ 1,837 people



EXISTING LAND USE/CONTEXT ZONES



- Overlay District sets land use rules, based on the Waterfront Master Plan
- Three design districts with SR 520 frontage:
 - King/Willard Corridor
 - Cocoa Village
 - Waterfront:
- Three other design districts cover the rest of the study area
 - Heart of Cocoa
 - Uptown Neighborhood
 - North of Village

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TRANSPORTATION CHARACTERISTICS

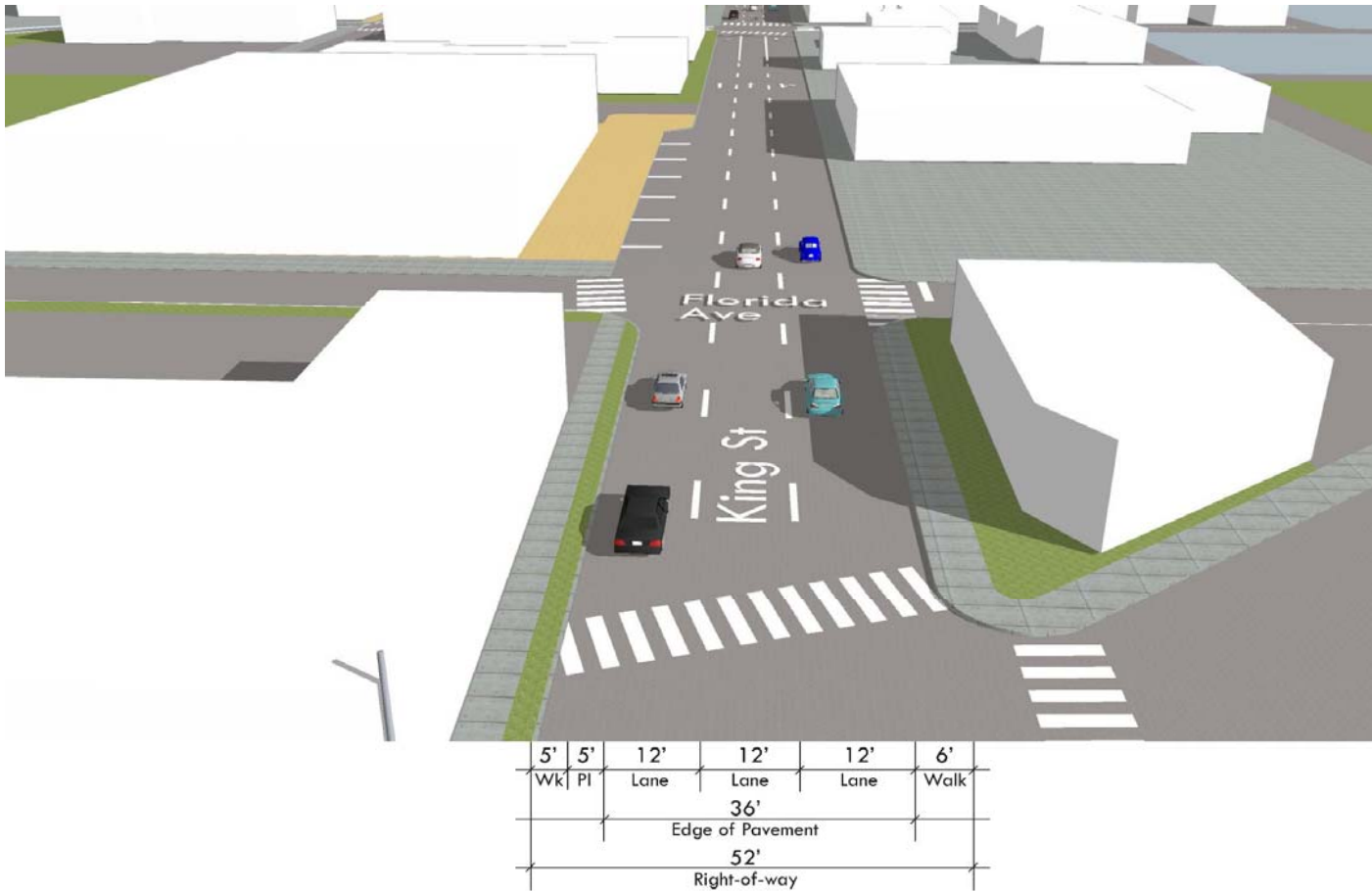
Roadway conditions, traffic conditions, safety and crash conditions

ROADWAY CONDITIONS

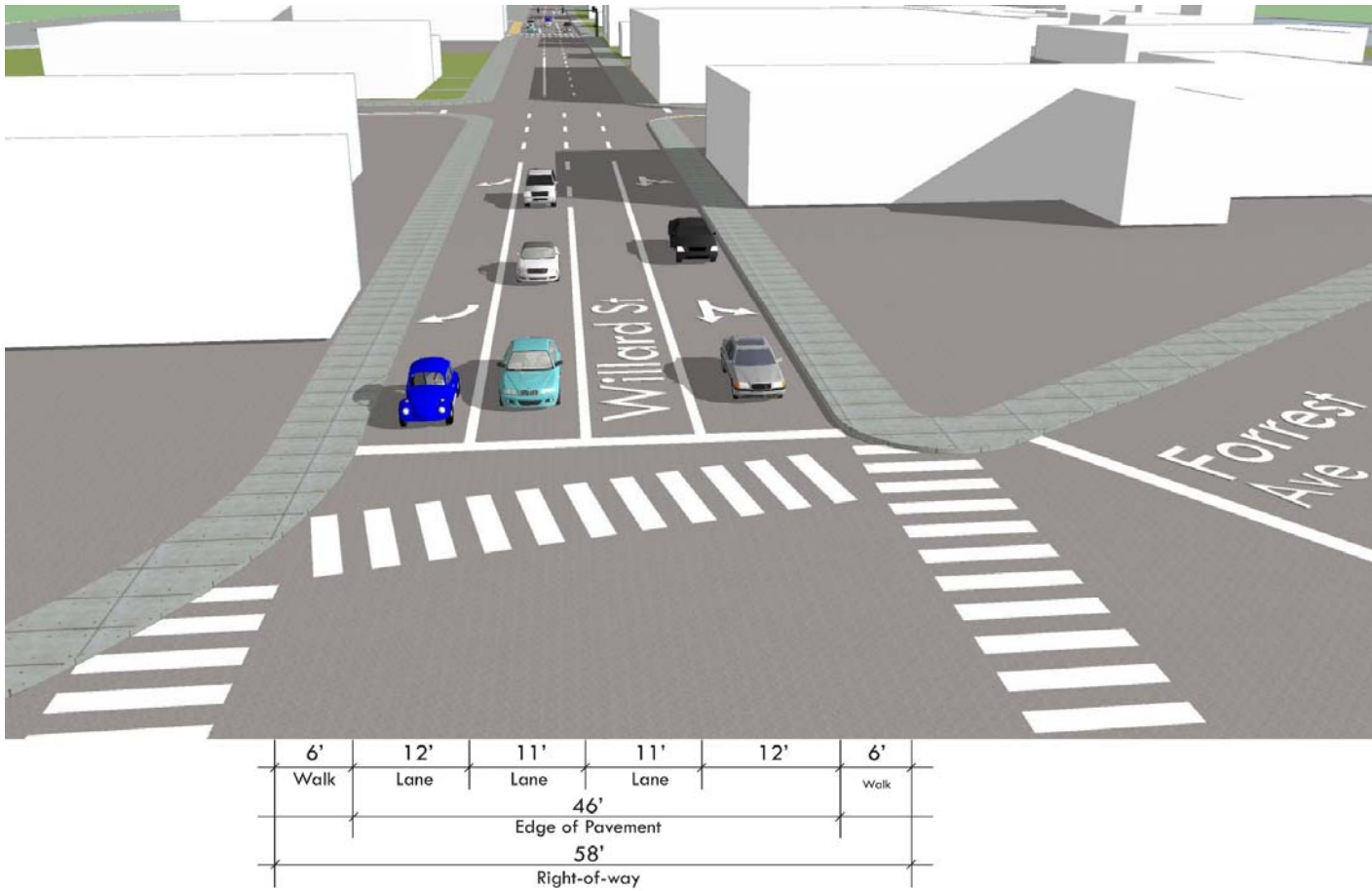
- Posted speed limit is 35 MPH
- Four typical cross sections along corridor:
 - US 1 to Forrest
 - Forrest to Brevard
 - Brevard to Delannoy
 - Delannoy to Riveredge



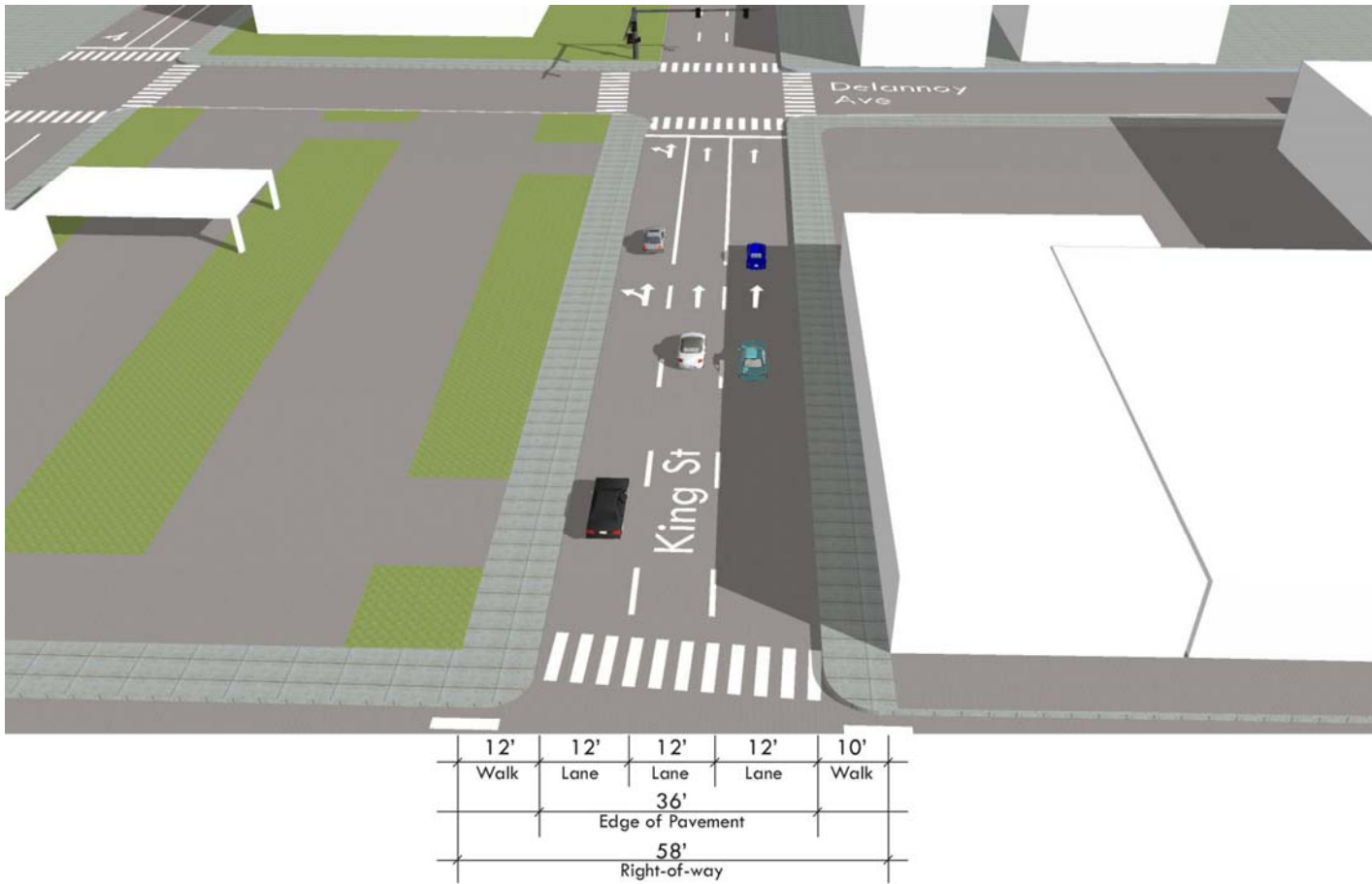
TYPICAL SECTION: FORREST TO BREVARD, EASTBOUND



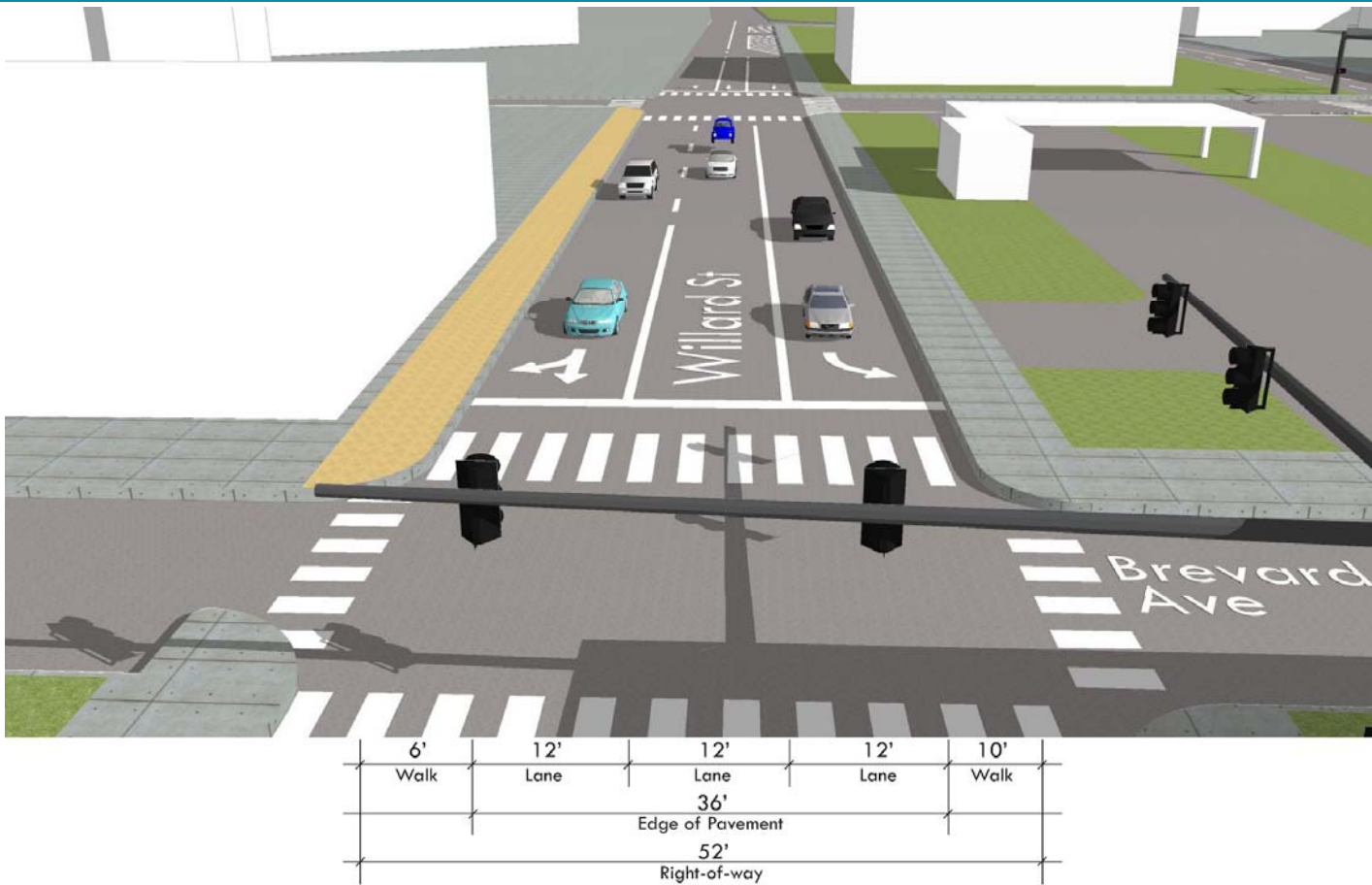
TYPICAL SECTION: FORREST TO BREVARD, WESTBOUND



TYPICAL SECTION: BREVARD TO DELANNOY, EASTBOUND



TYPICAL SECTION: BREVARD TO DELANNOY, WESTBOUND



TYPICAL SECTION: DELANNOY TO RIVEREDGE



10'	17'	11'	16'	12'
Buf	Lane	Lane	Lane	Buf
44'				
Edge of Pavement				
66'				
Right-of-way				

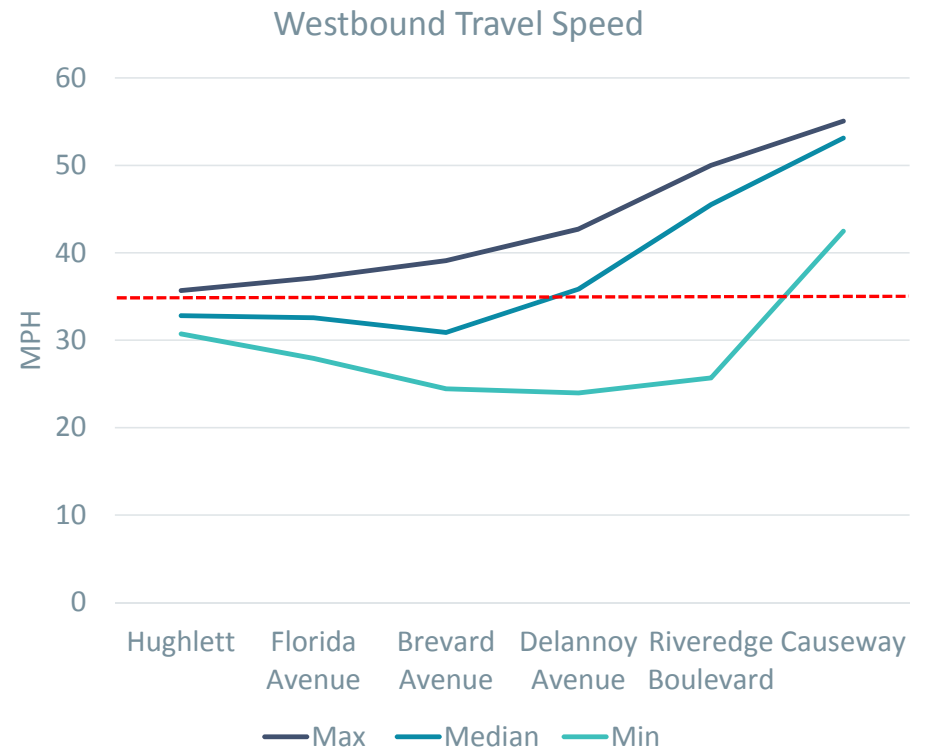
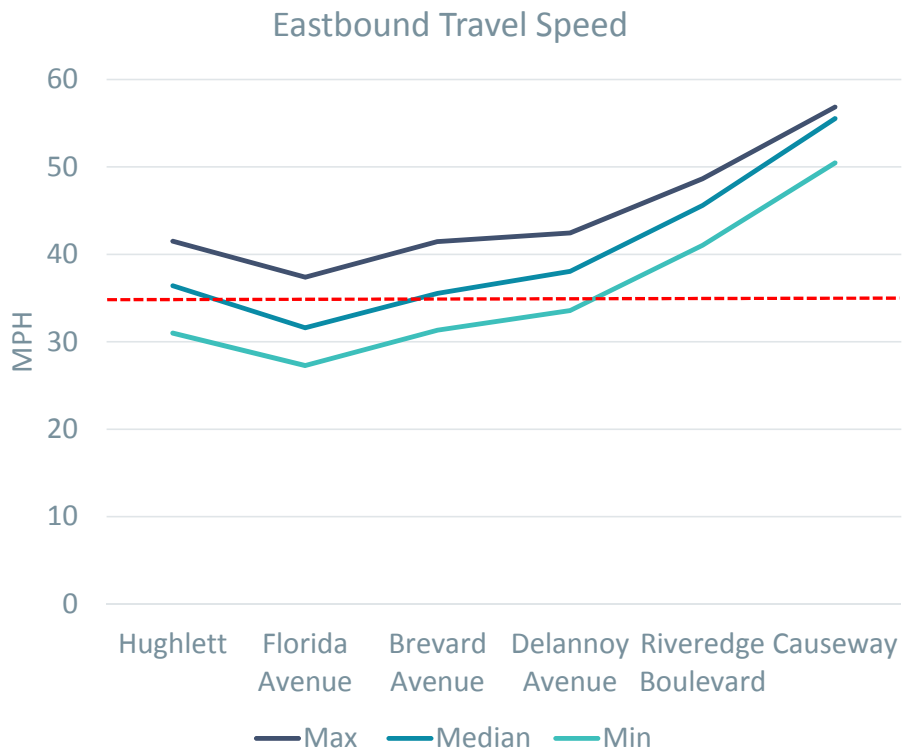
11'	14'	14'	17'	9'
Buffer	Lane	Lane	Lane	Walk
45'				
Edge of Pavement				
65'				
Right-of-way				

TRAFFIC CONDITIONS

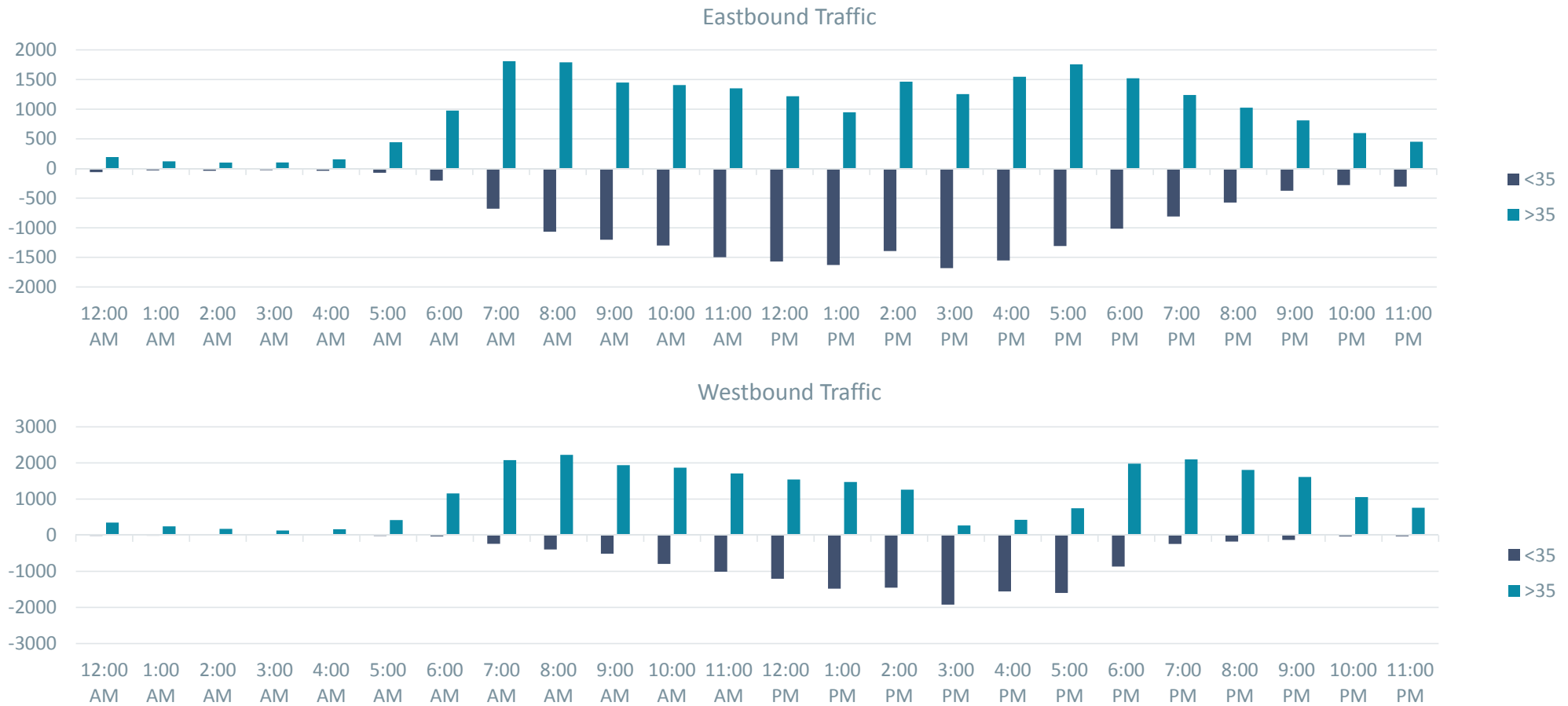
- Roadway and all intersections are operating at an acceptable level of service (LOS)
 - Except westbound section between Delannoy and Brevard, due to the reduction from 3 to 2 lanes slowing traffic
- Median traffic speed is above the 35 MPH limit closer to the causeway bridge, in both directions
- Around 60% of drivers during peak hours are over the speed limit in the high-pedestrian area approaching Delannoy Avenue from both directions (and 84% of drivers coming off of the bridge are over the speed limit)



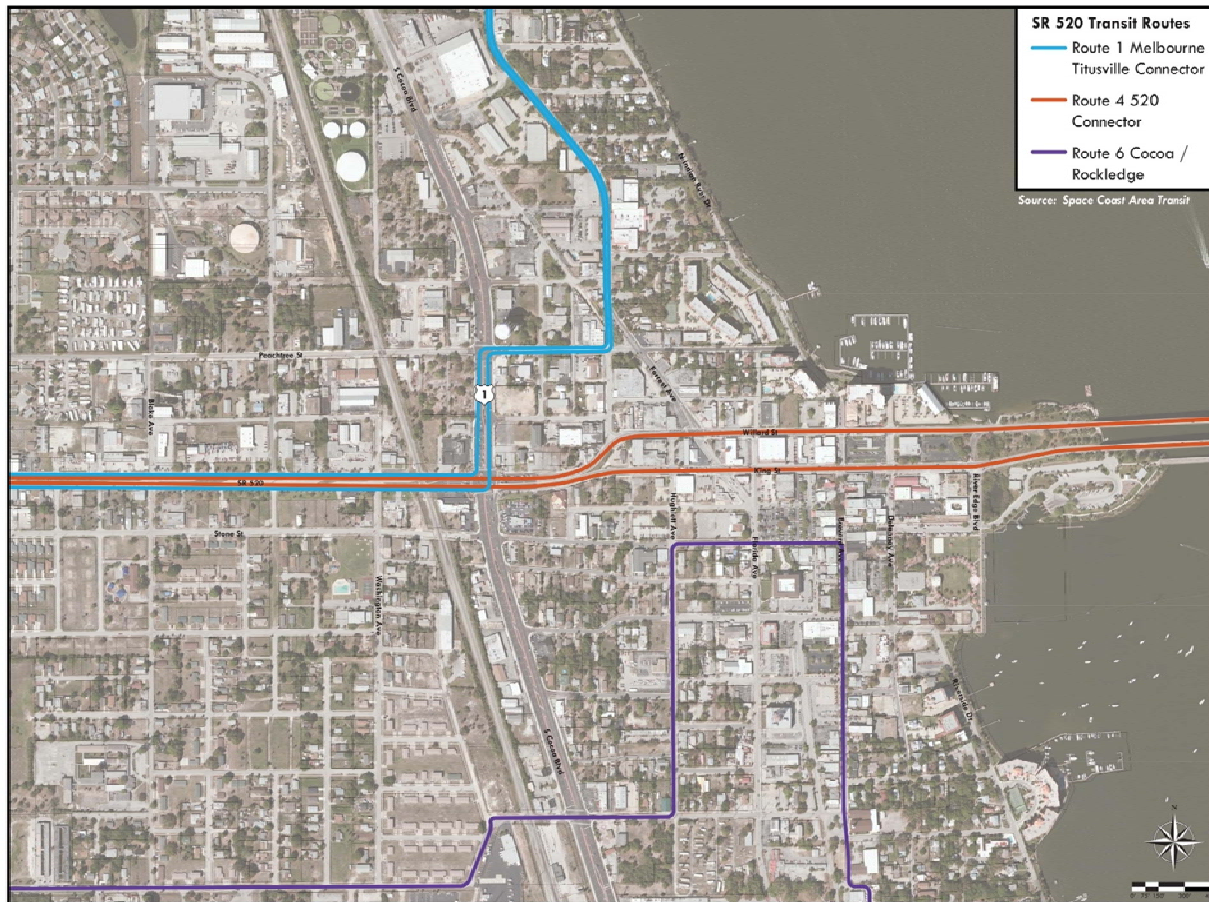
AVERAGE TRAVEL SPEEDS



TRAFFIC ABOVE AND BELOW 35 MPH APPROACHING DELANNOY AVENUE



TRANSIT



- Corridor is served by the Route 4 520 Connector
 - 5:50 AM-11:35 PM on weekdays and Saturday
 - Service ends at 5:55 PM on Sunday
 - 30 minute frequency typically
 - 60 minute frequency evenings and on Sunday
- Two other routes within ½ mile walking distance of Cocoa Village:
 - Route 1 Melbourne/Titusville Connector
 - Route 6 Cocoa/Rockledge

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ISSUES & OPPORTUNITIES

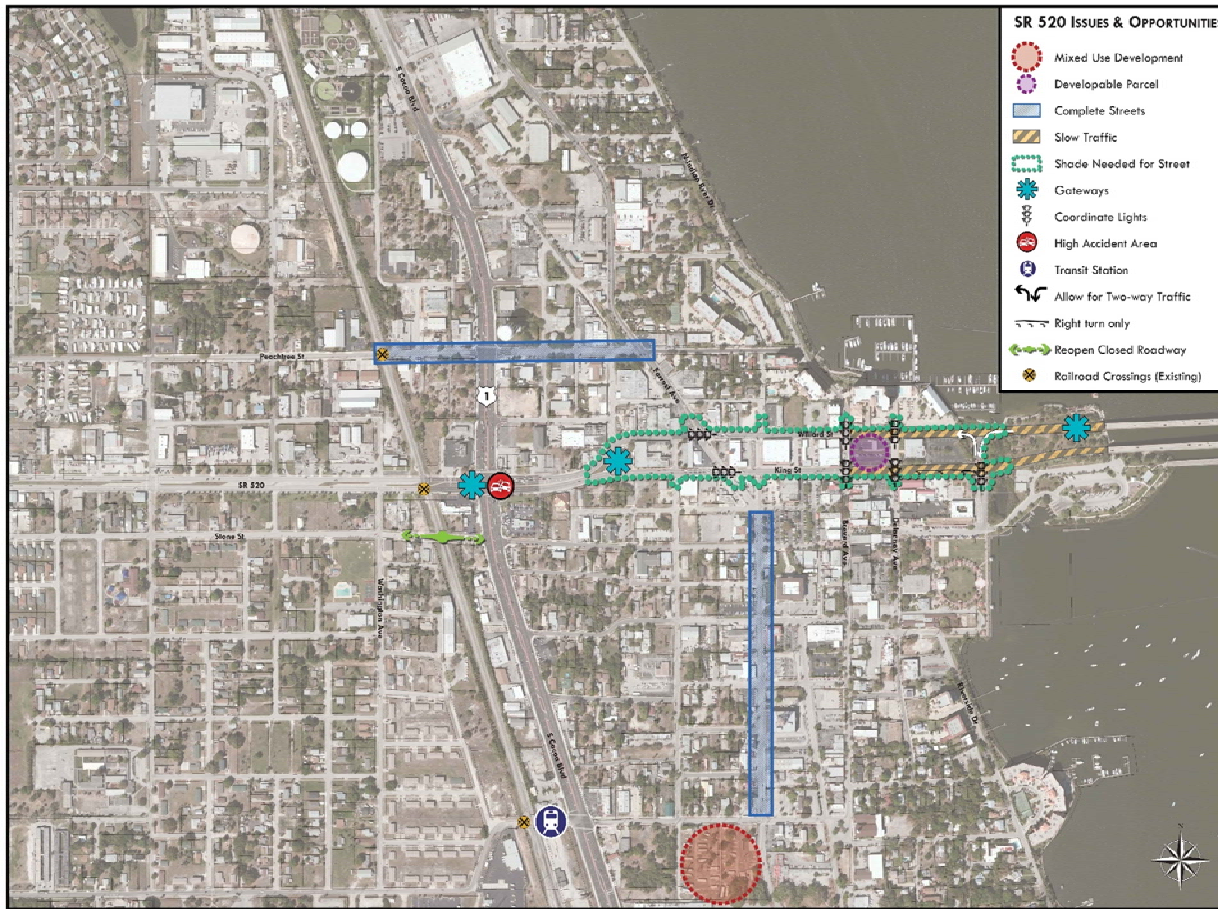
Summary and synthesis

KEY ISSUES – WHAT WE HEARD FROM YOU

- Drivers
 - Speeding coming off of the bridge
 - Often missing red lights because of speed and transition of slopes
 - Long stretches of continuous green lights encourages speeding
 - Weaving into and out of the eastbound right-turn lane in order to get ahead of traffic
 - Westbound drivers exiting the waterfront park forced to go east over the bridge and do a U-turn, due to one-way street pattern
 - Large tour buses have difficulty maneuvering on the narrow streets and tight corners in the Village, and take up large areas of parking while waiting
- Pedestrians
 - SR 520 creates a physical and mental barrier between the north and south sides of the Village
 - Safety issue from speeding vehicles
 - Crossing at the Florida/Forrest/SR 520 intersection is particularly difficult
 - Cruise ship visitors add more pedestrians to the area, which exacerbates safety issues
- Transit and biking
 - Eastbound right-turn lane is needed for bus stops
 - Indian River Drive is a popular bike route but connectivity in the area is difficult



ISSUES & OPPORTUNITIES MAP



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WORKING VISION & NEED

Starting point for concept planning

PRIMARY CRITERIA

- SAFETY: Enhance safety conditions
 - 579 crashes over 5 years; 263 injuries and no fatalities
 - 15 bike/ped crashes, primarily near the causeway approach where both vehicle speeds and pedestrian traffic are higher
 - Florida Avenue and Forrest Avenue intersections also are dangerous to cross
 - Key safety issues:
 - Speeding westbound – coming off of causeway bridge
 - Improper vehicle passing – “slingshot” lane
 - Sequencing of traffic signals – long stretches of continuous green lights encourage speeding; visibility of red lights can be limited due to slopes

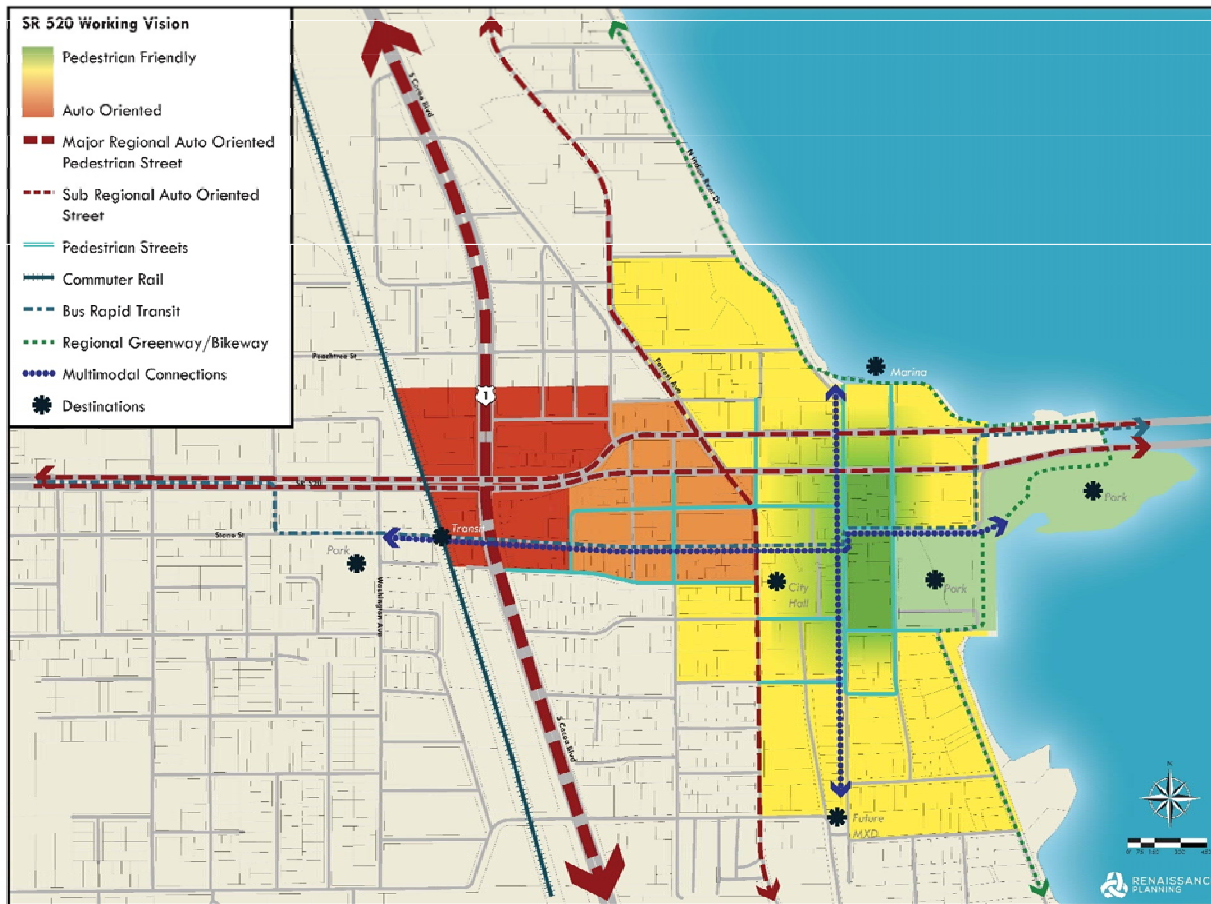


SECONDARY CRITERIA

- **AREA WIDE NETWORK/SYSTEM LINKAGE:** Maintain connectivity to the regional transportation network
 - Key connections via SR 520:
 - From the beachfront communities and Merritt Island to inland Brevard County and the Orlando region
 - Access to downtown Cocoa
 - Emergency evacuation route
- **SOCIAL DEMAND:** Foster a more livable environment in downtown Cocoa through improved multimodal mobility and accessibility



WORKING VISION MAP



Roadway Types and Potential Opportunities

- **Major Regional Auto-Oriented:** priority for automobile traffic and higher speeds
- **Sub-Regional Auto-Oriented:** significant auto emphasis but also includes transit and pedestrian elements
- **Pedestrian Streets:** priority for walking
- **Commuter Rail:** potential for future service on the FEC line
- **Bus Rapid Transit:** future corridor along SR 520, diverting to Stone and Harrison Streets through the study area
- **Regional Greenway/Bikeway:** potential pathway along the waterfront with access into Cocoa Village

FOUR ALTERNATIVES

1. Do nothing (no build) – **NOT AN OPTION**
 - Consider how conditions may change if no action is taken
2. Operations improvements and optimization
 - Variety of roadway alterations possible: separating the right-turn lane from through traffic, reducing the number of lanes, adding textured concrete and pavement markings, etc.
 - FDOT can make basic improvements to address the purpose and need
3. Gateway traffic features
 - Improvements at either or both ends of the corridor to slow traffic and signal entry into a distinctive, ped/bike-oriented place – roundabouts, diverging one-way pair, etc.
 - Funding beyond FDOT would be required – partnership with City/CRA



PROJECT CONTACTS

Judy Pizzo – Project Manager

Florida Department of Transportation – District Five
719 S. Woodland Blvd, Deland, FL 32720
(386) 943-5167
Email: judy.pizzo@dot.state.fl.us



Nick Lepp – Consultant Project Manager

Renaissance Planning
121 S. Orange Ave, Orlando FL 32801
(407) 487-0061 x129
Email: nlepp@ciesthatwork.com





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