#### **Transportation Planning Division**

# University Boulevard Pedestrian/Cyclist Safety Study Community Meeting #2

April 3, 2025



- Welcome and Opening Remarks
- Overview
- Existing Conditions
- Alternative Analysis
- Public Engagement and Schedule



- Welcome and Opening Remarks
- Overview
- Existing Conditions
- Alternative Analysis
- Public Engagement and Schedule





Kelly Martinez Semrad DISTRICT 5 COMMISSIONER

# Welcome and Opening Remarks

### **Meeting Instructions**

- The presentation will be followed by a questionand-answer period.
- Comments will be addressed in the order they are received.
- If you received a newsletter, you are on the project mailing list. If you did not, please sign in and provide your address to be added to the mailing list.

	University Boulevard Pedestrian/Cyclist Safety Study from Semoran Boulevard to Goldenrod Road									
	Community Meeting No. 2 – Comment Form									
	Name Phone Address									
	City		State	Zip Code						
	Check here	to be added to the proj	ect mailing list.							
	Boulevard Pedes your completed fo postmarked by Frid available for viewing	trian/Cyclist Safety Stu rm in the comment box a day, April 18, 2025, to t g by the public and media.	idy, from Semoran Bouleva at this meeting, with a memb	anned improvement of the University rd to Goldenrod Road. You can leave of the project team today or mail it, ts are part of the project record and are						
Date: <u>4/3/</u>	To be completed	er Request C prior to making a reco NITY MEETING April 3, 2025	rded statement							
Please Pr	from Semoral Ora	ard Pedestrian/Cyclis n Boulevard to Golde ange County, Florida								
Name:	Last	First	Middle Initial							
Address:	Street									
Telephone	City : () Area Code	State	Zip Code	Community Meeting						
Represent	Government Age Civic Organizatio	ency on sociation		Thursday, April 3, 2025 6 – 7:30 p.m. Presentation at 6:00 p.m. ma Elementary School Cafeteria 2049 Scarlet Road Winter Park, FL 32792						

# **Welcome and Opening Remarks**

### Orange County Project Manager:

#### Krista Taraszewski, PMP

Transportation Planning Division Orange County Public Works Department 4200 John Young Parkway Orlando, FL 32839 Email: Krista.Taraszewski@ocfl.net Phone: (407) 836-8014 Fax: (407) 836-8079

### Consultant Project Manager: Babuji Ambikapathy, PE, AICP VHB 225 E Robinson Street, STE 300 Landmark Center Two Orlando, FL 32801 Email: Bambikapathy@vhb.com Phone: (407) 230-2762



Call, Email, or Visit Website

www.UniversityBoulevardPedestrianCyclistSafetyStudy.com





- Welcome and Opening Remarks
- Overview
- Existing Conditions
- Alternative Analysis
- Public Engagement and Schedule



# University Boulevard The Study begins at Semoran Boulevard and ends at Goldenrod Road – Approximately 1.25 miles

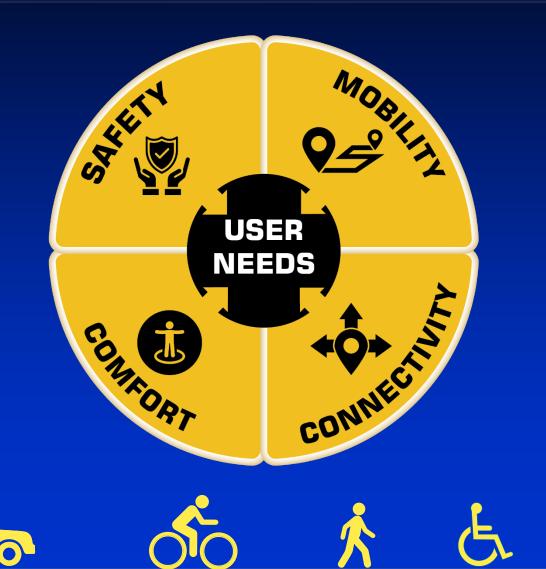
The corridor is a designated multimodal corridor with mostly commercial land use on the north and Full Sail University and residential on the south



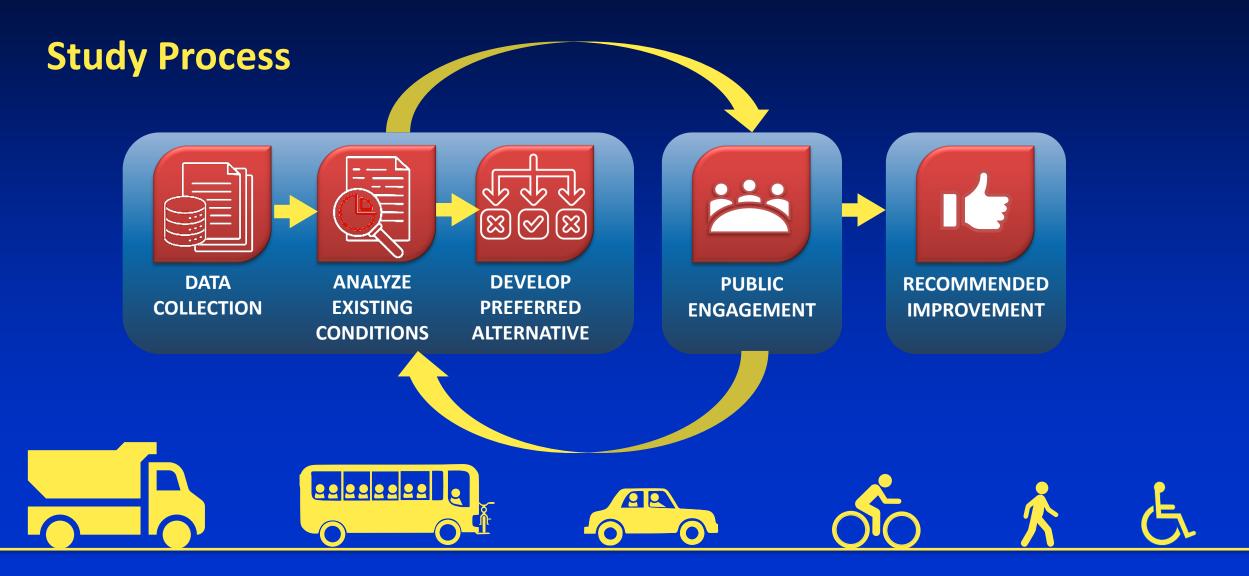


### **Identify Improvements**

- Document Project Need
- Balance Needs of all Users
  - Safety
  - Mobility
  - Comfort
  - Connectivity









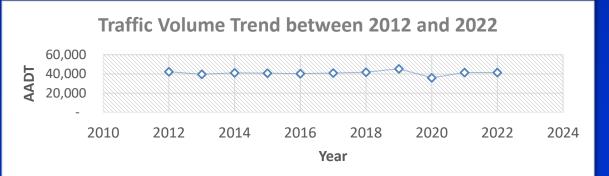
- Welcome and Opening Remarks
- Overview
- Existing Conditions
- Alternative Analysis
- Public Engagement and Schedule



### **Roadway Characteristics**

- University Boulevard is a six-lane minor arterial roadway with a 45-mph posted speed
- Sidewalks along both sides of roadway
- No bicycle lanes
- Right-of-way varies 128' to 162'
- Studied 5 segment intersections







### **Existing Land Use/Major Developments**



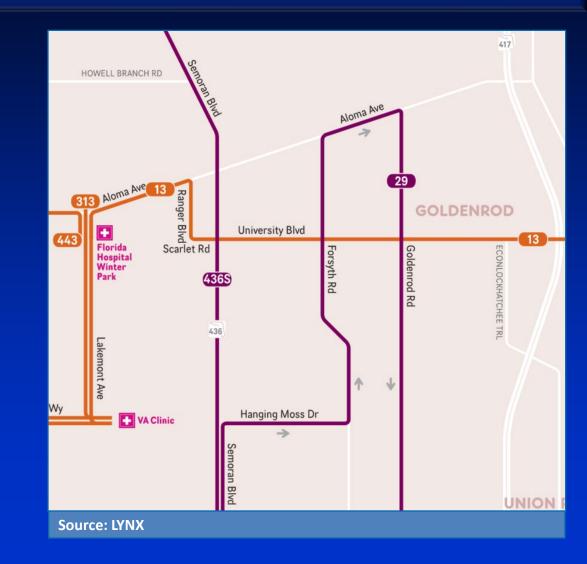


### Transit Services (LYNX)

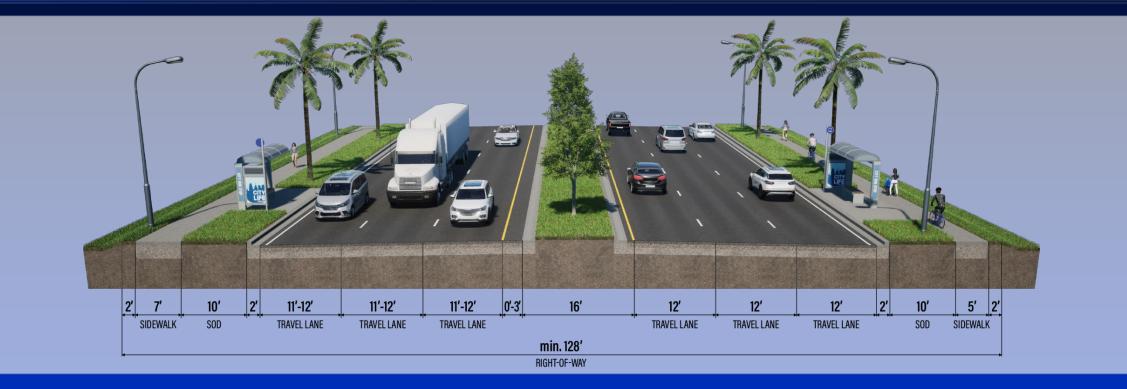
- Link 13 (4 stops between SR 436 & Forsyth Rd)
  - 2022 Yearly Ridership: 149,254
  - Frequency 60 minutes

### Link 29

- 2022 Yearly Ridership: 241,294
- Frequency 30 minutes
- Link 436S
  - 2021 Yearly Ridership: 604,410
  - Frequency 30 minutes







SPEED

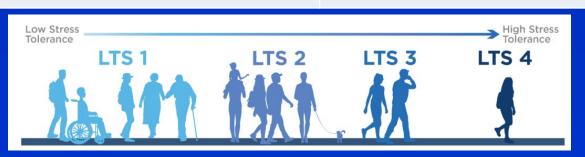
Three 11-12 foot-wide travel lanes with 16-foot raised median

- 5-foot-wide sidewalk on the south side of the roadway
- 7-foot-wide sidewalk on the north side of the roadway
- No bicycle lanes



### **Existing Multimodal LOS**

University Boulevard	Value
Number of Lanes	6 Lanes
Posted Speed	45 mph
AADT	41,000
Roadway Segment LOS (Auto)	LOS D or better (except WB from Driggs Drive to Semoran Boulevard - LOS F)
Pedestrian Level of Stress (LTS)	LTS 4 (Lowest comfort level) Sidewalk Width <= 5 ft and high speed
Bicycle LTS	LTS 4 (Lowest comfort level) Sidewalk Width <= 5 ft and high speed
Transit LOS	LOS E (one route with 60 min headway)







### **Crash History and Safety**

Total 813 crashes – 8/27/2018 to 8/27/2023

- 741 within a signalized intersection
- 72 along roadway segments
  - 1 Fatality (Off-road crash)
  - 35 Pedestrian/Bicycle related crashes
- Safety audit conducted with safety experts and local stakeholders





### **Historical Crashes – Heat Map**





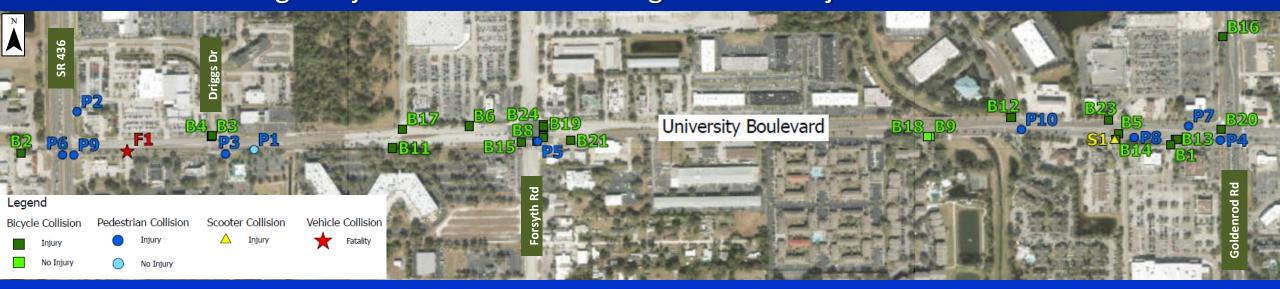
### **Pedestrian/Bicycle Related Crashes**

- 35 Pedestrian/Bicycle related crashes
  - 24 bicycle related
  - 10 pedestrian related
  - 1 scooter related

### 91% resulting in injuries and 17% resulting in serious injuries

#### Ped/Bicycle Crash Hot Spots:

- University Blvd/SR 436
- University Blvd/Forsyth Rd (majority bicycle related)
- University Blvd/Driggs Dr
- Near Costco driveways





### Lighting

University Boulevard Luminosity

- Lower than standard along length of corridor
- No sufficient lighting at transit stops





### **Utilities & Drainage**

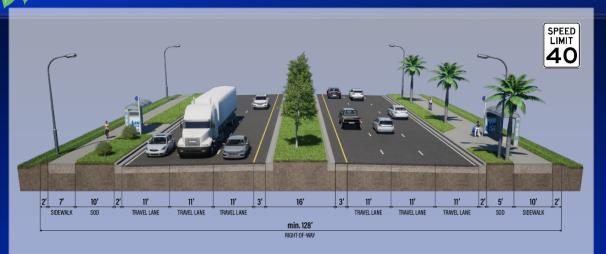
- Utilities present along corridor
  - 19 Utility Agency Owners (UAOs) including electric, fiber, cable, water, etc.
  - Project is within the St. John's River Water Management District and the Little Econlockhatchee Basin
  - 3 permitted ponds and closed drainage system along the corridor



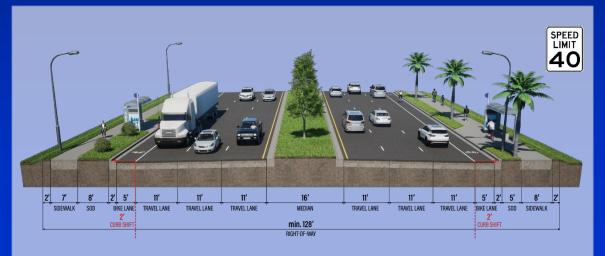


- Welcome and Opening Remarks
- Overview
- Existing Conditions
- Alternative Analysis
- Public Engagement and Schedule

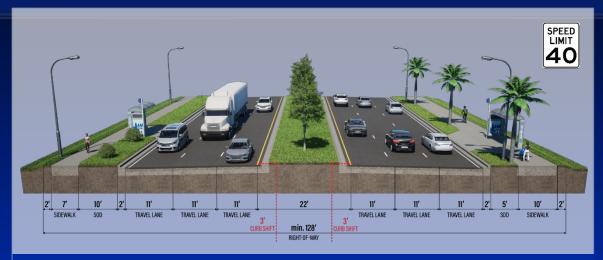




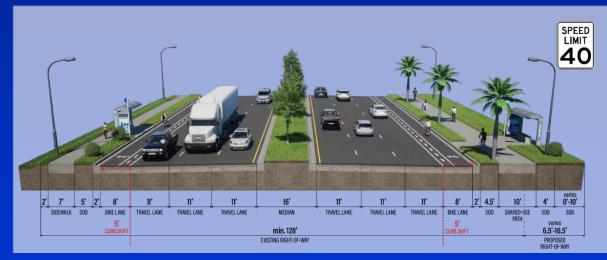
#### Alternative 1 – Widen south sidewalk



Alternative 3 – Add bike lanes & widen south sidewalk



#### Alternative 2 – Widen south sidewalk & median



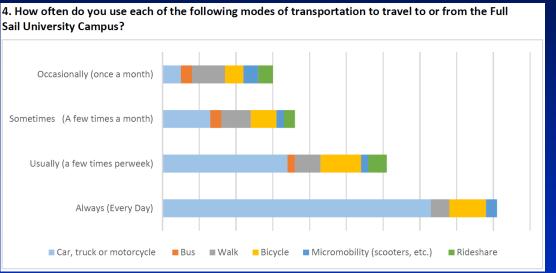
Alternative 4 – Add protected bike lanes & shared use path on south side

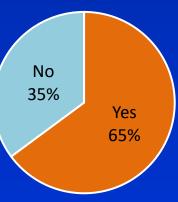


#### Feedback from the Full Sail University Staff/Student Survey 148 participants

Rank	Priority of Improvement Category
1	Improved sidewalks, wider sidewalks and/or shared use path
2	Protected pedestrian intersections (setback or offset intersections
3	More crossing opportunities along University Boulevard (Marked midblock crosswalks, pedestrian bridge, etc.)
4	On street dedicated bicycle lanes
5	Connections to trails in the area
6	More bus routes or improved bus stops
7	Lighting Upgrades
8	A nearby bus transfer station/hub
9	Organized car/van pools
10	Micro-mobility rental options

# 86 out of 148 surveyed use a bicycle or scooter to travel to/from Full Sail





Comfortable crossing University Blvd on Bike or Scooter



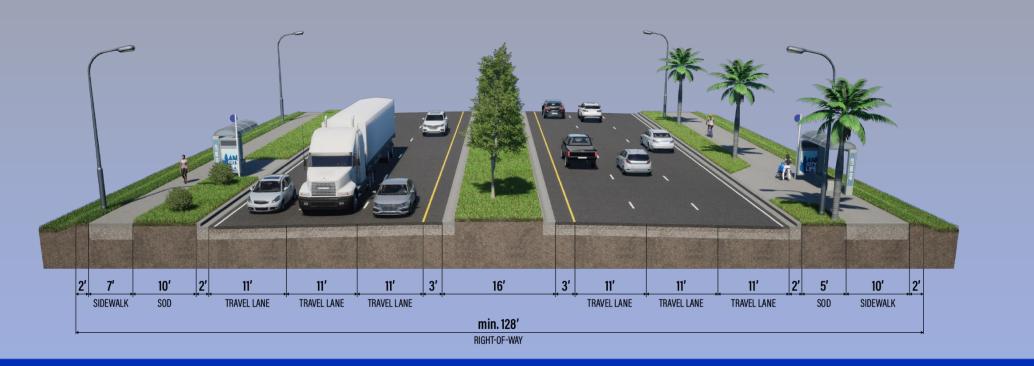
### Feedback from the First Community Meeting Survey 16 participants

Rank	Preferred Alternative from Survey	Number of Responses
1	Alternative 4 – Protected Bike Lane	9
2	Alternative 1 – Shared Use Path	5
3	Alternative 2 – Widened Median	2
4	Alternative 3 – On-Street Bike Lane	0

Responders in Favor of	Percent
Wider sidewalks	81%
Pedestrian Hybrid Beacons at midblock crosswalks	76%
Marked crosswalks or designated crossing locations	75%
More landscaping	69%
Narrow travel lanes to reduce vehicle speeds	66%
Add bicycle lanes	63%

<b>Evaluation Matrix</b>	No Build	Alternative 1 (Preferred) widen south sidewalk	Alternative 2 widen south sidewalk & median	Alternative 3 add bicycle lanes & widen south sidewalk	Alternative 4 add protected bike lanes & shared use path on south side
Potentially Enhances Roadway Safety	No	Yes	Yes Yes		Yes
Potentially Enhances Pedestrian and Bicyclist Safety	No	Yes	Yes	Yes	Yes
Improves Accessibility for All Users	No	Yes	Yes	Yes	Yes
Provides Comfort and Convenience for All Users	No	Yes	Yes	Yes	Yes
Enhance Transit Accessibility	No	Yes	Yes	Yes	Yes
Right-of-Way Potentially Needed (acres)	0.00	0.00	0.00	0.00	0.79
Total Potential Parcels Impacted (#)	0	0	0	0	22
Removal of Existing Trees (#)	0	43	43	59	65
Existing Bus Stop Shelter Impacts (#)	0	5	5	5	5
Community (Social-Economic) Impact Analysis – Environmental Justice (Low/Med/High)	None	Low	Low	Low	Low
Potential Archaeological & Historical Impacts (Low/Med/High)	None	Low	Low	Low	Low
Potential Roadway Utility Impacts (Low/Med/High)	None	Medium	Medium	High	High
Potential Roadway Drainage Impacts (Low/Med/High)	None	Low	Low	High	High
Potential Wetlands Impacts (acres)	None	None	None	None	None
Potential Floodplains Impacts (acres)	None	None	None	None	None
Potential Contamination Sites Impacts (# of Medium/High Sites)	None	4	4	4	4
Potential Threatened & Endangered Species Impacts (Low/Med/High)	None	Low	Low	Low	Low
Critical and Strategic Habitat Impact (Low/Med/High)	None	Low	Low	Low	Low
Wildlife Corridor Impact (Low/Med/High)	None	Low	Low	Low	Low
Estimated Construction Cost (in millions)		ĆE 21		<u>¢11.10</u>	¢11.00
Estimated Construction Cost (in millions)	\$0	\$5.31	\$5.66	\$11.18	\$11.99
Estimated Design Cost (15% of Construction Cost (in millions))	\$0	\$0.76	\$0.81	\$1.61	\$1.72
Estimated Right-of-Way Cost (in millions)	None	None	None	None	\$6.40
CEI (15% of Construction Cost (in millions))*	\$0	\$0.80	\$0.85	\$1.68	\$1.80
Estimated Total Cost Including Right-of-Way (in millions)	\$0	\$6.87	\$7.32	\$14.47	\$21.91
*Note: Includes Construction Contingency					





SPEED

#### **Alternative 1 – Preferred Alternative**

- Three 11-foot-wide travel lanes in each direction with 16-foot raised median
  - Provide 10-foot-wide sidewalk on the south side of the roadway
  - Maintain 7-foot-wide sidewalk on the north side of the roadway
  - Maintain existing median and curb and gutter

# **Alternative Analysis**

### **Additional Improvements**

- Midblock crosswalks with Pedestrian Hybrid Beacon (PHB)
- Pedestrian fencing in the median
- High visibility crosswalks
- ADA upgrades
- Intersection improvements for increased pedestrian safety
  - Reduced curb radius
  - Leading Pedestrian Intervals at signalized intersections
  - No right turn on red
  - Protected only left turns





# Alternative Analysis

### **Additional Improvements**

- Bus stop relocation and consolidation
- Access management improvements
- Intelligent Transportation System (ITS) features
- Speed management
- Lighting enhancements
- Landscaping







### **Pedestrian Hybrid Beacon (PHB)**



- PHBs remain dark until activated by someone waiting to cross the road
- They can help increase driver attention to pedestrians crossing the roadway and reduce rear-end collisions
- The red signal indication requires motorists to make a complete stop

# How to use a Pedestrian Hybrid Beacon (PHB)

### **Driving**



**GO** Beacon remains dark until activated.

**SLOW DOWN** Push button has been activated.



### **Walking**



**PUSH THE BUTTON** Stop and wait for "WALK" signal.



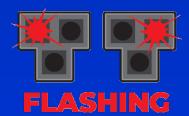
START CROSSING Watch for cars.

**FLASHING** 

**PREPARE TO STOP** watch for pedestrians and bicyclists.



**STOP!** People are crossing.



**STOP** Proceed with caution <u>if clear.</u>







FINISH CROSSING Cross safely before the countdown timer expires.

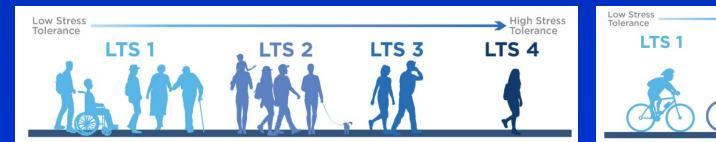
**DON'T WALK** Push the button to cross. Wait for the "WALK" signal to

cross.



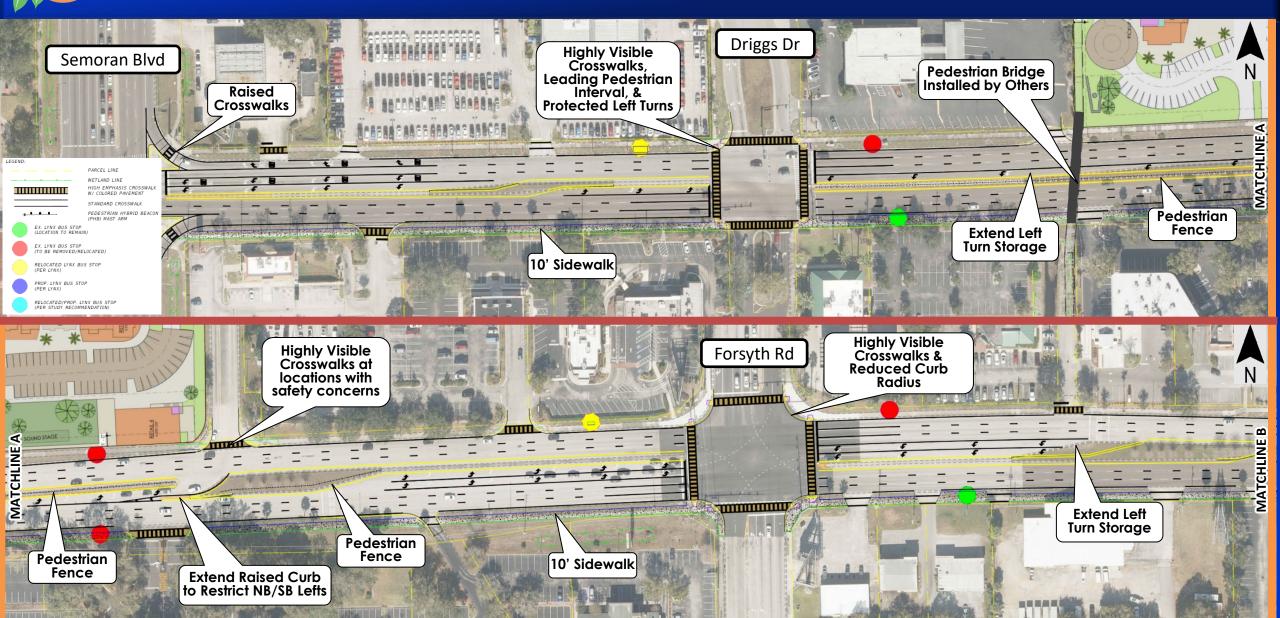
### Multimodal LOS – Recommended Improvements

University Boulevard	Value				
Number of Lanes	6 Lanes				
Recommended Posted Speed	40 mph				
AADT	52,000				
Roadway Segment LOS (Auto)	LOS E (except WB from Driggs Drive to Semoran Boulevard - LOS F)				
Pedestrian Level of Stress (LTS)	LTS 2 (Higher comfort level) 10 ft Sidewalk, Reduced Speed, and Vertical Separation				
Bicycle LTS	LTS 1 (Highest comfort level) 10 ft Sidewalk, Reduced Speed, and Vertical Separation				
Transit LOS	LOS D or better (Four proposed routes with 15-30 min headway)				

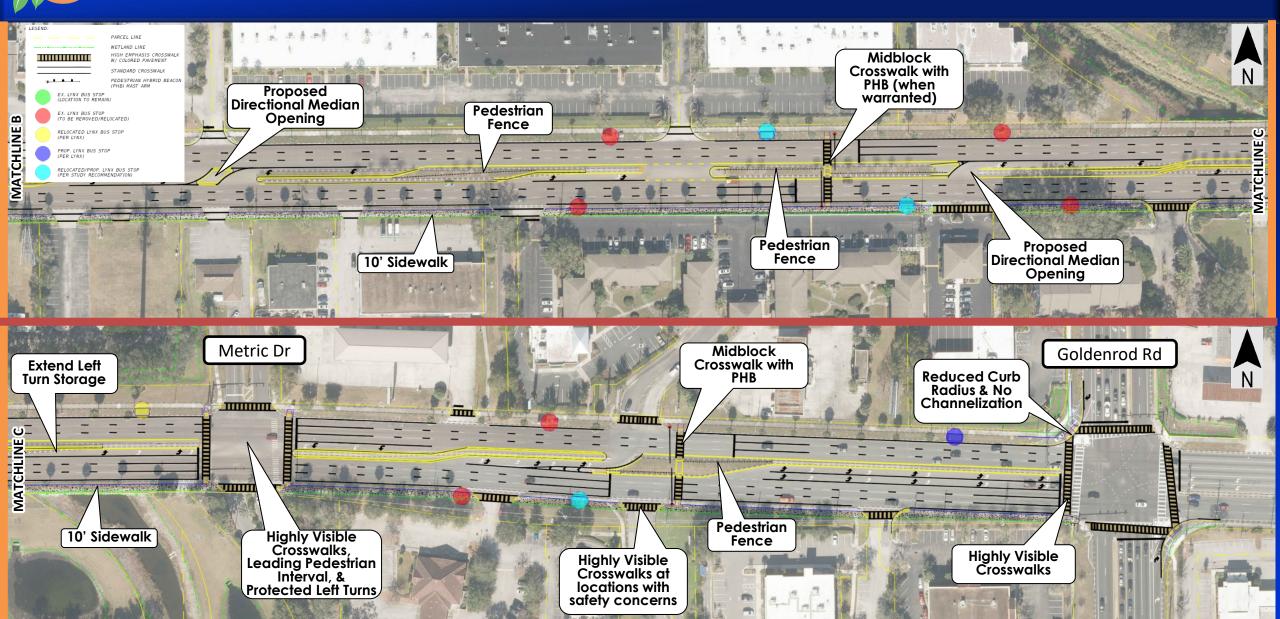




# **Alternative Analysis**



# **Alternative Analysis**





- Welcome and Opening Remarks
- Overview
- Existing Conditions
- Alternative Analysis
- Public Engagement and Schedule

# **Public Engagement and Schedule**

Study Website:

https://universityboulevardpedestriancyclistsafetystudy.com

- Community Meetings
- Newsletters
- Call/Email
- Attend LPA & BCC Hearings
- Comment Card

### Please submit comments by April 18, 2025

				- 0
	Welcome to Orange County Un × +			
~ ·	<ul> <li>O S universityboulevardpedestriancyclistsafetystu</li> </ul>	dy.com/#mainContent		옥 ☆ 한 🔹
l <u>y.com</u>	(大) (本) (本)	Home Study Process	Project Documents Project Schedule S	Submit Feedback
	University Boulevard Pedestrian/Cyc	list Safety Study		
	Goldenrod Road. This corridor is home to various busines Some of the largest generators of activity include Full Sai	clist safety study along University Boulevard, from Semoran seas, residences and institutions that promote bicycle and pe I University, Aloma Elementary School, Costco, Publix, Targe Park Apartments, and various restaurants and commercia	destrian activity. ANNOUNCE	MENTS
	Compounded with the expected growth in development a impacting the safety of all the corridor users. As a result, in The study objective is to provide both project-wide and lo	cation-specific safety, accessibility, comfort, and convenience	lly, adversely upcoming Alternatives In Meeting tentatively sche	regarding the nformation Public iduled for October
	for pedestrians, cyclists, transit patrons, motorists and fre We strongly encourage public participation and welcome		SIGN U	<b>IP</b>
	Sign up to receive project updates!			
	Submit your feedback using the online to a state on the online to a state of the word to extend to ex	his important effort!	Sign Up to be added to or to request information thoughts about t	n or to share your
Pedestriances from semoran Bour	Top Cool	<section-header><section-header><section-header><section-header><text><text><image/><image/><image/><image/></text></text></section-header></section-header></section-header></section-header>	Image: State Stat	A constraints of the second se

# Public Engagement and Schedule

### Action items based on comments received

- Incorporated protected bicycle lanes as an alternative
- Modified two full median openings to directional to service multiple parcels
- Added pedestrian fencing in the median at proposed mid-block crossing locations
- Request for median signage between Forsyth Road and Goldenrod Road forwarded to Traffic Engineering Division
  - Signs were warranted; installation scheduled for next month
- Flooding concerns at Publix driveway forwarded to Roads & Drainage



We are here

### **Project Schedule**

Tests	2023	2024			2025			
Task	Sep-Dec	Jan-Apr	May-Aug	Sep-Dec	Jan-Feb	Mar-Apr	May-Jun	July-Aug
Project Kick-Off								
Stakeholder Coordination								
Public Outreach Meetings						2		
Local Planning Agency (LPA) Workshop & Public Hearing							0 2	
Board of County Commissioners (BCC) Workshop & Public Hearing							0	2
Final Report								
🕕 Public Outreach Meeting #1 💈 Public Outreach Meeting #2 🅕 LPA Workshop 🙆 LPA Public Hearing 🕕 BCC Workshop 😰 BCC Public Hearing								

# **Public Engagement and Schedule**

### Orange County Project Manager:

#### Krista Taraszewski, PMP

Transportation Planning Division Orange County Public Works Department 4200 John Young Parkway Orlando, FL 32839 Email: Krista.Taraszewski@ocfl.net Phone: (407) 836-8014 Fax: (407) 836-8079 Consultant Project Manager: Babuji Ambikapathy, PE, AICP VHB 225 E Robinson Street, STE 300 Landmark Center Two Orlando, FL 32801 Email: Bambikapathy@vhb.com Phone: (407) 230-2762



Call, Email, or Visit Website







# QUESTIONS AND ANSWERS

#### **Transportation Planning Division**

# University Boulevard Pedestrian/Cyclist Safety Study Community Meeting #2

April 3, 2025