SR 994/Quail Roost Drive PD&E Study

From West of SW 137th Ave to East of SW 127th Ave
FM 445804-1-22-01
ETDM No. 14429

Alternatives Public Workshop

October 18, 2022

Traducción

Si usted necesita traducción durante la reunión por favor comuníquese conmigo. Usted puede presionar el botón de mano levantada, o puede pedir ayuda de traducción a través del chat y un miembro de nuestro equipo lo asistirá.

Rules of Engagement

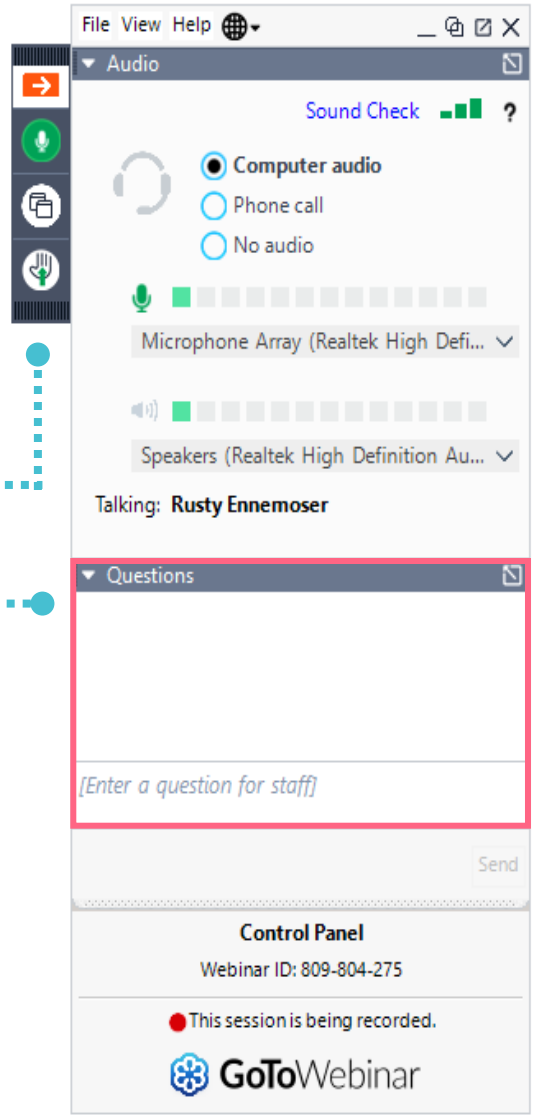
Virtual Attendees are **Automatically Muted** to Start the Meeting

Providing Comments During Open Discussion Period:

- In-person attendees form a line
- Call 1-800-418-0524
- **Raise hand during comment period, you will be unmuted in order of raising hands**
- Submit Comments via the “Questions” Box

Get Technical Assistance

- **Call 1-800-418-0524**



Title VI Non-Discrimination Compliance

Public participation at this meeting is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status.

Persons wishing to express their concerns relative to FDOT compliance with Title VI may do so by contacting:

Florida Department of Transportation
District Six Office
District Six Title VI Coordinator
Nicholas Danu, P.E.
1000 NW 111th Avenue
Miami, Florida 33172
Nicholas.Danu@dot.state.fl.us
(305) 470-5219

Florida Department of Transportation
Central Office
State Title VI Coordinator
Aldrin T. Sanders
605 Suwannee Street
Tallahassee, Florida 32399
Aldrin.Sanders@dot.state.fl.us
(850) 414-4764

All inquiries or concerns will be handled according to FDOT procedure and in a prompt and courteous manner.

NEPA Assignment Statement

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022, and executed by the Federal Highway Administration and FDOT.

Elected Officials

We would like to recognize any federal, state, county, or city officials who may be present.

Please stand or select the raise hand feature on the control panel.

Agenda

1

Project Presentation

Interactive Polling Sessions

2

Group Q&A Session (with Panelists)

3

Optional: Individual Mapping

Presenters / Panelists

Project Manager

Elsa N. Riverol, P.E.

FDOT

Project Manager

Alina Fernandez, P.E.

GANNETT FLEMING

Engineering

Carlos Cejas, P.E.

GANNETT FLEMING

Environmental

Courtney Arena

GANNETT FLEMING

Purpose of Alternatives Workshop

01.

Share information about the proposed improvements

02.

Provide an opportunity for public input

03.

All public comments will become part of the project's public record

Polling – Slido Poll Participation Instructions

Smart Phone

Scan QR Code

Note: Today's polling results will help provide preliminary input to the team but are not the only factor used in developing potential alternatives. Engineering, environment, cost, and other factors will also help the study team develop potential alternatives that may or may not advance to the next phase of the project.

What is a PD&E Study?

Engineering Analysis

Safety

Traffic Operations

Access Management

Right-of-Way

Structures

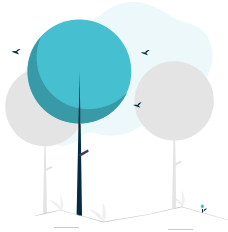
Drainage

Utilities

Lighting

Landscaping

Cost Estimates



Environmental Analysis

Sociocultural Effects

- Mobility
- Land Use (schools, churches, businesses, etc.)
- Relocation Potential

Cultural Resources

- Archaeological and Historic Resources
- Recreational

Natural Resources

- Wetlands
- Wildlife and Habitat
- Permits

Physical Effects

- Noise
- Air Quality
- Contamination

Public Engagement Program

Public Involvement Plan

Kick-Off Meetings

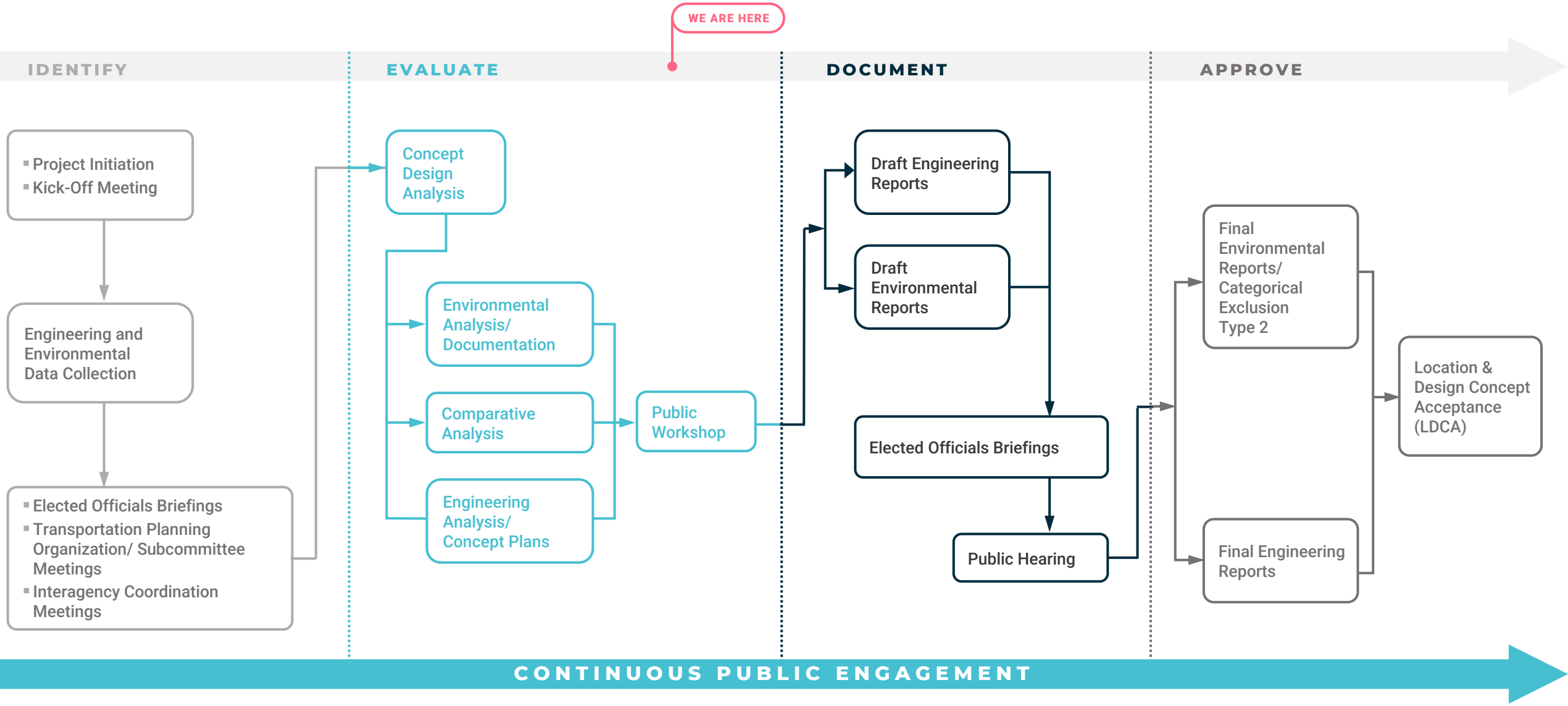
Elected Officials Briefings

Agency Meetings

Alternatives Workshop

Public Hearing

PD&E Study Process



Project Location

SR 994 • SW 200th St • Quail Roost Drive

from West of SW 137 Ave (MP 3.750) to East of SW 127 Ave (MP 5.430)

Adjacent Projects

1 FDOT Project FM 443907-1
SR 994/Quail Roost Dr from Krome Ave to SW 137th Ave
Resurfacing
Construction starts 06/2023
Completion by by 03/2024

2 MDC Project 20040343
SW 137th Ave from US-1 to Quail Roost Dr
Widening/new construction of 2 lane road
Completed in 2022

3 MDC Project LRTP PW168
SW 137th Ave from US-1 to SW 184th St
Widening to 4 lanes
Planning Phase

4 MDC Project 20180004
SW 127th Ave & SW 200th St
Intersection improvements to add NB right turn lane
Design completed 11/2020
Construction starts 07/2022

5 FDOT Project FM 429341-3
SR 994/Quail Roost Dr from SW 127th Ave to SW 113th Ave
Resurfacing
Completed in 2022

6 MDC Project 20200285
SW 200th Street from US-1 to Quail Roost Dr.
Widening to 4 lanes and New Shared Use Path
Construction starts 2026

Purpose and Need

Safety

Improve Safety Conditions and Emergency Evacuation and Response Times

84 crashes per year (2015-2019)

Three recent fatal crashes (2016, 2019, 2021)

Five locations in High Crash Spot List

One segment in High Crash Segment List (MP 4.075 to MP 4.961)

Capacity
(Transportation Demand)

Improve Operational Conditions and Accommodate Projected Travel Demand

Multiple segments operating at LOS F

Future conditions anticipated to worsen if no improvements implemented

Modal
Interrelationships

Enhance Mobility Options and Multi-Modal Access

No designated bicycle lanes

Non-continuous sidewalks

Polling – Slido Poll Participation Instructions

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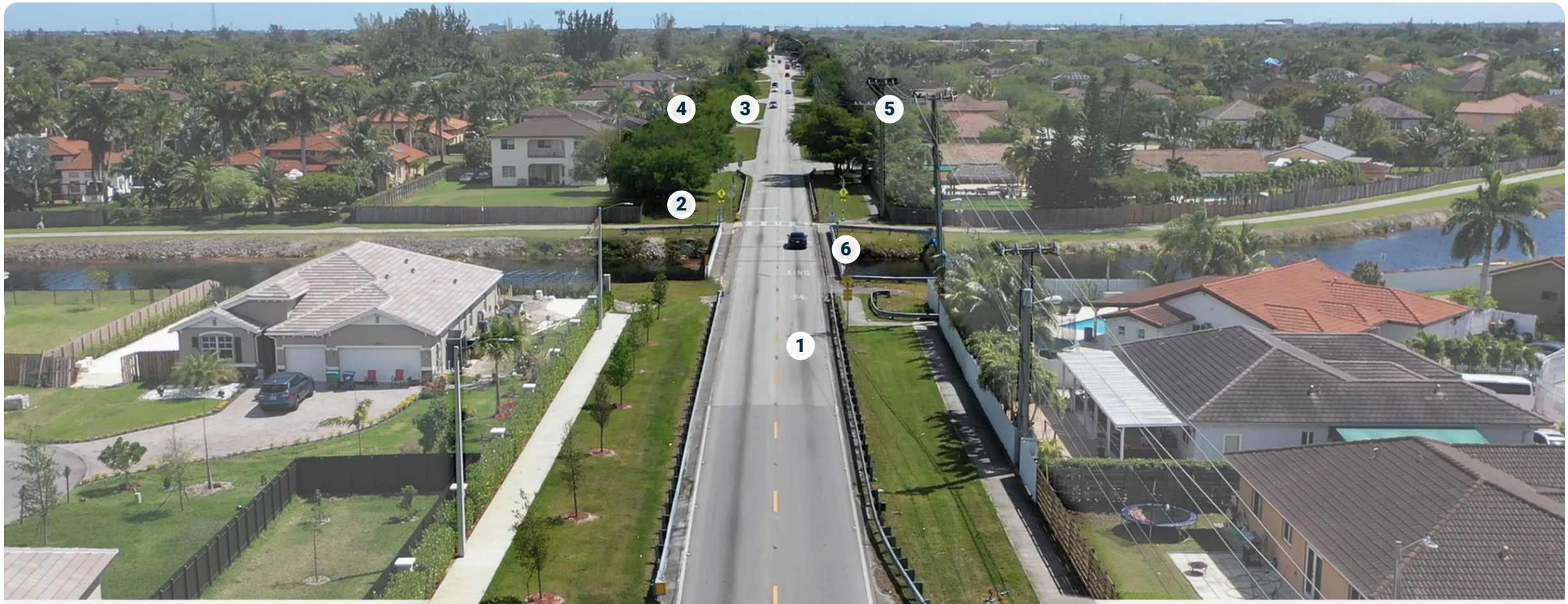
Existing Roadway/Typical Section



1. Two-lane undivided roadway
2. Black Creek Trail Crossing (at-grade mid-block crossing)
3. Missing Sidewalks

4. Mature Landscaping
5. Utilities (not always in back of SW)
6. Bridge over Black Creek Canal

Safety Analysis (Crash Data)

Corridor Wide Crash Summary (2015 – 2019)
422 Crashes
139 Injury Crashes (33%), 2 Pedestrian/Bicyclist Crashes (< 1%)
2 Fatal Crashes (< 1%)

Leading Crash Types	2015	2016	2017	2018	2019	5-Year Total	%
Rear End	33	37	47	42	42	201	48%
Angle	13	22	24	18	20	97	23%
Left Turn	6	10	5	9	10	40	10%
Sideswipe	5	3	4	11	9	32	8%

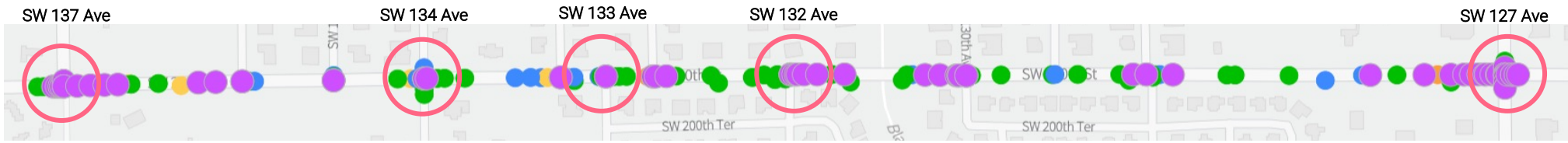
FDOT High Crash List
High Crash Segment (All five years)
5 High Crash Spots (SW 137 Ave, SW 134 Ave, SW 133 Ave, SW 132 Ave, SW 127 Ave)

Corridor Wide Crash Summary (2020 – 2021)
156 Crashes
39 Injury Crashes (25%), No Pedestrian/Bicyclist Crashes
1 Fatal Crash (< 1%)

Leading Crash Types	2020	2021	2-Year Total	%
Rear End	37	31	68	41%
Left Turn	22	14	36	22%
Sideswipe	9	6	15	9%
Angle	6	9	15	9%

Fatal Crashes (2015 – 2021)
2016 – 1 Left Turn crash at SW 132 Ave
2019 – 1 Angle crash at SW 134 Ave
2021 – 1 Left Turn crash at SW 134 Ave

Crash Data per Intersection (High Crash Locations)

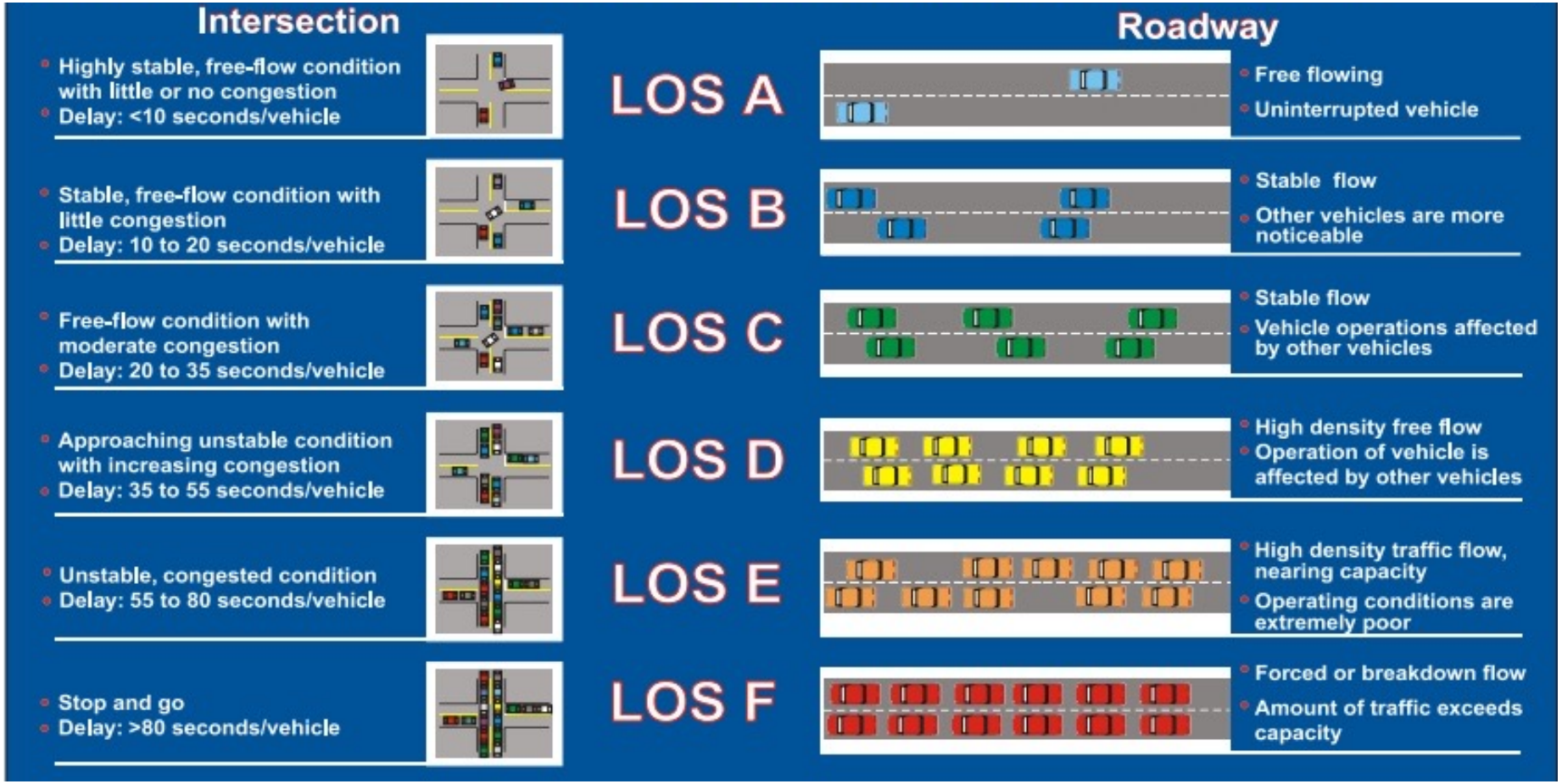


High Crash Intersection		2015 – 2019 Crash Data (FDOT CAR)		2020 – 2021 Crash Data (Signal 4)	
Intersection / Segment Location	**Mile Posts (MP)**	**Number of Crashes**	**Leading Crash Types**	**Number of Crashes**	**Leading Crash Types**
SW 137 Avenue	4.050 to 4.100	52	Rear End (65%) Angle (11%)	23	Rear End (57%) Angle (17%)
SW 134 Avenue	4.300 to 4.360	76	Angle (58%) Rear End (15%) Left Turn (12%)	38	Angle (61%) Rear End (16%) Other (11%) Left Turn (8%)
SW 133 Avenue	4.430 to 4.490	9	Rear End (67%) Angle (11%) Left Turn (11%)	6	Angle (50%) Rear End (33%) Other (17%)
SW 132 Avenue	4.560 to 4.610	36	Rear End (69%) Fixed Object (14%) Angle (6%)	18	Rear End (50%) Angle (17%) Sideswipe (11%)
SW 127 Avenue	5.070 to 5.120	130	Rear End (37%) Angle (25%) Left Turn (16%) Sideswipe (15%)	42	Rear End (41%) Angle (31%) Sideswipe (12%)

Level of Service (LOS)

Level of Service is a measure of traffic operational conditions. Six levels of service are defined for each type of roadway section and are given letter designations from A to F, with A representing the best operating conditions and F representing the worst operating conditions.

A Level of Service D or better is required for a new design



Level of Service / Travel Time / Delay – AM Peak Period

Legend: ≤ LOS C | LOS D | LOS E | LOS F

Level of Service / Travel Time / Delay – PM Peak Period

Legend: ≤ LOS C | LOS D | LOS E | LOS F

Existing Bridge (870633) Over Black Creek Canal

- 3-span structure built in 1962 - State Historic Preservation Office Coordination Required
- Functionally Obsolete
- Overhead electric and water line on south side
- Trail crossing on east end
- Substandard Vertical Clearance:
  - Existing VC = 4.2 ft < 4.5 ft Required

All alternatives (except for No-Build) propose bridge replacement.

Existing Deficiencies

Alternatives Considered

✓ **No-Action Alternative**

2-Lane Undivided

✗ **Transportation Systems Management and Operations (TSM&O) Alternative**

Turn lanes at intersections, signal at SW 134th Ave, signal optimization.

Not viable – transitioned to Build Alternative 1

✓ **Build Alternative 1**

2-Lane with 16.5-ft raised median/turn lanes and Signal at SW 134th Ave

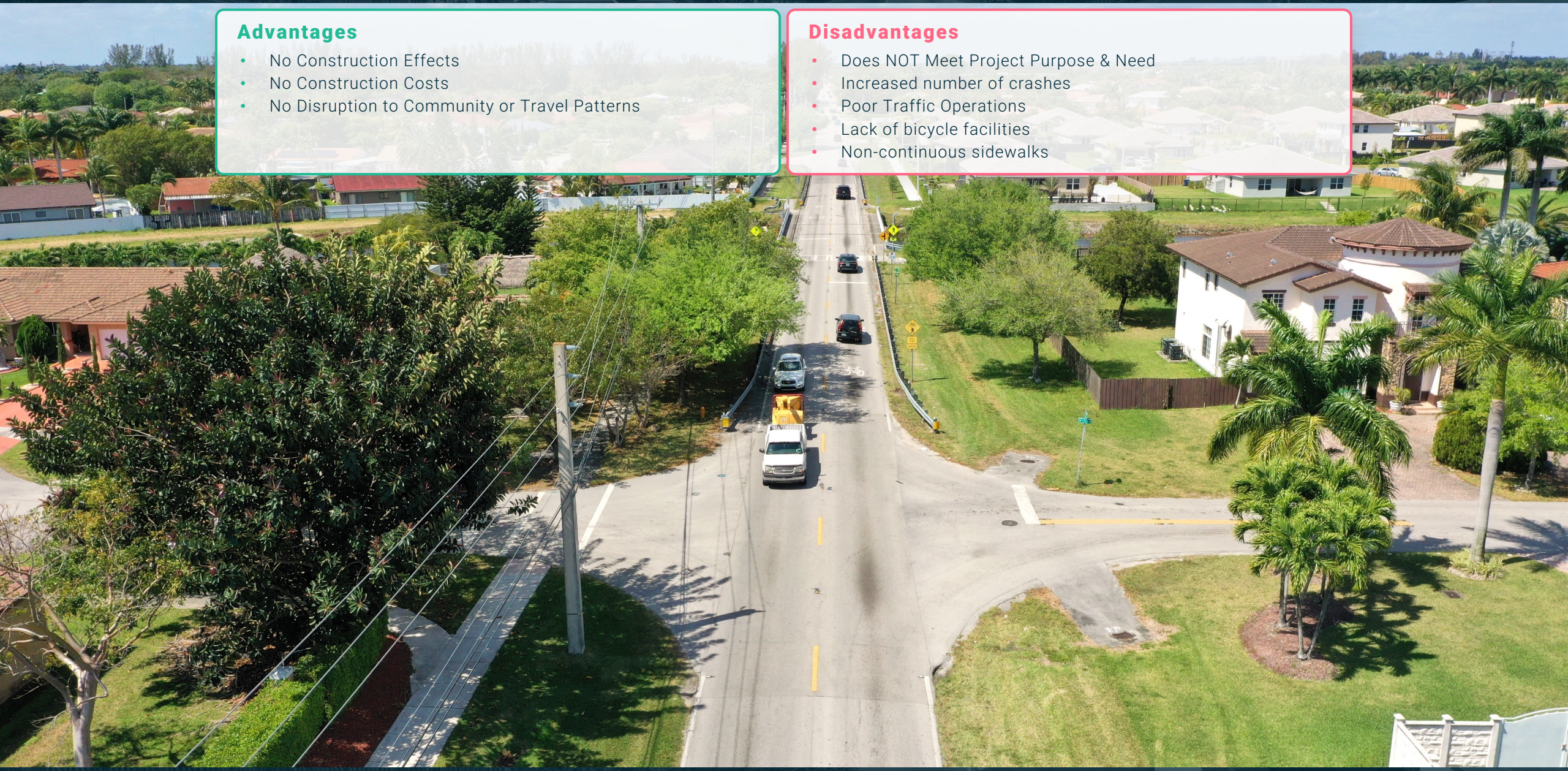
✓ **Build Alternative 2**

4-Lane with 16.5-ft raised median/turn lanes and Signal at SW 134th Ave

✓ **Build Alternative 3**

4-Lane with 22-ft raised median/turn lanes and Signal at SW 134th Ave

No-Action Alternative



Advantages

- No Construction Effects
- No Construction Costs
- No Disruption to Community or Travel Patterns

Disadvantages

- Does NOT Meet Project Purpose & Need
- Increased number of crashes
- Poor Traffic Operations
- Lack of bicycle facilities
- Non-continuous sidewalks

TSM&O Alternative

Project Goals	Location	Proposed Improvement	Impacts
Safety and Operations	SW 137th Avenue	Add EB Left Turn Lane Signal Optimization	Creates **RW impacts** on Quail Roost Drive, west of the intersection. Causes **environmental impacts** to historic resources on NW and SW corners
	SW 134th Avenue	New Signal. Add Left Turn Lane on 4 approaches	Creates **RW impacts** along SW 134th Avenue Causes **environmental impacts** to historic resource on SE corner
	SW 13 2nd Avenue	Add WB Left Turn Lane	Requires **bridge widening/replacement** over Black Creek Canal to add the turn lane
	SW 127th Avenue	Signal Optimization	None
Multimodal	Corridor-wide	Add missing sidewalk links Provide 5 ft outside paved shoulder	Requires **bridge widening/replacement** to allow for continuity Minor impacts to utilities and landscaping

*****NOT A LOW COST – LOW IMPACT ALTERNATIVE; DOES NOT SUFFICIENTLY ADDRESS PURPOSE AND NEED**

Build Alternative 1

Advantages

- Meets Project Purpose & Need
- Expected to reduce 18 crashes per year
- Improves Traffic Operations compared to No-Build Option
- Provides Continuous Shared-Use Path on both sides

Disadvantages

- Construction Effects (utility and drainage impacts)
- Temporary Disruption to Community or Travel Patterns
- Moderate Right of Way Impacts
- Construction Cost = $25.4M
- Impacts to three significant historic properties

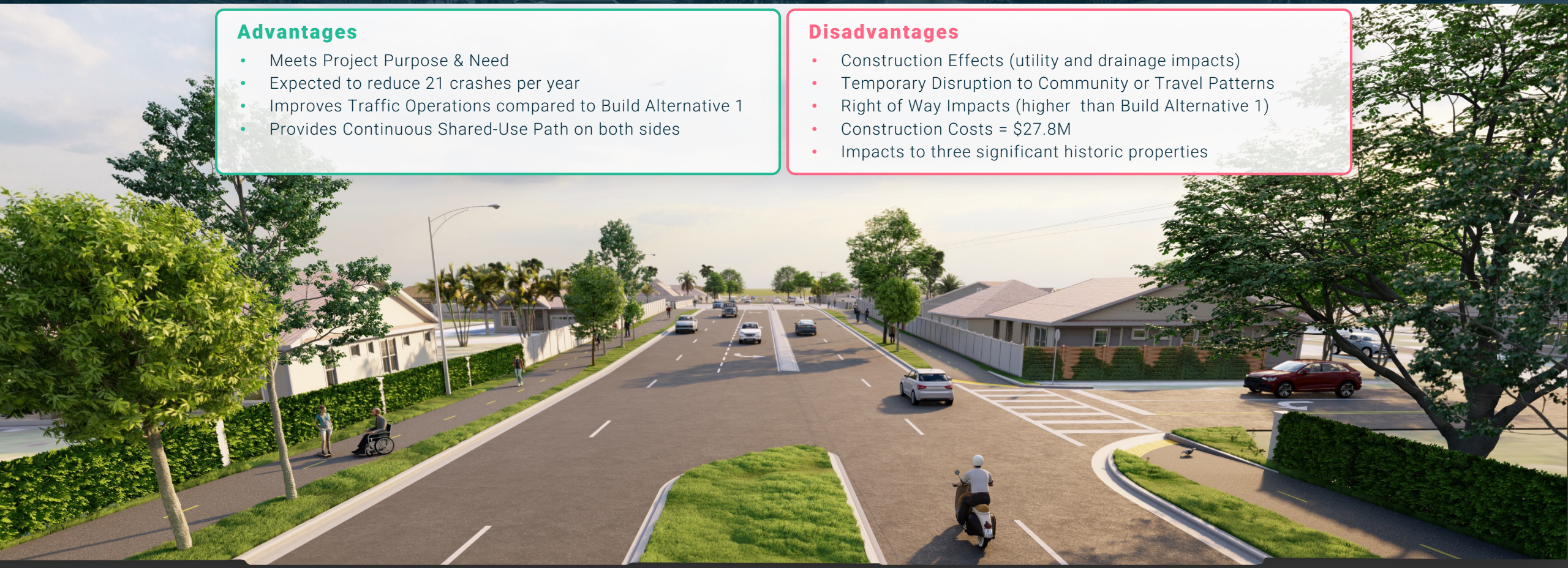
Build Alternative 2

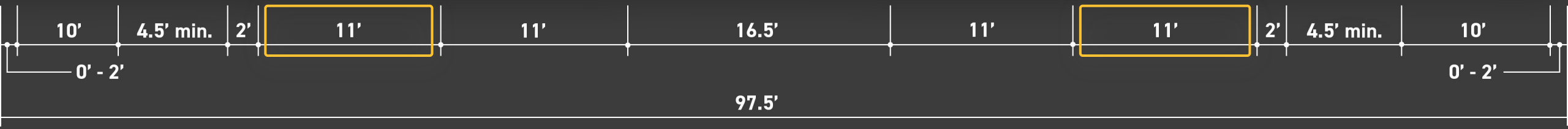
Advantages

- Meets Project Purpose & Need
- Expected to reduce 21 crashes per year
- Improves Traffic Operations compared to Build Alternative 1
- Provides Continuous Shared-Use Path on both sides

Disadvantages

- Construction Effects (utility and drainage impacts)
- Temporary Disruption to Community or Travel Patterns
- Right of Way Impacts (higher than Build Alternative 1)
- Construction Costs = $27.8M
- Impacts to three significant historic properties





Build Alternative 3

Advantages

- Meets Project Purpose & Need
- Expected to reduce 23 crashes per year
- Improves Traffic Operations compared to Build Alternative 2
- Provides Continuous Shared-Use Path on both sides

Disadvantages

- Construction Effects (utility and drainage impacts)
- Temporary Disruption to Community or Travel Patterns
- Right of Way Impacts (higher than Alternative 2)
- Construction Costs = $29M
- Impacts to three significant historic properties

Safety Improvements

Corridor-Wide Improvements

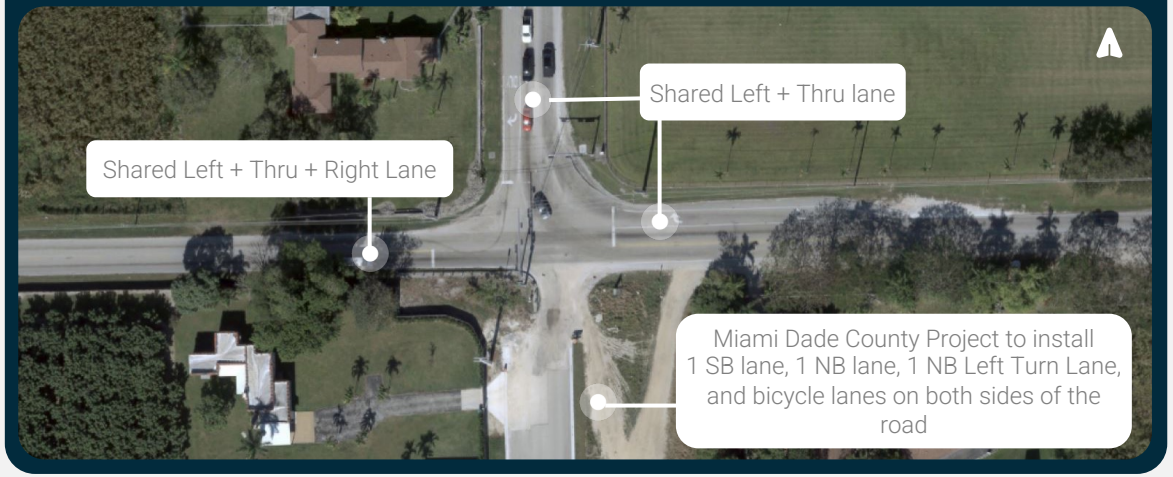
1. Addition of turn lanes (left and right)
2. New lighting
3. Shared-Use Path on both sides of the road
4. Raised median/islands
5. Emphasized pedestrian crossings

Other Improvements

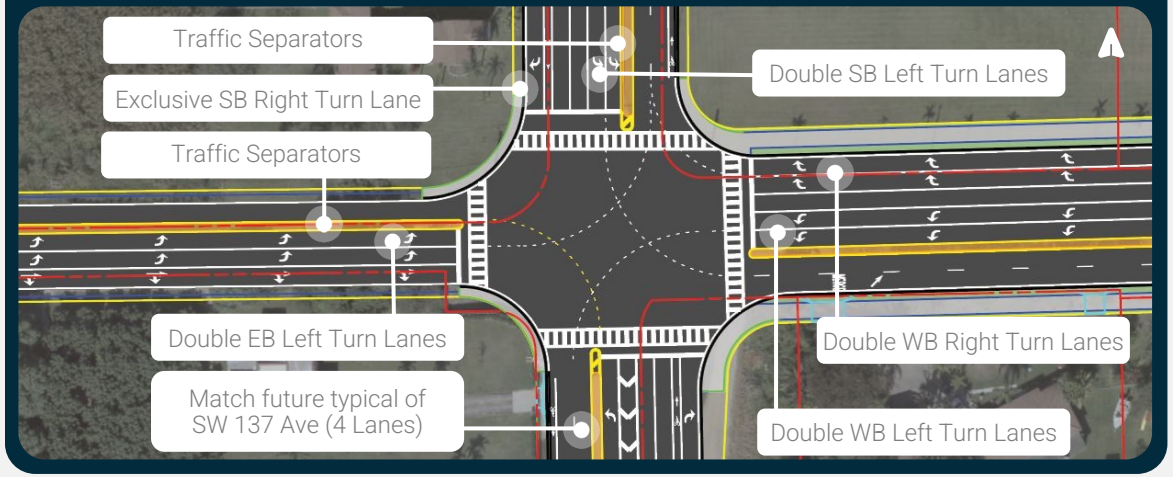
+ New signalized intersection at SW 134th Ave

Intersection Improvements – SW 137th Avenue

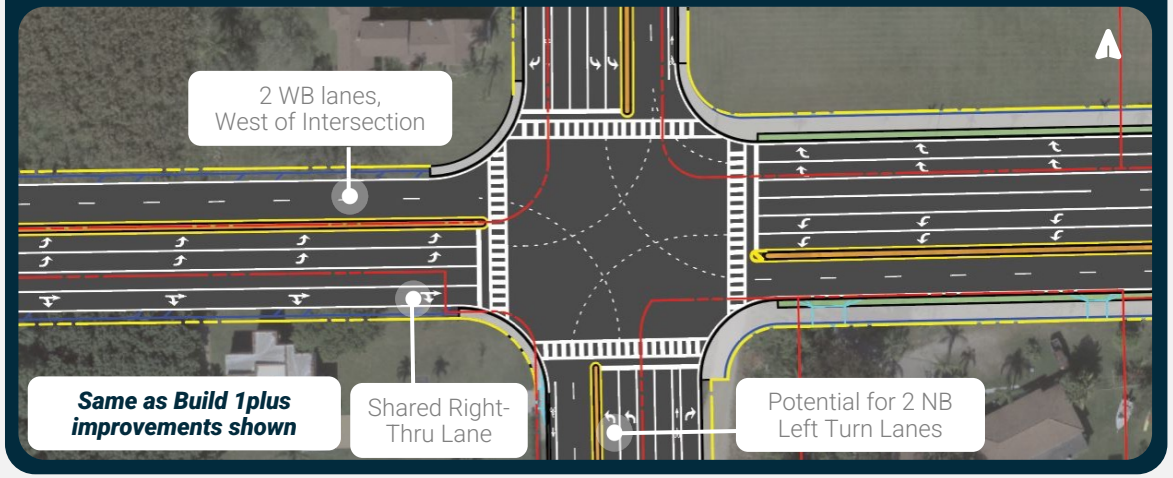
Existing Conditions



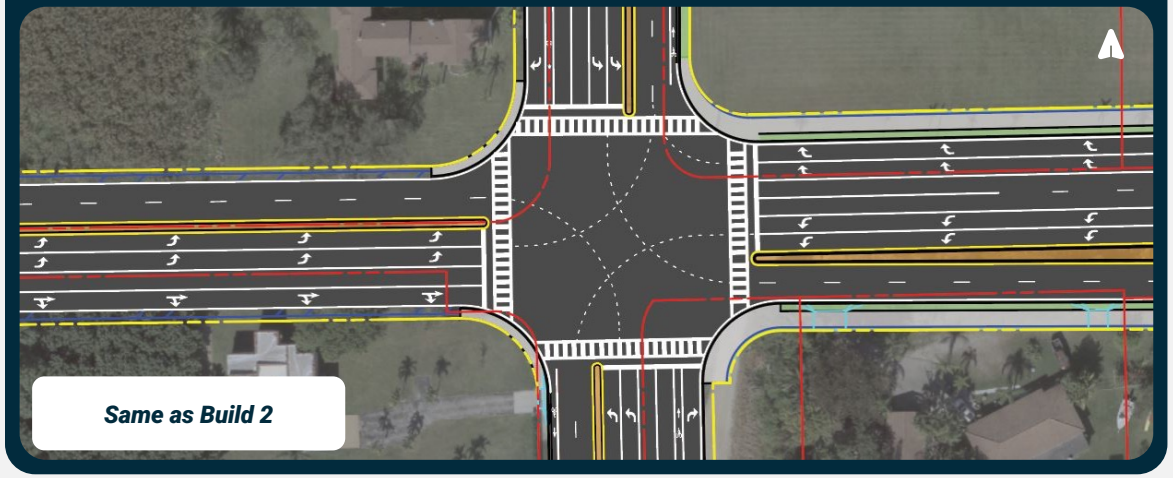
Build 1



Build 2

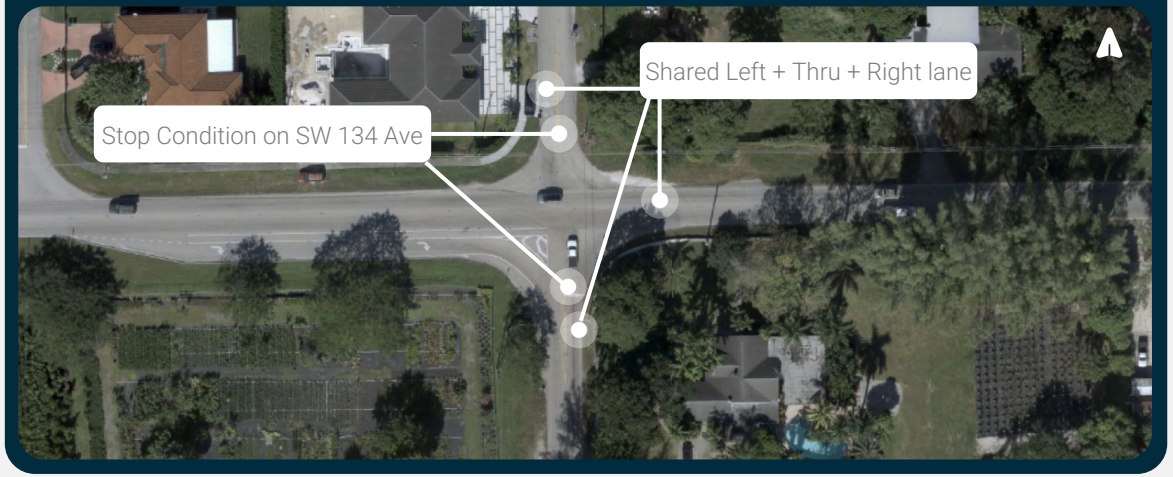


Build 3

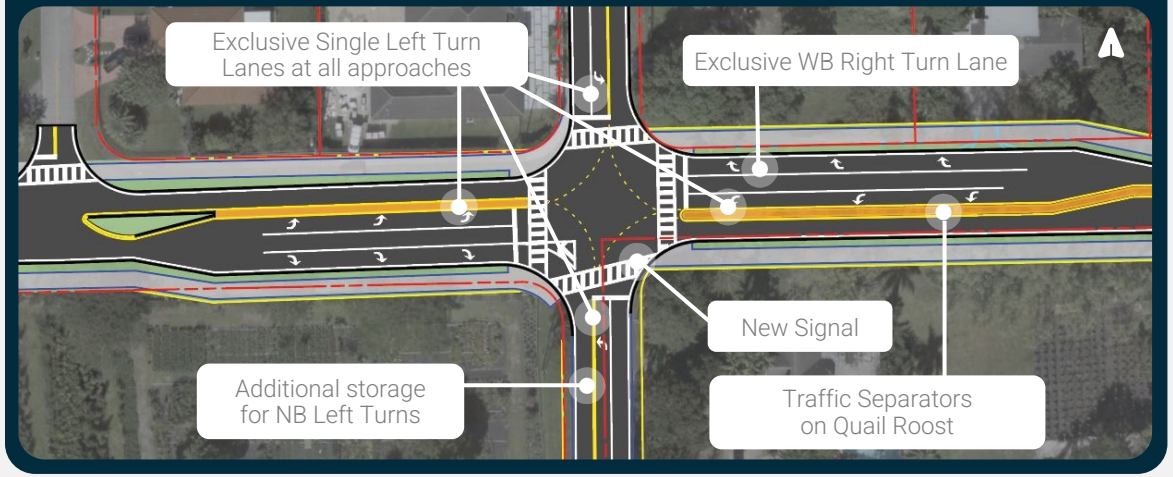


Intersection Improvements – SW 134th Avenue

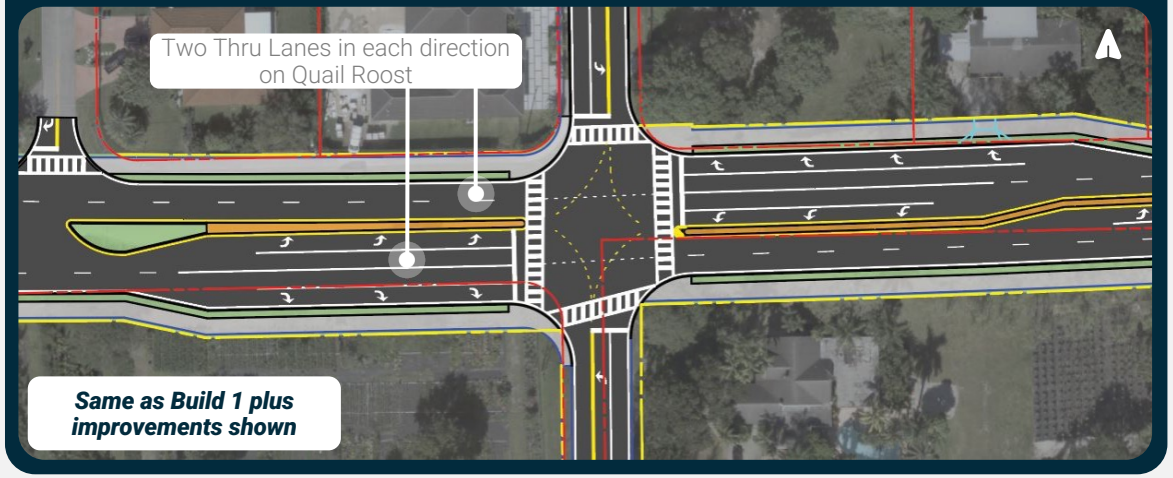
Existing Conditions



Build 1



Build 2



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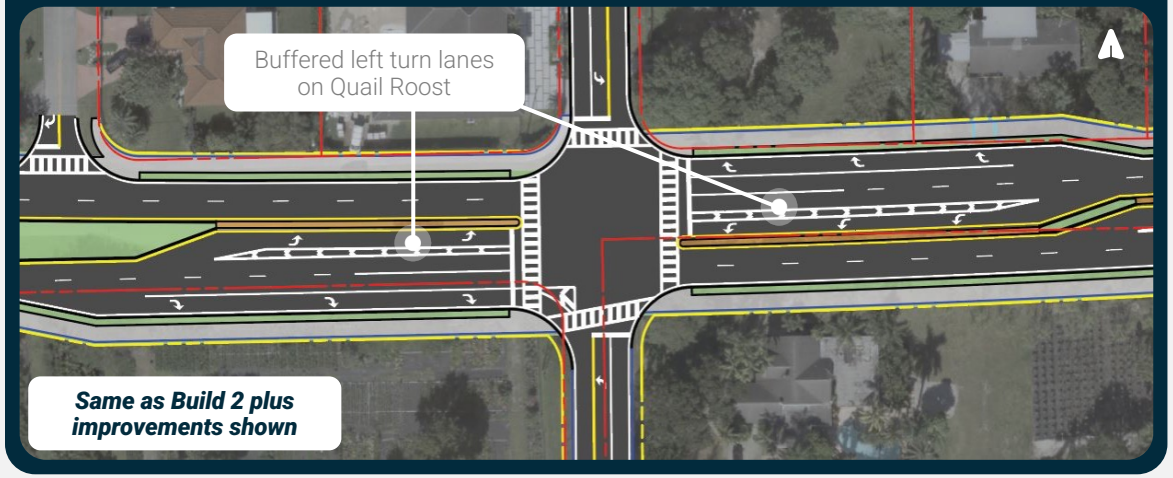
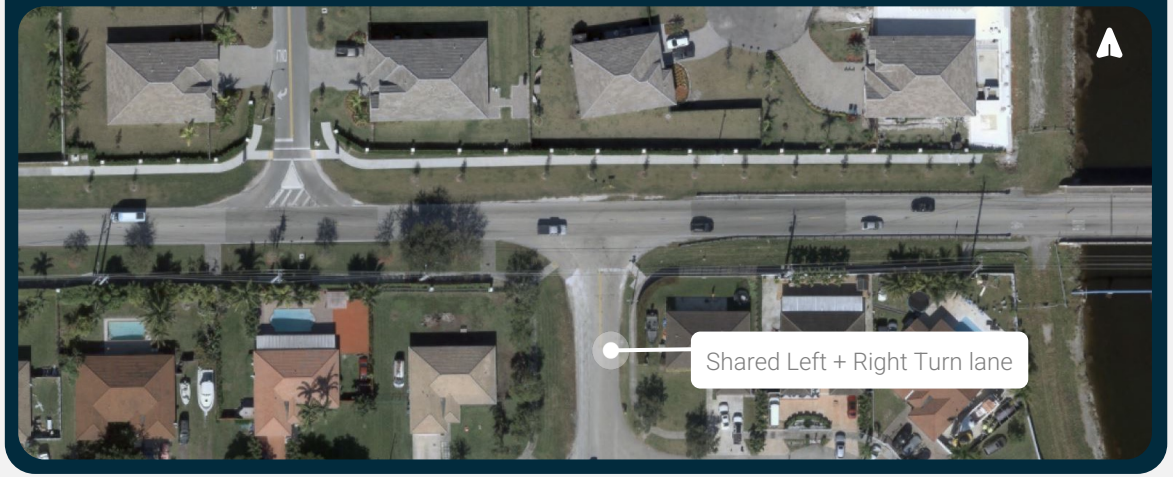
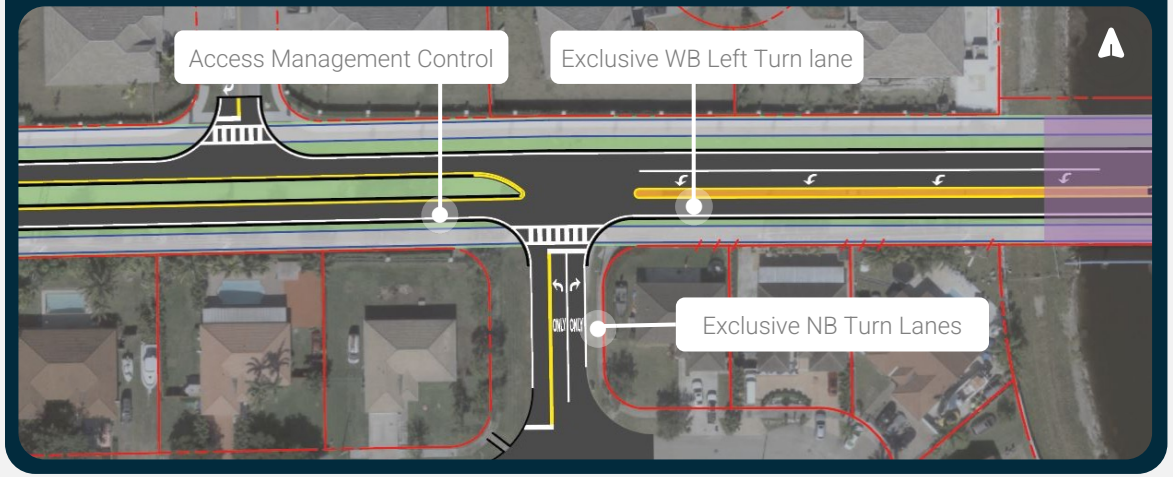


Intersection Improvements – SW 132nd Ct

Existing Conditions



Build 1



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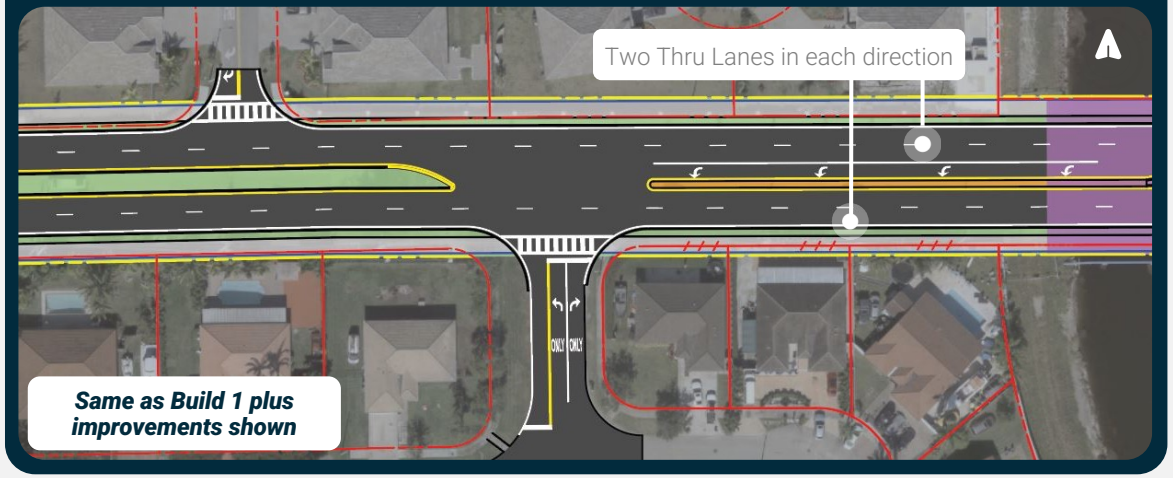
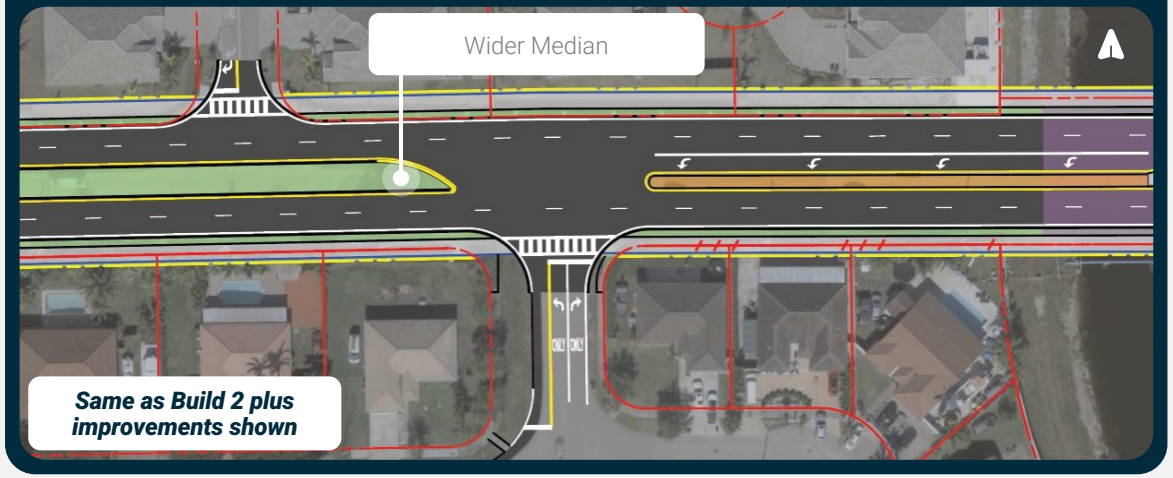
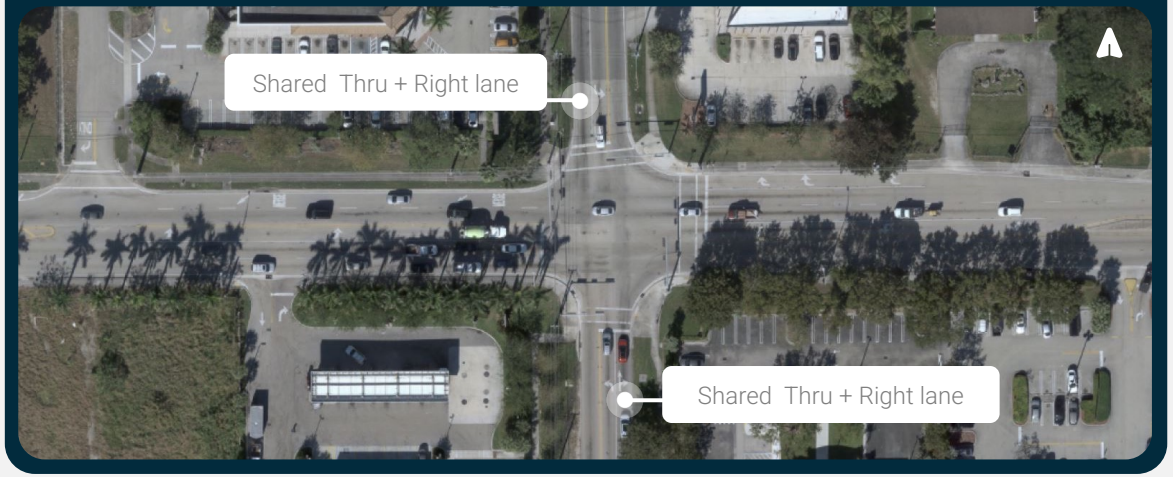


Build 3

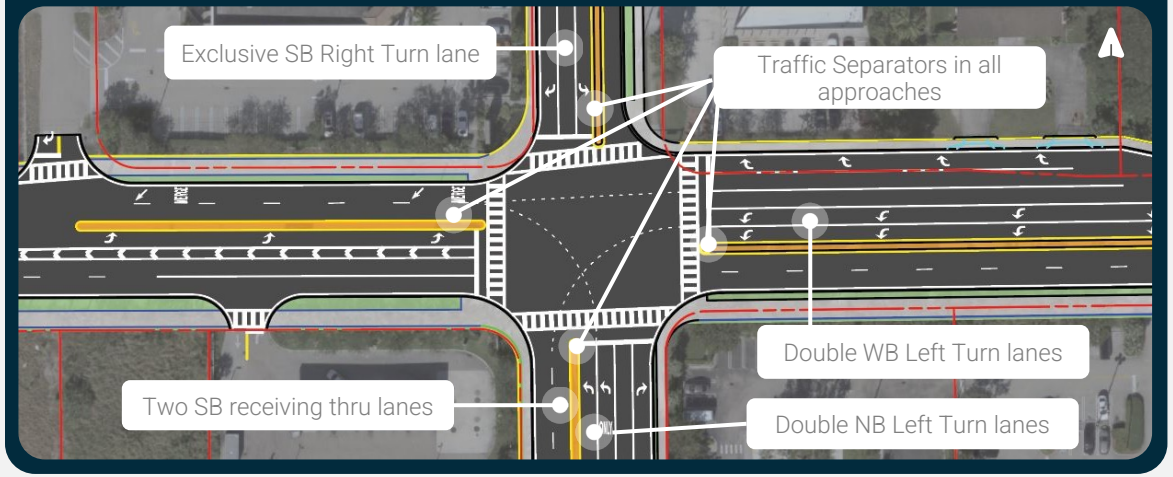


Intersection Improvements – SW 127th Avenue

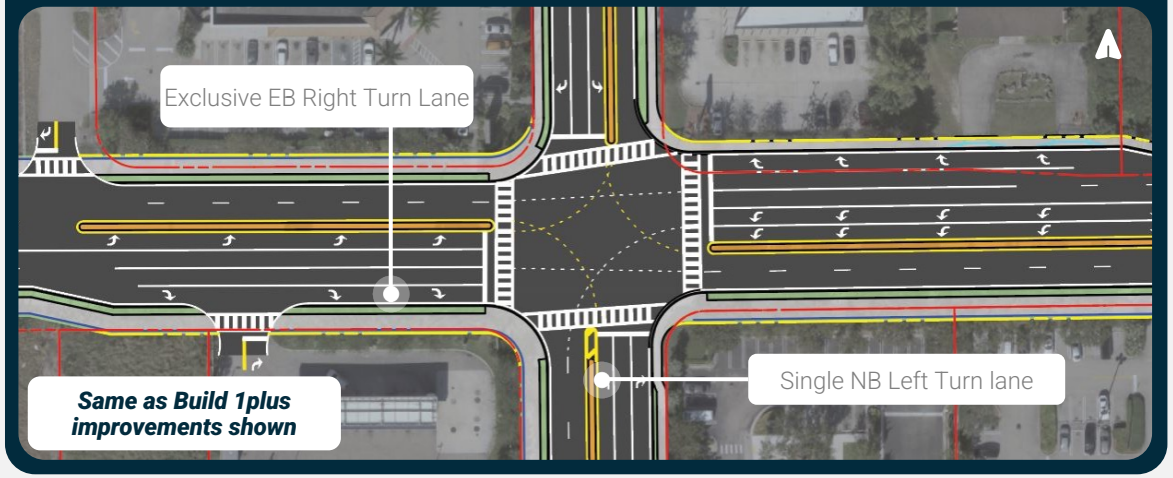
Existing Conditions



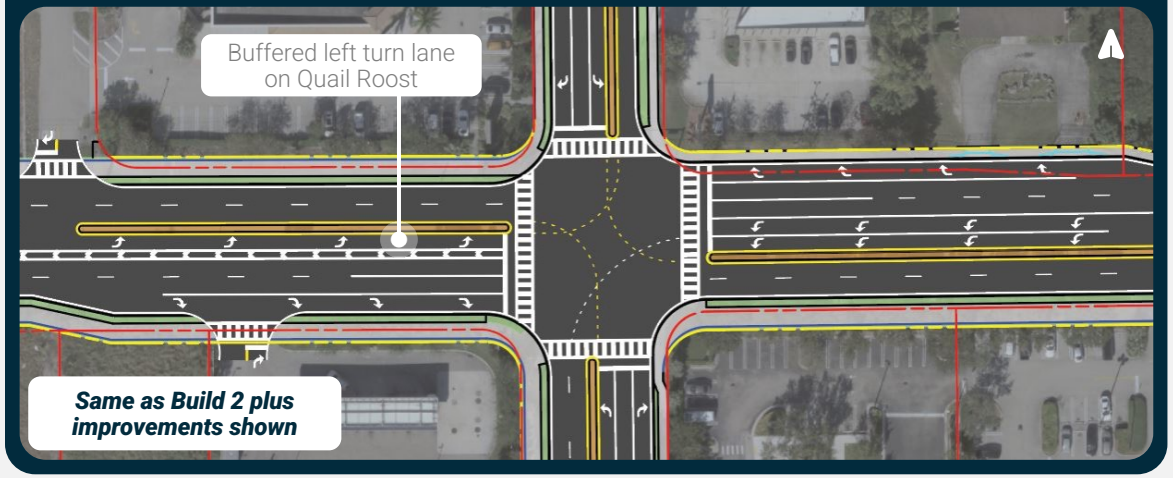
Build 1



Build 2



Build 3



Multimodal Accommodations

Option 1

Maintain at-grade crossing

Pros

Lower profile

Minimizes impacts

- SFWMD access
- Adjacent Properties
- TCP

Cons

Conflicts with peds and bikes

Increases delay on Quail Roost
(Vehicles stopped for peds/bikes)

Option 2

Relocate trail under proposed bridge

Pros

No bike ped conflicts – **Improves Safety!**

Eliminates delays for vehicles due to potential signalized crossing – **Improves Operations!**

Improved Overall Bridge Vertical Clearance

Cons

Higher profile

Potential impacts to Adjacent properties, utilities, SFWMD access driveways

More complex TCP

Polling – Slido Poll Participation Instructions

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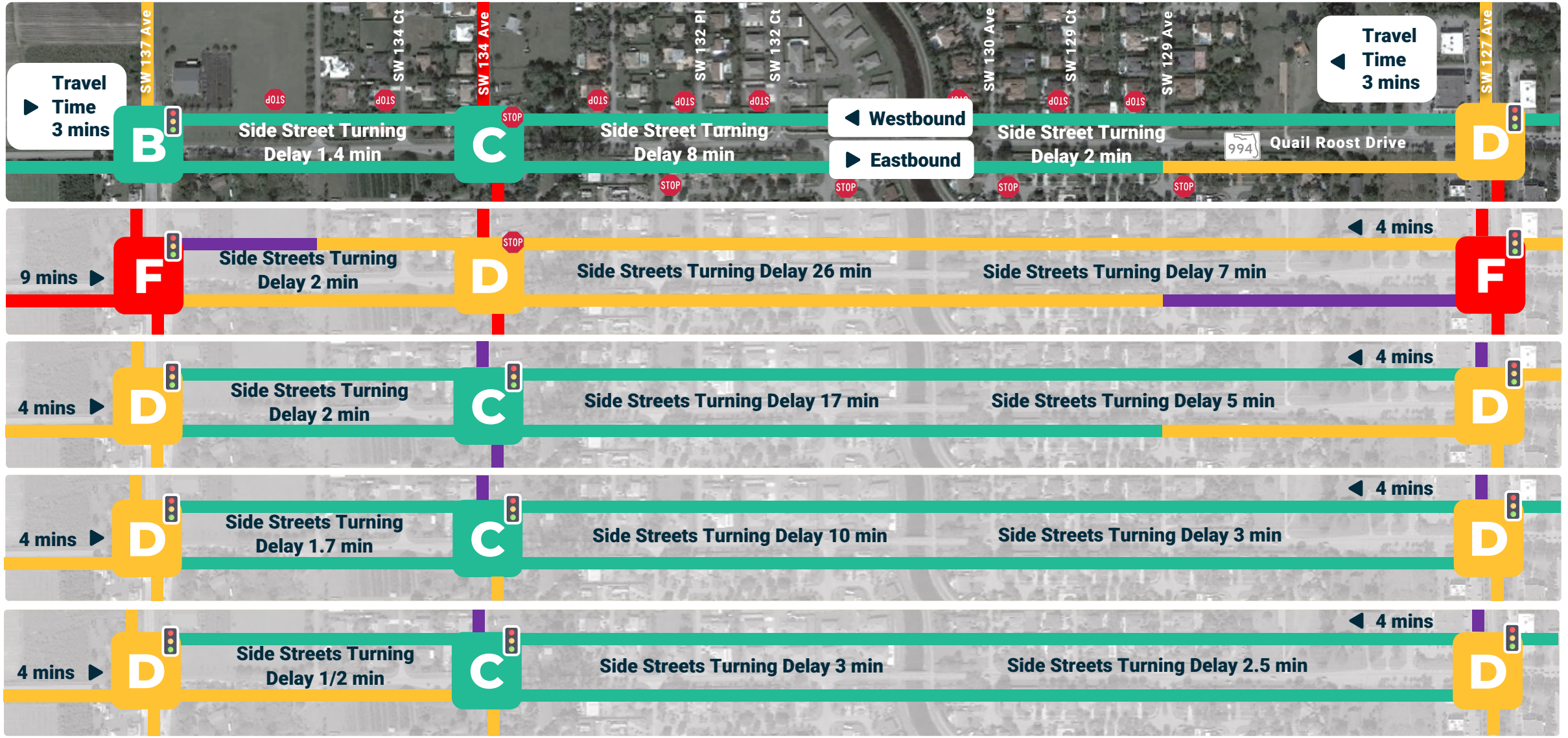
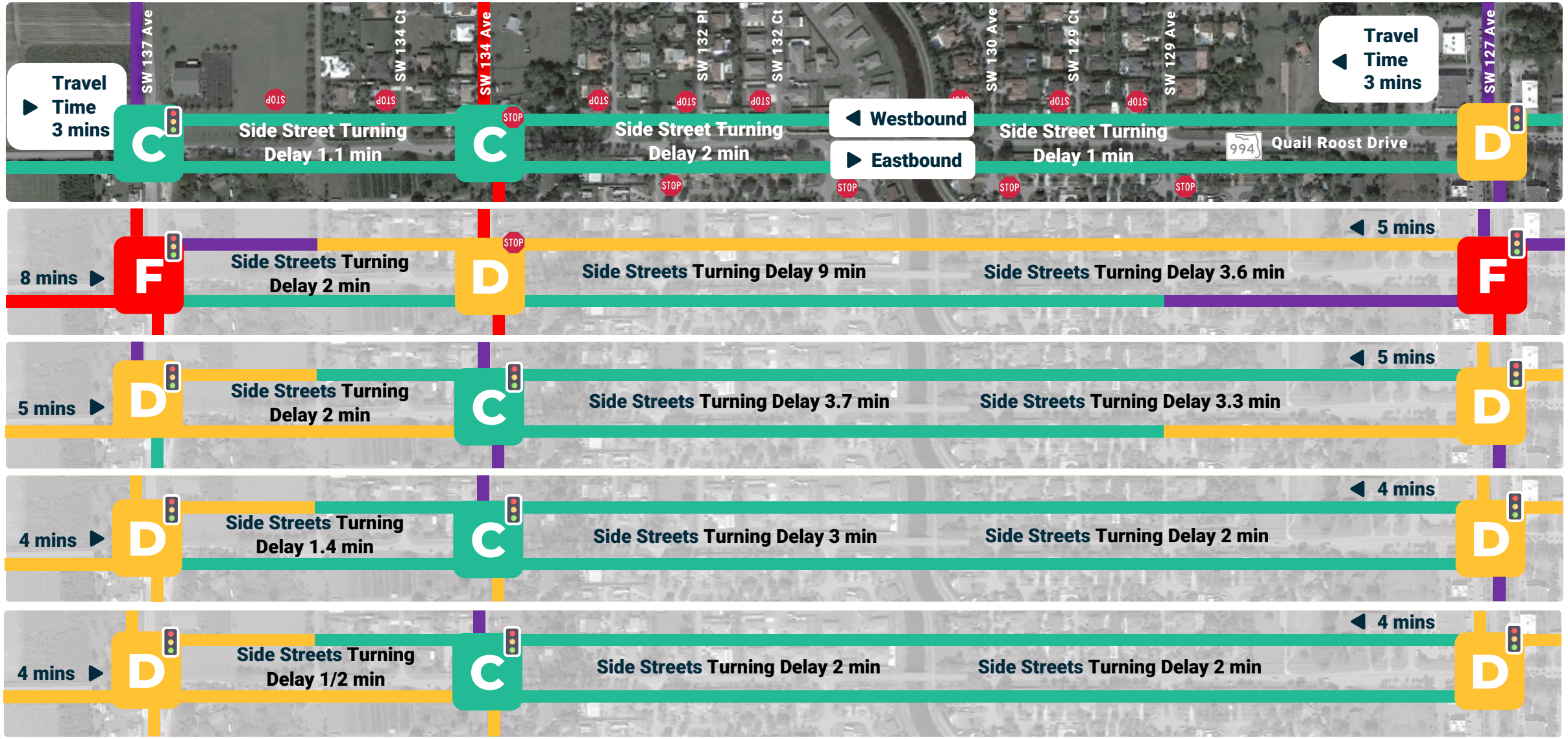
Level of Service / Travel Time / Delay – AM Peak Period



Level of Service / Travel Time / Delay – PM Peak Period



Landscaping

The existing Landscape within the FDOT ROW will most likely be impacted by the proposed widening.

Once a preferred alternative is selected, we will:

- Perform a preliminary landscaping analysis to identify impacts
- Provide initial disposition, i.e., should the vegetation remain, be removed or be relocated
- Identify Landscape Opportunities.

This is a rendered image for visual purposes only.

Temporary Traffic Control

Approach to TTCP

Minimize impacts to existing traffic

Maintain a safe work zone

Maintain access for residences and commercial/agricultural properties

Accommodate Black Creek Trail Crossing during all phases of construction

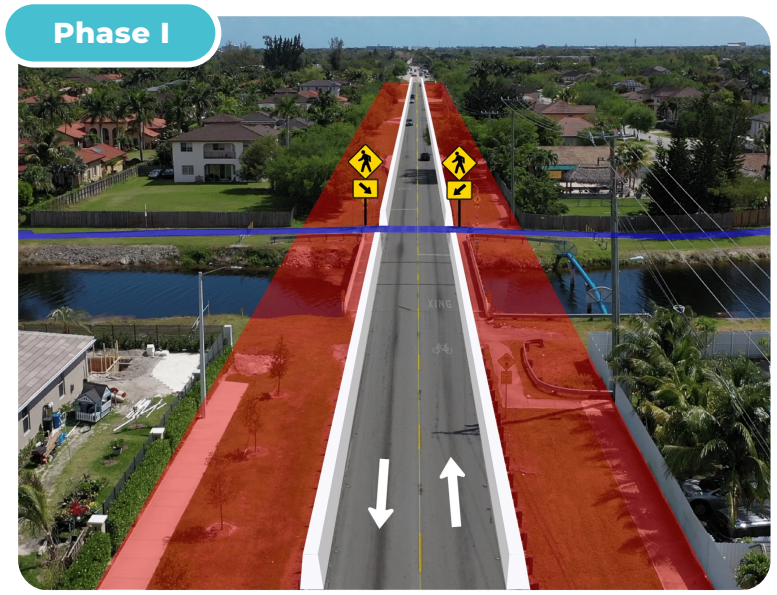
Maintain positive drainage

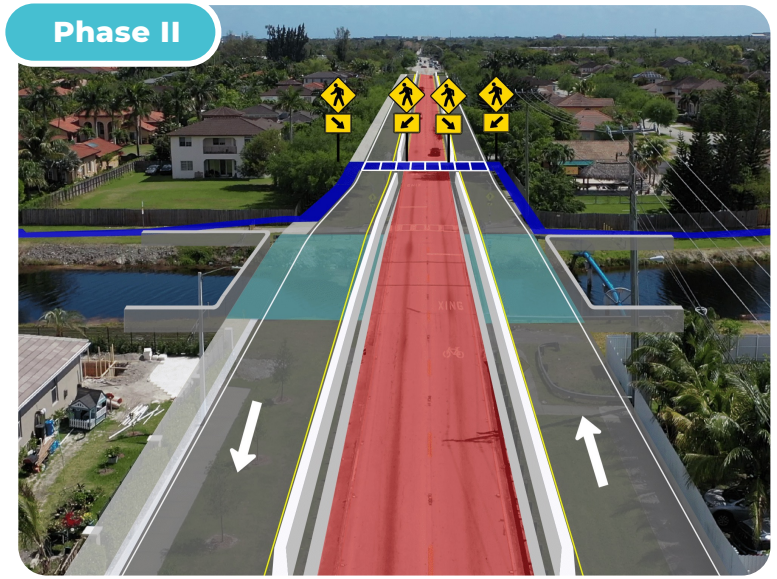
Reduce construction time

Bridge Over Black Creek Canal

Phased construction will be considered for Build Alternatives 2 and 3 (wider footprint). This will require longer construction duration but minimizes road closures and detours

Detour options will be needed for Build Alternative 1, through SW 184 St and SW 216 ST.





Environmental Considerations

Sociocultural Effects

- Mobility
- Land Use (schools, churches, businesses, etc.)
- Relocation Potential

Cultural Resources

- Archaeological and Historic Resources
- Recreational

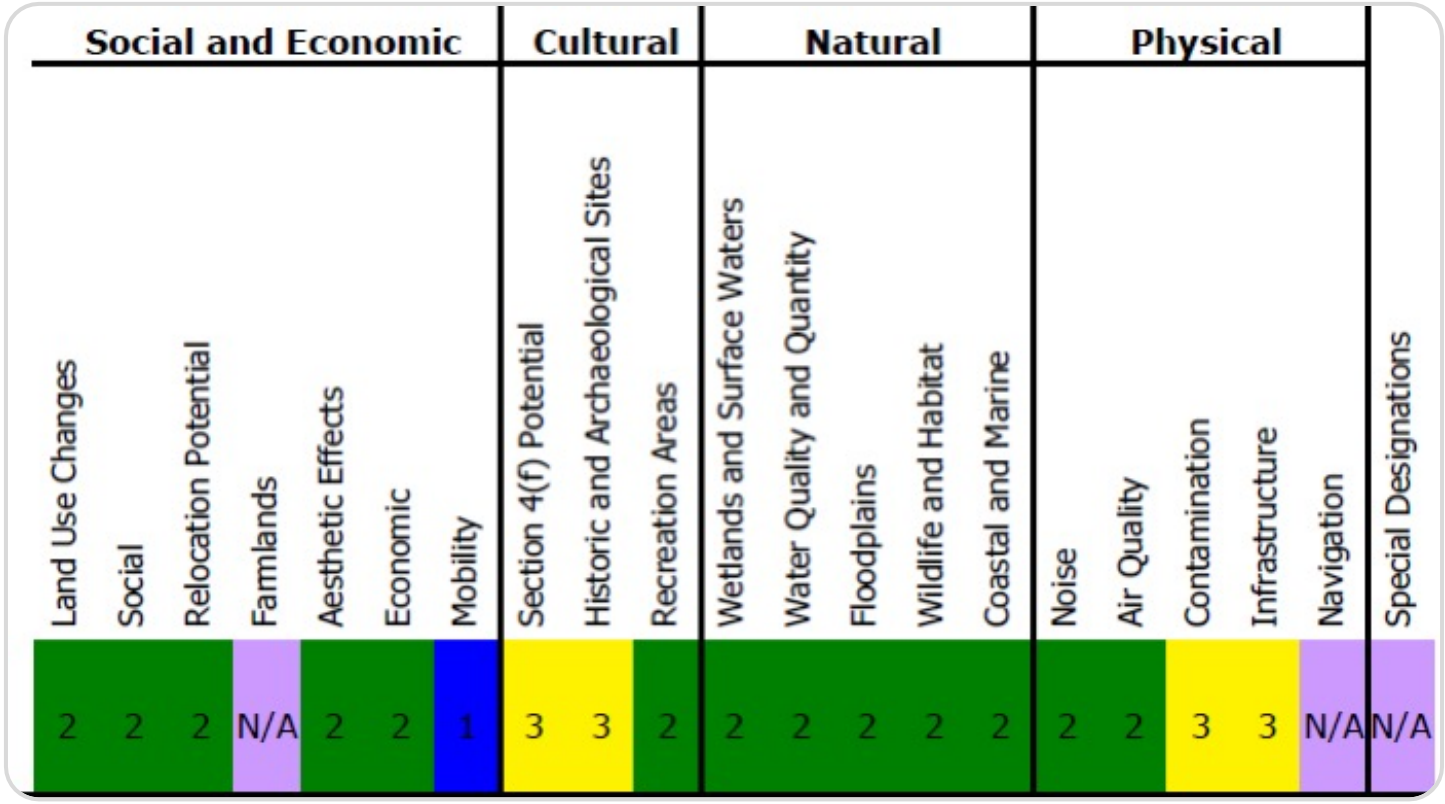
Natural Resources

- Wetlands
- Wildlife and Habitat
- Permits

Physical Effects

- Noise
- Air Quality
- Contamination

Efficient Transportation Decision Making (ETDM) Screening: No Substantial Issues



Cultural Resources - Historical

- Cultural Resources Assessment Survey (CRAS) in progress.
- CRAS will be submitted to SHPO for review and concurrence on findings.
- Overall, 18 historic resources identified in the Area of Potential Effect (APE).
- Three historic resources potentially eligible for inclusion in National Register (NRHP):

1. Talbott Estate – southeast corner of Quail Roost Drive & SW 134th Avenue intersection *(County designated)*
   Property Address: 13390 SW 200th Street

2. MacDonell House and Walls – northwest corner of Quail Roost Drive & SW 137th Avenue intersection *(County designated)*
   Property Address: 13701 SW 200th Street

3. Southwest corner of Quail Roost Drive & SW 137th Avenue intersection – potentially significant
   Property Address: 20000 SW 137th Avenue

Natural Resources

Wetlands

C-1W Canal – Bridge widening with impacts to limited to surface waters

No Wetland involvement is anticipated

Protected Species (no impacts anticipated)

Florida Bonneted Bat (FBB) – Within the South Florida Urban Bat Area *
Manatee (C-1W) exclusion devices at outfalls; In-Water Work Construction Conditions

Construction Conditions for the **Eastern Indigo Snake**

Miami-Dade Keys Plants field surveys *

* Two field reviews have been conducted and no listed species were observed. Tree surveys were conducted and trees along the project corridor are not suitable habitat for the FBB. No evidence of bat roosting was observed.

Biscayne Sole Source Aquifer (SSA) – EPA coordination

WQIE/SSA letter will be sent to the EPA in March 2023.

C-1W Canal
Bridge Widening Impacts

Manatee
Protected Species

Noise Analysis

Noise barriers are considered for projects that:

- Add capacity (additional travel lanes)
- Significantly shift the roadway alignment (horizontally or vertically)
- New roadways
- Sound level equals or exceeds 66 dB(A)

Noise evaluation will consider:

Feasibility :

- Land Use (residentials, parks, schools, churches, trails)
- Noise reduction of at least 5 decibels dB(A) (for at least 50% of impacted)
- Safety factors (i.e., safe sight distance at driveways and side streets)
- Accessibility factors (i.e., street connections and driveway access)
- Drainage and utility factors (i.e., conflict with overhead power lines)
- ROW and maintenance factors (i.e., accessibility for graffiti removal)

Reasonability:

- Achieving noise reduction design goals (i.e., 7 dB(A) noise reduction at one benefited receptor)
- Cost effectiveness of noise abatement (i.e., $42,000 /benefited receptor)

Next Steps:

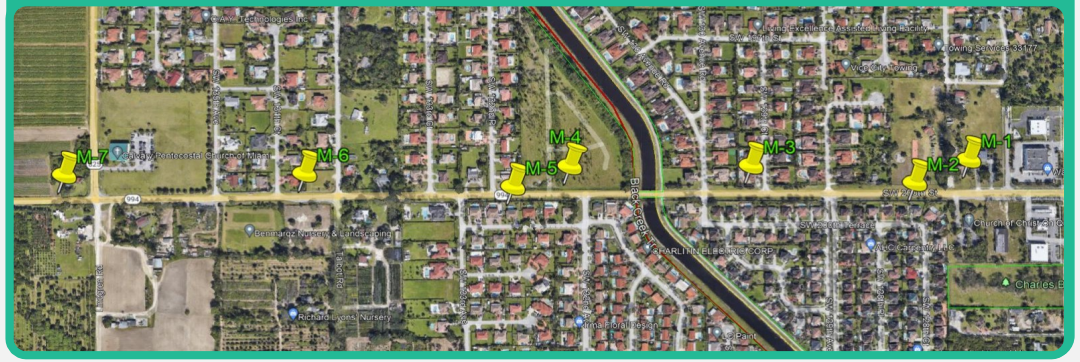
- Select preferred alternative alignment
- Model Existing, future No-Build and Future Build Scenarios
- Evaluate noise abatement options based on feasibility and reasonability criteria
- Prepare a noise study report summarizing the analysis.
- Public Involvement regarding desire of noise abatement as well as color and texture
- Noise impacts will be re-evaluated during the Final Design phase to confirm no significant changes since PD&E study

Noise Measurement Summary and Potential Noise Analysis Sites

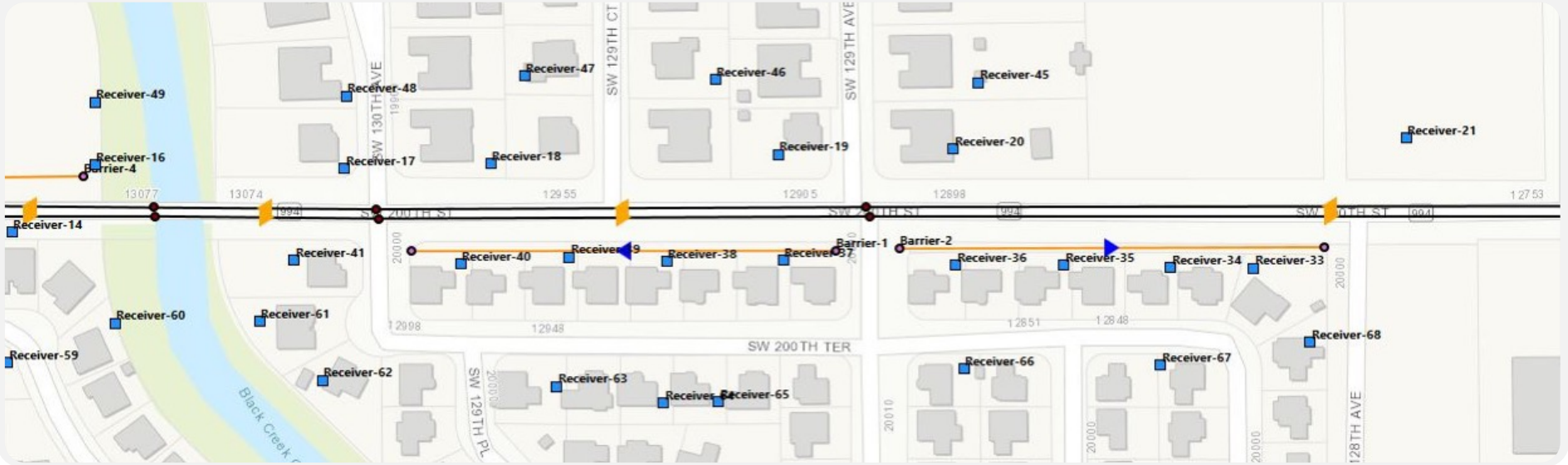
Noise Measurement Summary

Site ID	Sound Level dB(A)
M-1	61.5
M-2	61.2
M-3	61.7
M-4	63.0
M-5	61.0
M-6	63.7
M-7	63.3

Field Noise Measurement Location



Future Model Analysis



Anticipated Permits

South Florida Water Management District

Environmental Resource Permit

- Stormwater Quantity and Quantity Control
- C-1 Canal Dredge & Fill
- Canal Turbidity Control
- Manatee Protection

Right Of Way Occupancy Permit Modification

- Bridge Replacement
- Canal Access for Maintenance and Operations

Water Use Permit

- Dewatering Construction Activities

US Army Corps of Engineers

Section 408 Review for the C-1W Canal/Bridge

USACE/FDEP Section 404 Dredge & Fill Permit

- Possible delegation to FDEP as Assumed Waters
- USACE Nationwide permit for Maintenance may apply
- Coordination with USFWS

Florida Department of Environmental Protection (FDEP)

NPDES Construction Generic Permit

EPA Coordination required for Biscayne Sole Source Aquifer

Miami-Dade County Coordination on tree impacts

Alternatives Evaluation Matrix

QUALITATIVE ALTERNATIVE COMPARISON MATRIX

Evaluation Criteria	No-Build (2-Lane Undivided)	Build Alternative 1 (2-Lane with Turn Lanes / Raised Islands and Signal at SW 134 Ave)	Build Alternative 2 (4-Lane with Turn Lanes / Raised Islands and Signal at SW 134 Ave)	Build Alternative 3 (4-Lane with Turn Lanes / Raised Median and Signal at SW 134 Ave)
Meets Purpose & Need	No	Yes	Yes	Yes
Traffic Operations	Increased Congestion and Delay	Added turning lanes at intersections	Added capacity and Turn lanes at intersections	Added capacity and Turn lanes at intersections
Safety	Increased number of accidents anticipated due to increase in future traffic volumes	Decreased number of accidents due to safety enhancements	Decreased number of accidents due to safety enhancements	Decreased number of accidents due to safety enhancements
Multimodal Accommodations	No improvement	Added pedestrian and bicycle facilities	Added pedestrian and bicycle facilities	Added pedestrian and bicycle facilities
Right of Way Impacts	None	Moderate Impacts	Significant Impacts	Significant Impacts
Historic Resources Impacts	None	Moderate Impacts	Significant Impacts	Significant Impacts
Recreational Resources	No Change	Black Creek Trail connected to other trail facilities	Black Creek Trail connected to other trail facilities	Black Creek Trail connected to other trail facilities
Noise	No Change	Slight increase in noise level related to alignment shift	Slight increase in noise level related to added capacity	Slight increase in noise level related to added capacity

Positive Outcome

No Change to Moderate Impact

Negative Outcome

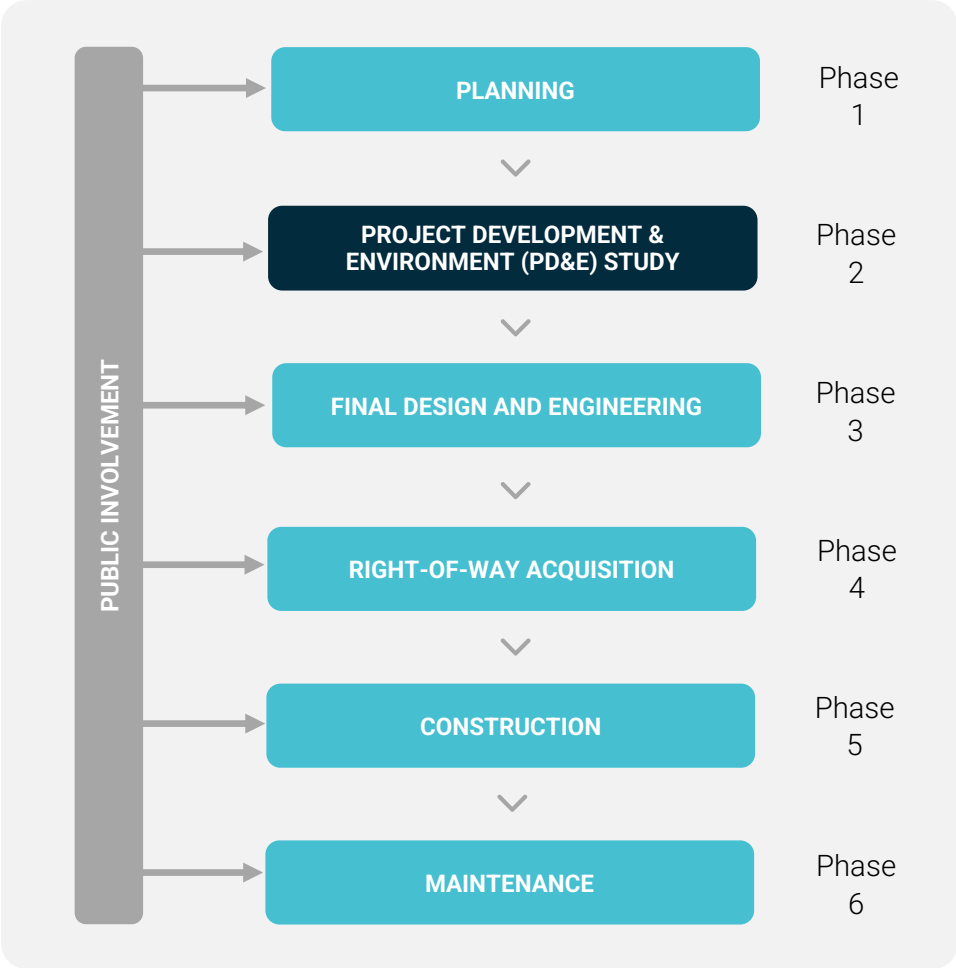
Polling – Slido Poll Participation Instructions

Smart Phone

Scan QR Code

Note: Today's polling results will help provide preliminary input to the team but are not the only factor used in developing potential alternatives. Engineering, environment, cost, and other factors will also help the study team develop potential alternatives that may or may not advance to the next phase of the project.

Project Schedule



Project Milestone	Date
Begin PD&E Study	June 2021
Kick-Off Meeting	January 2022
Affected Parties Consultation Meeting	October 2022
Alternatives Workshop	October 2022
Public Hearing	October 2023
End PD&E Study (Location Design Concept Acceptance)	April 2024
Design Complete	November 2025
Right of Way Acquisition	July 2027
Construction	2028

Open Discussion

In-person attendees please form a line.

Online attendees submit your comments in the "Questions" box. If you would like to speak, please press the raise your hand button.

Participants will have **three minutes** to provide comments.

Please clearly state your **name** and **address**.

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Rules of Engagement

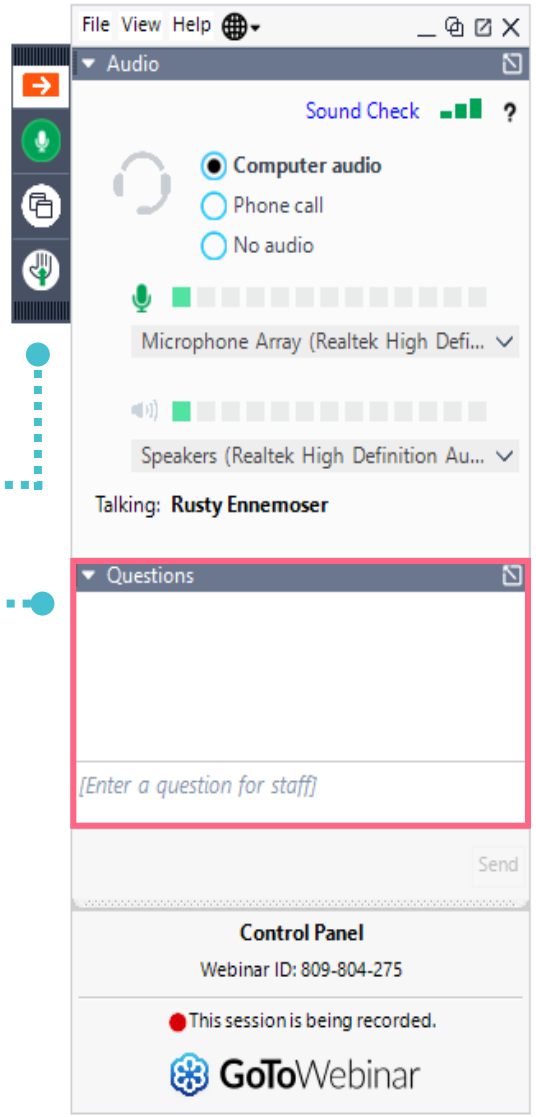
Virtual Attendees are **Automatically Muted** to Start the Meeting

Providing Comments During Open Discussion Period:

- In-person attendees form a line
- Call 1-800-418-0524
- **Raise hand during comment period, you will be unmuted in order of raising hands**
- Submit Comments via the “Questions” Box

Get Technical Assistance

- **Call 1-800-418-0524**



Comments

- **Comment Box**
- **Email:** Elsa.Riverol@dot.state.fl.us
- **Project Website:** www.fdotmiamidade.com/QuailRoostPDE
- **Customer Survey**
- **Mail:** Florida Department of Transportation, District Six
  Attn: Elsa N. Riverol, P.E.
  1000 NW 111th Avenue, Room 6251
  Miami, FL 33172

SCAN QR CODE TO VISIT OUR PROJECT WEBSITE!

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www.fdotmiamidade.com/QuailRoostPDE


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FDOT
Thank You.