

BURNT STORE ROAD PROJECT DEVELOPMENT & ENVIRONMENT (PD&E) STUDY

From Van Buren Parkway to Charlotte County Line

Lee County, Florida

Financial Project ID No: 436928-1-22-01

October 2024

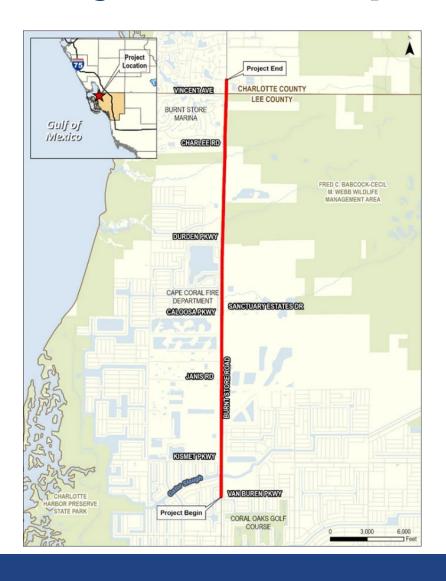


Agenda

- Project introduction and updates
- Vincent Avenue intersection analysis
- Continuous Green "T" (CGT) intersection recommendation and details
- CGT video
- Study schedule
- Action items
- Contact information



Project Description



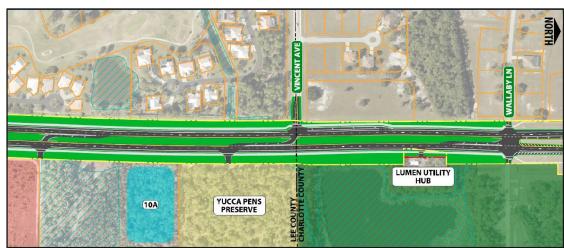
 Project Limits: Van Buren Parkway to Charlotte County Line Includes 0.25-mi segment to tie into existing 4-lane typical section

5.7 miles

- Project Manager: Steven A. Andrews
- Class of Action: Type 2 Categorical Exclusion
- Purpose: Capacity improvements; this is the last remaining unimproved segment of the roadway's 18-mile length from Pine Island Road to U.S. 41
- Key Stakeholders: Lee County, Charlotte County, City of Cape Coral
- Long Range Estimate (LRE): \$106.7 M
- Status: Public workshop held and presented 2 build alternatives;
 concept plan adjustments; Vincent Avenue intersection analysis
- Considerations: Seasonal roadway flooding, pending developments, Charlotte Co tie-in with utility conflict, adjacent state and county conservation lands

Project Updates

- Planning consistency met
 - Design-phase funding encumbered for 60% plans and design build criteria package/request for proposal (RFP) development
 - Design will overlap with completion of PD&E
- Lee County will lead Design Build procurement and management, right-of-way acquisition



Directional median opening presented at public workshop 2022

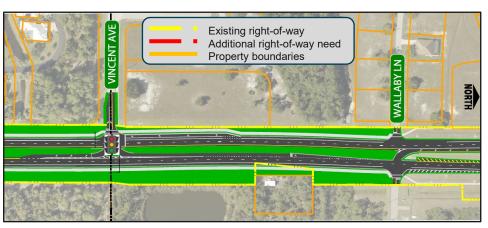
- Vincent Avenue intersection (September 2022 to present)
 - Directional median opening presented at public workshop in Aug./Sept. 2022
 - Many public comments received expressed dissatisfaction with this intersection control
 - Desire for left/northbound turn option from Burnt Store Marina
 - Vincent Avenue as the critical intersection
 - Concern about traffic opting to drive through Burnt Store Lakes
 - Traffic analysis of other intersection control options and presentation to Lee County
 - Updated traffic count and crash data collected
 - Revised traffic analysis of intersection control options
 - Viable intersection controls identified
 - Bi-county and MPO coordination and agreement on preferred option

Vincent Avenue Intersection Analysis

- Updated traffic data (March 2024 counts) and crash data (2019-2023) analyzed
- Design year 2045
- Design vehicle WB-62 FL (tractor-trailer)
- Burnt Store Road design speed 50 mph
- Intersection Control Evaluation (ICE)
 - Capacity Analysis at Junctions (CAP-X)
 - Safety performance for Intersection Control Evaluation (SPICE)
 - SIDRA
 - Synchro
- 3 viable intersection control options identified
 - Restricted Crossing U-Turn (RCUT)
 - Traffic signal
 - CGT
- Roundabout was not considered viable due to:
 - High volume/capacity (V/C) ratio for design year PM peak hour
 - Need for right-of-way for 2-lane approach roundabout
 - Future improvements could not support a 3-lane approach roundabout



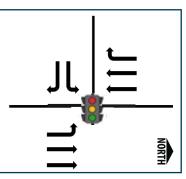
Vincent Avenue Intersection Treatments



• viable



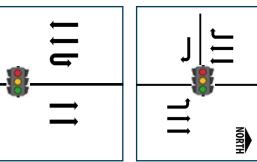






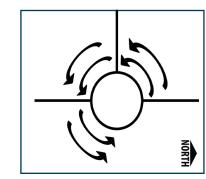
Signalized RCUT

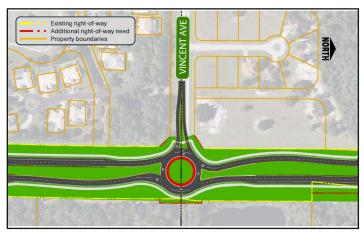
viable



Roundabout

not viable







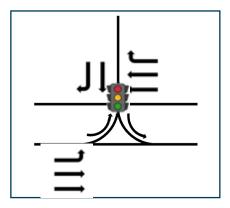
Vincent Avenue Intersection Analysis

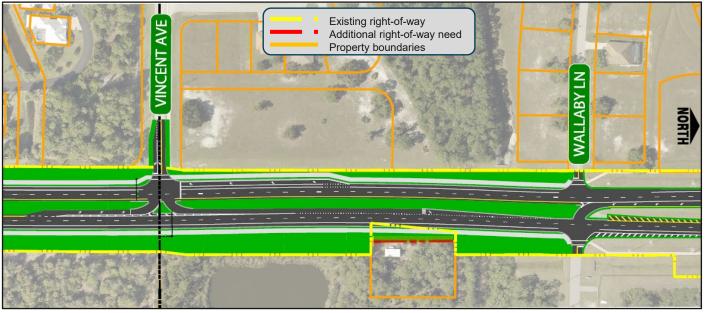
Intersection Control	Viable?	Pros	Cons
CGT	Yes	 Meets V/C requirements Level of Service (LOS) B in design year PM peak Provides free flow for northbound traffic No additional right-of-way needed 15% less fatalities and injuries as compared to traffic signal 	Lefts out of Wallaby Lane will need to turn right and make U-turns south of Vincent Avenue (median modification)
Traffic Signal	Yes	Meets V/C requirementsNo additional right-of-way needed	 More delay in design year PM peak (LOS C) as compared to CGT Stop condition for all movements
Signalized RCUT	Yes	 Meets V/C requirements Ranks higher for safety compared to CGT or Traffic Signal 	 Requires lefts out of Vincent Avenue to turn right and make U-turns south of Vincent Avenue (public expressed opposition). Requires additional right-of-way to accommodate U-turns by boat trailers and heavy vehicles
Roundabout	No	 Ranks higher for safety compared to CGT or traffic signal since it minimizes conflict points 	 High V/C ratio for northbound and southbound movements during design year PM peak Not consistent with the corridor traffic control Requires additional right-of-way which would become "throw-away" in ultimate condition

CGT Details

How It Functions

- Northbound traffic on Burnt Store Road would pass through the intersection without stopping (no signal)
- Southbound traffic on Burnt Store Road controlled by a traffic signal
- Left-turn traffic from Vincent Avenue controlled by traffic signal and uses a channelized receiving lane to merge onto northbound Burnt Store Road
- Left-turn movement from Vincent Avenue controlled by traffic signal





CGT Details

Suitable Intersection Conditions

- 3-legged intersections
- Intersections that lack driveways on major street (Burnt Store Road) opposite the side street (Vincent Avenue)
- Intersections with heavy through traffic volumes on major street (Burnt Store Road)
- Intersections with moderate to low left-turn traffic volumes from side street (Vincent Avenue)
- Intersections with limited pedestrian crossing of major street (Burnt Store Road) or with nearby pedestrian crossing



CGT Details

Benefits

- Free-flow of northbound Burnt Store Road traffic
 - Reduces corridor travel time
 - More green light time for other movements
- Channelization of left-turn vehicles from Vincent Avenue reduces potential for angle crashes
- No additional right-of-way needed
- LOS B in design year PM peak
- 15% less fatalities and injuries as compared to traffic signal

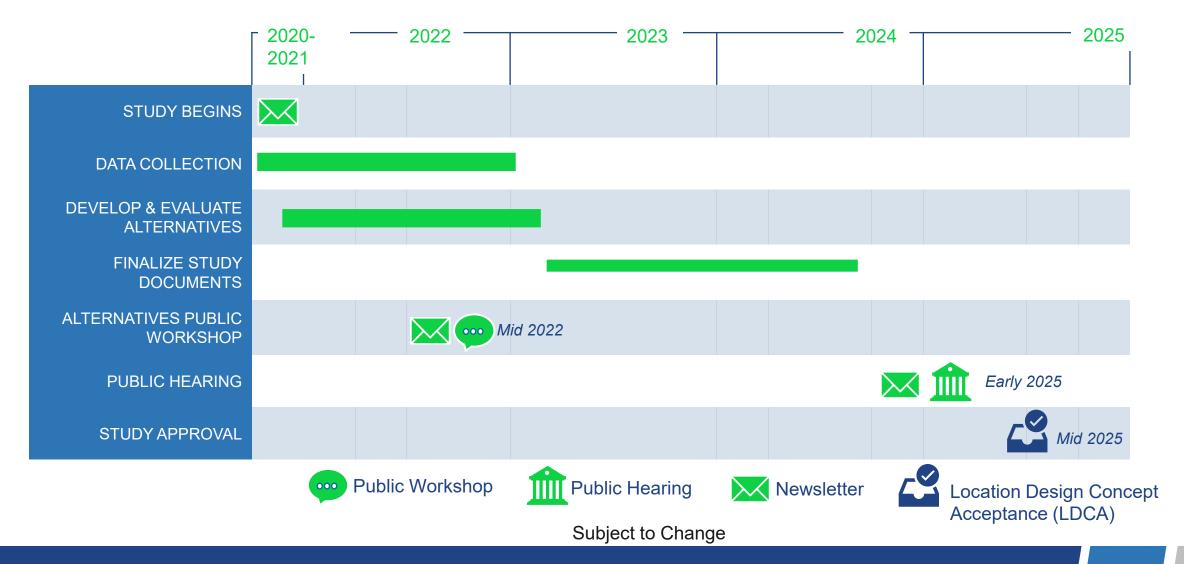


CGT Video

2-minute CGT operation video

CGT Video

Project Schedule



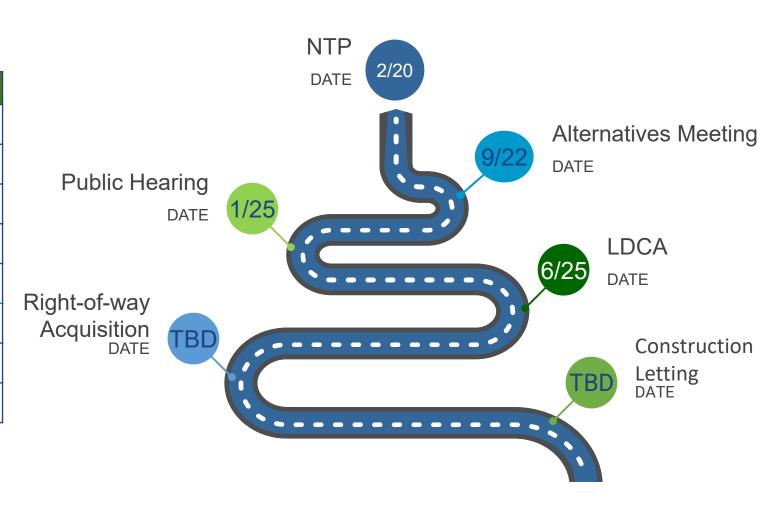
Project Timeline

Timeline

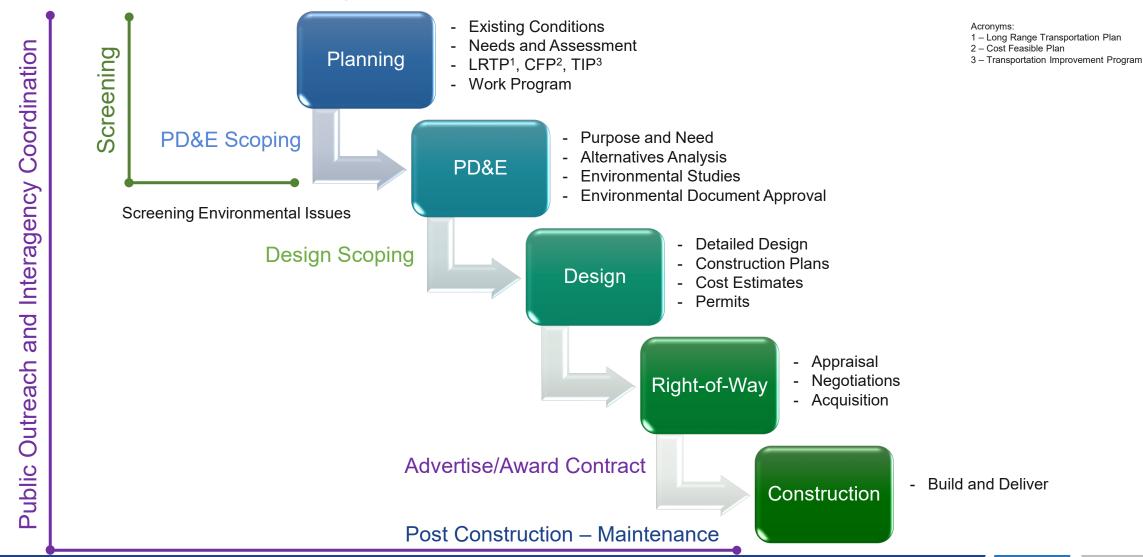
Date	Milestone
February 2020	PD&E Start- Notice To Proceed (NTP)
N/A	Corridor Public Workshop
N/A	Alignment Public Workshop
N/A	Public Alternatives Scoping Meeting
8/30/22 and 9/1/22	Alternatives Public Workshop #1
N/A	Alternatives Public Workshop #2
January 2025	Public Hearing
Tentative June 2025	LDCA

Design is currently funded to 60%; R/W and Construction currently not funded.

Schedule subject to change



Transportation Project Development Process



Action Items

- Continued FDOT coordination with local agencies on CGT
- Engineering and environmental documentation completion
- Documents will be made available to public 3 weeks before public hearing depicting preferred alternative
- Public hearing January 2025
- Finalization of study documents and obtain Office of Environmental Management approval
- Design phase started

Contact Information

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http://swflroads.com/project/436928-1