CRTPA

N. Monroe St. Safety Study Phase II

RS&H

Agenda

- Project Background
- SS4A Grant Discussion
- Intersection & Pedestrian Crossing Analysis
- Near Miss Analysis
- Traffic Operations
- Preliminary Results
- Next Steps

Project Background

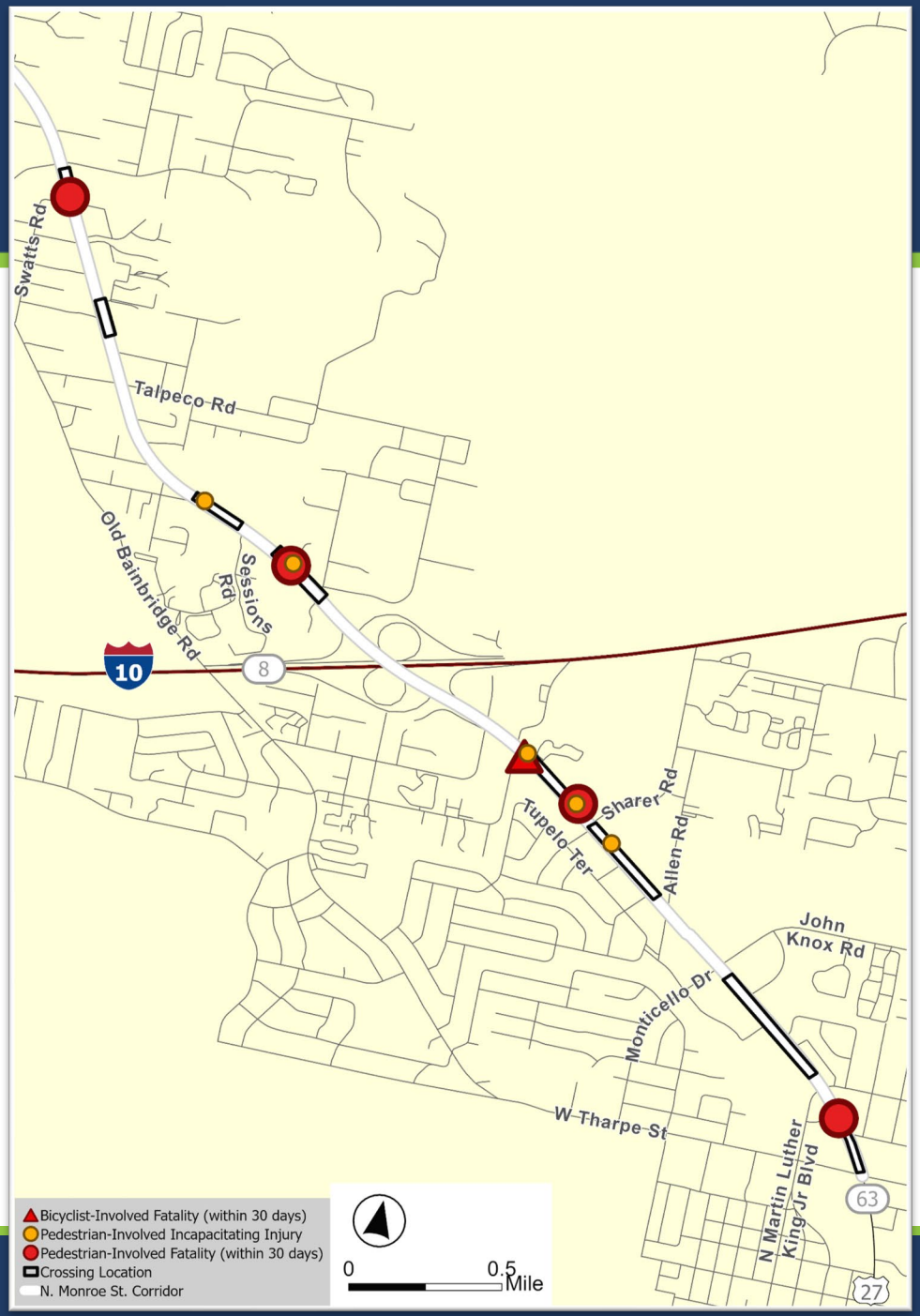
Purpose: Improve safety along the North Monroe Street corridor from Tharpe Street to Capital Circle Northwest.

- Corridor identified as part of High Injury Network (HIN) in the SS4A Safety Action Plan
- High levels of pedestrian and bicycle traffic

Project Background

Safety Analysis 2019-2024

- 25 Pedestrian crashes;
  - 25 pedestrian-involved crashes
- 16 Bicycle crashes;
  - 17 total bicyclist-involved crashes
- 7 total fatalities along corridor;
  - 4 pedestrians, 1 bicyclist
- 15 incapacitating injuries;
  - 4 pedestrians



Project Background

Walking Safety Audit (2024)

- Confirm corridor conditions and identify additional concerns
- Planners, engineers, law enforcement, and CRTPA Board member

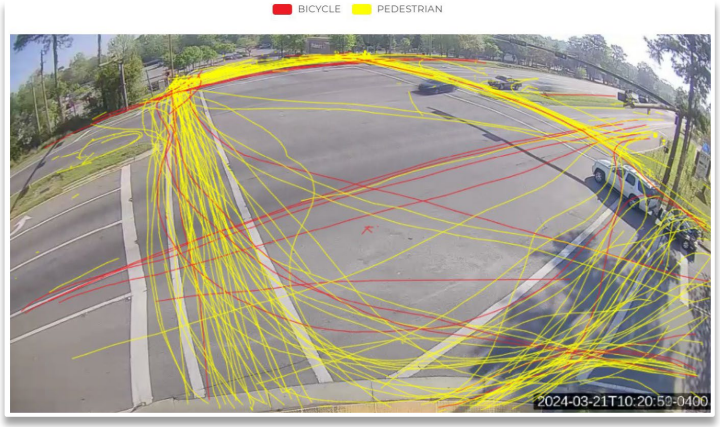
Walking Audit - Transit Stop with Limited Pedestrian Infrastructure

Damaged/Missing Pedestrian Safety Features (No Railing)

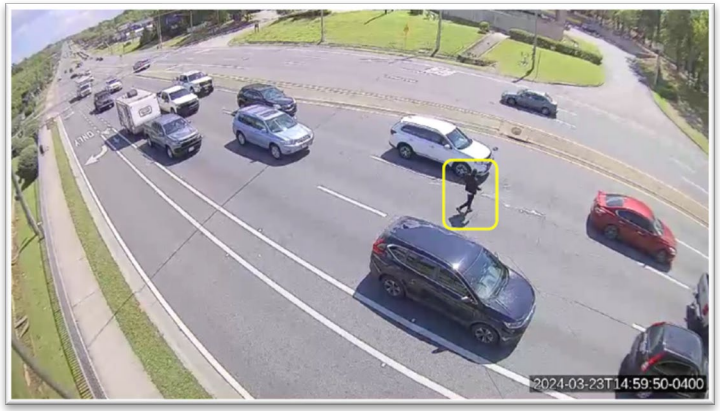
Project Background

Camera Counts & Near Miss Analysis

- Cameras recorded ped and bike pathing at 7 key intersections and mid-blocks
- Near misses captured “close calls”



Sessions Road Pedestrian and Bike Pathing



Near Miss Analysis

Camera Count Analysis (2024)

- 7 locations from Tharpe Street to Sessions Road
- Motorized and Non-motorized counts

Tharpe Street

Weekday	Camera Count
Cyclist	46
Pedestrian	138
All	184
Weekend	
Cyclist	30
Pedestrian	137
All	167

Sessions Road

Weekday	Camera Count
Cyclist	14
Pedestrian	65
All	79
Weekend	
Cyclist	7
Pedestrian	62
All	69

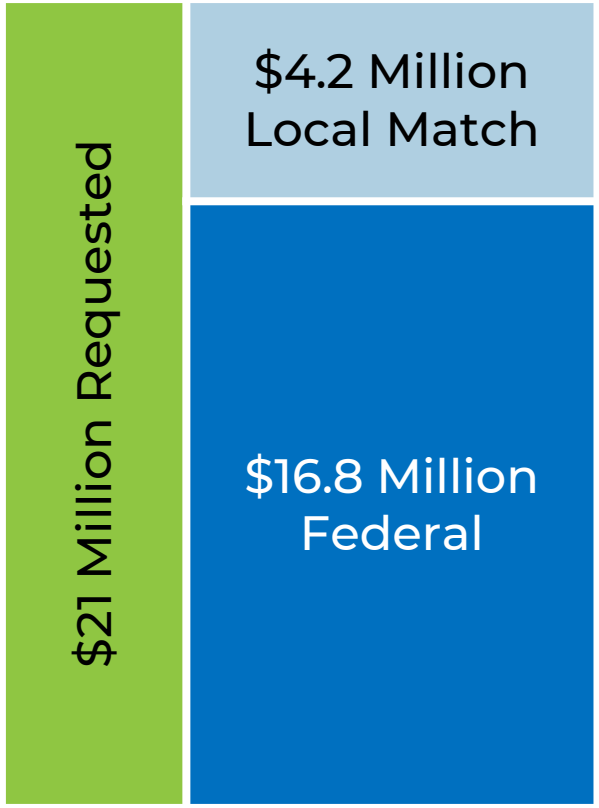
Sharer Road to Lakeshore (Midblock)

Weekday	Camera Count
Cyclist	16
Pedestrian	226
All	242
Weekend	
Cyclist	35
Pedestrian	243
All	278

SS4A Grant Discussion

- Grant submitted under 2024 and 2025 Safe Streets and Roads for All (SS4A) Program
  - Implementation Grant submitted
- $21 Million requested
- Partial Award in 2024

Full Award in 2025!

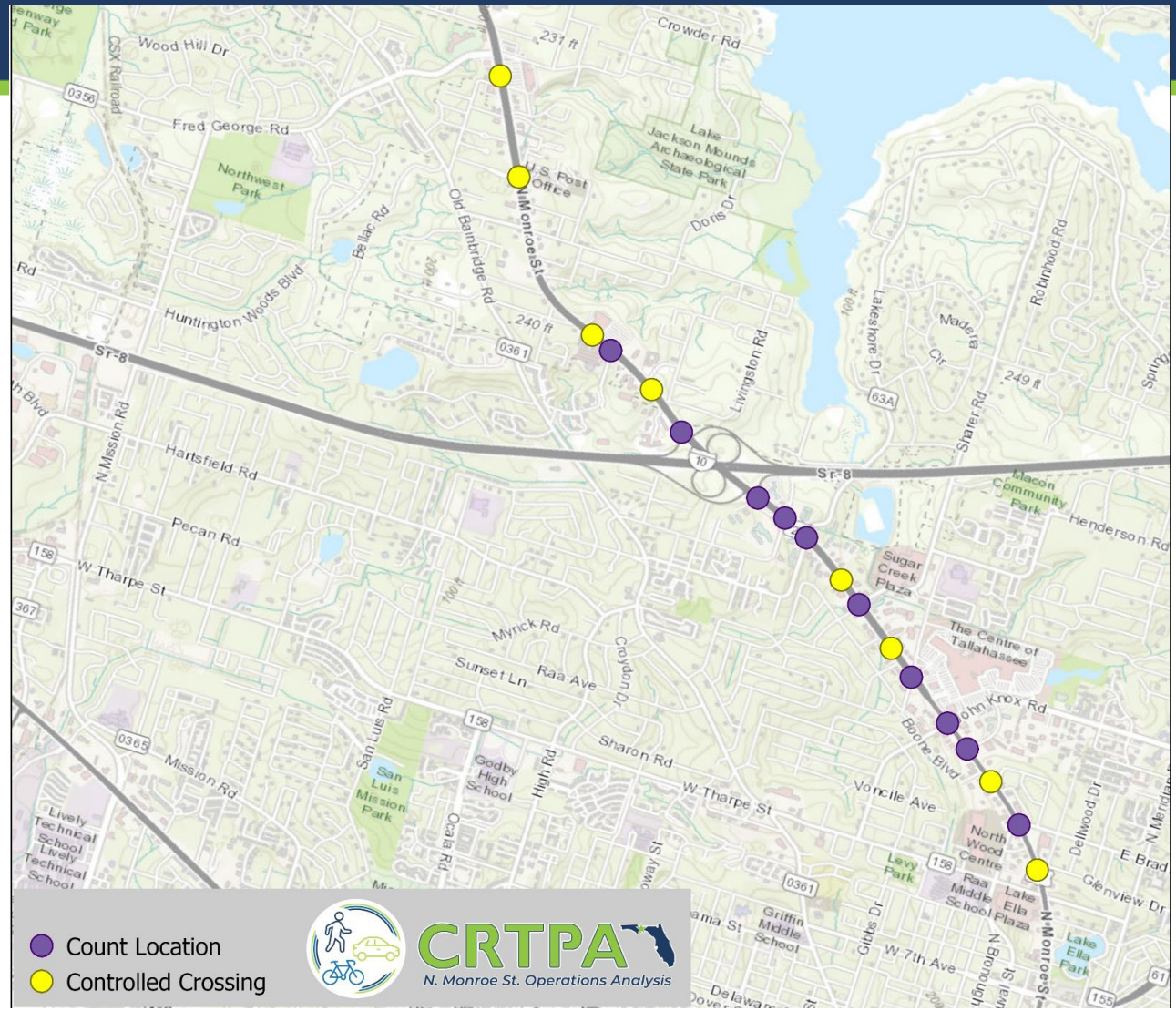


Intersection & Ped Crossing Analysis

- Pedestrian Crossing Analysis
- Intersection Analysis
  - Traffic Volumes
  - Level of Service (LOS) Analysis by Mode
  - Near Miss Events
- Recommendations Development
- Pedestrian/Bicycle Level of Traffic Stress (LTS) Analysis
  - Performed for existing conditions & proposed conditions

Intersection & Pedestrian Crossing Analysis

- 8 crossing locations reviewed
- Camera counts at 10 intersections
  - 12-hour counts & Near Miss Analysis
    - Vehicle/Bike/Pedestrian



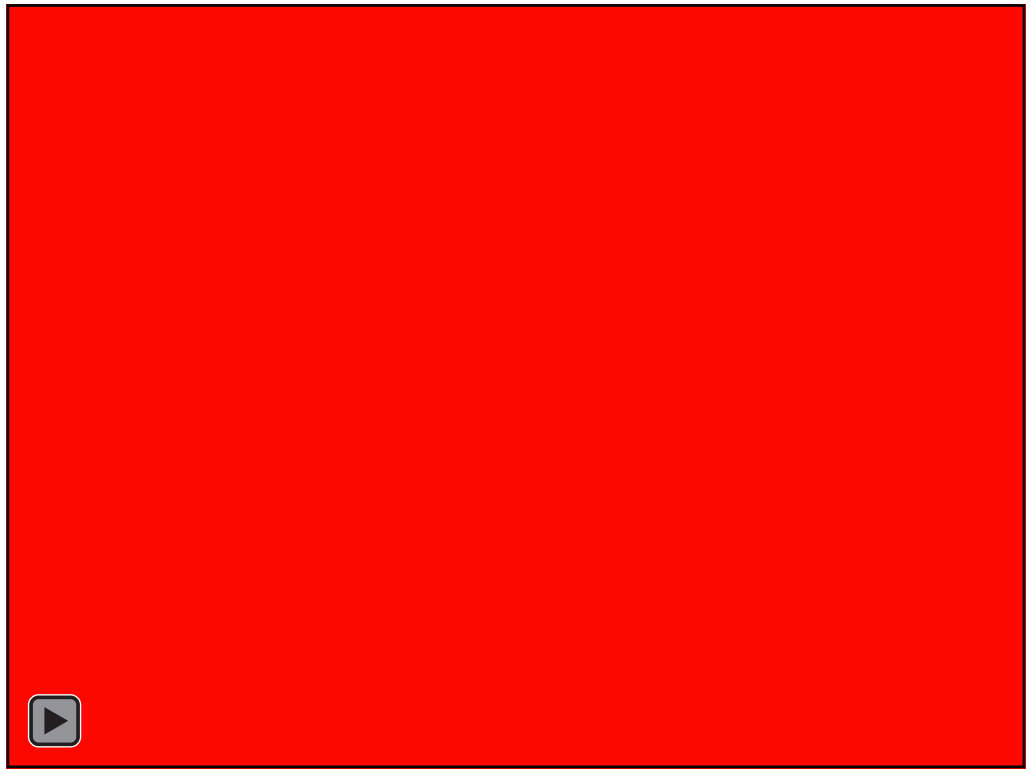
Near Miss Analysis

Intersection Location	Ped - Veh Conflicts	Bike – Veh Conflicts
E Bradford Road	15	6
Silver Slipper Lane	16	3
John Knox Road	12	0
Allen Road	4	0
Sharer Road	24	11
Lakeshore Drive	13	3
Meginnis Road	6	5
I-10 Off Ramp	0	1
I-10 On Ramp	0	0
Sessions Road	9	0

Recorded Near Misses

Sharer Road

110 Near Misses



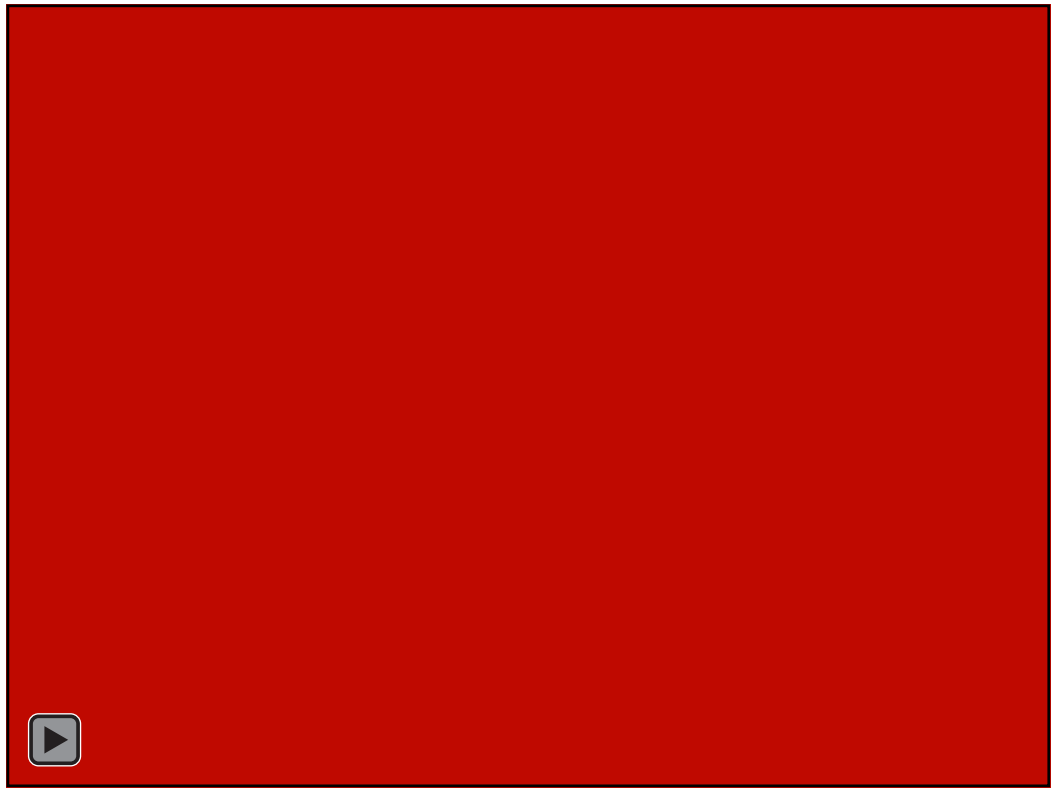
E Bradford Road

90 Near Misses

Recorded Near Misses

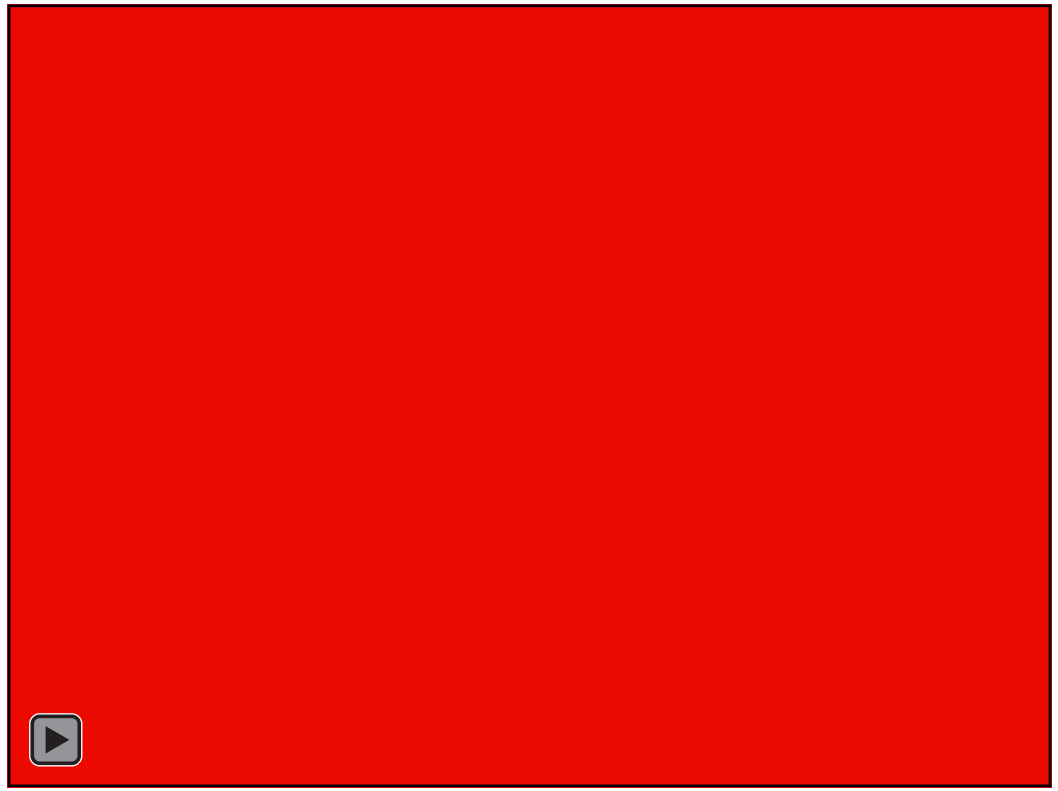
Silver Slipper Lane

53 Near Misses



Allen Road

49 Near Misses



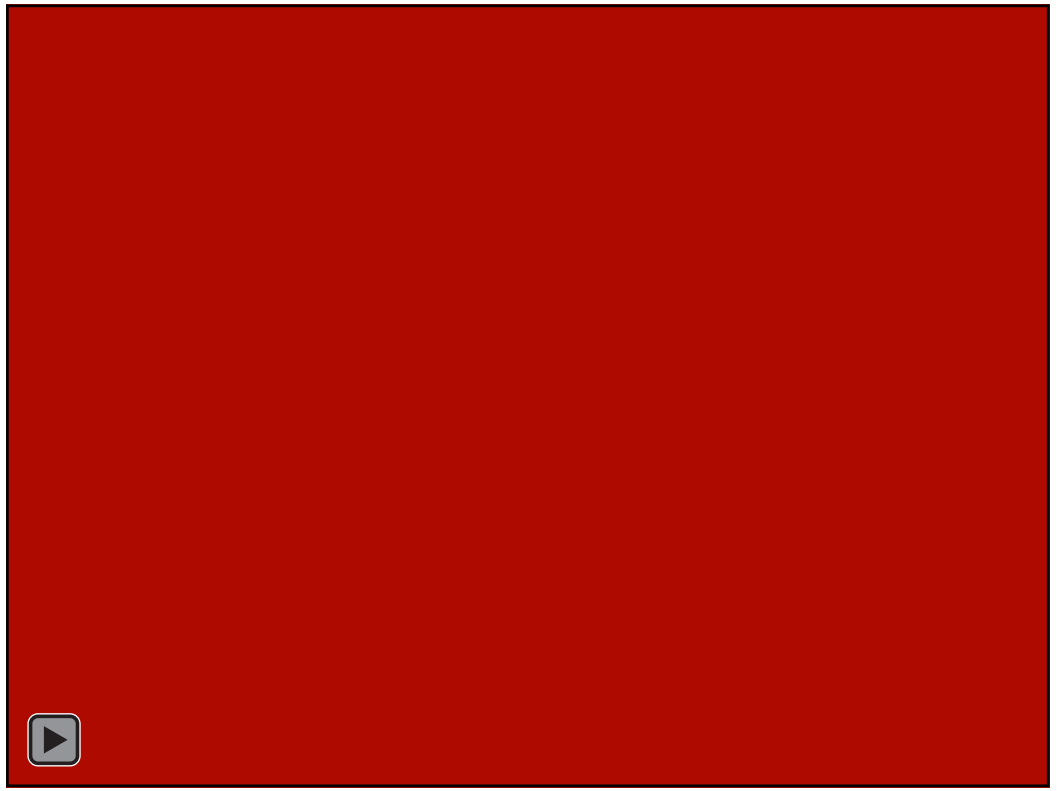
Recorded Near Misses

Lakeshore Drive

70 Near Misses

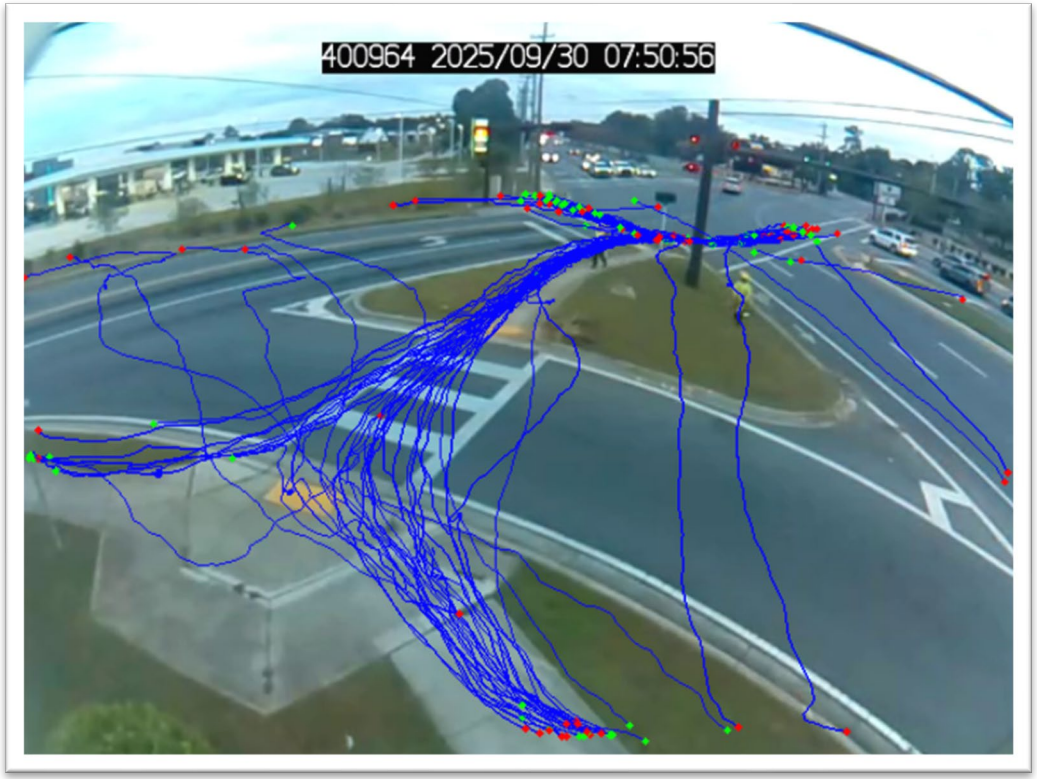
Meginnis Road

19 Near Misses

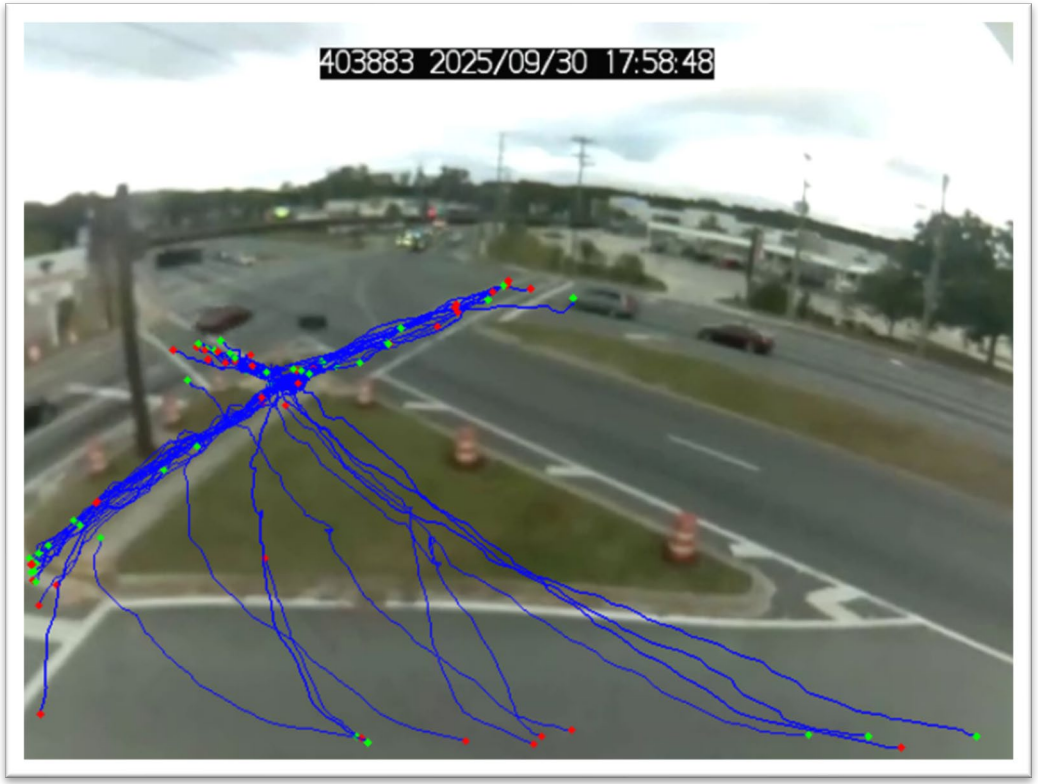


Pedestrian Movement Pathing

Allen Road facing SE
Pedestrian movements



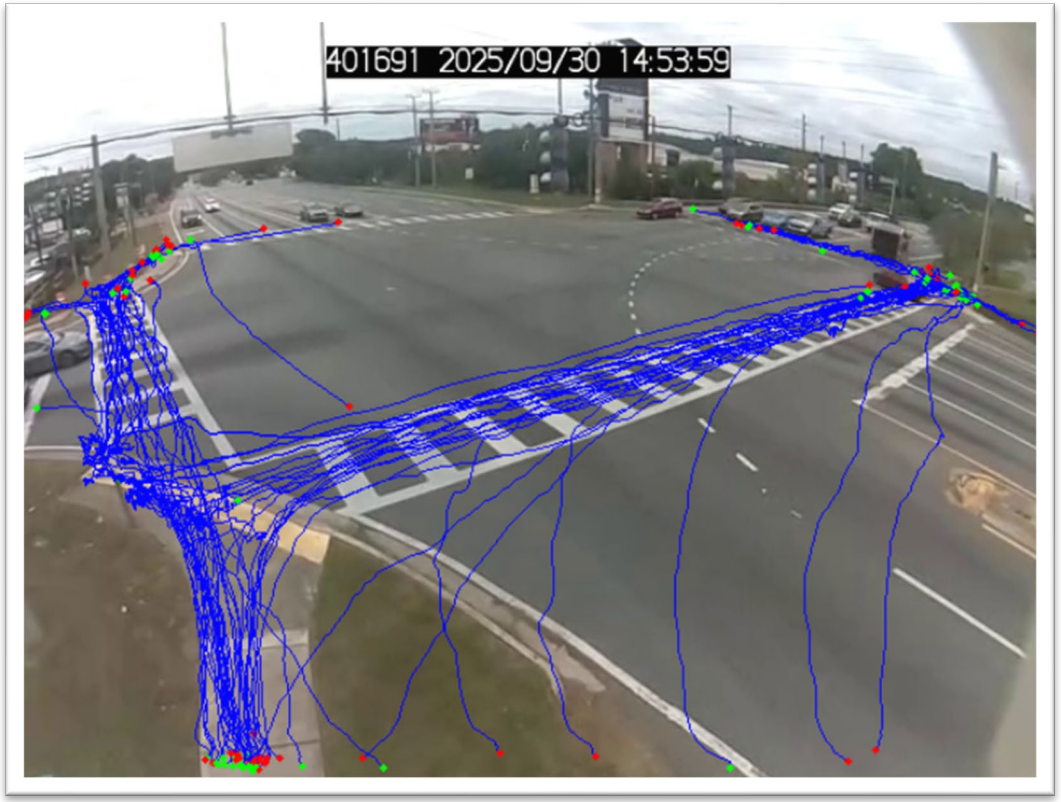
Allen Road facing NW
Pedestrian movements



Pedestrian Movement Pathing

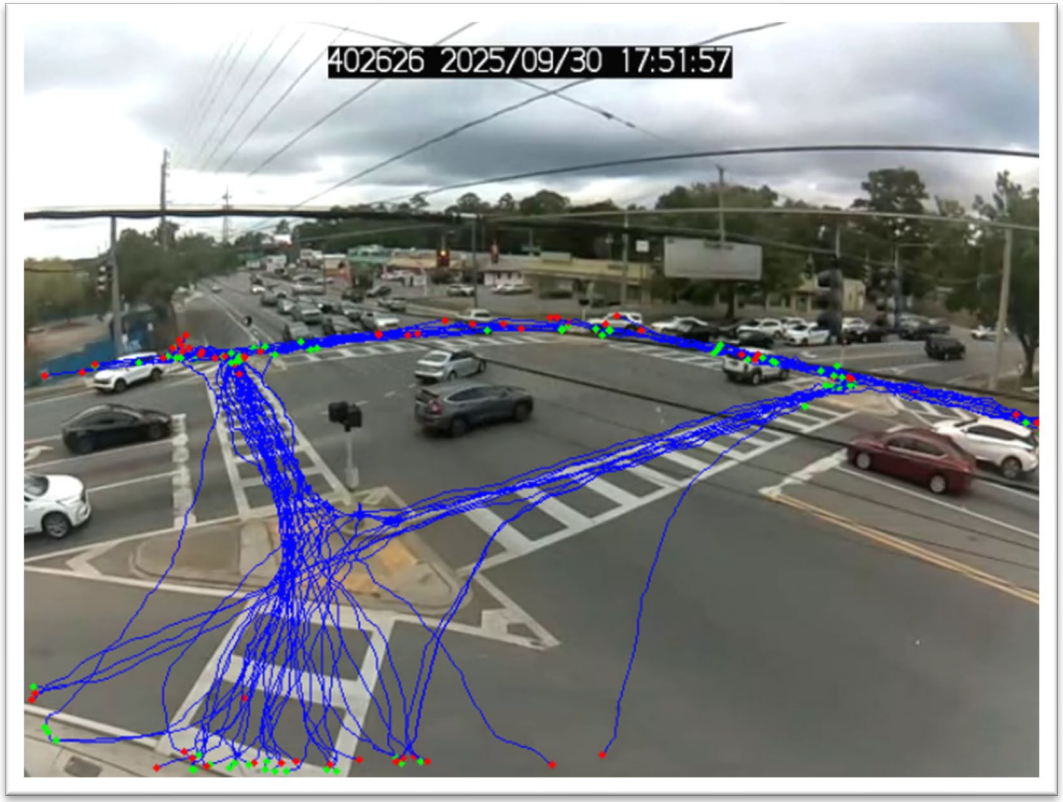
John Knox Road facing N

Ped movements



E Bradford Road facing N

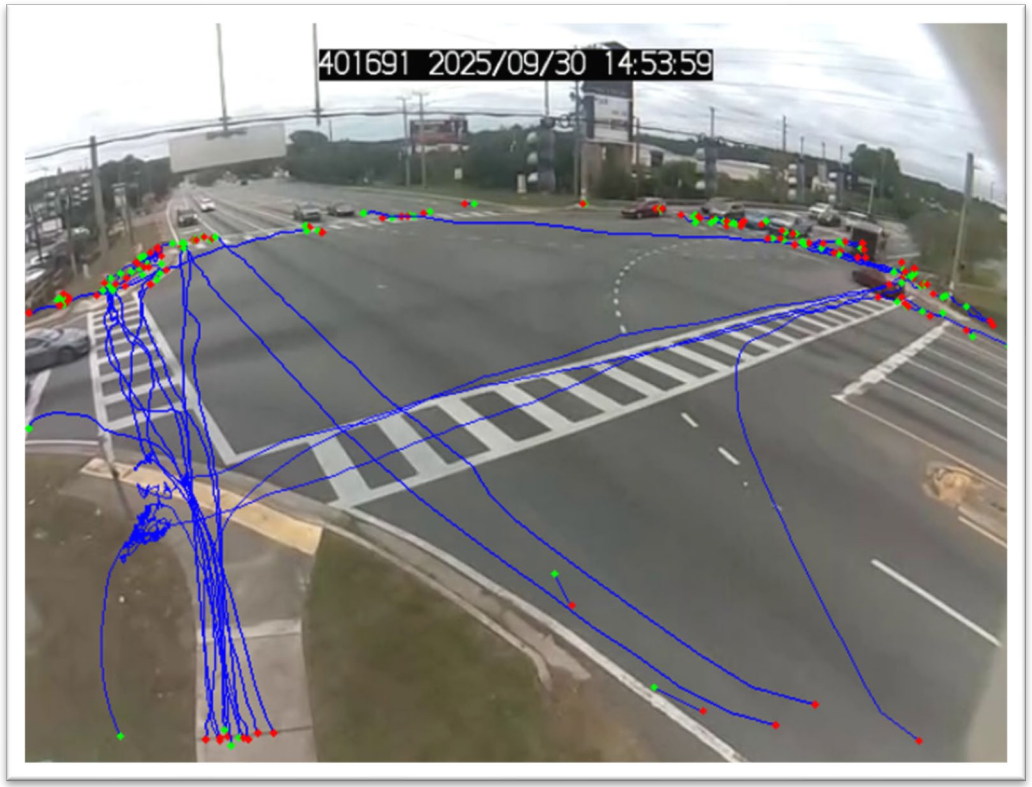
Ped movements



Bike Movement Pathing

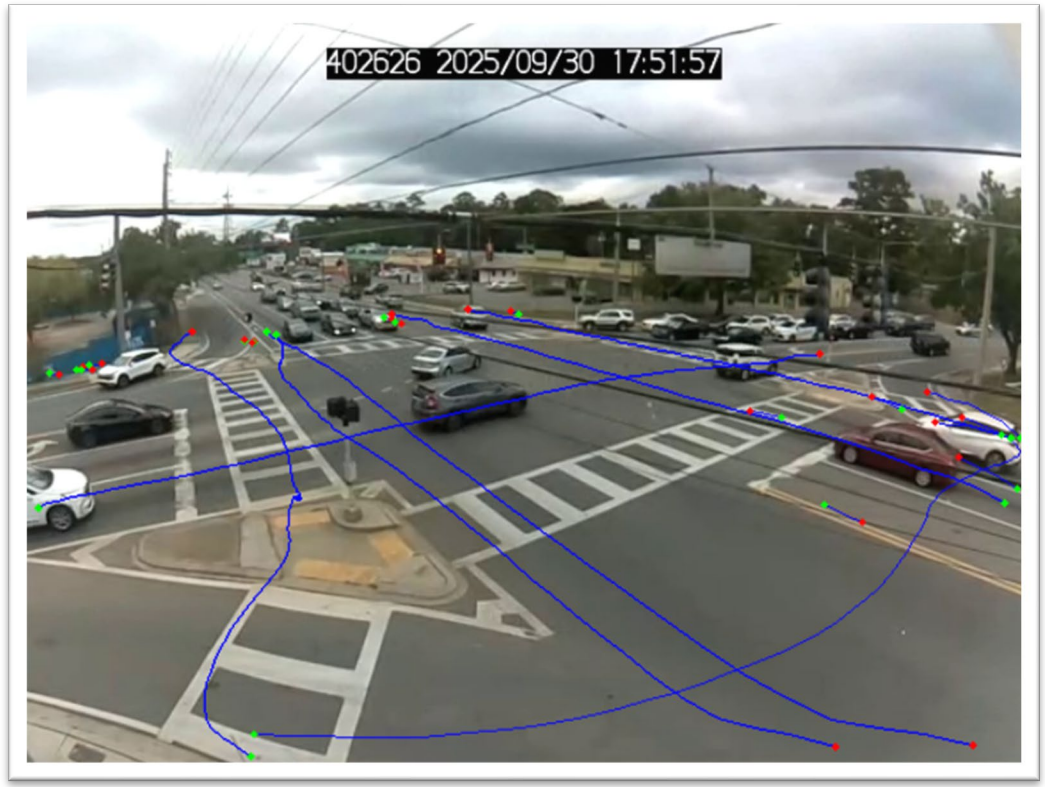
John Knox Road facing N

Bike movements



Allen Road facing NW

Bike movements



Traffic Operations

Traffic counts completed

- Existing AM and PM peak hour volume development is complete

Operational Analysis underway

- AM Peak – All signalized intersections are LOS D or better
- PM Peak – Callaway Rd operates at LOS E, all other intersections LOS D or better
- Arterial LOS is C for peak hours

Traffic Operations

Pedestrian and Bicycle Level of Traffic Stress analyses currently underway

Preliminary findings:

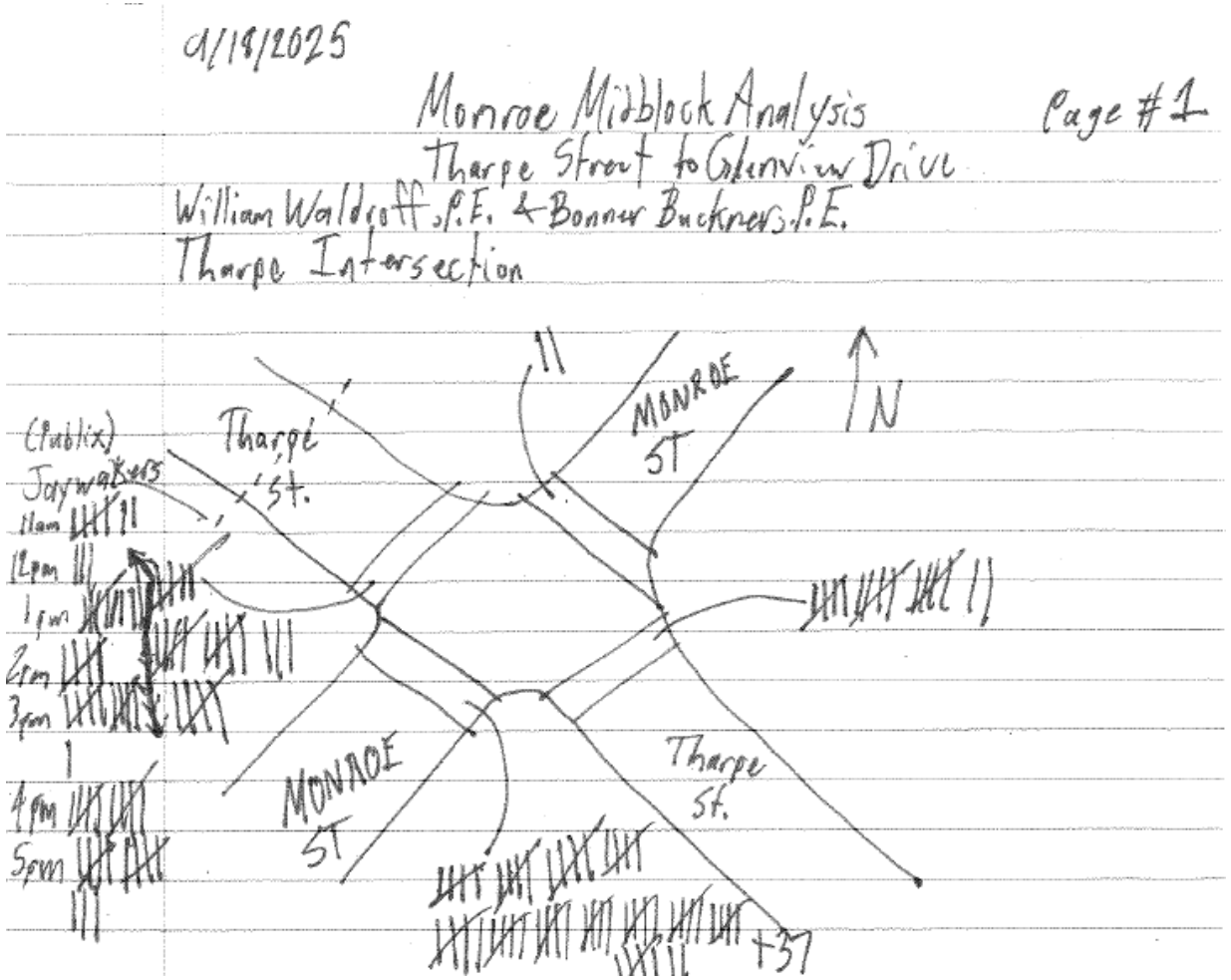
- 5 crossing areas have Pedestrian Level of Traffic Stress = 4 (high stress)

- 6 crossing areas have Bike Level of Traffic Stress = 4 (high stress)

FDOT QLOS Handbook (2023)

Site Visits & Reviews

- In-person crossing counts at eight mid-block locations
- Pedestrian movements analyzed to develop recommendations for crossings



Preliminary Results

South of Fred George Road

- Likely to recommend signalized mid-block with pedestrian fencing or relocated bus stop with pedestrian fencing

North of Talpeco Road

- No recommendations for crossing at this time

North of Sessions Road

- Likely to recommend pedestrian fencing in the median

South of Sessions Road

- Likely to recommend signalized mid-block just north of Northmont Drive and median pedestrian fencing
- The southbound bus stop will likely be recommended to move north

*Key: Transit stops will be moved to appropriate locations (continued coordination with StarMetro)

Preliminary Results

North of Sharer Road

- Likely to recommend signalized mid-block and pedestrian fencing

Tharpe Street to Northwood Boulevard

- May recommend signalized mid-block south of Glenview Drive
- Buses had less influence on mid-block crossings here

South of Sharer Road

- Likely to recommend pedestrian fencing

E Bradford Road to Silver Slipper Lane

- Likely to recommend signalized mid-block between Universal Drive and Silver Slipper Lane
- Bus stops will likely be recommended to adjust to line up with the mid-block crossing

*Key: Transit stops will be moved to appropriate locations (continued coordination with StarMetro)

Preliminary Results – Benefit/Cost

North of Sessions Road - 3.98

South of Sessions Road - 26.28

E Bradford Road to Silver Slipper Lane -3.39

ANNUAL COST OF IMPROVEMENTS

Type		Cost	Service Life	Capital Recovery Factor		Total
ROW	$	-	100	0.0408	$	-
P.E.C.E.I.	$	-	15	0.0899	$	-
Structure	$	-	75	0.0425	$	-
Roadway	$	149,919.00	20	0.0736	$	11,034.04
Drainage	$	-	20	0.0736	$	-
Signal	$	253,186.00	20	0.0736	$	18,634.49
Other			20	0.0736	$	-
Sub-Total	$	403,105.00			$	29,668.53
				Annual Cost =	$	29,668.53

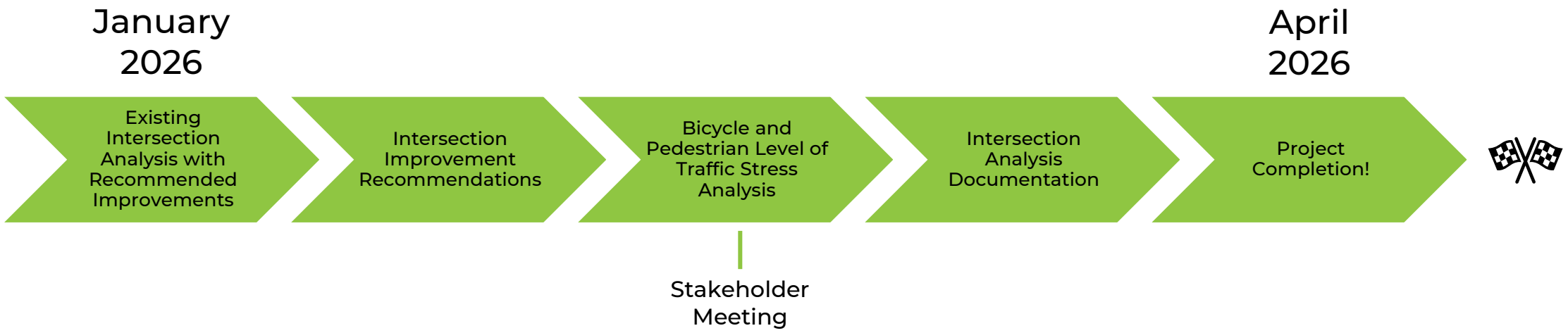
Total number of crashes =	234	Primary crash reduction factor (%):	44.6
# of correctable crashes, PC =	12		
# of years of crash data, YD =	6		
PC/YD =	2.00	Additional crash reduction factor:	
Crash reduction factor, CRF =	44.60%		
CRF x (PC/YD) =	0.89		
Cost per crash, CPC =	$112,896.00	Additional crash reduction factor:	
Benefit =	$100,703		

BENEFIT/COST RATIO

$$\frac{\text{Benefit}}{\text{Cost}} = \frac{\$100{,}703.23}{\$29{,}668.53} = \mathbf{3.39}$$

Next Steps

- Traffic network analysis
- Continue engineering analysis and review
- Stakeholder Coordination
- Development of final recommendations and documentation



Thank You!

RS&H

Questions?

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