



Highway 41 Update

February 4, 2021

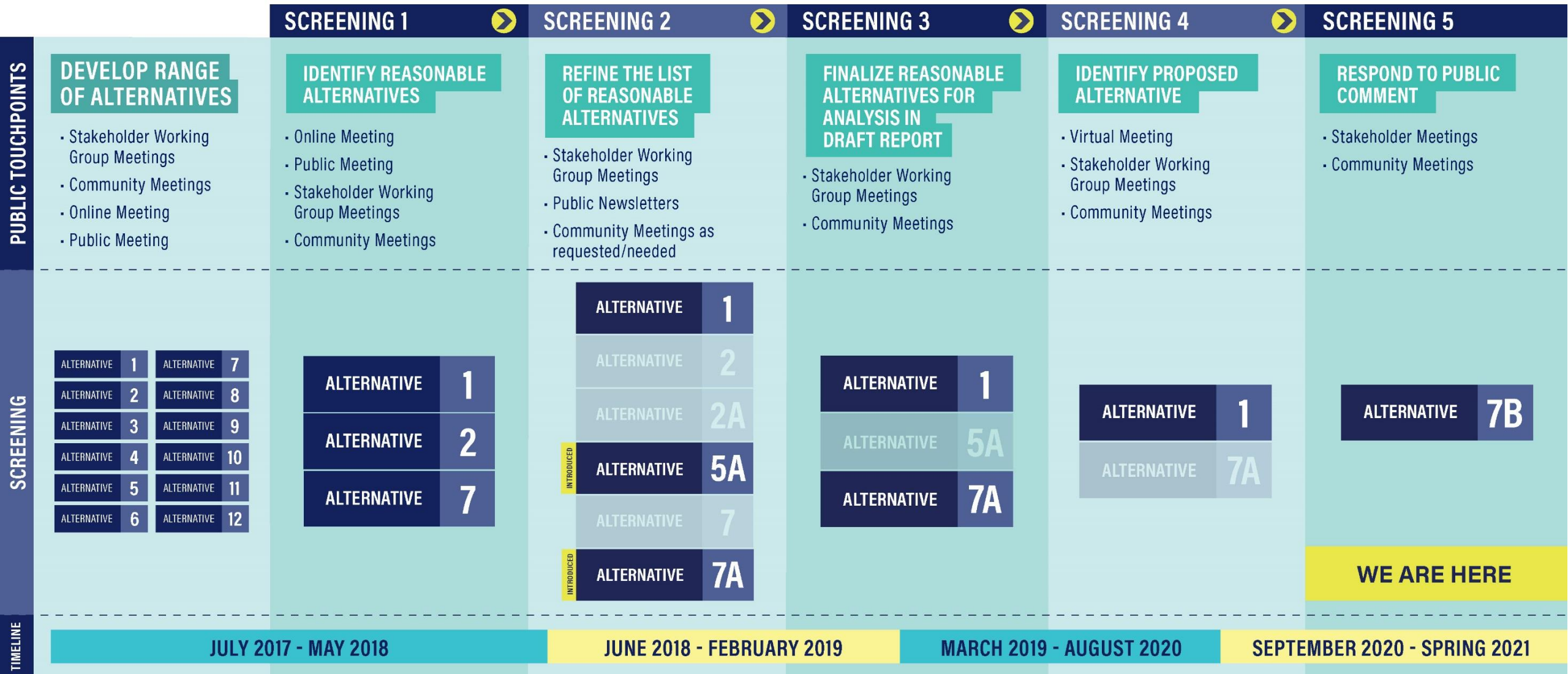
County Update



Agenda

- I. Review of Where We've Been
- II. Review of What We Heard
- III. Responding to Public Comment - Overview of Alt 7b
- IV. Environmental Matrix Comparison – Alt 1, 7a and 7b
- V. Post Comment Period Additional Analysis
 - I. CAGE Proposal
 - II. Horlbeck Creek Proposal
- VI. Next Steps & Milestones

Alternatives Screening Process



WE ARE HERE

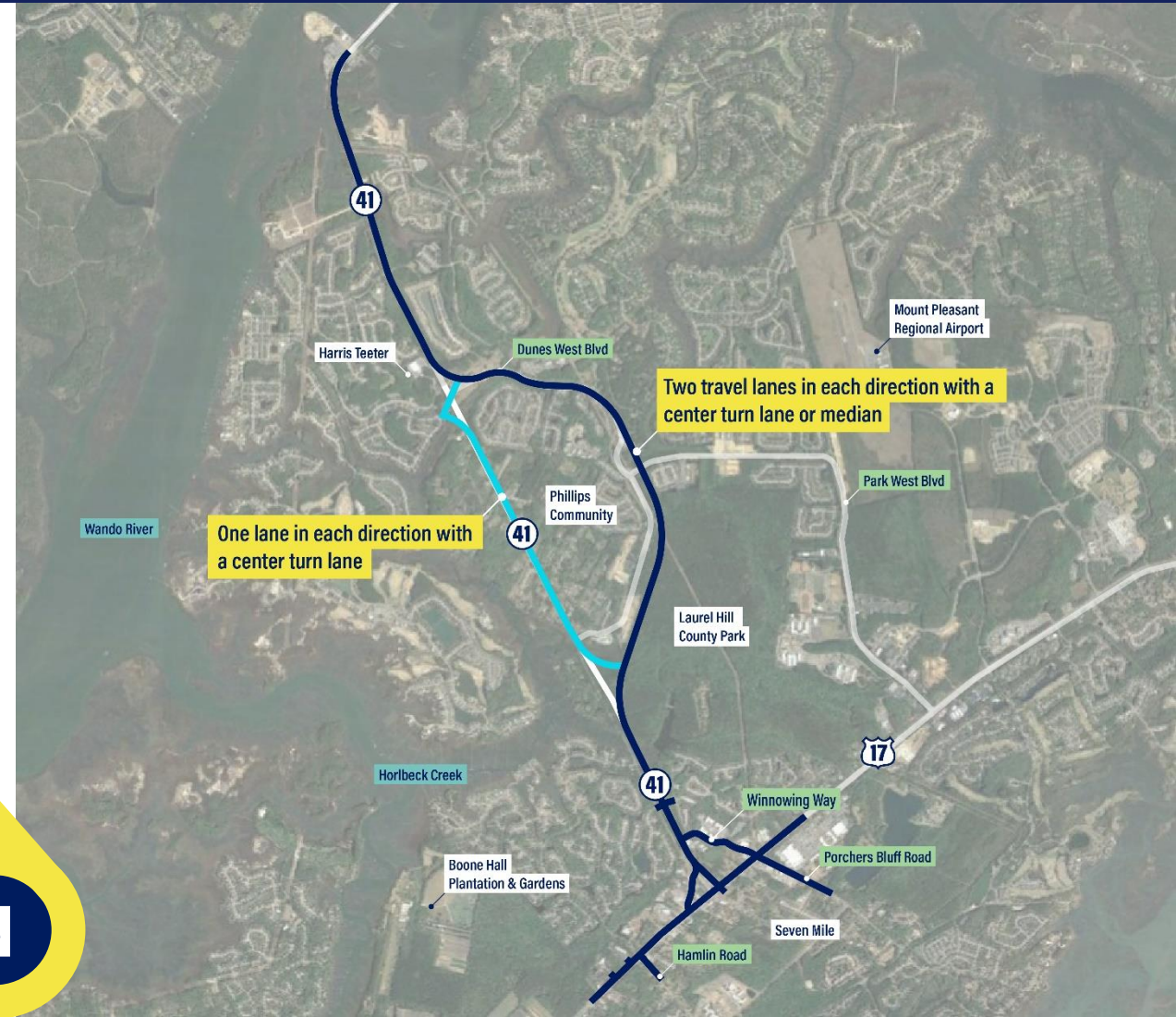
Alternative 1 and Alternative 7a

As presented to the public in August 2020



Widening Existing Highway 41 (Alternative 1)

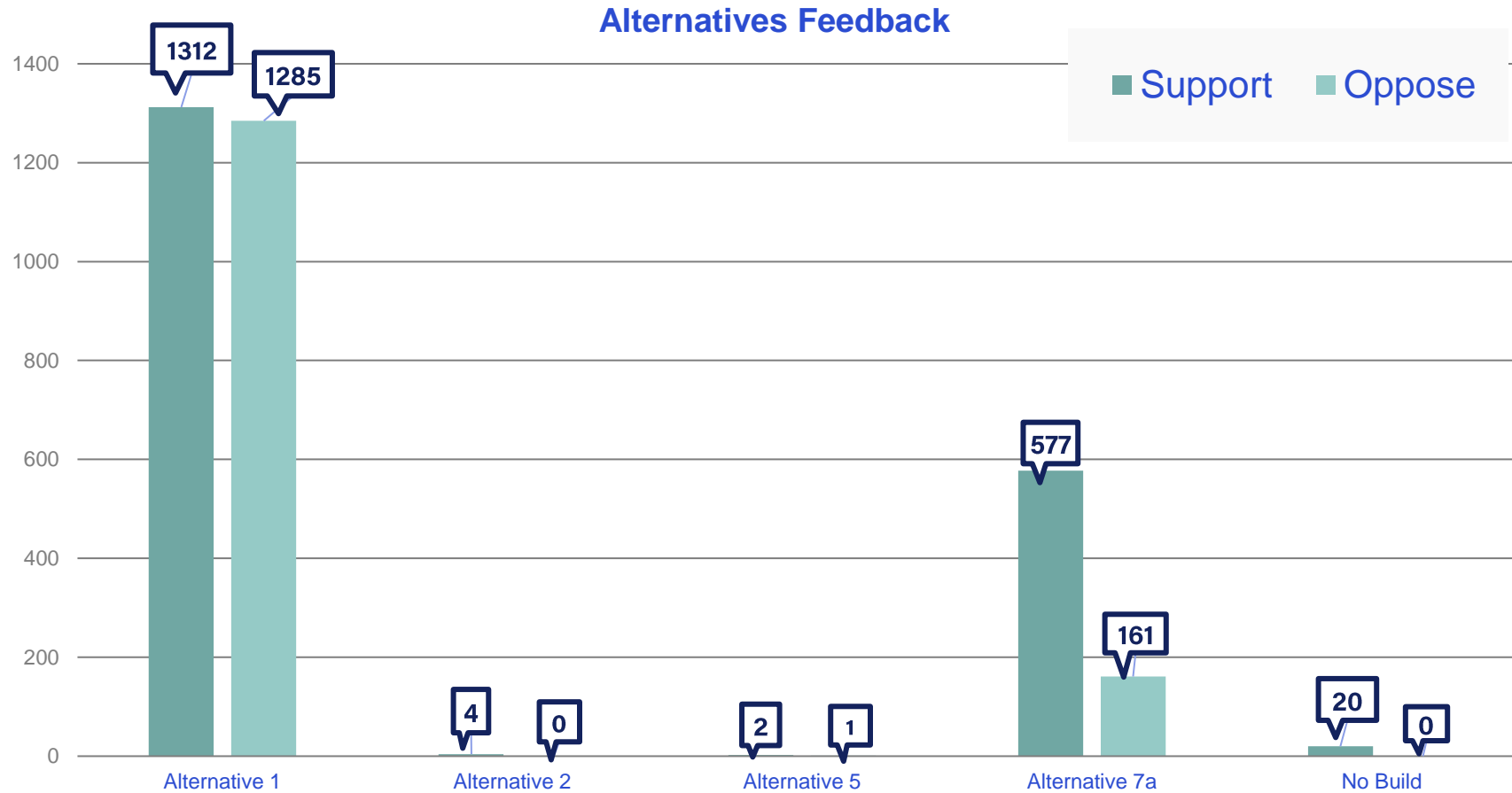
New Location Along Dunes West BLVD. (Alternative 7a)



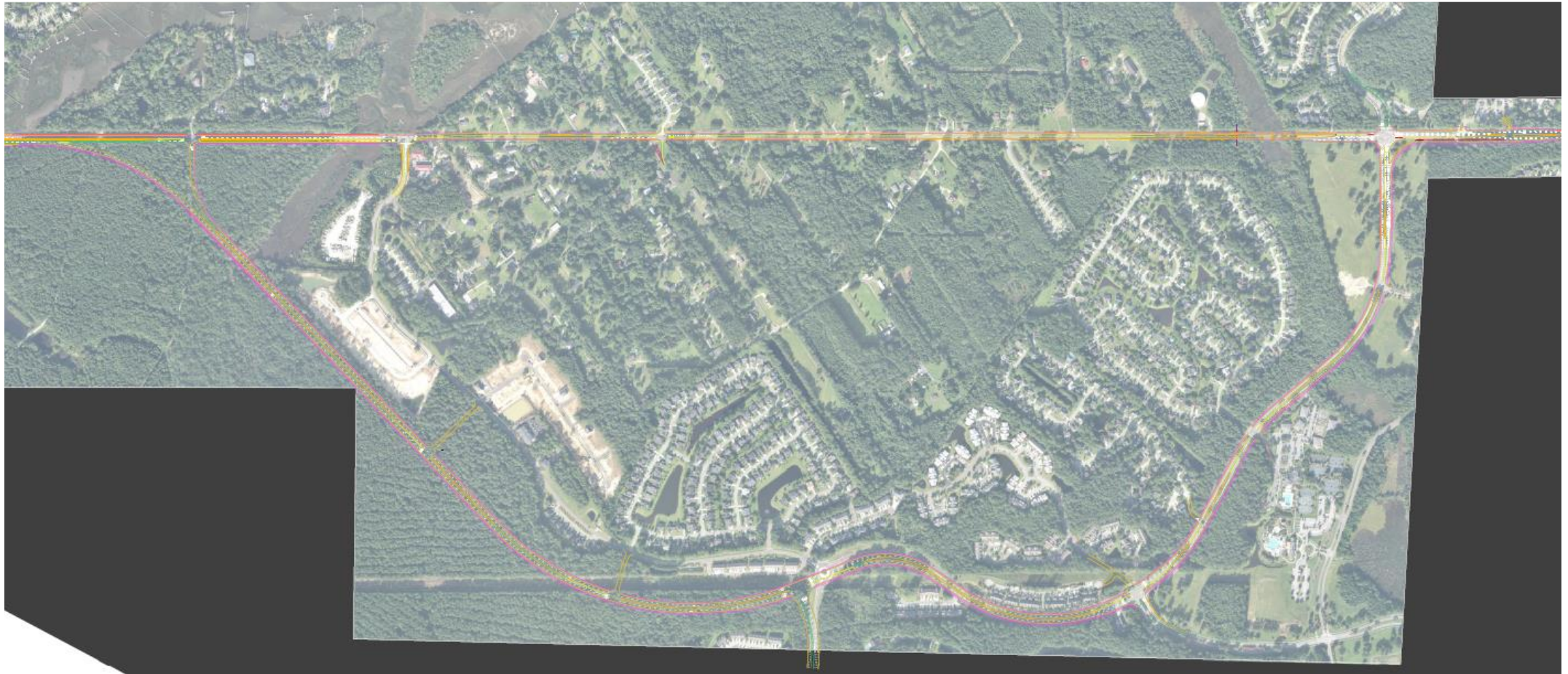
Public Comment Period: August 10 – September 13, 2020

1,563	Web Form Comments	2,889	Total Comments Received	NGOs/Organizations We Heard From <ol style="list-style-type: none">1. African American Settlement Community Historic Commission2. Center for Heirs' Property Preservation3. Charleston Moves4. Charleston Trident Association of Realtors5. Clemson University Professor6. College of Charleston Professor7. Community Action Group for Encouragement8. East Cooper Land Trust9. Heritage Communities Development Corporation10. Historic Charleston Foundation11. Lowcountry Land Trust12. National Trust for Historic Preservation13. Phillips Community Association14. Preservation Society of Charleston15. Research to Action Board16. South Carolina Coastal Conservation League17. Southern Environmental Law Center
69	Hotline Voicemail	1,298	Southern Environmental Law Center Petition Signatures	
1,228	Emails	1,955	Change.org Petition Signatures	
29	Letter/Mail	53	Articles & Op-Eds to Date	

Public Comment Period: August 10 – September 13, 2020



Alternative 7b Walkthrough



Environmental Matrix



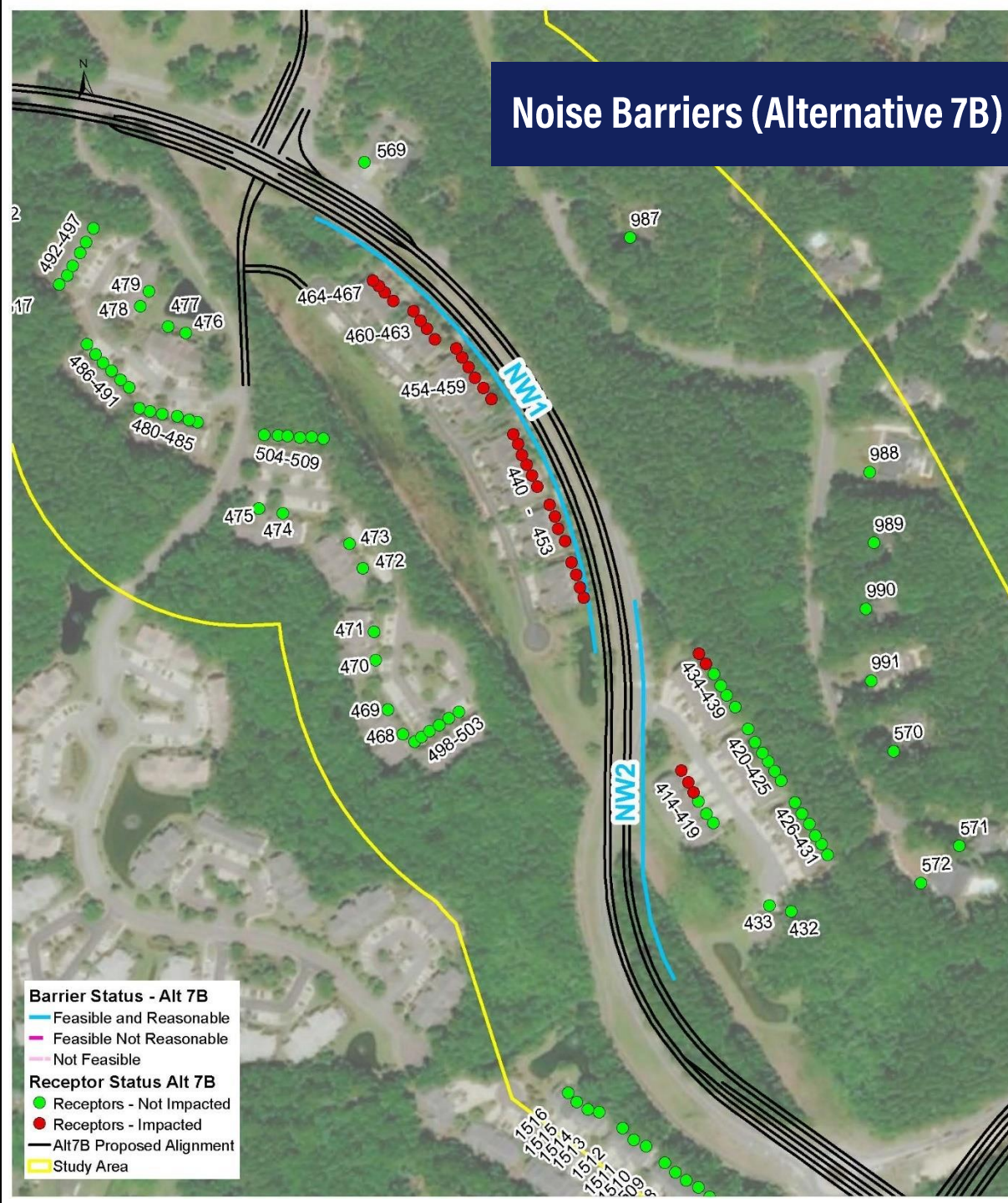
Environmental Matrix: Wetlands

ENVIRONMENTAL SCREENING RESULTS		Alternative 1	Alternative 7a	Alternative 7b (1/21/21)
What are the environmental impacts?				
Wetlands	Tidal (acres)	5.3	5.0	4.7
	Freshwater (acres)	2.9	6.2	6.0
	<i>Wetlands under restrictive covenants</i>			
	Tidal (acres)	0.3	0.5	0.5
	Freshwater (acres)	0.5	3.7	3.2

Environmental Matrix: Noise

ENVIRONMENTAL SCREENING RESULTS		Alternative 1	Alternative 7a	Alternative 7b (1/21/21)
<p>What are the noise impacts? <i>Following the public meetings, the project team will solicit input on noise barriers directly from impacted receivers (individuals/homes) in the corridor.</i></p>				
Noise	Number of impacted receivers			
	Residential	58	100	105
	Recreational	0	1	1
	Churches	0	0	0
	Restaurant Patios	2	2	0
	Reasonable and Feasible Noise Barriers	0	2	2

Noise Barriers (Alternative 7B)



Environmental Matrix: Cultural Resources

ENVIRONMENTAL SCREENING RESULTS		Alternative 1	Alternative 7a	Alternative 7b (1/21/21)
What are the historic and cultural resource impacts?				
Cultural and Historical Sites National Register of Historic Places (NRHP)	Number of archaeological sites	1	2	1
	Phillips Community Cultural Landscape	Potential Adverse Effect	No Adverse Effect	No Adverse Effect
	NRHP Sweetgrass Basket Corridor Traditional Cultural Property	Potential Adverse Effect	Potential Adverse Effect	Potential Adverse Effect
Phillips Community Cultural Landscape	Right-of-Way Impacts (Acres)	4.7	0.6	0.6
	Right-of-Way Impacts (Number of Parcels)	85	2	2
	Relocations (Number of Parcels)	0	0	0

Environmental Matrix: Communities

ENVIRONMENTAL SCREENING RESULTS		Alternative 1	Alternative 7a	Alternative 7b (1/21/21)		Alternative 1	Alternative 7a	Alternative 7b (1/21/21)
What are community impacts?								
Communities	Brickyard/Colonnade	Minor	Minor	Minor	Park West	Minor	Minor to Moderate	Minor to Moderate
	Cardinal Hill	Minor	Minor	Minor	Phillips Community*	Moderate to Major	Minor	Minor
	Dunes West	Minor	Minor to Moderate	Minor	Planter's Pointe	Minor	Minor	Minor
	Gregorie Ferry	Minor	Minor	Minor	Rivertowne	Minor	Minor	Minor
	Horlbeck Creek	Minor	Minor	Minor	Seven Mile*	Minor to Moderate	Minor to Moderate	Minor to Moderate
	Ivy Hall	Minor	Minor	Minor	Cainhoy	No direct effects	No direct effects	No direct effects

*Environmental Justice Communities below the table

Environmental Matrix: Travel Times

EXISTING ALIGNMENT (THRU PHILLIPS COMMUNITY) TRAVEL TIME SUMMARY (MINUTES)								
	2045 No Build		2045 Build Alternative 1		2045 Build Alternative 7a (Bypass Alignment)		2045 Build Alternative 7b (Bypass Alignment)	
	AM	PM	AM	PM	AM	PM	AM	PM
SC 41 Northbound	7	22.4	7.4	8.5	10.2	12.7	7.3	8.4
SC 41 Southbound	37.6	32	7.6	9.8	9.1	9.5	7.8	8.1

BYPASS TRAVEL TIME SUMMARY (MINUTES)							
	2045 Build Alternative 1		2045 Build Alternative 7a (Bypass Alignment)		2045 Build Alternative 7b (Bypass Alignment)		
	AM	PM	AM	PM	AM	PM	
SC 41 Northbound	7.4	8.5	7.4	11.8	8.3	10.6	
SC 41 Southbound	7.6	9.8	8.6	9.9	11.1	11.6	

Environmental Matrix: Cost

ENVIRONMENTAL SCREENING RESULTS		Alternative 1	Alternative 7a	Alternative 7b (1/21/21)
What is the estimated cost? (millions)				
Cost	Right-of-Way Acquisition	\$13,580,000	\$15,550,000	\$14,970,000
	Construction	\$98,160,000	\$129,040,000	\$126,940,000
	Utility Relocations	\$12,450,000	\$9,320,000	\$9,620,000
	Wetland and Stream Mitigation	\$6,020,000	\$6,350,000	\$6,270,000
	Community Mitigation	\$10,000,000	\$5,000,000	\$5,000,000
	Potential Noise Barriers	\$0	\$1,200,000	\$730,000
	Engineering	\$7,852,800	\$10,323,200	\$10,155,200
	CE&I	\$9,816,000	\$12,904,000	\$12,694,000
	County Management	\$1,000,000	\$1,000,000	\$1,000,000
	Total Cost	\$158,878,800	\$190,687,200	\$187,379,200

Post-Comment Period – Additional Analysis



Horlbeck Creek Community Concept

Presented to the project team in September 2020 for review.

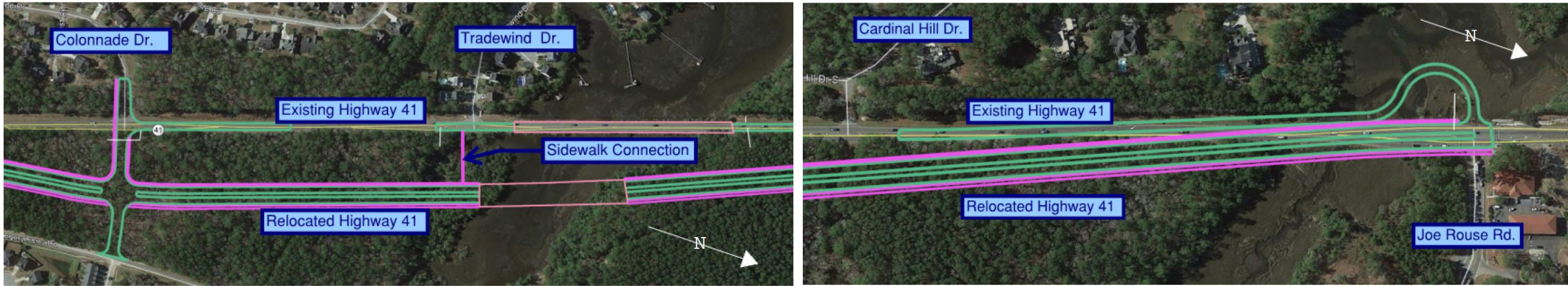
The concept included:

- Retaining Highway 41 as a frontage/access road
- Constructing a five-lane section of Highway 41 on a new alignment
- Extension of the frontage road from Colonnade Drive to Joe Rouse Road providing neighborhoods access to signalized intersections.
- A roundabout at the intersection of the frontage road and Colonnade Drive.



Horlbeck Creek Concept

Addressing Design Constraints



- Eliminated the roundabout at Colonnade due to ROW impacts
- Shifted the alignment of new Highway 41 to provide more spacing between intersections.
- On the frontage road, removed the causeway across Horlbeck Creek and the marsh and replaced with a 2-lane bridge
- Shifted the frontage road alignment to the west with a jug handle

Horlbeck Creek Concept Impacts

Impacts	Original Design	Frontage Road Concept	Difference
Freshwater Wetland	1.1 acres	3.8 acres	+2.7 acres
Tidal Wetland (Marsh)	1.0 acres	1.5 acres	+0.5 acres
Right of Way	7.3 acres	28.7 acres	+21.4 acres
Approximate Construction Cost	\$25.2 million	\$35.8 million	+\$10.6 million

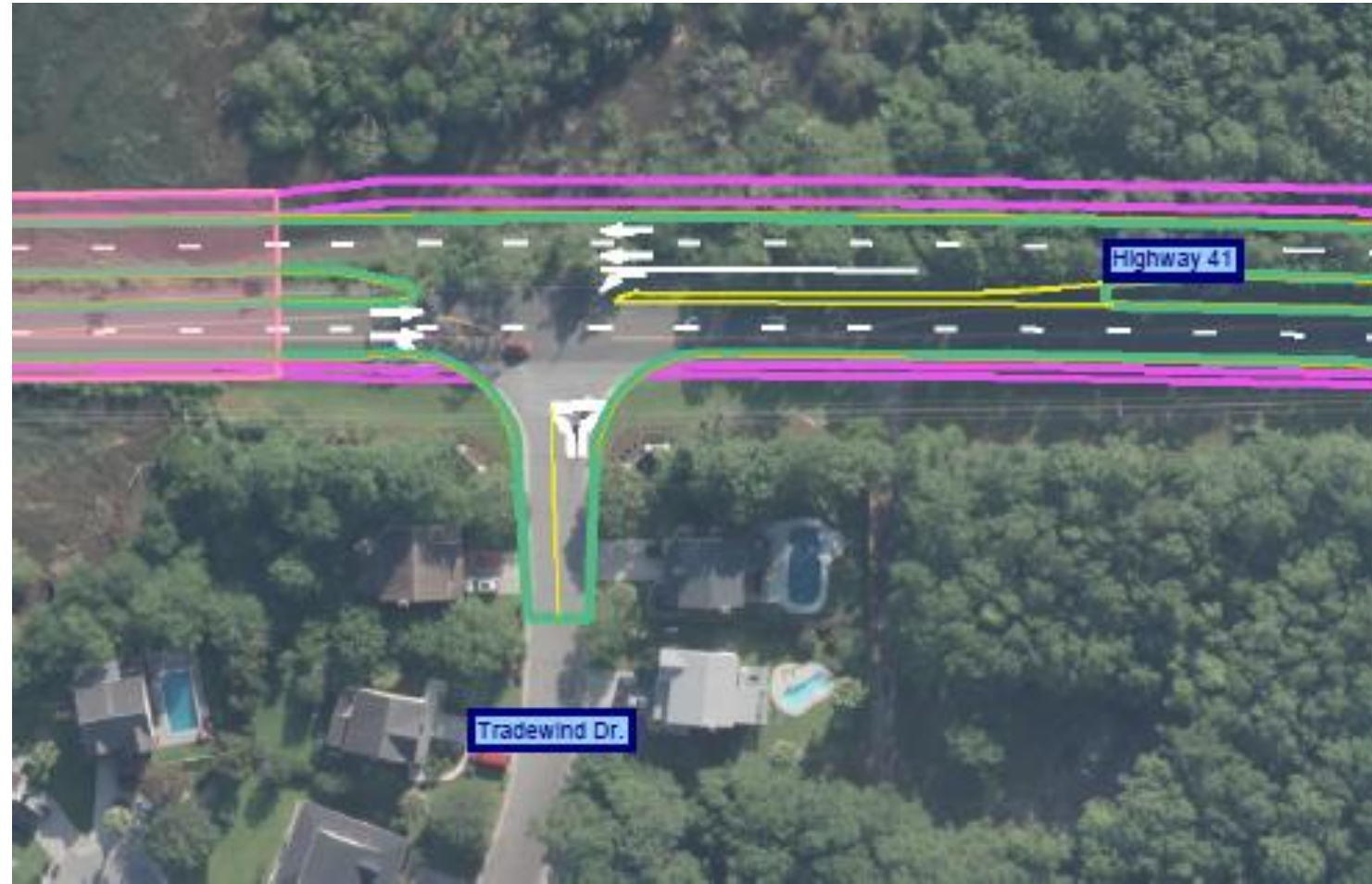
Horlbeck Creek Concept Recommendation

Community concept:

- Adds 3 acres of wetland impacts
- Adds \$10.6 million to the project
- Does not meet USACE requirements

Enhancements could include:

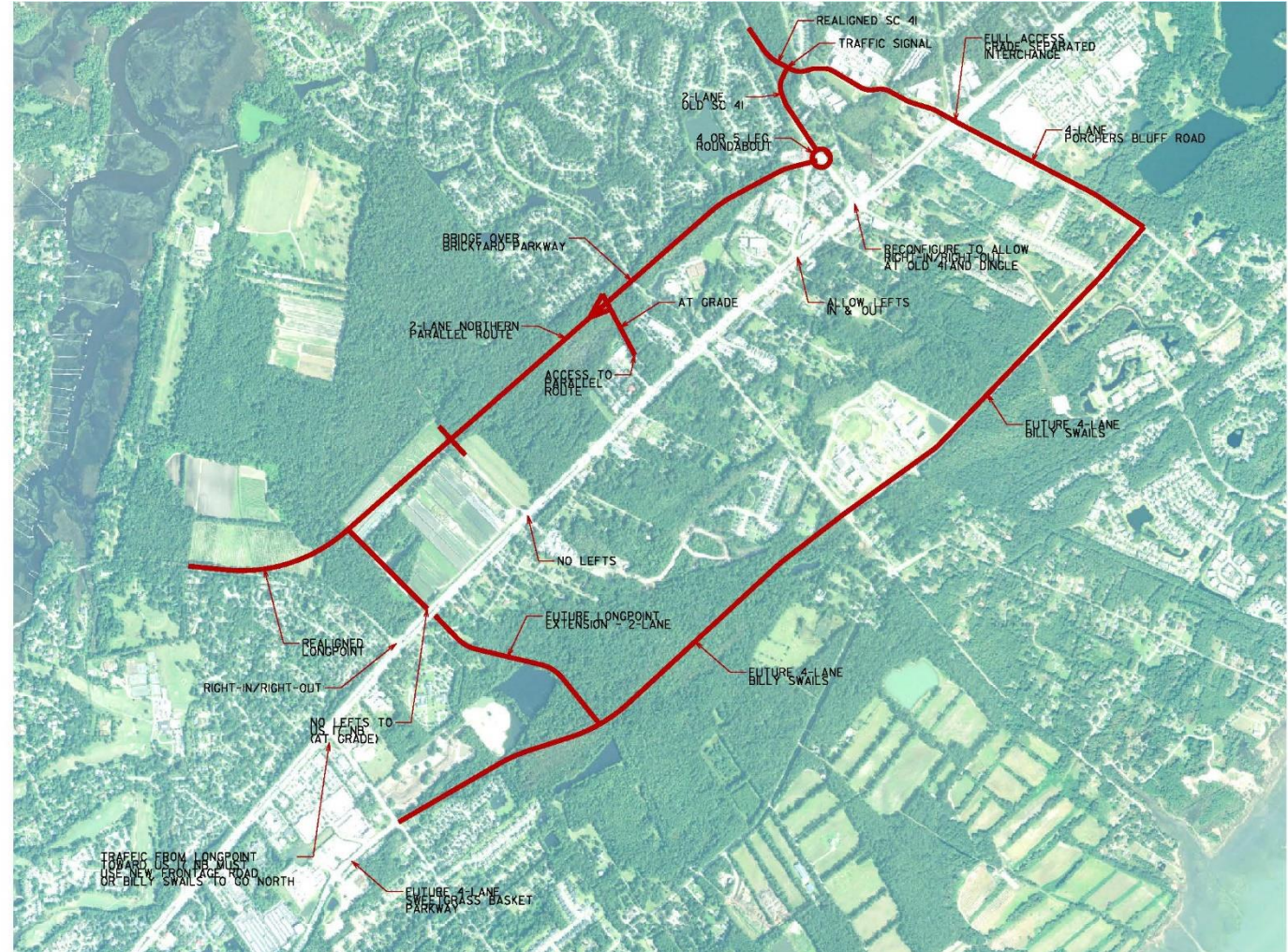
- Dedicated left- and right-hand turn lanes out of Horlbeck Creek
- U-turn access at Colonnade Drive
- Center-lane refuge for left turns exiting Tradewind Drive



CAGE Community Concept

Concept proposes to reduce traffic on US 17 to eliminate future widening. Concept includes:

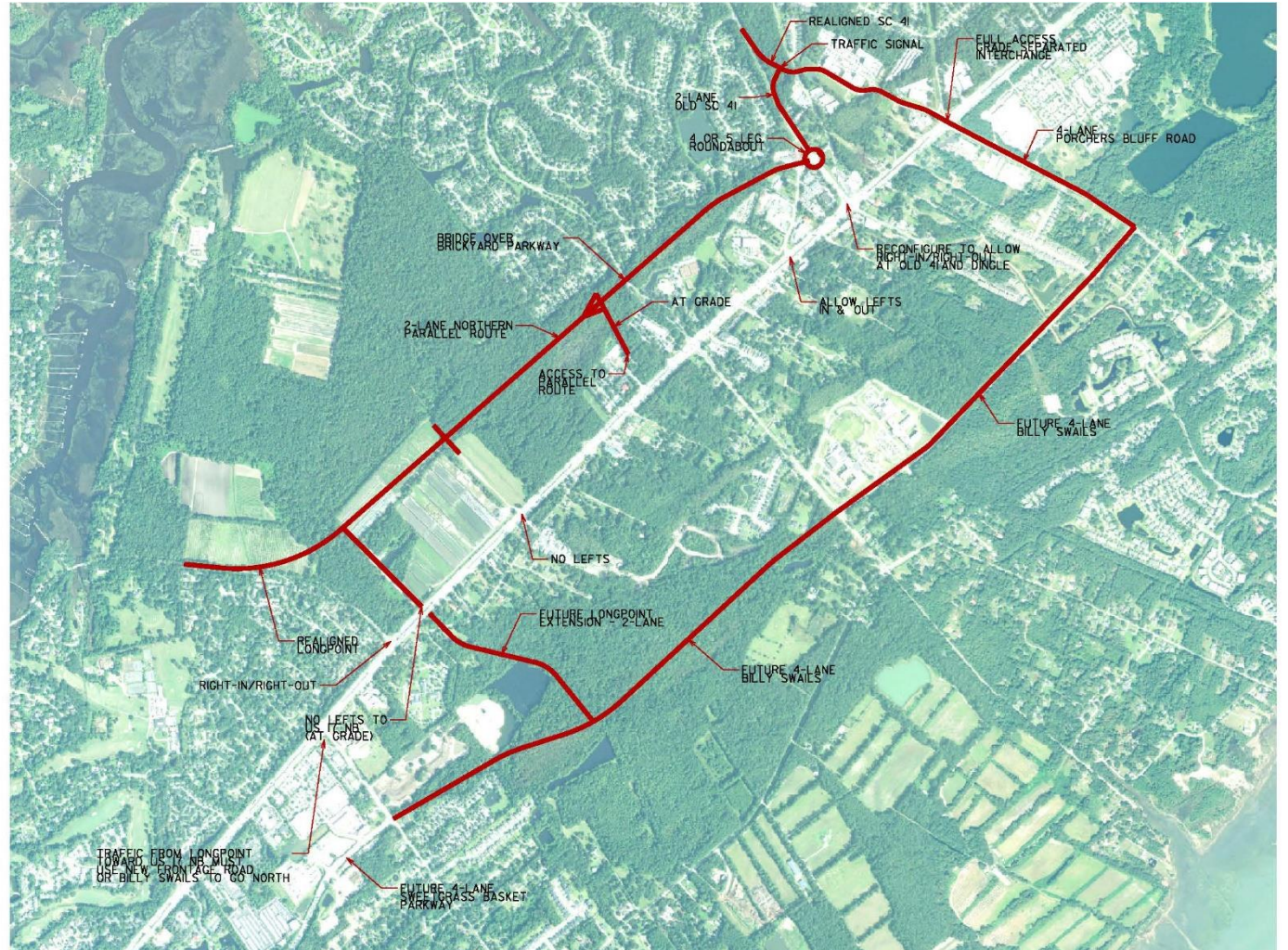
- Grade Separated Interchange at the Intersection of US 17 and Porchers Bluff Road
- Converting Existing US 17 and SC 41 Intersection to Right In/Right Out Operation
- Creating Full Access from US 17 to the Old SC 41 Connector
- Constructing a Parallel Frontage Road between SC 41 and Long Point Road
- Constructing a Frontage Road Connector to US 17
- Widening Sweetgrass Basket Parkway-Billy Swails Boulevard to 4 Lanes from SC 517 to Porchers Bluff Road



CAGE Community Concept

Impacts include:

- **With Left Turns Prohibited:** 8% of traffic is reduced on Highway 17
- **Allowing Left Turns:** 4% of traffic is reduced on Highway 17
- *Traffic volume is not impacted on the widened SC 41 between Winoing Way/SC 41 intersection and the Wando River.*
- *Widening Billy Swails does not attract additional trips and does not approach the capacity of a two-lane roadway.*
- *Boone Hall has since been dedicated to a conservation trust and will not be developed.*
- *Impacts to wetland corridor and conservation easement*
- *ROW and controlled access for Porchers Bluff interchange*



This alternative does not divert enough traffic to Billy Swails Boulevard to provide relief to US 17 between Long Point Road and SC 41.

Next Steps & Milestones



Immediate Next Steps

Week of February 15th

- Chairman Pryor, Councilman Sass, Councilman Chapman Update

Early March, 3/4/21

- County Council Committee Project Update meeting
- Comment/ public input summary handout

Community and Stakeholder Meetings

- Presentation approaches and engagement based on direction from County Council and Town of Mt. Pleasant Stakeholders

Agency Updates

Conversations led by the Consultant Team

- SCDOT – To be scheduled
- USACE – Scheduled, 2/12/21

Community Meetings with Leaders Conversations led by Cal and the Consultant Team

- CAGE
- Horlbeck Creek
- Phillips Community
- Dunes West
- Park West

Mt. Pleasant Town Council

Stakeholder Working Group – if appropriate

Key Schedule Milestones

- ✓ Council Direction on Recommended Alternative – **March 2021**
-  Prepare 30% Design for Recommended Alternative – **April to July 2021**
-  Finalize Environmental Report and Permit Application – **July 2021**
-  Submittal of Environmental Report and Permit Application – **August 2021**
-  Anticipated Environmental Approval and Permit Issuance – **July 2022**
-  ROW Plans Approved – **Summer 2022**
- ✓ ROW Complete – **Summer/Fall 2024**
-  Begin Construction – **Early 2025**