East of CR-951 Bridges Reevaluation Study

Collier County Capital Project Planning, Impact Fees & Program Management Division

Bridges #9 – 16th St. SE & #10 – Wilson Blvd. S.
Neighborhood Information Meeting
October 8, 2020

Collier County

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Presentation Agenda

1. Introductions
2. History & Background
3. Purpose of the Study
4. Study Process
5. Analysis of Bridges # 9 & #10
6. Next Steps & Questions

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1 Introductions

- ✓ **Lorraine Lantz**, AICP, Principal Planner
  Collier County Project Manager
- ✓ **Trinity Scott**, Transportation Planning Manager
  Collier County
- ✓ **Yvonne McClellan**, Sr. Communications Manager
  Quest Corp. of America
- ✓ **Miranda Lansdale**, Sr. Communications Manager
  Quest Corp. of America
- ✓ **Jeff Perry**, AICP, Sr. Transportation Planner
  Stantec Consulting Project Manager

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Questions Session Guidelines

- The Questions Session will follow the formal presentation.
- Attendees can submit questions via the Questions chat box at any time following the start of the presentation, and questions will be answered in the order in which they were received.
- All participants will be muted throughout the presentation, and the project team will read aloud your question prior to providing a response for the benefit of all attendees.
- If you did not have the opportunity to ask a question during the meeting today, you can submit your questions/comments to Lorraine.Lantz@colliercountyfl.gov or call 239-252-5779, and they will be included as part of the public participation process.

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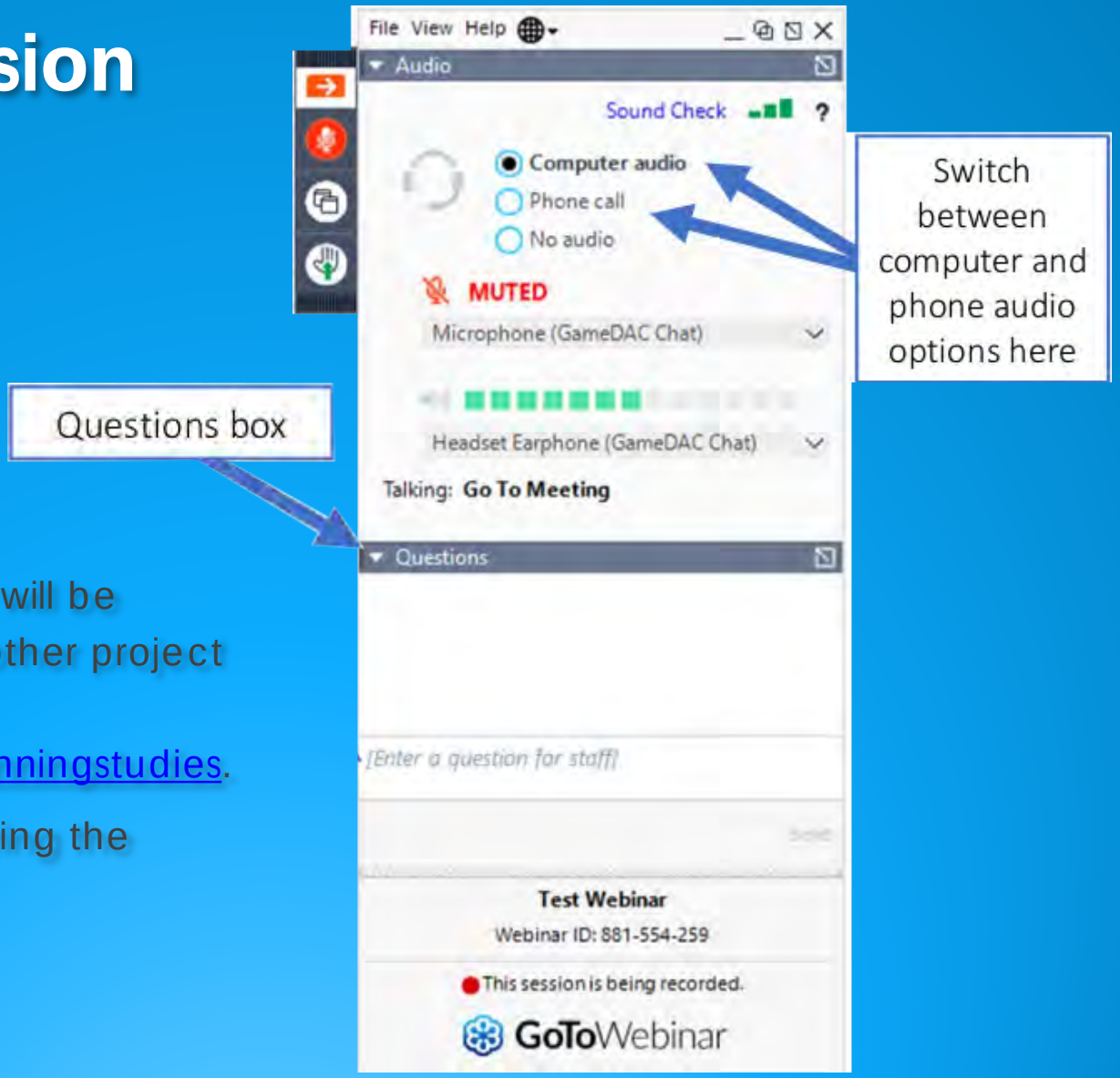
Questions Session Guidelines



- The webinar presentation will be available in PDF format with other project materials at http://colliercountyfl.gov/planningstudies.
- You will remain muted during the meeting.

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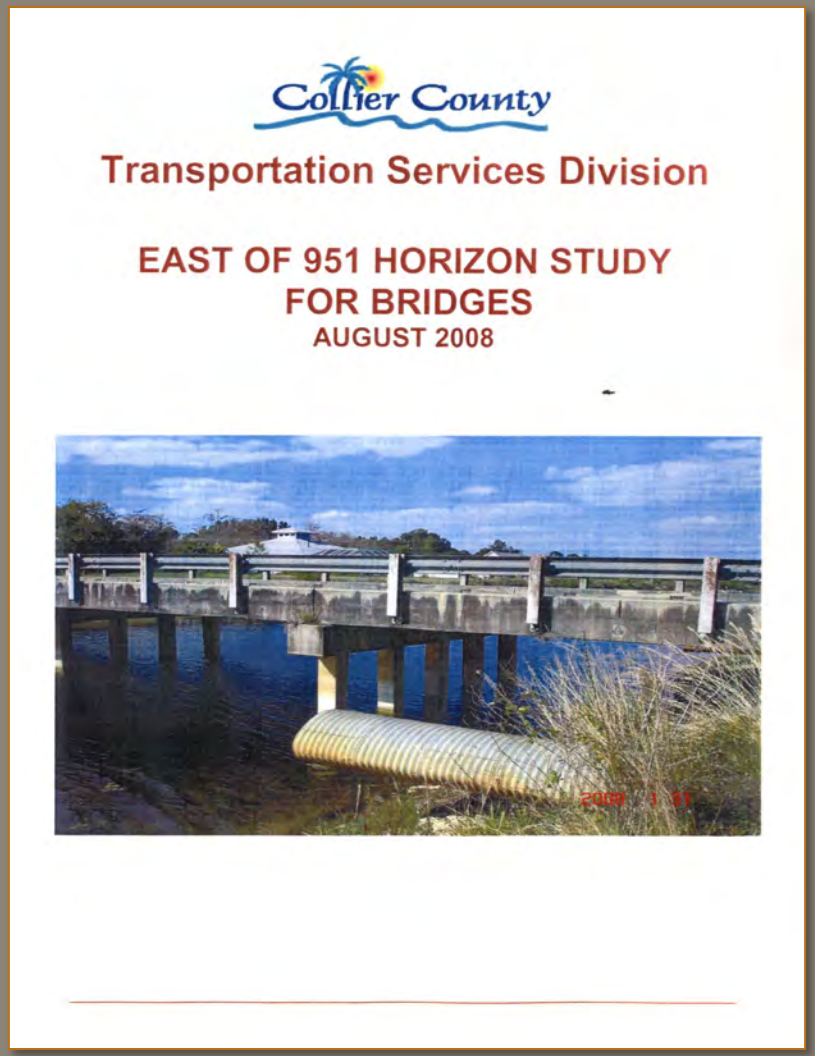
2 History & Background



In August 2008, Collier County completed the East of 951 Horizon Study for Bridges (2008 Study).

We would like to know if you are familiar with that study.

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2 History & Background

The 2008 Study was conducted to evaluate opportunities to construct missing bridge connections in the Golden Gate Estates Area roadway network.

- Within the 85 square miles of eastern Golden Gate Estates there are more than 300 dead-end streets.

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2 History & Background

The 2008 Study considered potential transportation circulation benefits:

- Improving connectivity to collectors and arterials
- Reducing trip length for personal travel
- Improving evacuation routes
- Reducing response times for first responders
- Improving access to schools, libraries, and parks

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2 History & Background

The 2008 Study's stakeholders identified 12 preferred canal-crossing locations.

Due to limited funding, bridges were ranked based on criteria related to emergency response, service efficiency and mobility.

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2 History & Background

2008 Study Bridge Ref. #	Bridge Locations
1	23rd St. SW (south of Golden Gate Blvd.)
2	16th St. NE (north of Golden Gate Blvd.)
3	8th St. NE (north of Golden Gate Blvd.)
4	47th Ave. NE (between Immokalee Rd. & Everglades Blvd.)
5	Wilson Blvd. N (south of 33rd Ave. NE)
6	18th Ave. NE (between Wilson Ave. & 8th St. NE)
7	18th Ave. NE (between 8th St. NE & 16th St. NE)
8	North End of 13th St. NW (north of Golden Gate Blvd.)
9	16th St. SE (south of Golden Gate Blvd.)
10	Wilson Blvd. S (south of Golden Gate Blvd.)
11	10th Ave. SE (between Everglades Blvd. & Desoto Blvd.)
12	62nd Ave. NE (between Everglades Blvd. and 40th St. NE)

Ranked order of 12 bridges from the 2008 Bridge Study

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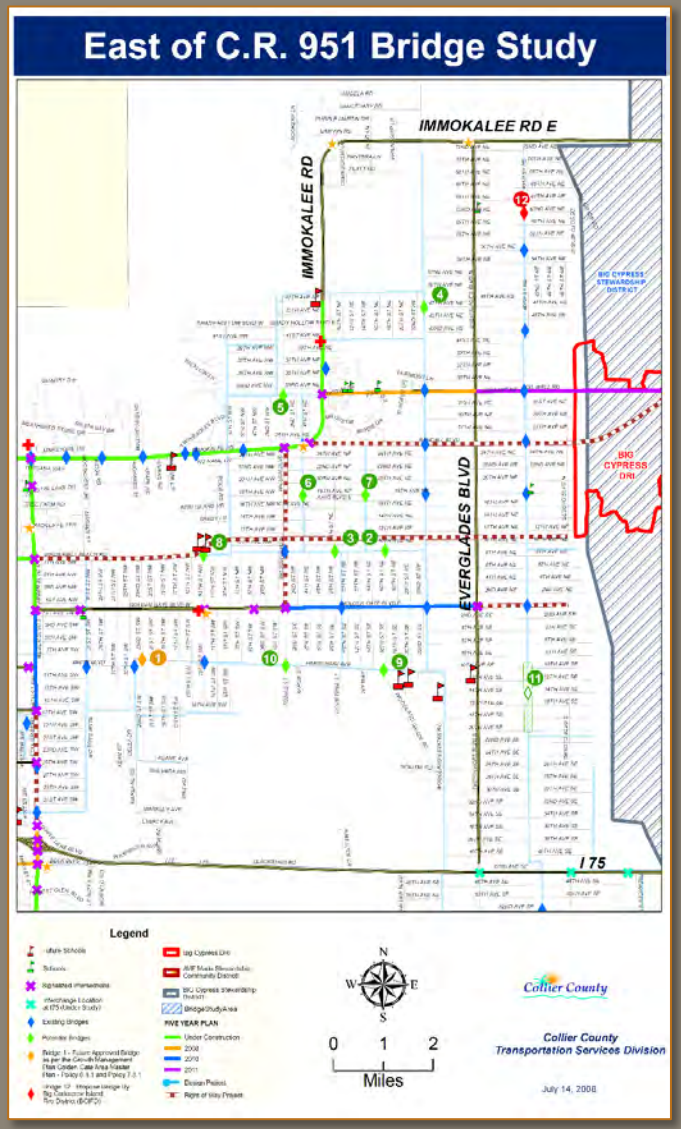
2 History & Background



Map of 12 bridges from the 2008 Bridge Study

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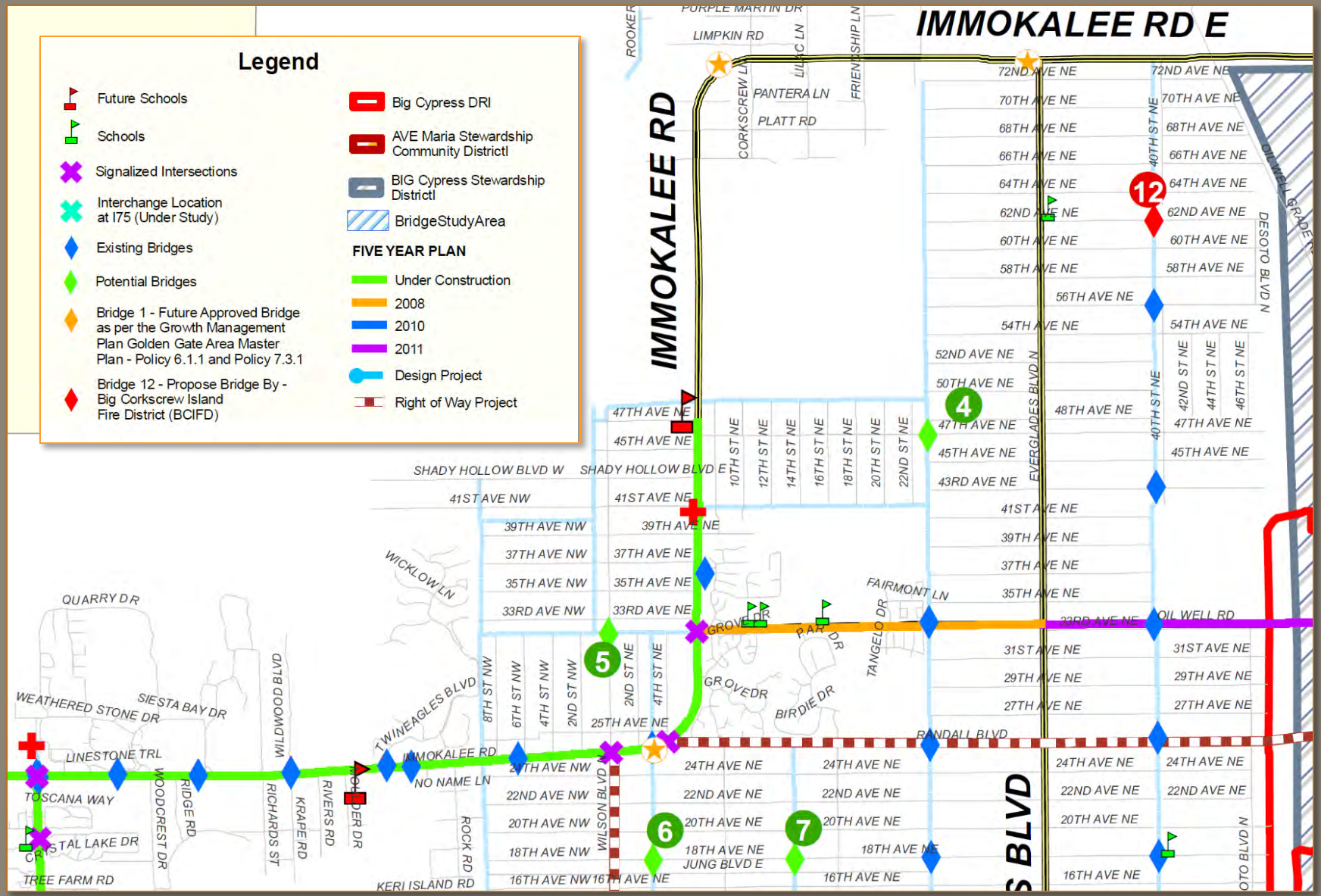

Map of Bridges in the north portion of the Study Area

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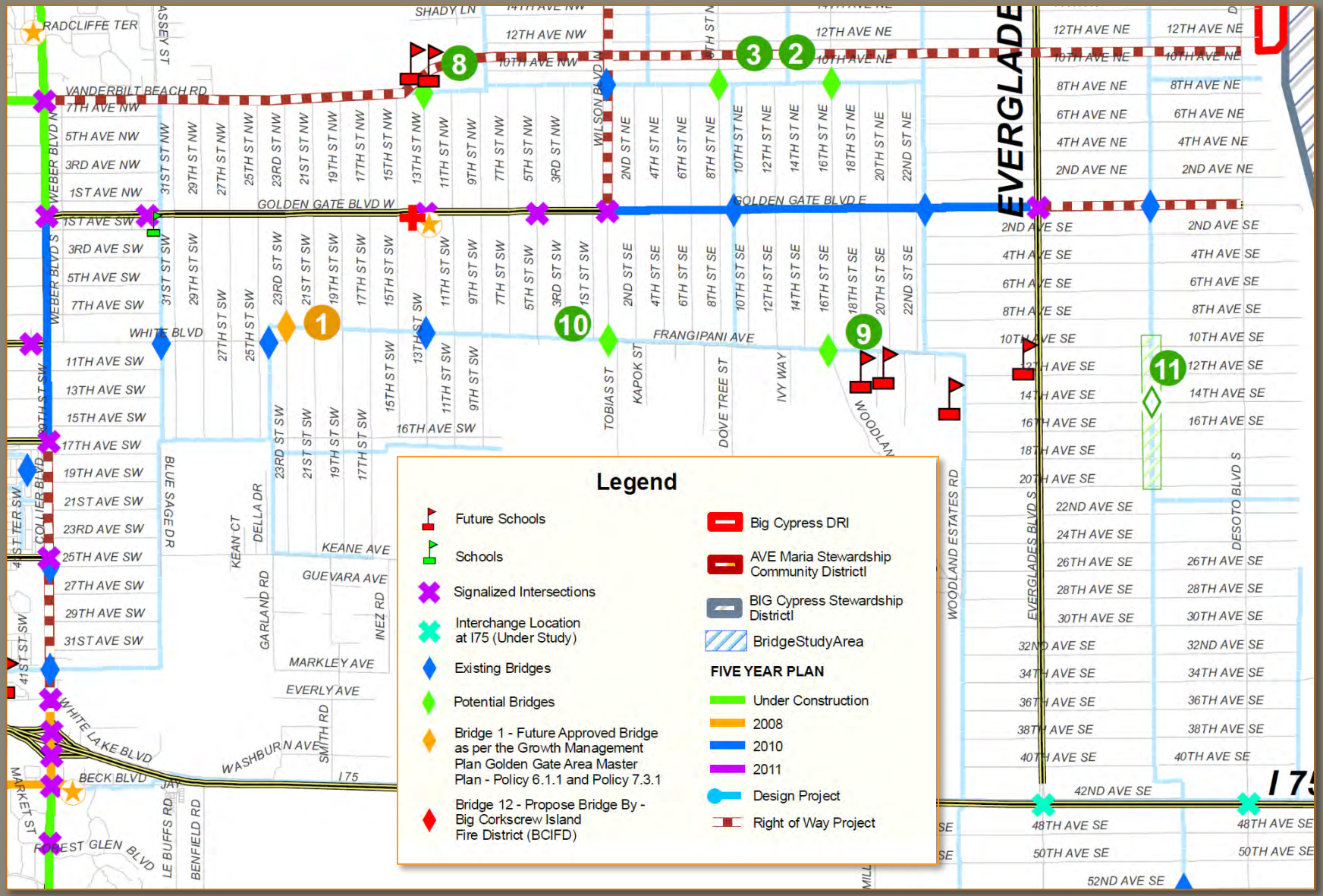

Map of Bridges in the south portion of the Study Area

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2 History & Background

2018 - Collier County voters approved a 1-cent infrastructure surtax that included funding specifically earmarked to construct the bridges within the next 7 years.

We would like to know if you are aware of the Surtax.

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2 History & Background

2019 - Collier County completed construction of Bridge #3 on 8th St. NE with funding from the FDOT.

2019 - Collier County programmed construction of Bridge #2 on 16th St. NE in the 5-Year Work Program with funds from the infrastructure surtax proceeds.

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2 History & Background

The remaining 10 bridges are the subject of this 2020 Reevaluation Study.

Bridge#	Bridge Locations
1	23rd St. SW (south of Golden Gate Blvd.)
4	47th Ave. NE (between Immokalee Rd. & Everglades Blvd.)
5	Wilson Blvd. N (south of 33rd Ave. NE)
6	18th Ave. NE (between Wilson Ave. & 8th St. NE)
7	18th Ave. NE (between 8th St. NE & 16th St. NE)
8	North End of 13th St. NW (north of Golden Gate Blvd.)
9	16th St. SE (south of Golden Gate Blvd.)
10	Wilson Blvd. S (south of Golden Gate Blvd.)
11	10th Ave. SE (between Everglades Blvd. & Desoto Blvd.)
12	62nd Ave. NE (between Everglades Blvd. and 40th St. NE)

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3 Purpose of the Study

The purpose of this 2020 Reevaluation Study is to reconfirm the validity of the remaining 10 recommended bridge locations before moving the bridge projects into production (design, permitting & construction).

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3 Purpose of the Study

This 2020 Reevaluation Study focused on the same important criteria considered in the original 2008 Study.

3 Purpose of the Study

The 2008 Study Criteria Included:

- Improved connectivity to collectors and arterials (route choice)
- Reduced trip length for personal travel
- Improved evacuation routes
- Reduced response times for first responders
- Improved access to schools, libraries, and parks

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3 Purpose of the Study

The Transportation Planning Team interviewed the same agency stakeholders from the 2008 Study:

- Collier County Sheriff's Office (CCSO)
- Emergency Services Division (EMS)
- North Collier Fire Control & Rescue District
- Greater Naples Fire & Rescue District
- Collier County Public School District

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3 Purpose of the Study

All the agencies interviewed reconfirmed the importance of the bridge locations that were recommended in the original 2008 Study.

3 Purpose of the Study

The Transportation Planning Team also recognized that over time, the ownership of some of the properties along the dead-end roads leading to the new bridges would likely have changed since the 2008 Study's public engagement effort.

3 Purpose of the Study

A notice of this meeting was mailed to property owners along the affected roadways, supplemented by door-to-door visits.

We would like to know how you heard about this meeting.

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3 Purpose of the Study

This neighborhood presentation is intended to provide the affected landowners with:

- The history & background of the bridges
- The Reevaluation Study findings
- The latest information about the bridge projects
- An opportunity to ask questions and provide comments

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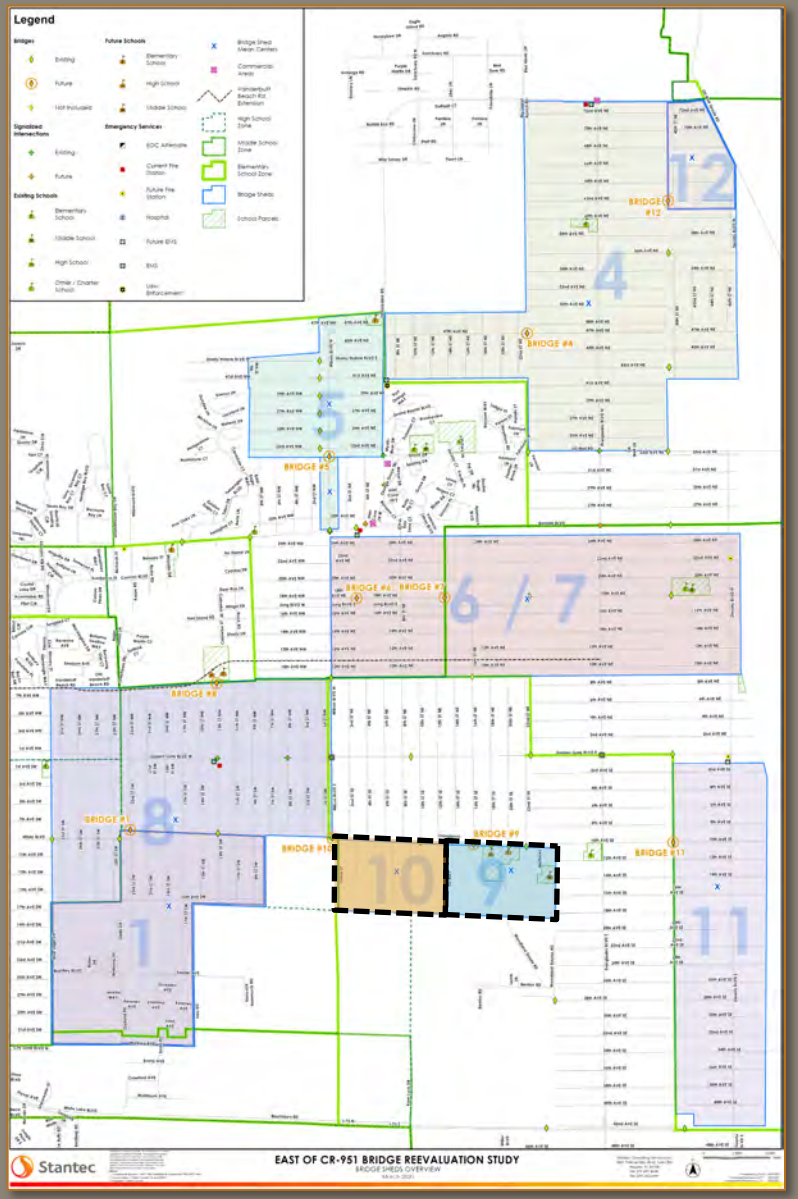
4 Study Process

The study process established nine “Bridge-Sheds” with boundaries that recognized those parcels likely to benefit from a new bridge.



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4 Study Process

Analysts conducted a Geographic Information System (GIS) analysis of each Bridge-Shed to:

- Quantify the number of affected parcels, and
- Measure the benefits derived from a new bridge

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4 Study Process

The GIS analysis quantified the number of existing homes (2019) and the total number of parcels (Build-Out) in each Bridge-Shed.

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4 Study Process

Within each Bridge-Shed, the GIS analysis established and measured representative travel routes for different trip purposes (e.g., route to reach an arterial roadway), with and without a new bridge.

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4 Study Process

For each trip purpose, the GIS analysis quantified the number of homes in 2019 and at Build-Out in each Bridge-Shed that would benefit from the reduced trip length because of the new bridge.

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4 Study Process

The Residential Trip Purposes examined included:

- Travel to reach the arterial network
- Travel to school(s)
- Travel to commercial/retail
- Travel to parks

4 Study Process

The Agency Trip Purposes examined included:

- Fire Department Response
- Sheriff's Office (CCSO) Response
- Emergency Medical Service Response
- Access to Future Schools

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4 Study Process

The study also included a supplemental Fire District analysis to determine if any parcels currently not within the Insurance Services Office (ISO) 5-mile drive distance from a fire station (Public Protection Classification Score of 3), would be included if a new bridge was constructed.

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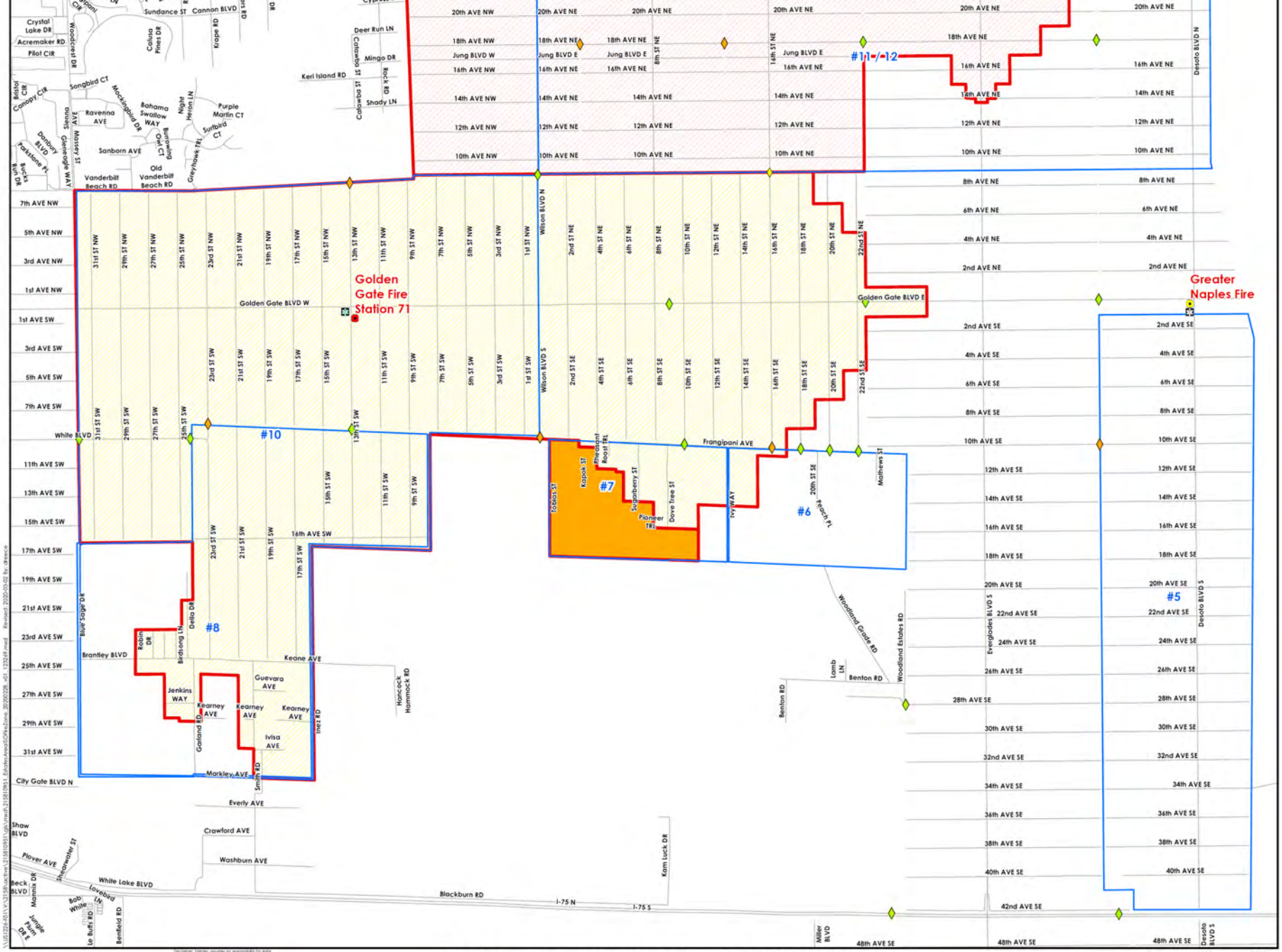

EAST OF CR-951 BRIDGE REEVALUATION STUDY

APPROXIMATE 5-MILE FIRE STATION ZONES IN BRIDGE SHED AREAS

March 2020

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Stantec Consulting Services Inc.
5801 Pelican Bay Blvd. Suite 300
Naples, FL 34108
tel 239.649.4040
fax 239.263.6449

N

0 2,500 5,000 Feet

Prepared by: D.A.R. 03/02/20
Technical Review by: M.P. 03/02/20
Independent Review by: J.F. 03/02/20

Notes:
1. Coordinate System: NAD 1983 StatePlane Florida East FIPS 0901 Feet
2. Source data: Collier County PA and GMD
3. Imagery: Collier County

5 Bridge Project Prototype

As mentioned previously, Bridge #3 on 8th St. NE was recently constructed and will serve as the prototypical bridge project for the remaining 10 bridges.

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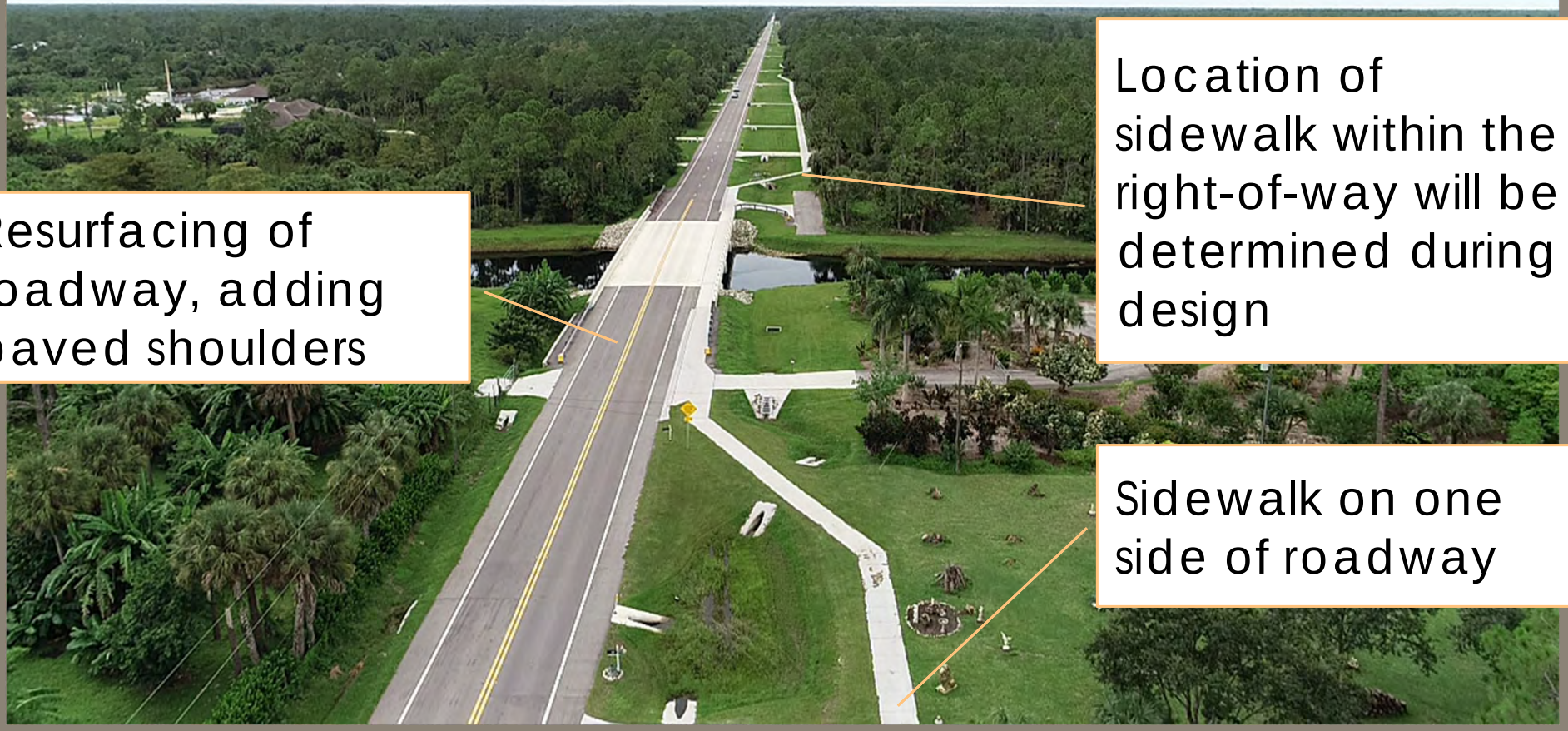
5 Bridge Project Prototype

The new bridge on 8th St. NW is seen as the prototypical bridge project to be constructed at the remaining 10 locations



Resurfacing of roadway, adding paved shoulders

Location of sidewalk within the right-of-way will be determined during design

Sidewalk on one side of roadway

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5 Analysis of Bridge #9

16th St. SE

Bridge #9 is located on 16th Ave. SE, south of Golden Gate Blvd.

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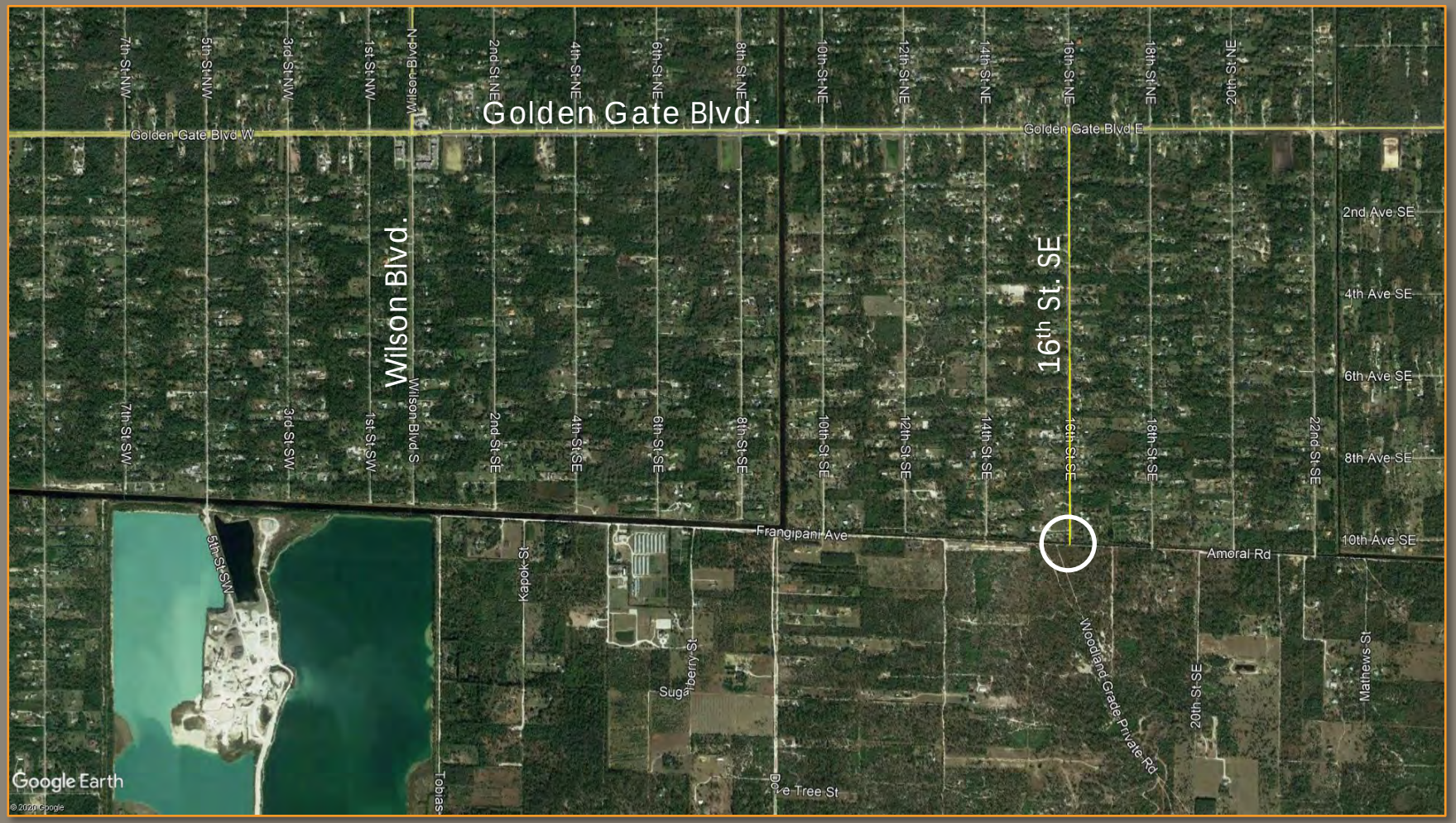
5 Analysis of Bridge #9

16th St. SE



Location of Bridge #9

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5 Analysis of Bridge #9

16th St. SE

Location of Bridge #9: Existing Condition

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5 Analysis of Bridge #9

16th St. SE

Location of Bridge #9: Proposed Condition

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5 Analysis of Bridge #9

16th St. SE

The Bridge #9 Project Includes the Following Improvements:

- Resurfacing 16th Ave. SE from Golden Gate Blvd. to the bridge (+/- 1.27 miles)
- Adding paved shoulders
- Adding a Sidewalk along one side of roadway

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5 Analysis of Bridge #9

16th St. SE

Design Considerations Include:

- Intersection improvements (e.g., turn lanes, traffic signal, etc.) at the intersection of Golden Gate Blvd. & 16th Ave. NE/SE

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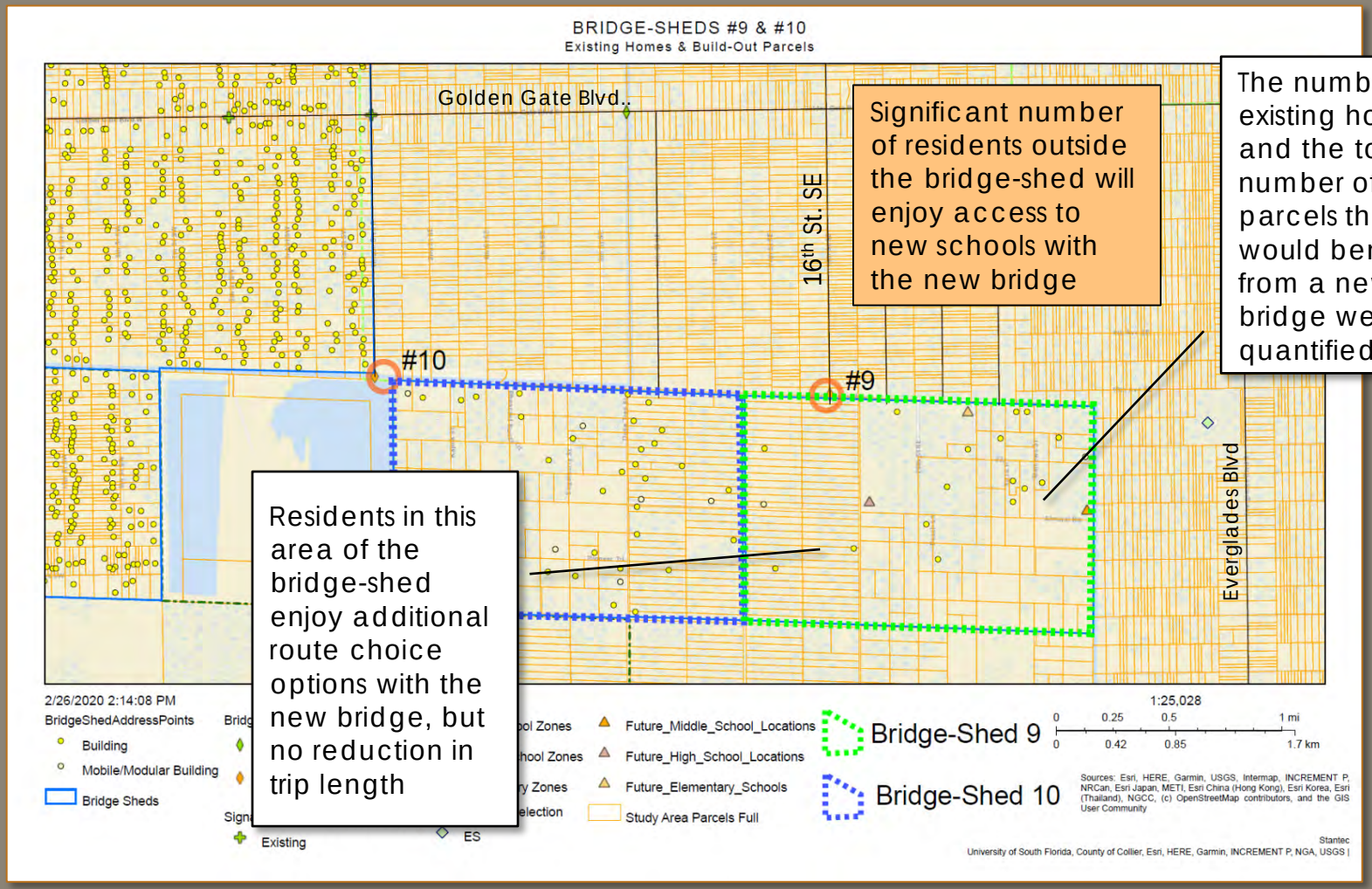
5 Analysis of Bridge #9

16th St. SE



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5 Analysis of Bridge #9& #10

23rd St. SW, North of White Blvd.

Importance of study criteria

- Improved connectivity to collectors and arterials (route choice)
- Reduced trip length for personal travel
- Improved evacuation routes (route choice)
- Reduced response times for first responders
- Improved access to schools, libraries, and parks

We would like to know which of the criteria are important to you.

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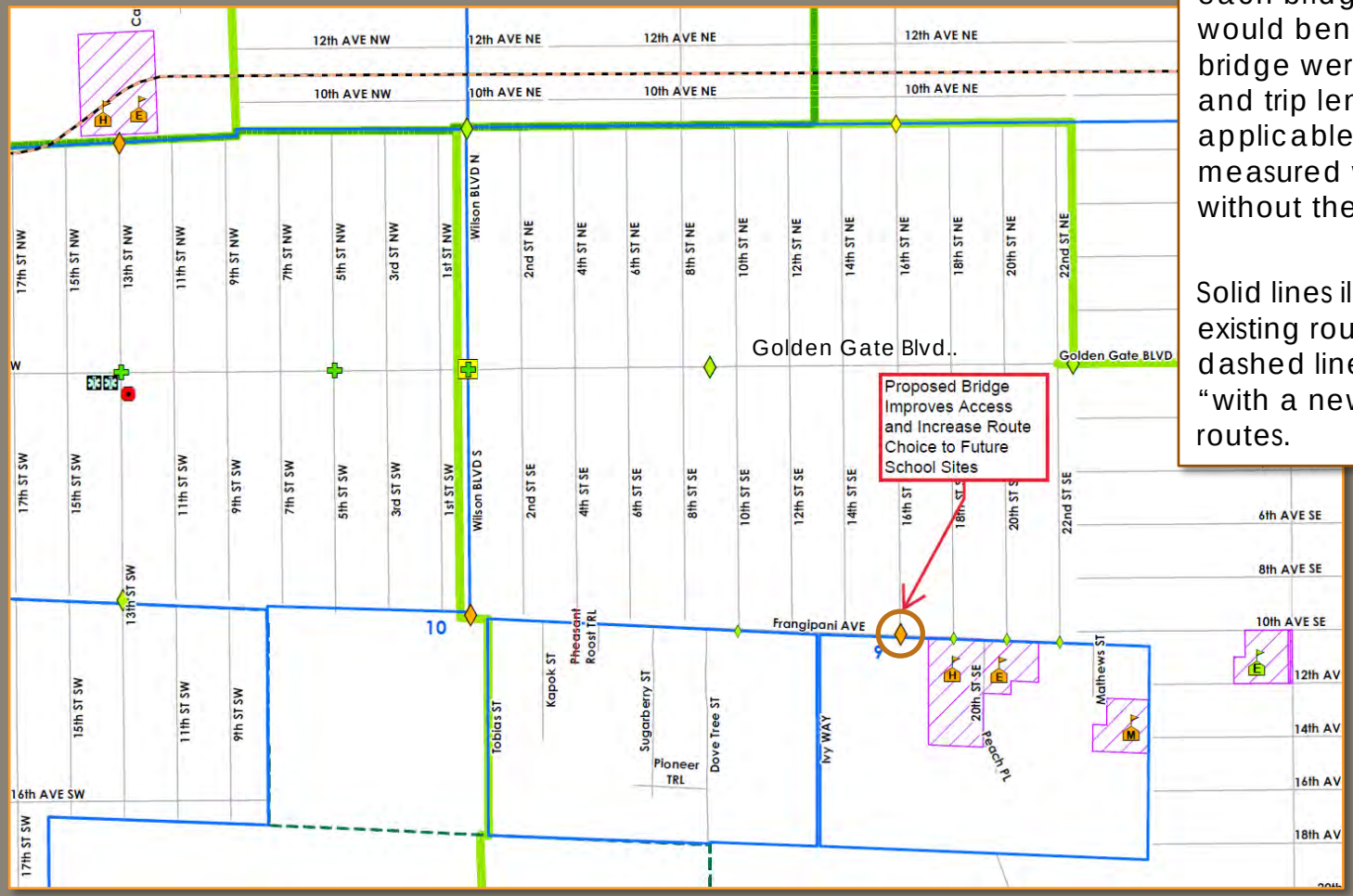
5 Analysis of Bridge #9

16th St. SE



Dwelling units (DUs) within each bridge-shed that would benefit from a new bridge were identified and trip lengths for those applicable purposes were measured with and without the bridge.

Solid lines illustrate the existing routes, and dashed lines illustrate the "with a new bridge" trip routes.

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5 Analysis of Bridge #9

16th St. SE

The trip length and housing unit data was put into a worksheet to quantify the benefits realized with a new bridge.

2019													NOTES
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
Reduces Travel Distance/Time to Reach Arterial Network	No				0.0	4	0	0	-	300	-	-	
Reduces Travel Distance/Time to Reach Schools	No				0.0	4	0	0	-	180	-	-	
Reduces Travel Distance/Time to Commercial/Retail	No				0.0	2	0	0	-	90	-	-	
Reduces Travel Distance/Time to Reach Parks	No				0.0	2	0	0	-	24	-	-	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	18	*Residents currently use one of several "private" canal crossing structures at the southern ends of 10th St. SE, 18th St. SE, 20th St. SE, and 22nd St. SE*										
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip								
Reduces Travel Distance/Response Time For Fire First Responders	No				0.0	No	Reduction in Response Time						
Response Time (minutes) at 30 MPH			0.0	0.0	0.0								
Reduces Travel Distance/Response Time For CCSO First Responders	No		0.0	0.0	0.0	No	Up to a Reduction of in Response Time						
Response Time (minutes) at 45 MPH			0.0	0.0	0.0								
Reduces Travel Distance/Response Time For EMS First Responders	No				0.0	No	Reduction in Response Time						
Response Time (minutes) at 35 MPH			0.0	0.0	0.0								
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	No												
Improves School Bus Route Operations	No	*Existing residents south of the canal likley to continue to use the existing bus stop location at Frangipani and 10th St. SE (existing bus stop)*											

[1] *VMT = Vehicle Miles Traveled*

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5 Analysis of Bridge #9

16th St. SE

This bridge-shed worksheet quantifies the applicable benefits for **existing** residents with a new bridge

2019												
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day
Reduces Travel Distance/Time to Reach Arterial Network	No				0.0	4	0	0	-	300	-	-
Reduces Travel Distance/Time to Reach Schools	No				0.0	4	0	0	-	180	-	-
Reduces Travel Distance/Time to Commercial/Retail	No				0.0	2	0	0	-	90	-	-
Reduces Travel Distance/Time to Reach Parks	No				0.0	2	0	0	-	24	-	-
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	18	*Residents currently use one of several "private" canal crossing structures at the southern ends of 10th St. SE, 18th St. SE, 20th St. SE, and 22nd St. SE*									
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip							
Reduces Travel Distance/Response Time For Fire First Responders	No				0.0	No	Reduction in Response Time					
Response Time (minutes) at 30 MPH			0.0	0.0	0.0							
Reduces Travel Distance/Response Time For CCSO First Responders	No		0.0	0.0	0.0	Up to No	a Reduction of in Response Time					
Response Time (minutes) at 45 MPH			0.0	0.0	0.0							
Reduces Travel Distance/Response Time For EMS First Responders	No				0.0	No	Reduction in Response Time					
Response Time (minutes) at 35 MPH			0.0	0.0	0.0							
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	No											
Improves School Bus Route Operations	No	*Existing residents south of the canal likley to continue to use the existing bus stop location at Frangipani and 10th St. SE (existing bus stop)*										

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #9

16th St. SE

This bridge-shed worksheet quantifies the applicable benefits for all **future** residents with a new bridge

Build-Out													
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Savings per Home per Day	Days per Year	Savings per Home per Year	VMT[1] Saved per Home per day
Reduces Travel Distance/Time to Reach Arterial Network	No		0.0	0.0	0.0	4	0	0	-	300	-	-
Reduces Travel Distance/Time to Reach Schools	Yes	5429 1900	Households in Golden Gates Estates (outside of Bridge-Shed) will benefit by improved access to new HS and ES w/in the Bridge-Shed							180	0.0	0.0
Reduces Travel Distance/Time to Commercial/Retail	No		0.0	0.0	0.0	2	0	0	-	90	-	-
Reduces Travel Distance/Time to Reach Parks	No		0.0	0.0	0.0	2	0	0	-	24	-	-
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	135	*Residents currently use one of several "private" canal crossing structures at the southern ends of 10th St. SE, 18th St. SE, 20th St. SE, and 22nd St. SE*									

		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip		
Reduces Travel Distance/Response Time For Fire 1st Responders	No				0.0	No	Reduction in Response Time
Response Time (minutes) at 30 MPH			0.0	0.0	0.0		
Reduces Travel Distance/Response Time For CCSO 1st Responders	No		0.0	0.0	0.0	No	Reduction of in Response Time
Response Time (minutes) at 45 MPH			0.0	0.0	0.0		
Reduces Travel Distance/Response Time For EMS 1st Responders	No		0.0	0.0	0.0	No	Reduction in Response Time
Response Time (minutes) at 35 MPH			0.0	0.0	0.0		
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	No		0.0	0.0			
Improves School Bus Route Operations	Yes	*Bridge will provide direct access to two new schools (HS & ES) to be built in the future.*					

ES Capacity = 919
HS Capacity = 1931
0.35 Students/HH & 1.5 Students/DU

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #9

16th St. SE

Potential Benefits Include:

- Increase in route choice options for public agencies, and 18 current residences (135 at buildout)
- Shorter trip lengths for some residents
- Shorter trip lengths for some CCSO responses

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5 Analysis of Bridge #9

16th St. SE

Potential Benefits Include:

- Access to future school sites south of bridge
- Potential reduction in travel distance to school(s) for 1,900 homes outside of bridge-shed at build-out

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5 Analysis of Bridge #10

Wilson Blvd. South

The next set of slides will provide an overview of the analysis of Bridge #10 on Wilson Blvd. S., located approximately 1 mile south of Golden Gate Blvd.

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5 Analysis of Bridge #10

Wilson Blvd. South

Bridge #1 is located on Wilson Blvd. S., south of Golden Gate Blvd.

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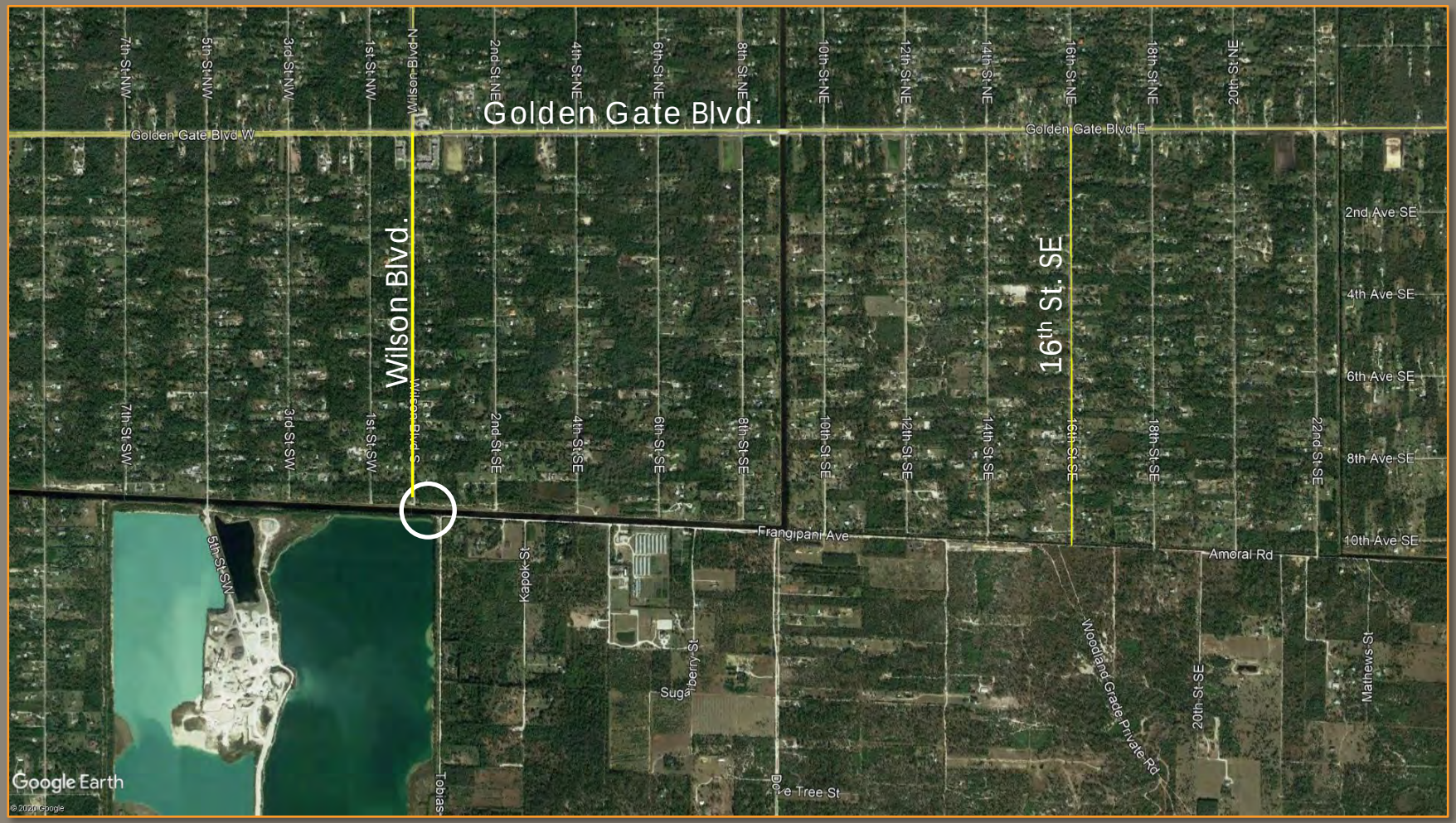
5 Analysis of Bridge #10

16th St. SE



Location of Bridge #10

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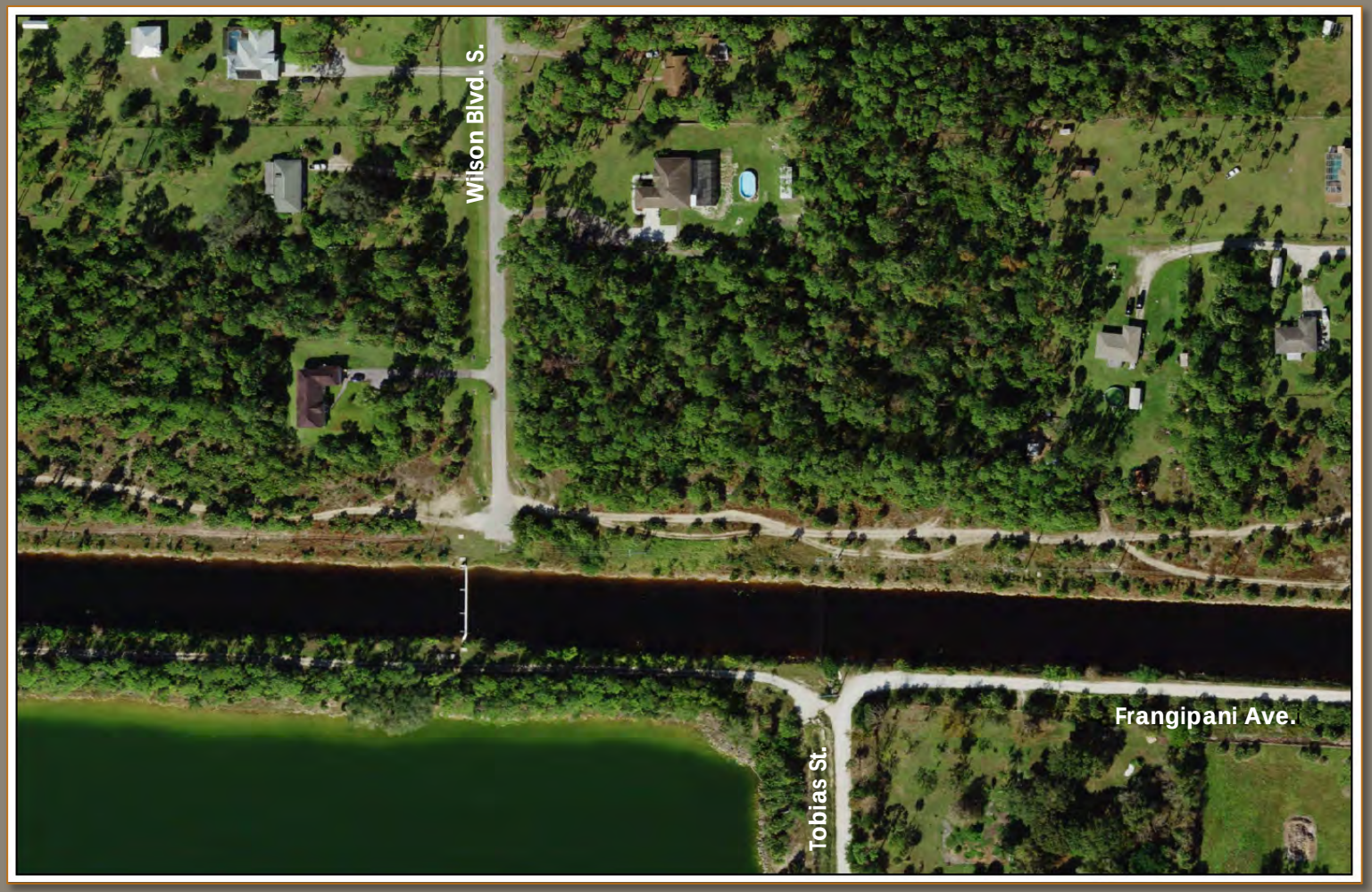
5 Analysis of Bridge #10

Wilson Blvd. South



Location of Bridge #10: Existing Condition

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5 Analysis of Bridge #10

Wilson Blvd. South

Location of Bridge #10: Proposed Condition

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5 Analysis of Bridge #10

Wilson Blvd. South

The Bridge #10 Project Includes the Following Improvements:

- Realigning Wilson Blvd. S. to intersect with Tobias St. & Frangipani Ave.
- Resurfacing Wilson Blvd S. from Golden Gate Blvd. Blvd. to Tobias St. (+/- 1.2 miles)
- Adding paved shoulders
- Adding a Sidewalk along one side of roadway

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5 Analysis of Bridge #10

Wilson Blvd. South

Design Considerations Include:

- Intersection improvements (e.g., turn lanes modifications, etc.) at the intersection of Golden Gate Blvd. and Wilson Blvd.

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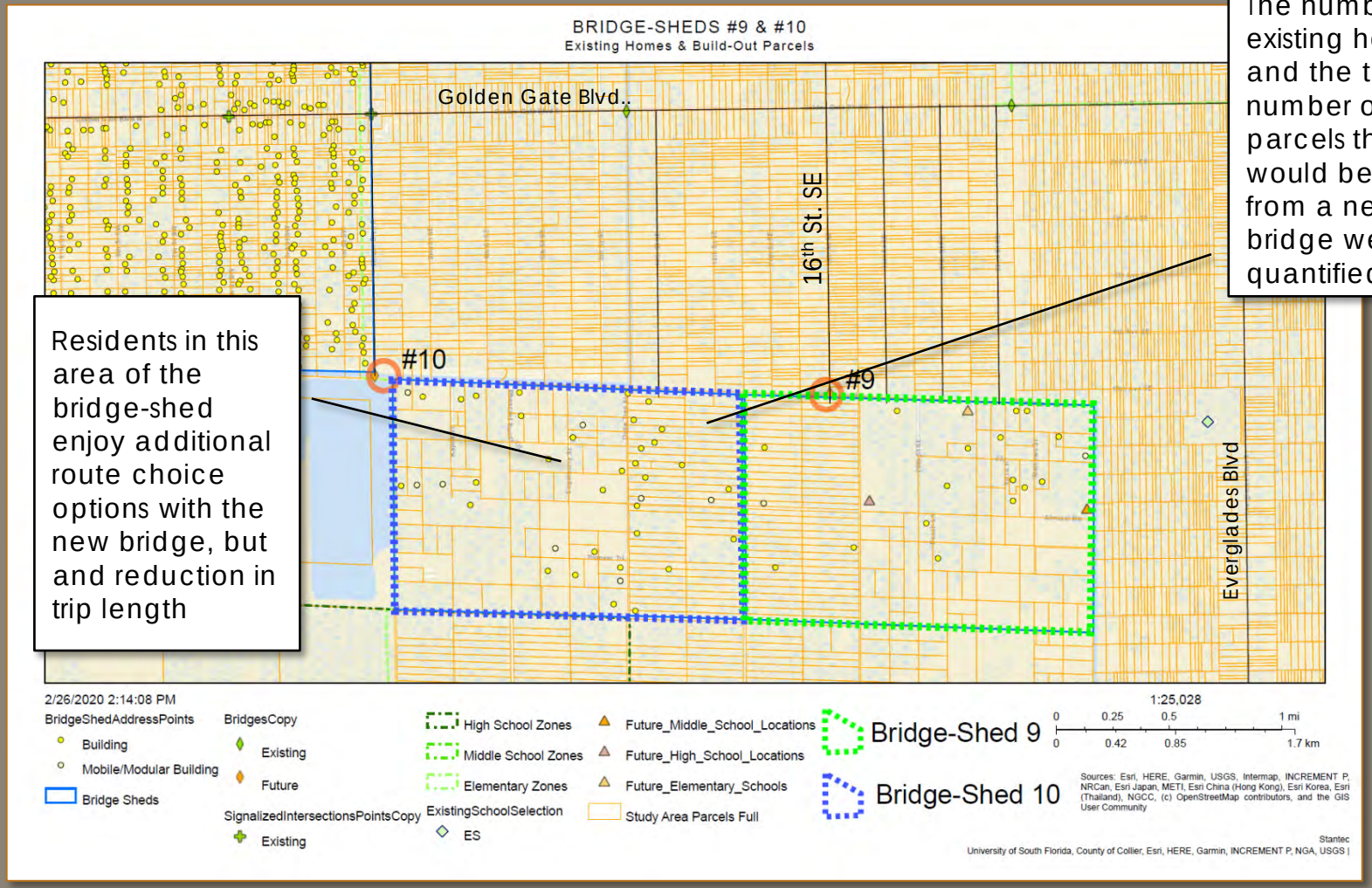
5 Analysis of Bridge #10

Wilson Blvd. South



Residents in this area of the bridge-shed enjoy additional route choice options with the new bridge, but and reduction in trip length

The number of existing homes and the total number of parcels that would benefit from a new bridge were quantified.

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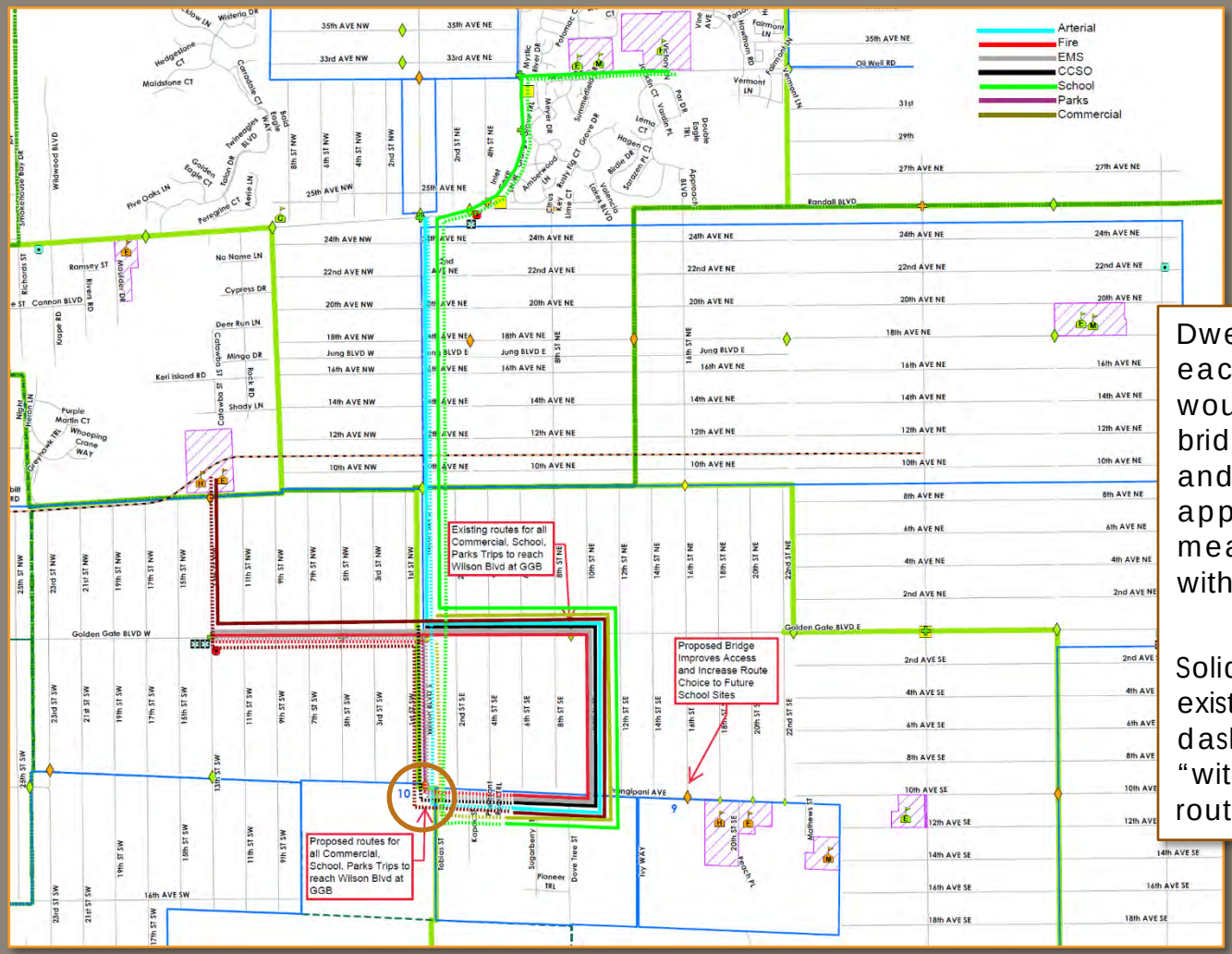
5 Analysis of Bridge #10

Wilson Blvd. South



Dwelling units (DUs) within each bridge-shed that would benefit from a new bridge were identified and trip lengths for those applicable purposes were measured with and without the bridge.

Solid lines illustrate the existing routes, and dashed lines illustrate the "with a new bridge" trip routes.

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5 Analysis of Bridge #10

Wilson Blvd. South

The trip length and housing unit data was put into a worksheet to quantify the benefits realized with a new bridge.

2019														NOTES
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
Reduces Travel Distance/Time to Reach Arterial Network	Yes	40	6.3	5.1	1.2	4	189	6	0.16	300	47.2	4.7	Existing residents use 10th St. SE; bridge reduces average travel distance by +/- 1.2 miles
Reduces Travel Distance/Time to Reach Schools (H)	Yes	4	9.1	7.9	1.2	4	19	1	0.16	180	28.8	4.8	Only residents with High School students; distances measured to Palmetto Ridge HS
Reduces Travel Distance/Time to Commercial/Retail	Yes	40	3.1	1.9	1.2	2	95	3	0.08	90	7.1	2.4	
Reduces Travel Distance/Time to Reach Parks	Yes	40	5.9	4.7	1.2	2	95	3	0.08	24	1.9	2.4	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	40	*Residents currently use a "private" canal crossing structures at the southern end of 10th St. SE*										
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip								
Reduces Travel Distance/Response Time For Fire First Responders	Yes	40	4.8	3.6	1.2	25% Reduction in Response Time							
Response Time (minutes) at 30 MPH			9.5	7.2	2.4								
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	40	3.1	1.9	1.2	Up to a Reduction of 39% in Response Time							
Response Time (minutes) at 45 MPH			4.1	2.5	1.6								
Reduces Travel Distance/Response Time For EMS First Responders	Yes	40	4.7	3.5	1.2	25% Reduction in Response Time							
Response Time (minutes) at 35 MPH			8.1	6.1	2.0								
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	15	6.3	5.0	New bridge reduces the drive distance to within 5 miles of the nearest fire station								
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*											

[1] *VMT = Vehicle Miles Traveled*

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5 Analysis of Bridge #10

Wilson Blvd. South

This bridge-shed worksheet quantifies the applicable benefits for **existing** residents with a new bridge

2019													
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day
Reduces Travel Distance/Time to Reach Arterial Network	Yes	40	6.3	5.1	1.2	4	189	6	0.16	300	47.2	4.7
Reduces Travel Distance/Time to Reach Schools (H)	Yes	4	9.1	7.9	1.2	4	19	1	0.16	180	28.8	4.8
Reduces Travel Distance/Time to Commercial/Retail	Yes	40	3.1	1.9	1.2	2	95	3	0.08	90	7.1	2.4
Reduces Travel Distance/Time to Reach Parks	Yes	40	5.9	4.7	1.2	2	95	3	0.08	24	1.9	2.4
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	40	*Residents currently use a "private" canal crossing structures at the southern end of 10th St. SE*									
		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip							
Reduces Travel Distance/Response Time For Fire First Responders	Yes	40	4.8	3.6	1.2	25% Reduction in Response Time						
Response Time (minutes) at 30 MPH			9.5	7.2	2.4							
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	40	3.1	1.9	1.2	Up to 39% a Reduction of in Response Time						
Response Time (minutes) at 45 MPH			4.1	2.5	1.6							
Reduces Travel Distance/Response Time For EMS First Responders	Yes	40	4.7	3.5	1.2	25% Reduction in Response Time						
Response Time (minutes) at 35 MPH			8.1	6.1	2.0							
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	15	6.3	5.0	New bridge reduces the drive distance to within 5 miles of the nearest fire station							
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*										

Existing residents use 10th St. SE; bridge reduces average travel distance by +/- 1.2 miles

Only residents with High School students; distances measured to Palmetto Ridge HS

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #10

Wilson Blvd. South

This portion of the bridge-shed worksheet quantifies the potential benefits to residents

2019													NOTES
		DUs	Distance (miles)			Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Gallons Saved per Home per Day	Days per Year	Gallons Saved per Home per Year	VMT[1] Saved per Home per day	
			W/O Bridge	W/ Bridge	Saved per Trip								
Reduces Travel Distance/Time to Reach Arterial Network	Yes	40	6.3	5.1	1.2	4	189	6	0.16	300	47.2	4.7	Existing residents use 10th St. SE; bridge reduces average travel distance by +/- 1.2 miles
Reduces Travel Distance/Time to Reach Schools (H)	Yes	4	9.1	7.9	1.2	4	19	1	0.16	180	28.8	4.8	Only residents with High School students; distances measured to Palmetto Ridge HS
Reduces Travel Distance/Time to Commercial/Retail	Yes	40	3.1	1.9	1.2	2	95	3	0.08	90	7.1	2.4	
Reduces Travel Distance/Time to Reach Parks	Yes	40	5.9	4.7	1.2	2	95	3	0.08	24	1.9	2.4	
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	40	*Residents currently use a "private" canal crossing structures at the southern end of 10th St. SE*										

The number of homes or dwelling units (DUs) that would benefit for a particular trip purpose

The trip length without and with the new bridge and the savings

Number of trips per day (per DU) times trip length equals Vehicle Miles of Travel (VMT)

The number of gallons of fuel saved with a new bridge

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5 Analysis of Bridge #10

Wilson Blvd. South

This portion of the bridge-shed worksheet quantifies the potential benefits to public agencies

The applicable First Responder trip purpose and the number of homes to benefit from a faster response time

The trip length without and with the new bridge and the savings

Potential average reduction in response time for the agency to reach a home with the new bridge in place

The potential benefit to the Fire ISO rating

		DUs	Distance (miles) W/O Bridge	W/ Bridge	Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	40	4.8	3.6	1.2	25% Reduction in Response Time
Response Time (minutes) at 30 MPH			9.5	7.2	2.4	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	40	3.1	1.9	1.2	Up to a Reduction of 39% in Response Time
Response Time (minutes) at 45 MPH			4.1	2.5	1.6	
Reduces Travel Distance/Response Time For EMS First Responders	Yes	40	4.7	3.5	1.2	25% Reduction in Response Time
Response Time (minutes) at 35 MPH			8.1	6.1	2.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	15	6.3	5.0	New bridge reduces the drive distance to within 5 miles of the nearest fire station	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

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5 Analysis of Bridge #10

Wilson Blvd. South

This bridge-shed worksheet quantifies the applicable benefits for all **future** residents with a new bridge

Build-Out

		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	Trips per Day	VMT[1] Saved per day	Gallons Saved per day @ 30 mpg	Savings per Home per Day	Days per Year	Savings per Home per Year	VMT[1] Saved per Home per day
Reduces Travel Distance/Time to Reach Arterial Network	Yes	132	6.3	5.1	1.2	4	623	21	0.16	300	47.2	4.7
Reduces Travel Distance/Time to Reach Schools (H)	Yes	132 13	9.1	7.9	1.2	4	62	2	0.16	180	28.8	4.8
Reduces Travel Distance/Time to Commercial/Retail	Yes	132	3.1	1.9	1.2	2	314	10	0.08	90	7.1	2.4
Reduces Travel Distance/Time to Reach Parks	Yes	132	5.9	4.7	1.2	2	314	10	0.08	24	1.9	2.4
Increases Resident's Route Choice Options; Improves Evacuation Access	Yes	132	*Residents currently use a "private" canal crossing structures at the southern end of 10th St. SE*									

Existing residents use 10th St. SE; bridge reduces average travel distance by +/- 1.2 miles

		DUs	Distance (miles) W/O Bridge	Distance (miles) W/ Bridge	Distance (miles) Saved per Trip	
Reduces Travel Distance/Response Time For Fire First Responders	Yes	132	4.8	3.6	1.2	25% Reduction in Response Time
Response Time (minutes) at 30 MPH			9.5	7.2	2.4	
Reduces Travel Distance/Response Time For CCSO First Responders	Yes	132	3.1	1.9	1.2	Up to 39% a Reduction of in Response Time
Response Time (minutes) at 45 MPH			4.1	2.5	1.6	
Reduces Travel Distance/Response Time For EMS First Responders	Yes	132	4.7	3.5	1.2	25% Reduction in Response Time
Response Time (minutes) at 35 MPH			8.1	6.1	2.0	
Reduces Travel Distance to Fire Station to Improves ISO Public Protection Classification Score	Yes	61	6.3	5.0	New bridge reduces the drive distance to within 5 miles of the nearest fire station	
Improves School Bus Route Operations	Yes	*May improve circulation options for bus routes to existing and future school(s); may improve bus utilization, reduce fuel consumption and associated operating costs.*				

[1] *VMT = Vehicle Miles Traveled*

5 Analysis of Bridge #10

Wilson Blvd. South

Potential Benefits Include:

- Improve access and increase in route choice options for public agencies, and 40 current residences (132 at buildout)
- Shorter trip lengths for all residents
- Shorter trip lengths for Fire and EMS response
- Shorter trip lengths for some CCSO response

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5 Analysis of Bridge #10

Wilson Blvd. South

Potential Benefits Include:

- Reduction in travel distance to arterial network for 40 homes (132 at build-out)
- Reduction in travel distance to commercial area and parks for 40 homes (132 at build-out)
- Reduced travel distance to High School for 4 homes (13 at build-out)

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5 Analysis of Bridge #10

Wilson Blvd. South

Potential Benefits Include:

- Residents could benefit from up to a 39% decrease in response time (up to 1.6 minutes) for CCSO vehicles.
- Route choice is improved Fire & EMS first responders.
  - 25% reduction in response time to area residences due to station locations.
  - 15 additional homes (61 at build-out) may meet ISO 3 Rating

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6 Next Steps

- ✓ Public Outreach to Other Affected Neighborhoods
- ✓ Presentation to the BCC tentatively for December 8, 2020
- ✓ Programming & Production to Complete the Bridges by 2027

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6 Questions?

- ✓ Send Written Comments to Lorraine Lantz, AICP:
  - Lorraine.Lantz@colliercountyfl.gov
  - Collier County Transportation Planning
    2685 S. Horseshoe Drive, Suite 103
    Naples, FL 34104
  - 239.252.5779

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6 Questions?

- ✓ Visit the Project Website described below and in the notice for this meeting to download project materials, back-up materials, meeting presentations, etc.

http://colliercountyfl.gov/planningstudies

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