RETHINKING RIDCULOUSLY WIDE ROADS

A STORMWATER PERSPECTIVE

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FSA 2019 WINTER CONFERENCE – DECEMBER 6, 2019

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STATE
LAW
STOP
FOR

WIDER IS NOT SAFER!

- 12 ft lanes = 70 mph
- 10 ft lanes = 45 mph
- So why are our local “low speed” roads12+ ft?

Image: Smart Growth America

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- So why are our local “low speed” roads12+ ft?

“The mindless application of high-speed highway standards to would-be walkable streets has contributed mightily to the dangers of walking and our subsequent reliance upon automobiles.” – Jeff Speck, Walkable City Rules

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SPEED KILLS PEOPLE

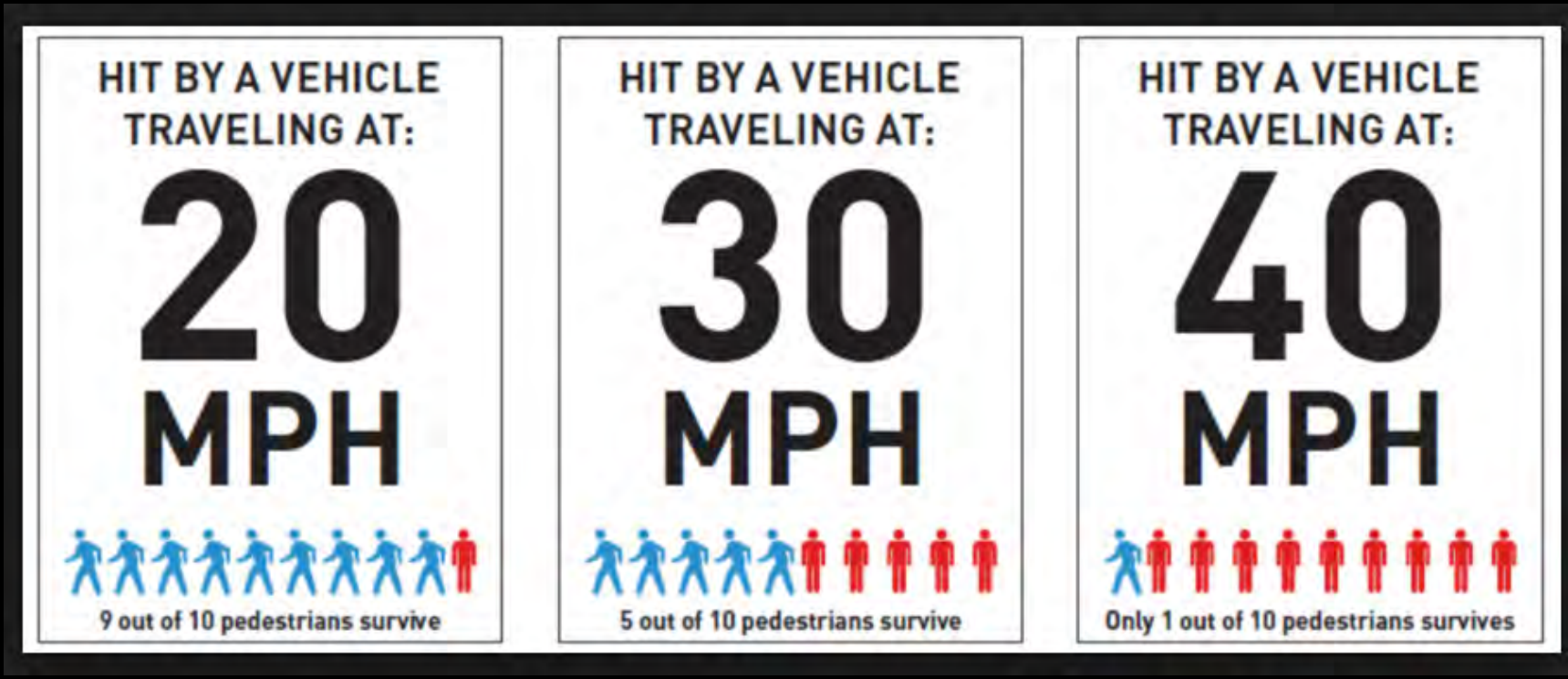

Image: City of Seattle

COMPLETE STREETS

Complete streets are planned, designed, operated, and maintained to enable ***safe access for all users of all ages and abilities****, meaning that people walking, people biking, people with disabilities, people using public transportation, people driving, and freight and service operators are able to safely and efficiently move through the transportation network. Complete streets provide access to all users in a manner that promotes safe, efficient movement of people and goods whether by foot, bicycle, assistive device, transit, car, or truck. (Depending on context, streets may serve diverse activities, functions, and intensity of uses, and not all uses are necessarily appropriate for all streets.)*

WHAT DOES THIS HAVE TO DO WITH STORMWATER?

MORE PAVEMENT THAN NEEDED = OPPORTUNITY FOR ADDITIONAL PERVIOUS AREA!

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COMPETITION FOR SPACE

Image: Bike Arlington

- Vehicular lanes
- Bike lanes
- Sidewalks & shared use paths
- On-street parking
- Transit
- Delivery/freight/services
- Emergency services
- Street furniture
- Landscaping/green space

COMPETITION FOR SPACE

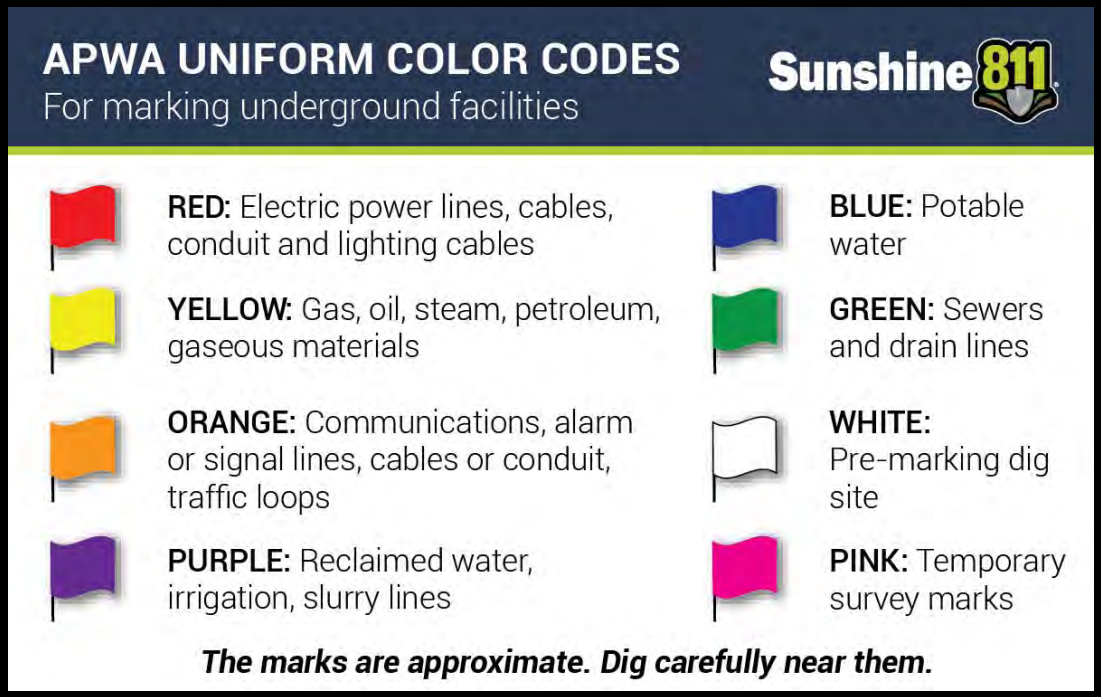


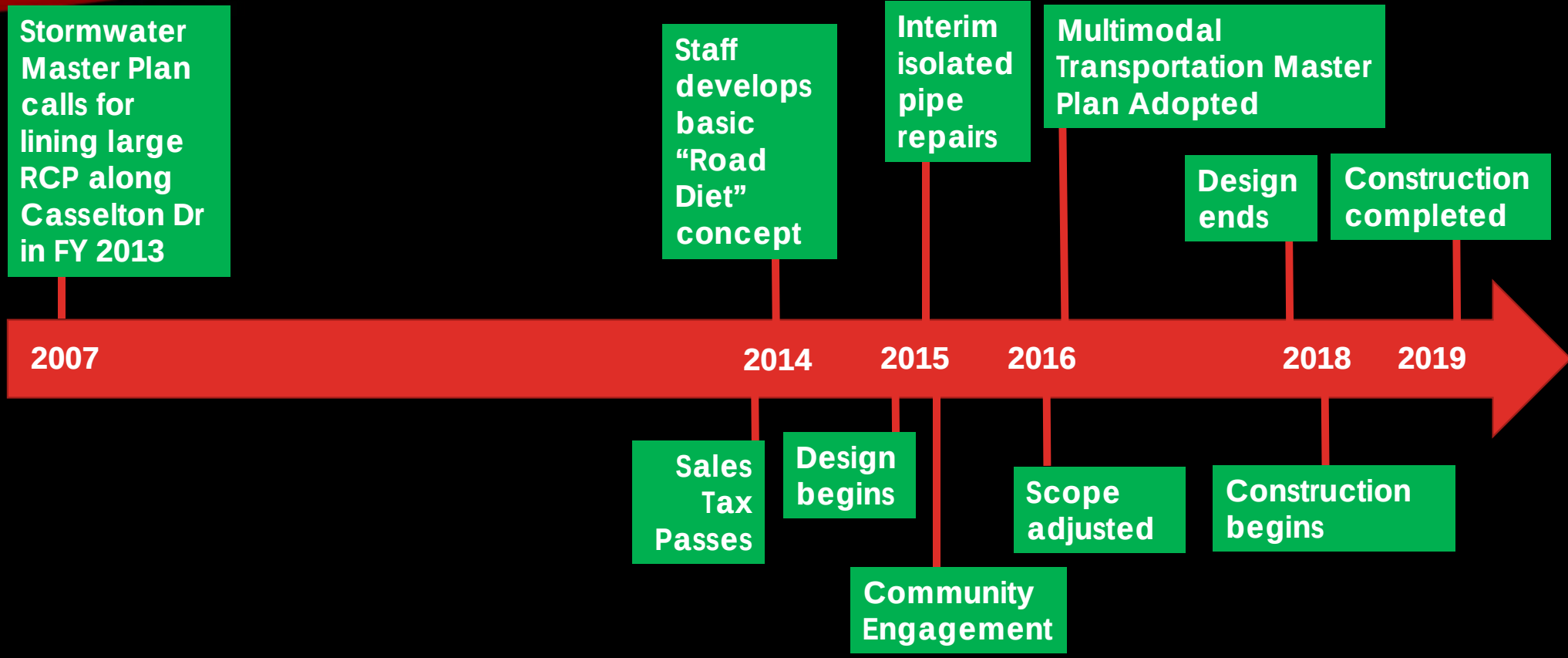
Image: Sunshine 811

- Vehicular lanes
- Bike lanes
- Sidewalks & shared use paths
- On-street parking
- Transit
- Delivery/freight/services
- Emergency services
- Street furniture
- Landscaping/green space
- Utilities
- Stormwater treatment(??)

CASSELTON DRIVE

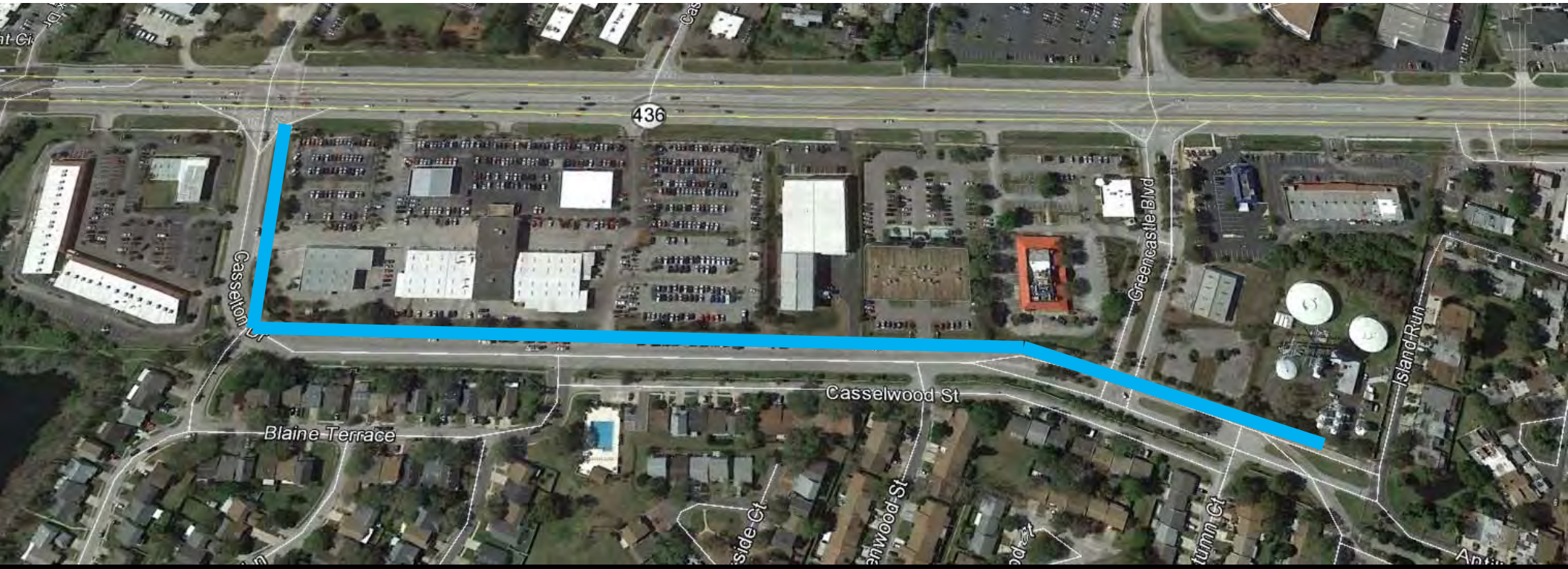
- Two lanes (!!)
- 50+ ft pavement width
- Excessive onstreet parking
- Incomplete sidewalks
- Businesses and residences
- Limited landscaping
- “Drag strip”

PROJECT TIMELINE



STORMWATER OBJECTIVES:

- Repair/replace major storm pipe trunk line
- Other drainage improvements *as feasible*



WATER UTILITY OBJECTIVE:

- Replace major water main

ROADWAY OBJECTIVES:

- Resurface/rehabilitate road (including Greencastle)
- Construct complete street improvements

PRELIMINARY CONCEPTUAL PLAN

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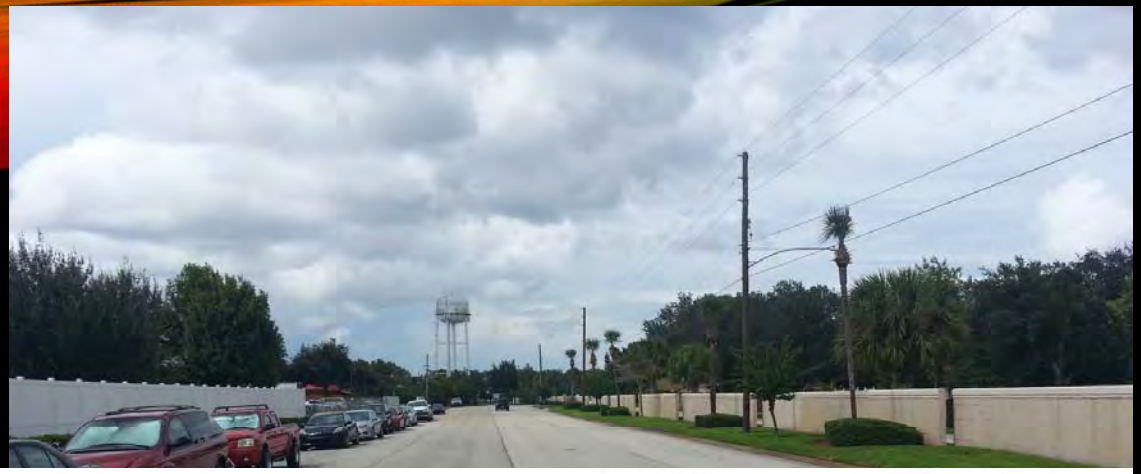
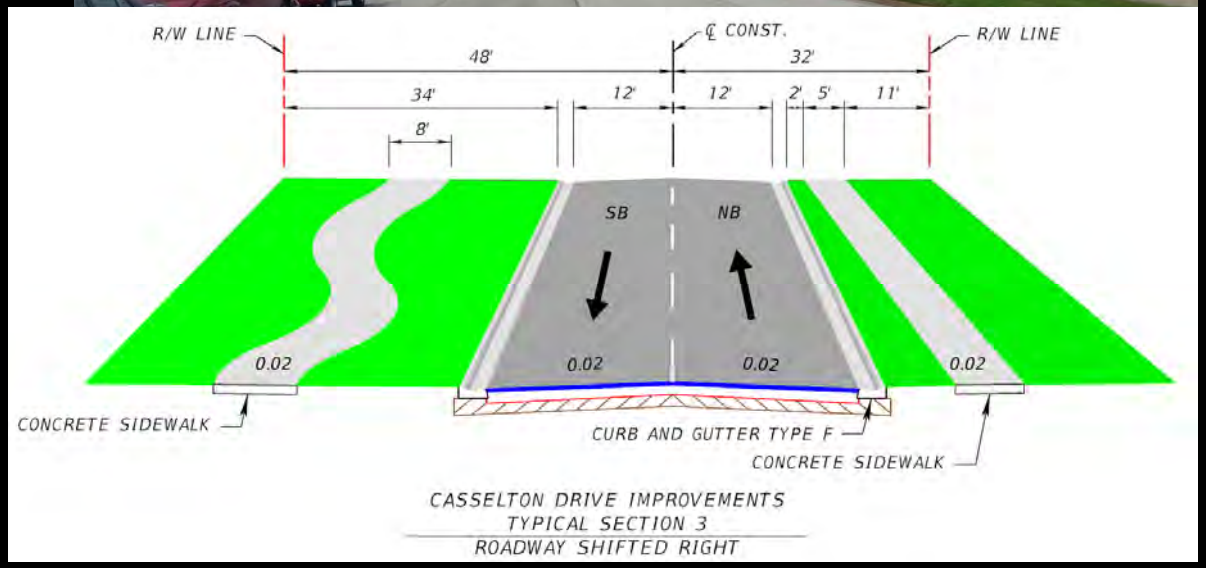
- Narrow Casselton (portion)
- "Chicane" sections
- Replace sidewalk & fill in gaps
- Reduce on-street parking

PRELIMINARY CONCEPTUAL PLAN

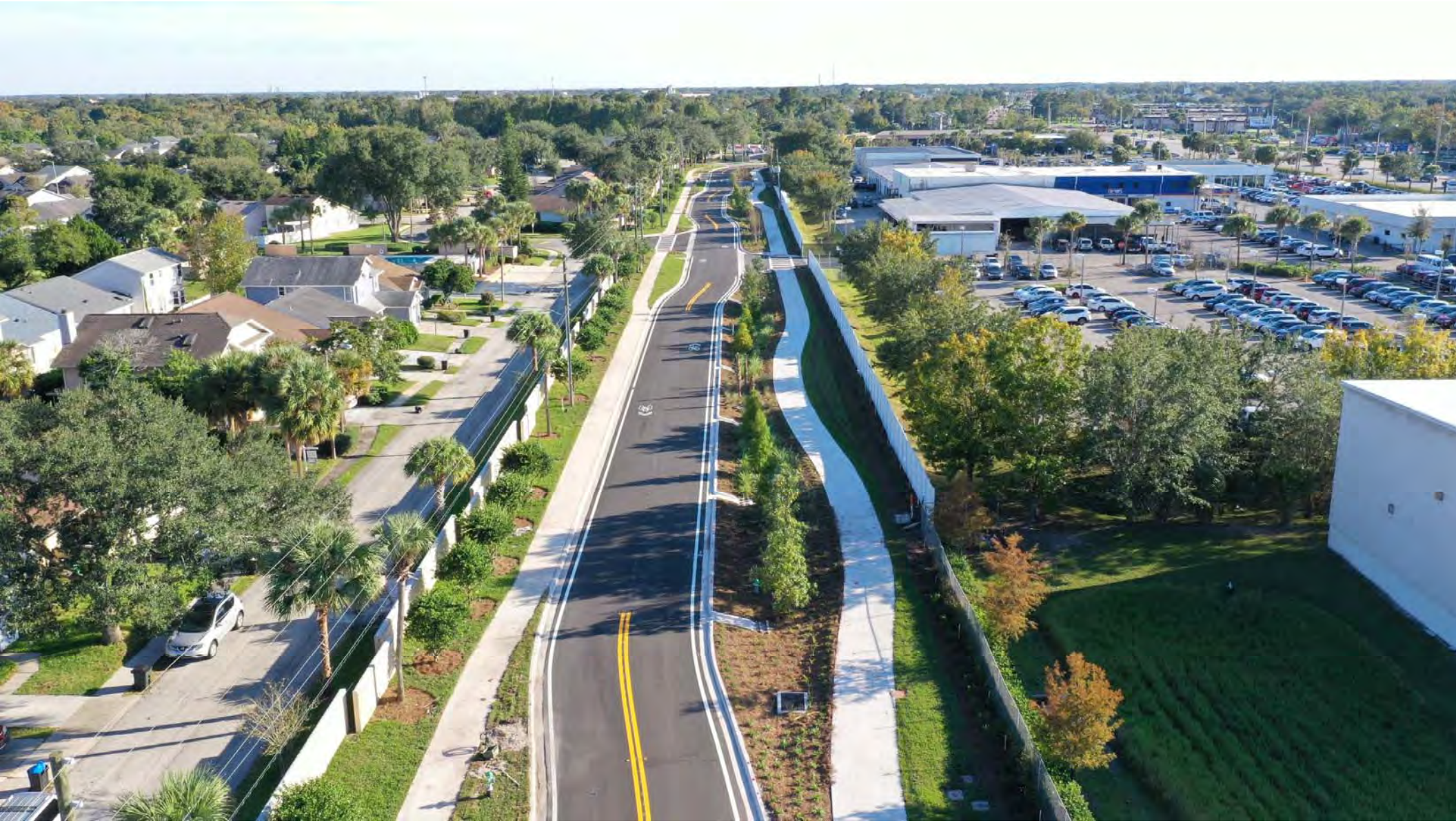
- Add “linear park” concept west side w/ stormwater treatment
  - Including bioswales and canopy trees





PRELIMINARY TYPICAL SECTION

- 12 ft lanes (vs. 25+ ft!)
  - *Later reduced to 11 ft*
  - *Hindsight:10 ft sufficient!*
- East: 5 ft wide sidewalk
  - *Later increased to 6 ft*
- West: 8 ft wide sidewalk plus “linear park” with stormwater treatment



KEY STORMWATER ASPECTS

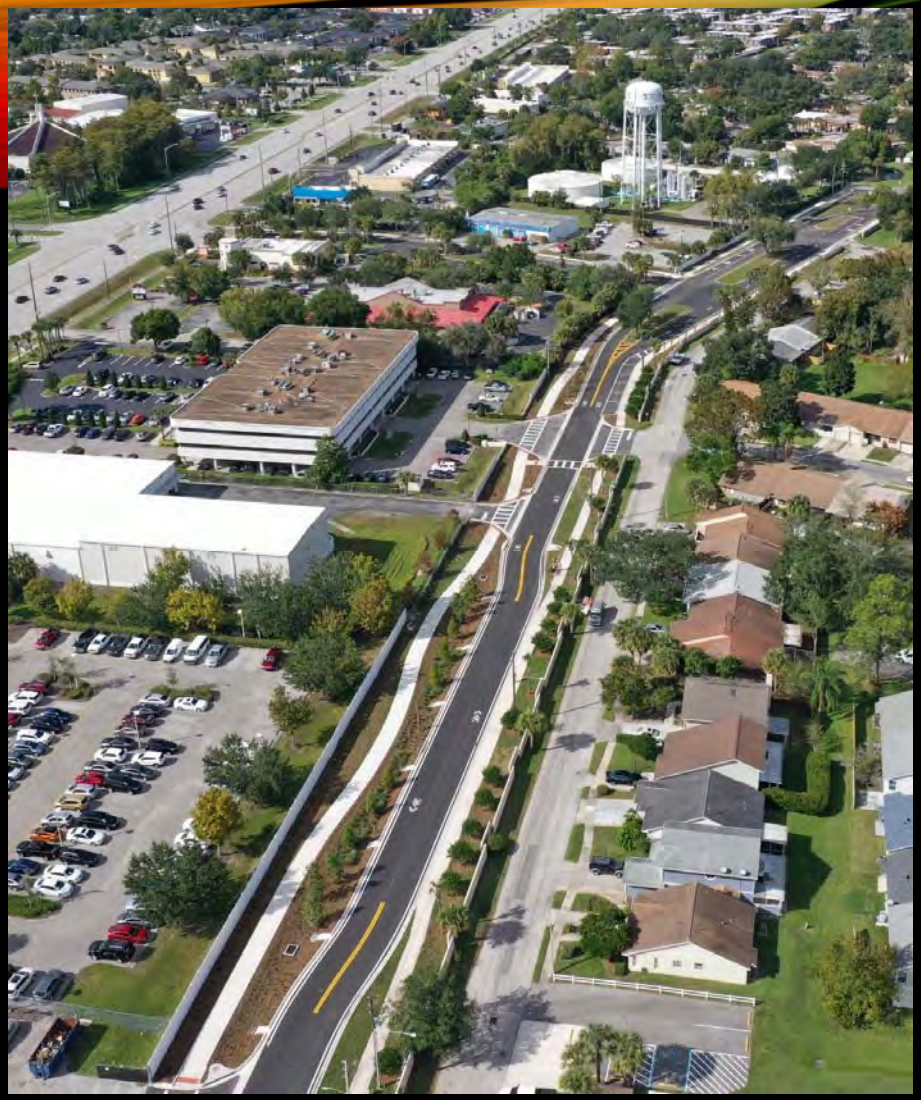
- Pre-existing wet detention
- SJRWMD General Permit
- Replaced and relocated trunk line
- Open flumes + curb inlets
- Rain gardens + bioswales with engineered biomedia

KEY STORMWATER ASPECTS

- Reduced impervious area by over 24,000 square feet
- Moderate flood control improvement
- 30 canopy trees
- Nutrimax™ Engineered Wetlands Biofilter

LESSONS LEARNED & RECOMMENDATIONS

- HAVE THE CONVERSATION
- CHALLENGE THE STATUS QUO – ASK QUESTIONS
- CONTEXT MATTERS
- ENGAGE THE COMMUNITY
- PLAN AHEAD
  - COORDINATE IMPROVEMENTS
  - POOL RESOURCES
- STAY INFORMED & BE FLEXIBLE
- CONSIDER LIFECYCLE BENEFIT/COST



THANKS TO OUR CONSULTANTS:

- Geosyntec (lead design)
- The Balmoral Group
- Chen-Moore
- CDM Smith (CEI)

THANKS TO OUR CONTRACTOR:

- Atlantic Civil Constructors

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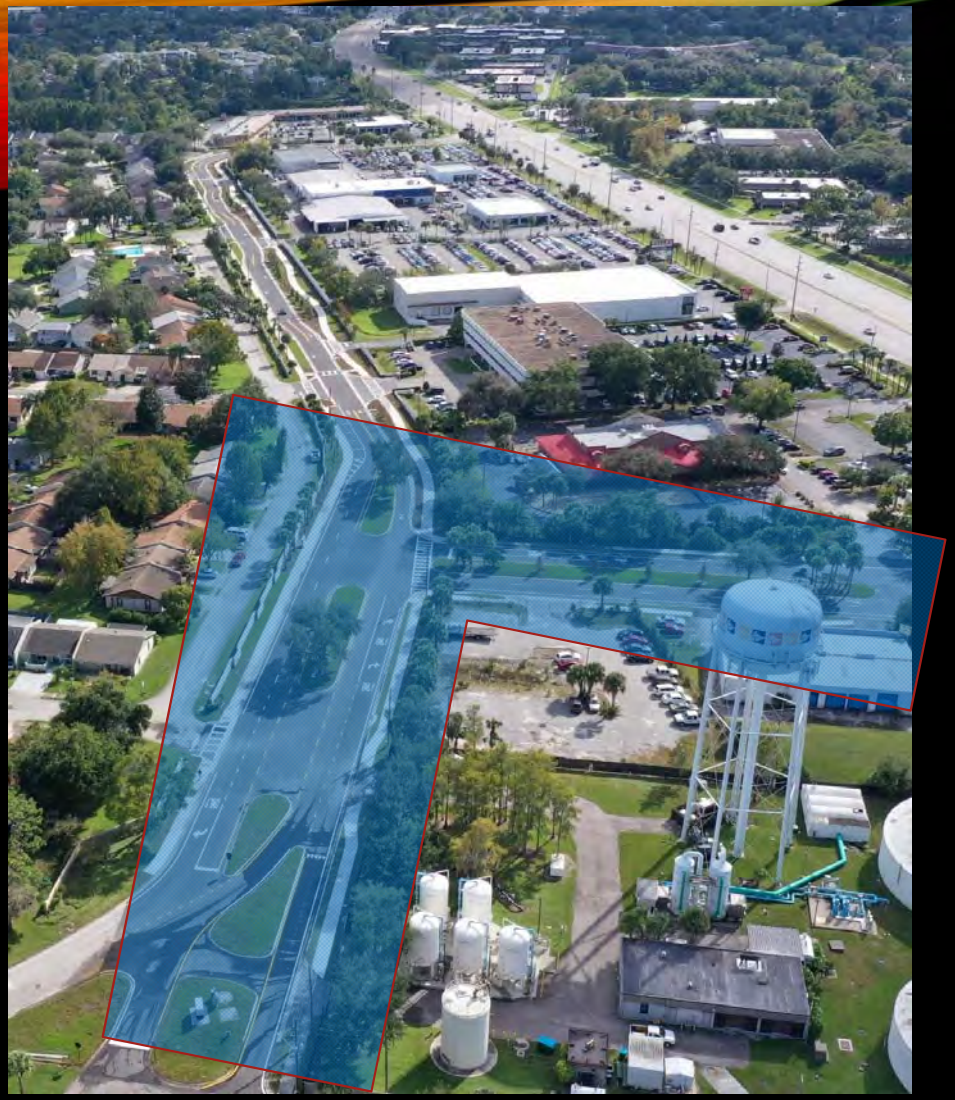

QUESTIONS?

PHASE 2???

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