

# LADY'S ISLAND CORRIDOR PLAN

July 17, 2017

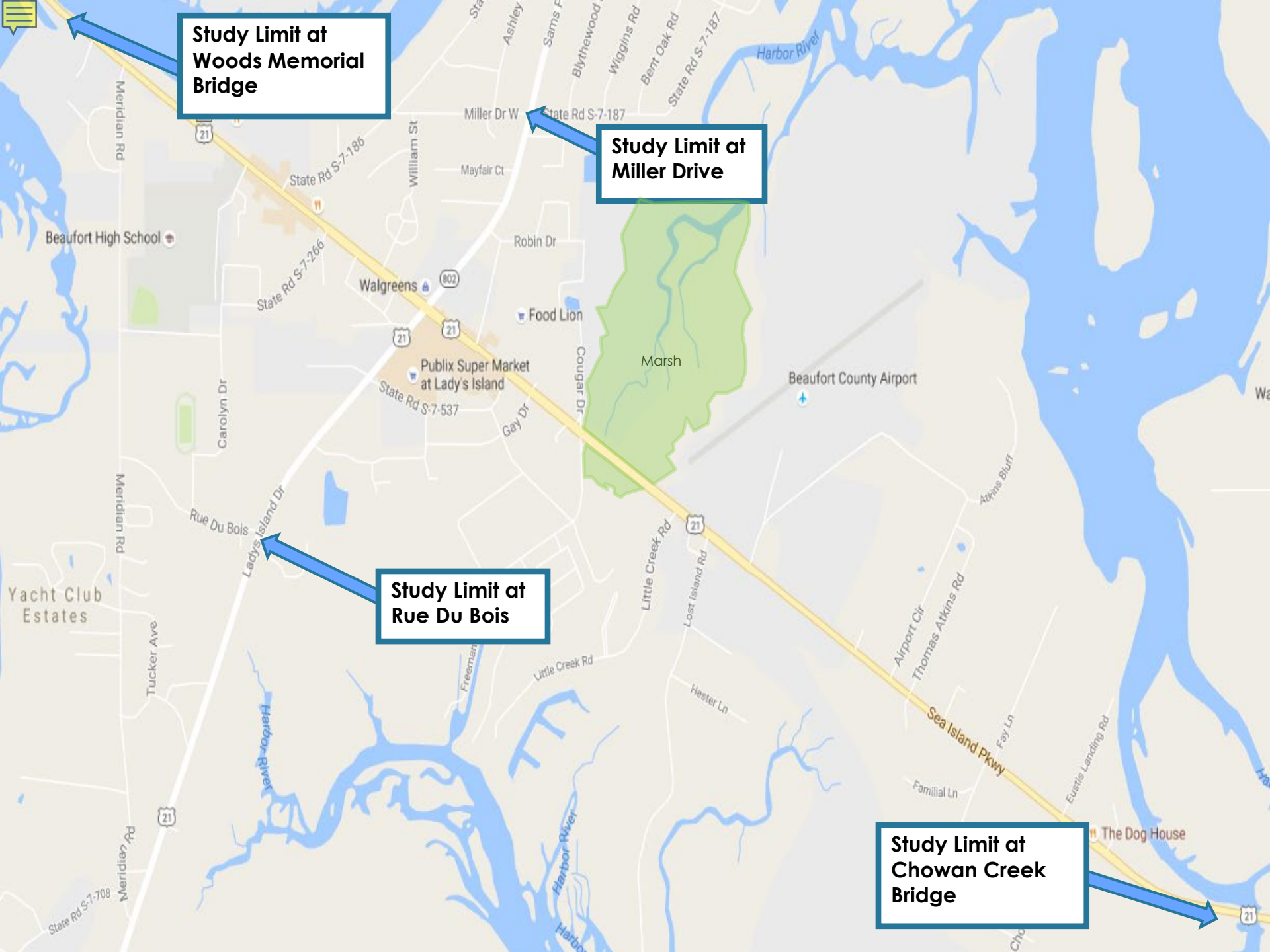


**Study Limit at  
Woods Memorial  
Bridge**

**Study Limit at  
Miller Drive**

**Study Limit at  
Rue Du Bois**

**Study Limit at  
Chowan Creek  
Bridge**





## FIRST PUBLIC MEETING

- September 29, 2016
- Introduced Project
- Explained Steps Involved
- Identified Goals
- Listened to Public and Collected Input

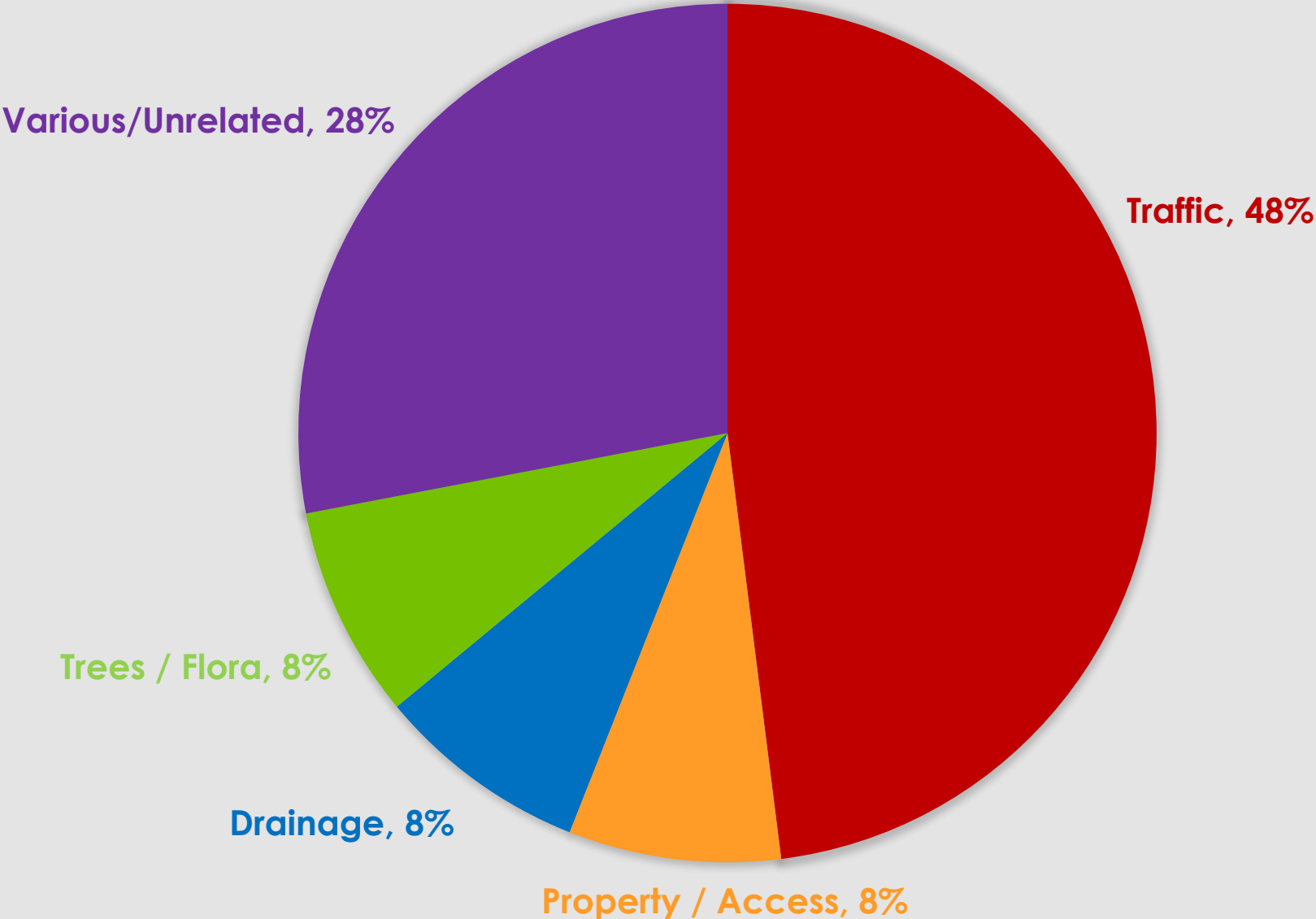


## ORIGINAL GOALS

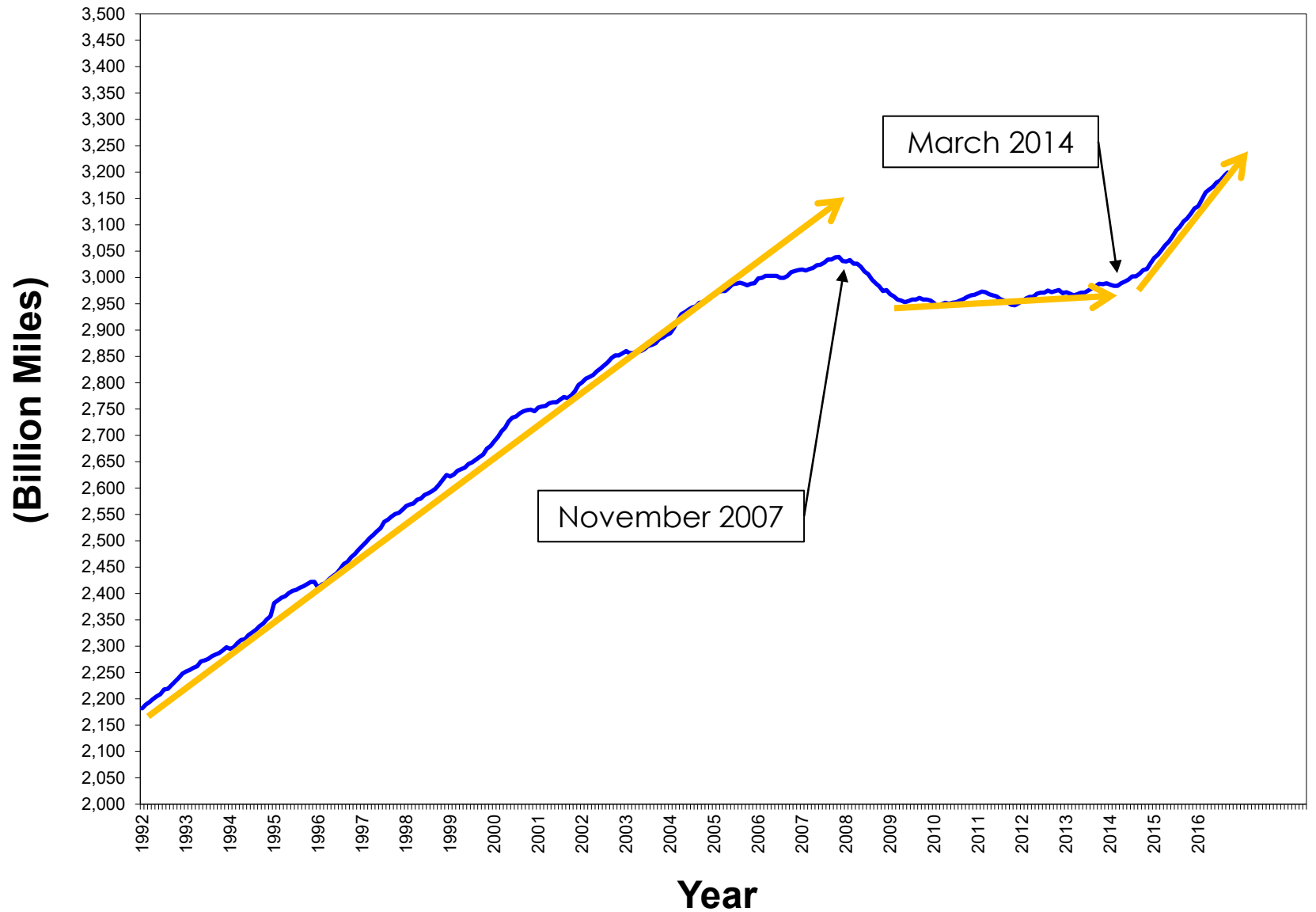
- Minimize Congestion and Delay
- Improve Safety
- Accommodate Bicycles and Pedestrians
- Encourage a Sense of Place



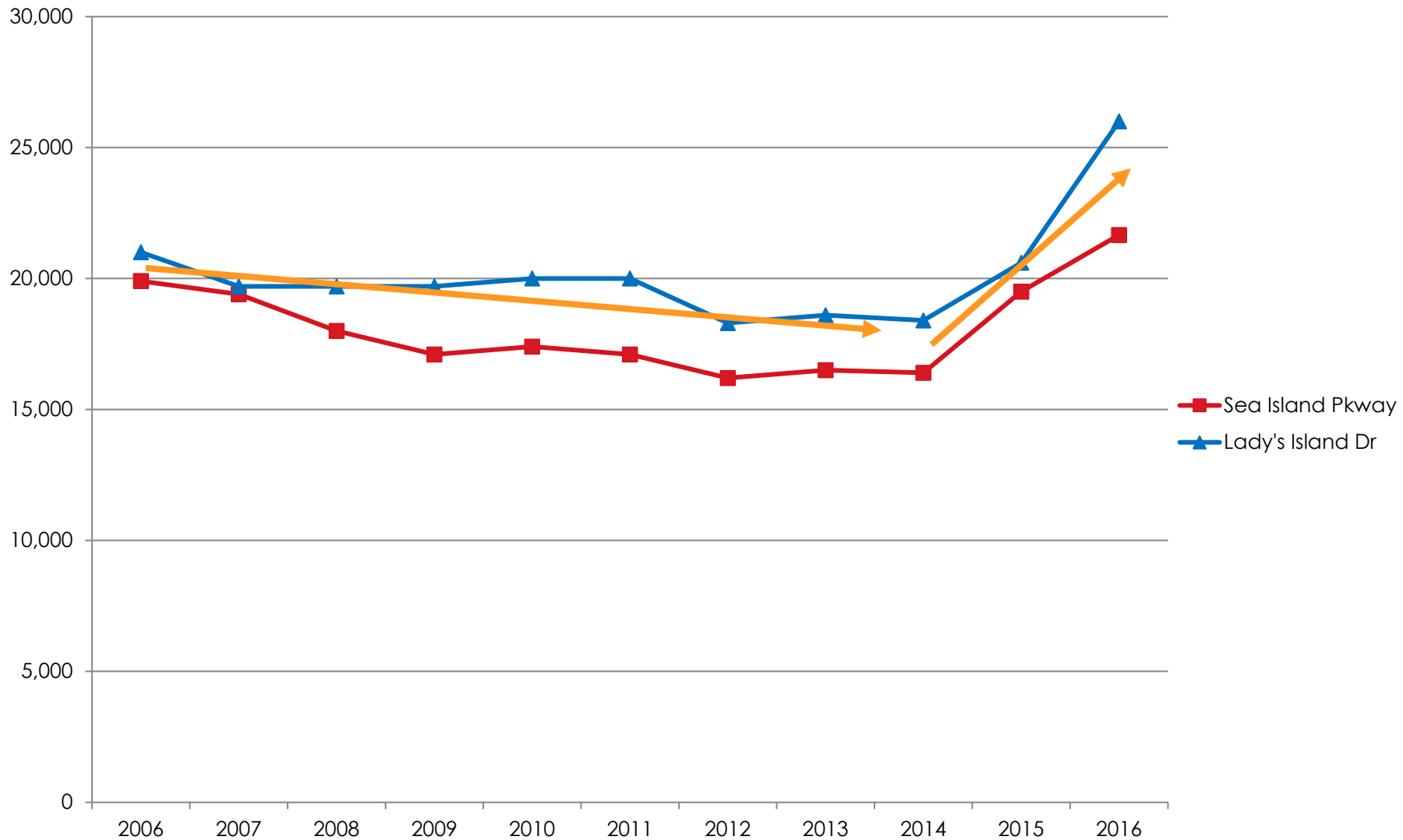
# PUBLIC RESPONSES



# ANNUAL VEHICLE MILES TRAVELLED IN U.S.



# LADY'S ISLAND TRAFFIC VOLUMES



# ROOM FOR GROWTH





# FUTURE TRAFFIC VOLUME CONSIDERATIONS

- Developments
  - Walmart
  - Taco Bell
  - Harris Teeter
  - Village at Oyster Bluff
  - Whitehall Plantation
  - Marina Village
  - Crystal Lake
  - Tidal Wave Car Wash
  - Waffle House
- Background Growth

# AFTERNOON PEAK QUEUES



# TRAFFIC CONGESTION

- The major public concern today and we can expect it to grow over time.
- How can we make it better?



# GRADE SEPARATED INTERCHANGE



# US 21 AND SC 802 WIDENING



# NEW BRIDGE ACCESS

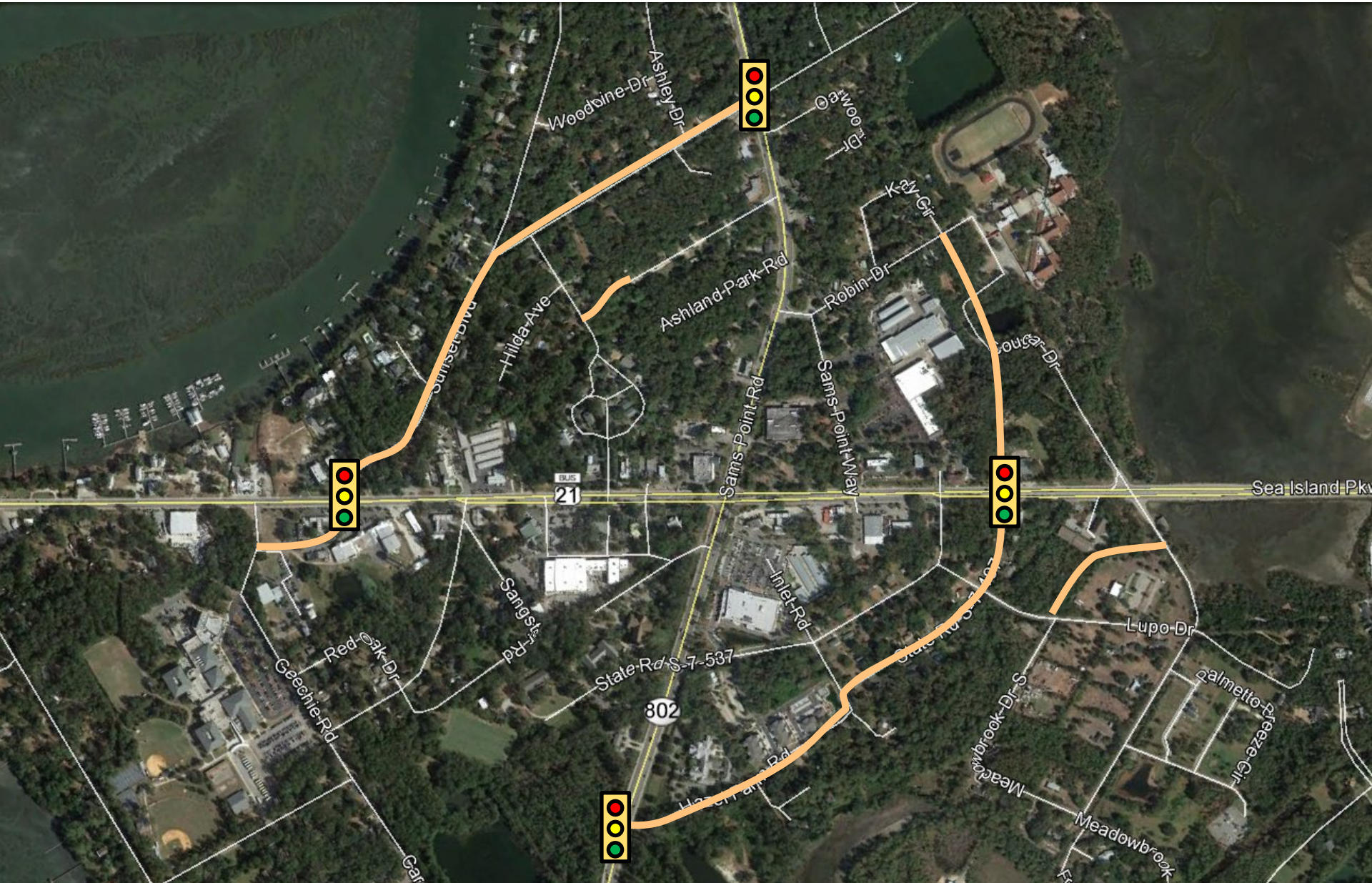
- 2008 Northwest Bypass Study
- Boundary Street Extension at Bellamy Curve
- Both Studies Found:
  - Extremely High Costs
  - Major Environmental Impacts
  - Service to only SC 802 Sams Point Road
  - Very Low Benefit:Cost Ratios
  - Infeasible

# TURN LANE IMPROVEMENTS





# CONNECTIVITY





# AFTERNOON PEAK QUEUES





# MILLER DR/SUNSET BLVD AND HAZEL FARM RD/GAY DR CONNECTIONS

- Versions of both connections proposed in previous studies
- Both revised in this study, with additional features added
- Drivers already using alternate routes, but not effectively
- Design to make them safe and reflect residential character
- Traffic signals on each end for safe access
- Traffic calming, pedestrian, and enhancement features

# MILLER DR/SUNSET BLVD AND HAZEL FARM RD/GAY DR TRAFFIC CALMING

- Visual cues to make drivers feel constrained and want to drive slower
  - Consistent speed along the street
  - Narrow lane widths
  - Vegetative barriers on outside shoulders
  - Landscaped islands between lanes
  - Low speed limits
- Physically slow traffic speed and regulate traffic flow

# LANDSCAPED ISLANDS



# INTERSECTIONS

- Miller Drive and Sunset Boulevard
- Hazel Farm Road and Gay Drive
  - All – Way Stop Control Option
  - Mini-Roundabout Option



# ALL – WAY STOP CONTROL



# MINI ROUNDABOUTS



# MILLER DRIVE AT SUNSET BOULEVARD





# INTERSECTIONS

- All – Way Stop Control Option
  - No Pavement Reconstruction
  - Complete Stops Required
  - Delays and Queues Will Develop
- Mini-Roundabout Option
  - Pavement Reconfiguration
  - No Change in Overall Size
  - Slower, Steady Speeds
  - Efficient Operations

# STREETSCAPE IMPROVEMENTS



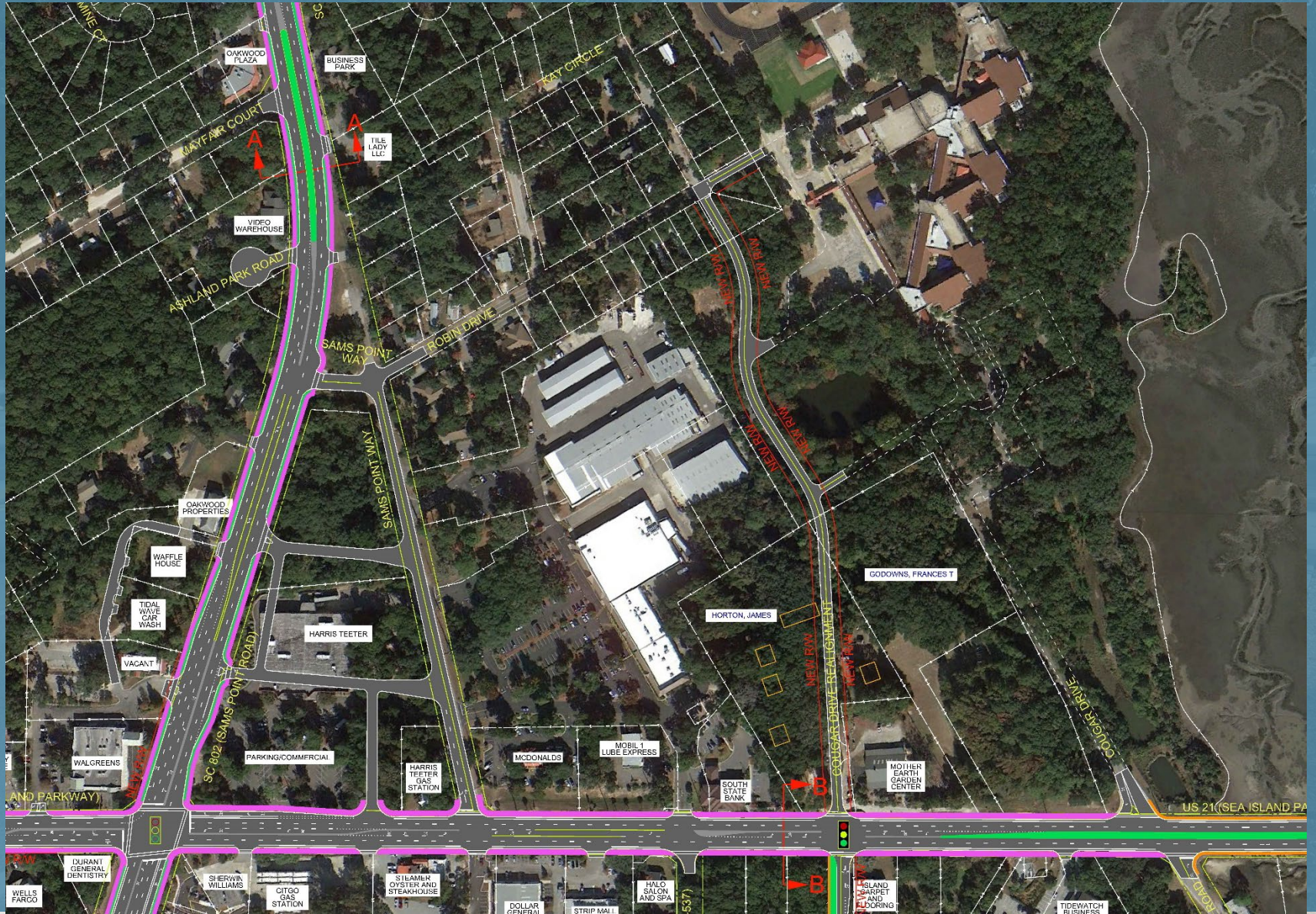
8' Path

10' Travel Ln.

10' Travel Ln.

5' SW


# NEW MIDDLE SCHOOL SCHOOL ACCESS







# SAFETY IMPROVEMENTS

- Four-year period 2012 to 2015
  - 541 collision
  - 180 collisions with injuries to one or more persons
  - 2 collisions with fatalities
  - 177 right angle collisions
  - 246 rear end collisions
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## RAISED MEDIANS

- Effective means to improve safety by simplifying and reducing conflicting movements
- Proven safety countermeasure for reducing right angle collisions
- Strategically placed with considerations for vehicle routing and emergency vehicles
- Provide beautification opportunities with landscaping



## RAISED MEDIANS

### RESEARCH INDICATES....

- Conversion from Flush Medians to Raised Medians reduces crashes by 15-57%
- Accidents related to U-turn and left turns at median openings occur “very infrequently”
- Only 1% of 7,717 accidents studied involved a U-turn at a median opening

*Source: NCHRP Report 524 – Safety of U Turns at Un-signalized Median Openings; TRB; 2004 Highway Safety Manual*

# AIRPORT AREA

- Address congestion and safety by extending Eastbound through lane
- Improve safety and access through connectivity



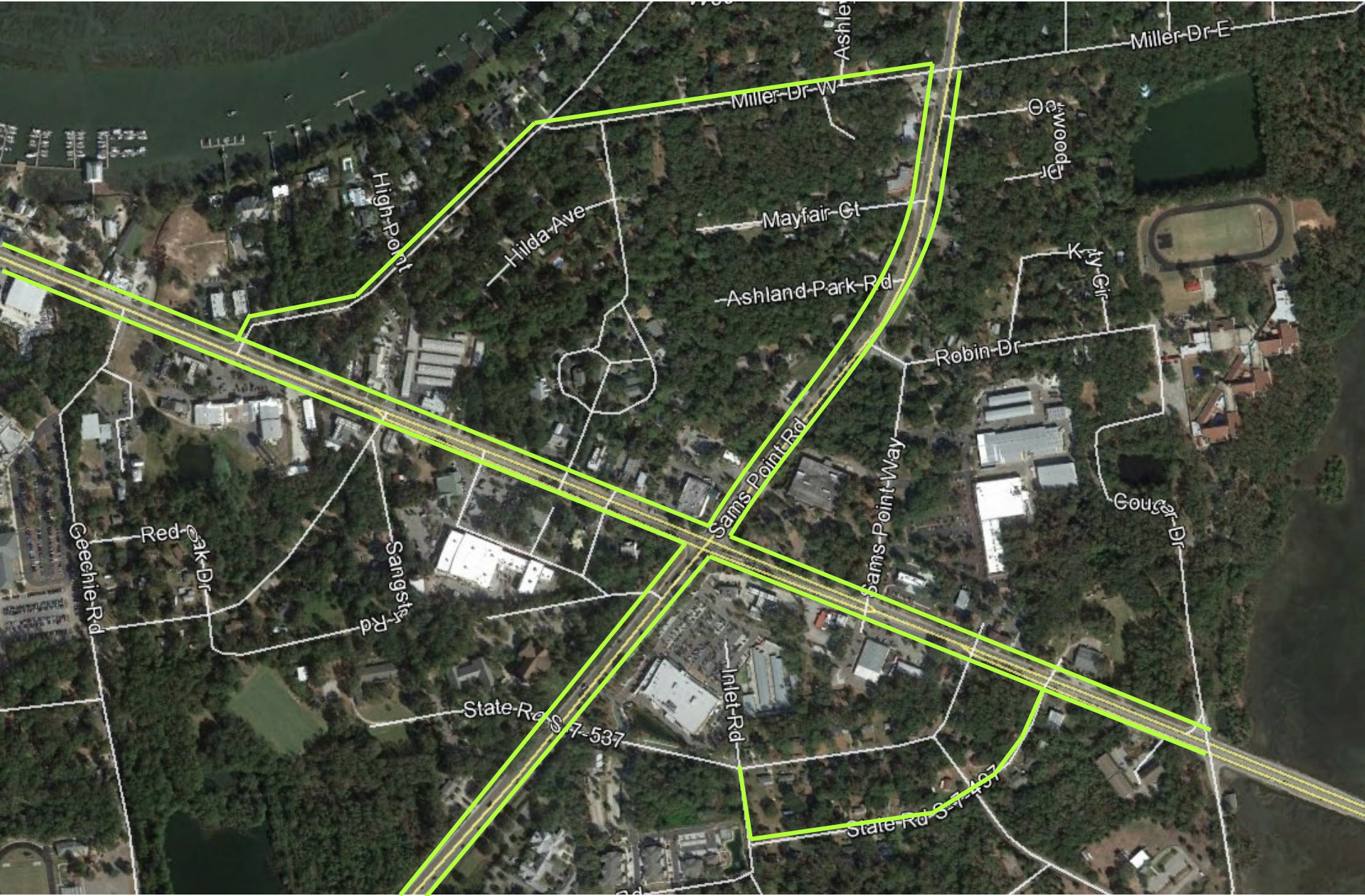




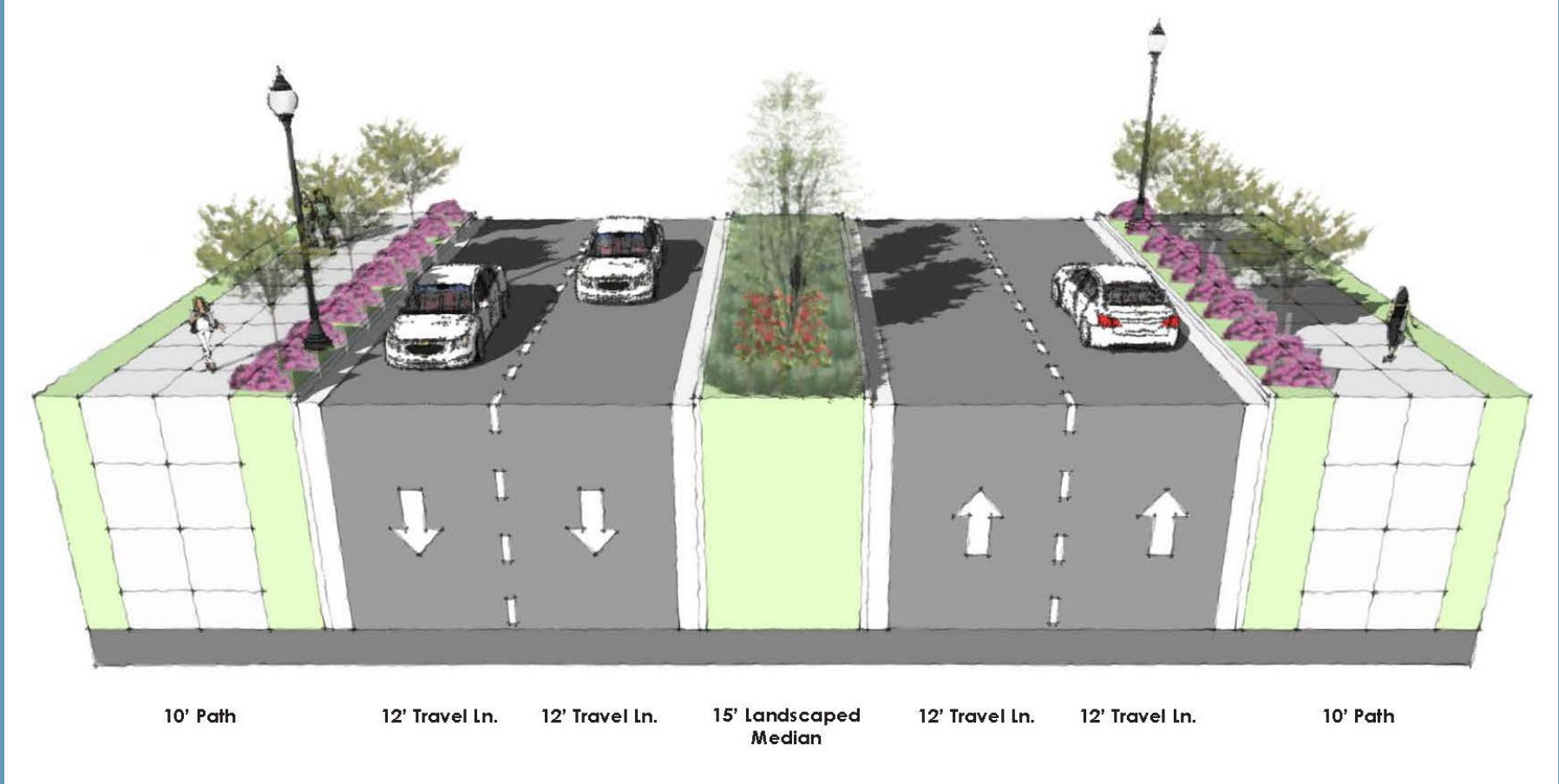
# AIRPORT AREA



# BICYCLE AND PEDESTRIAN ENHANCEMENTS



# STREETSCAPE IMPROVEMENTS



# SUMMARY OF IMPROVEMENTS

- Improvements to the main intersection of US 21 and SC 802
- Seven new street connections
- Traffic signals
- US 21 Sea Island Parkway widening at Airport Circle
- Safety improvements
- Traffic calming
- Bicycle and pedestrian accommodations
- Beautification enhancements

# PHASES FOR IMPROVEMENT

- SC 802 Sams Point Road Right Turn Lane
- Hazel Farm Road and S-497 Gay Drive
- New Access for Lady's Island Middle School
- S-186 Sunset Boulevard and S-187 Miller Drive
- Beaufort High School Access Realignment
- US 21 Business, US 21, and SC 802 Improvements
- Meadowbrook Drive Extension
- Mayfair Court Extension
- US 21 Airport Area and Frontage Road

# CONTACT INFORMATION

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