

Eller Drive & McIntosh Road Intersection Improvement Feasibility Study

Stakeholder Meeting 1:

Existing Conditions and Improvement Concepts

February 2024

Agenda



Welcome and Opening

Project Introduction

Field Observations and Assessment

Existing Conditions Analysis

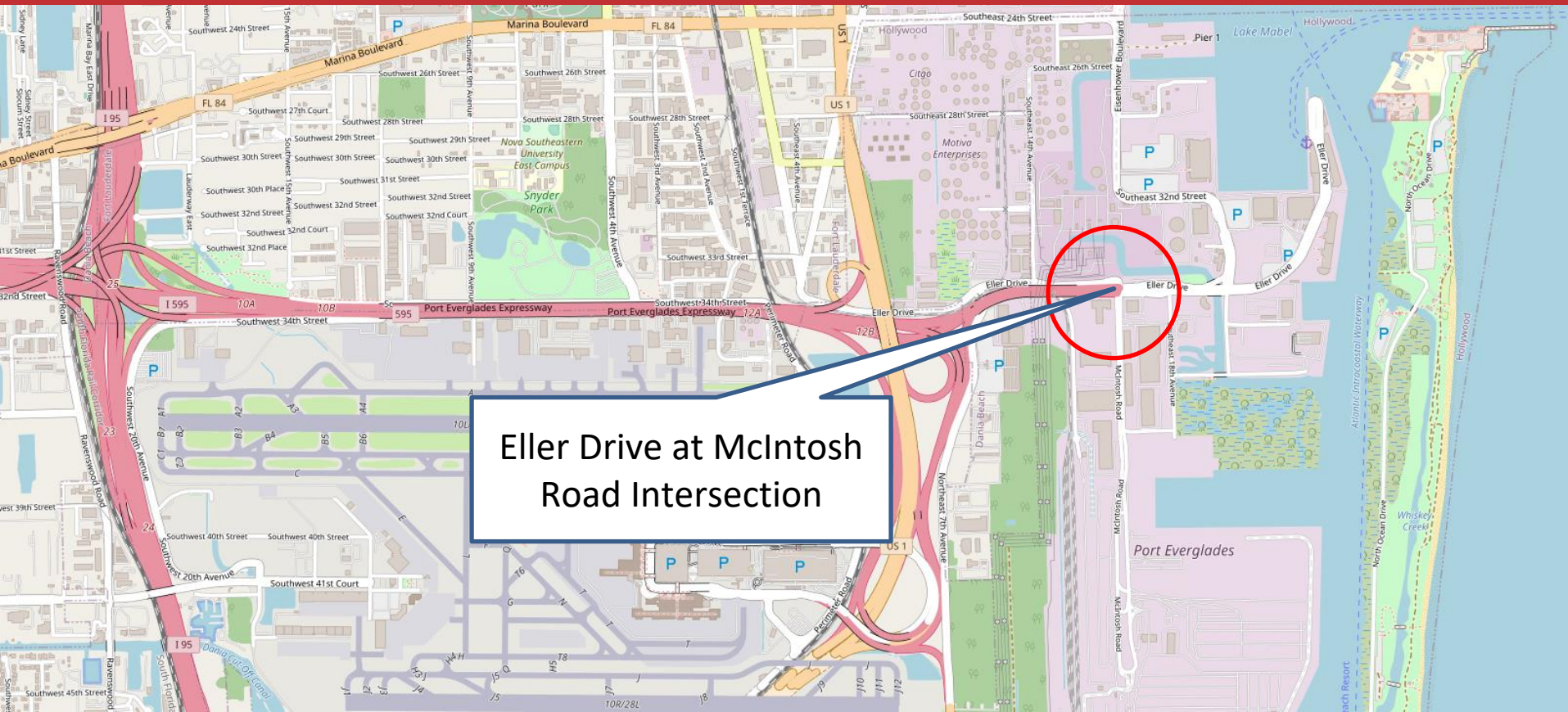
Improvement Concepts

Open Discussion

Next Steps

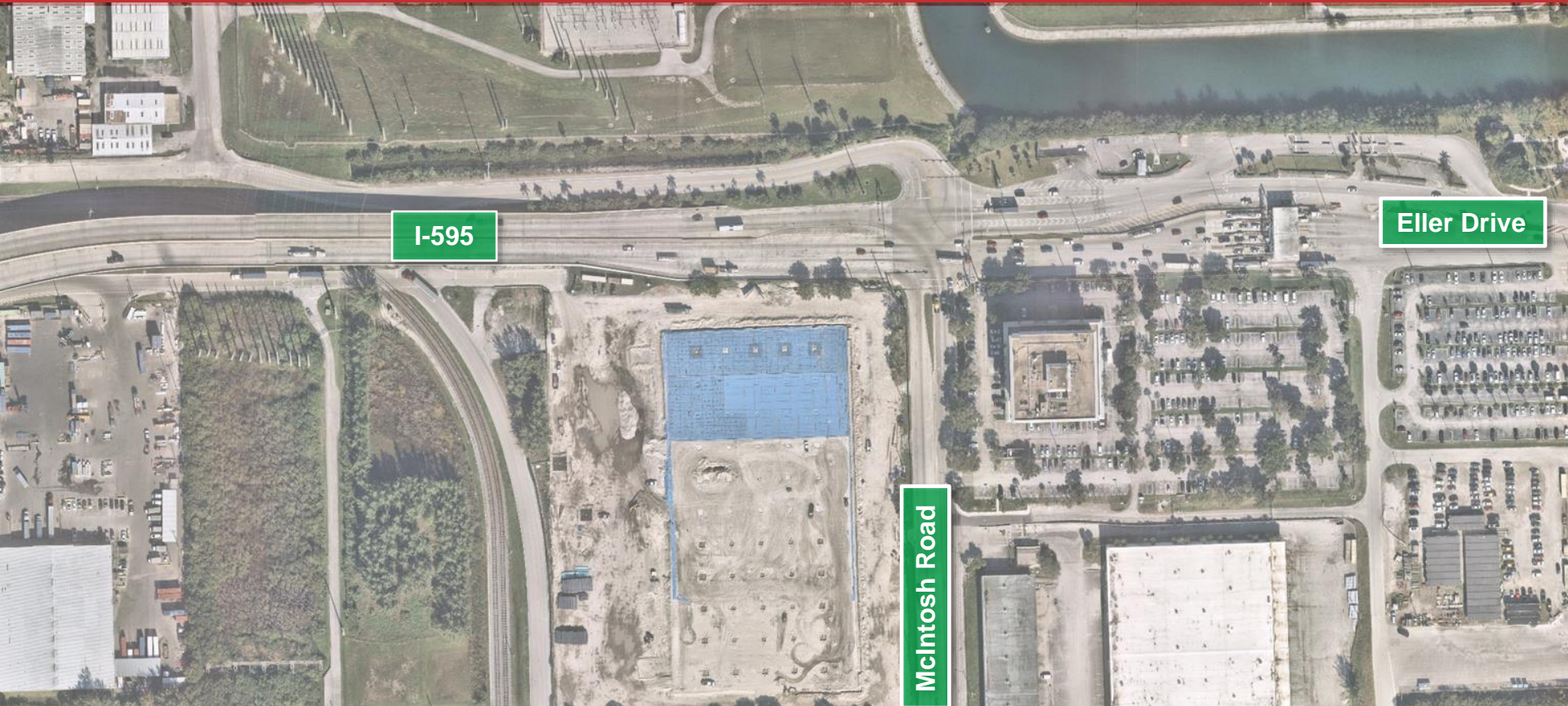
Project Introduction

Project Introduction



Eller Drive at McIntosh
Road Intersection

Project Introduction



I-595

Eller Drive

McIntosh Road

Project Introduction

Objectives:

- Identify and evaluate five (5) alternatives that will improve traffic operations, mobility, and safety for all users of this intersection.
- Conduct an in-depth evaluation and recommend a preferred alternative to move forward for further development.



Project Tasks

1. Field Review/Observation
2. Existing and Future Conditions
3. Crash Data
4. Travel Demand Forecasting
5. Traffic Operational Analysis
6. Document Existing Conditions
7. Conceptual Design Alternatives
8. Construction Cost Estimating
9. Benefit-Cost Analysis (BCA)
10. Alternatives Evaluation
11. Recommendations
12. Meetings and Coordination
13. Stakeholder Presentations
14. Report Document

Field Observation and Assessment

Field Observations and Assessment

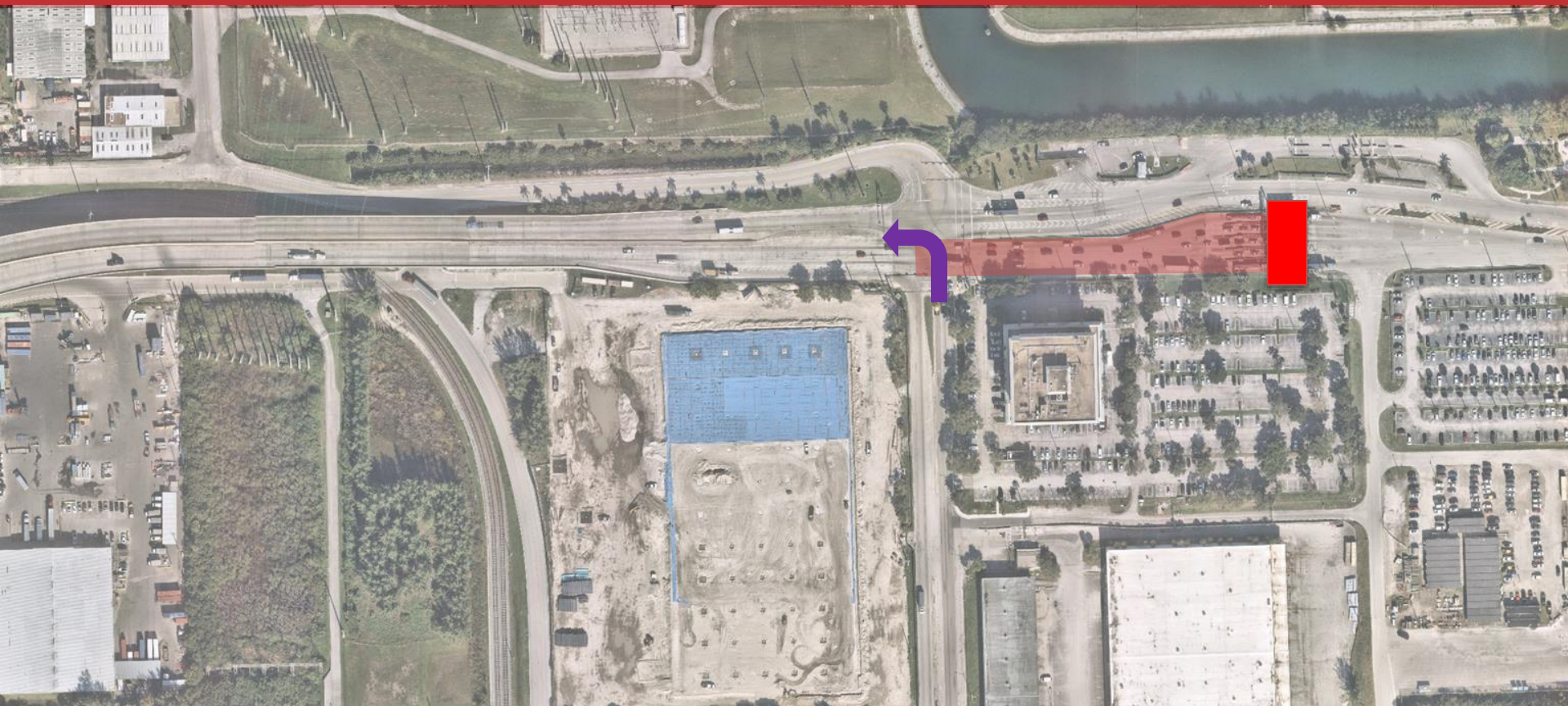


April Field Observation

- EB spillback
- NBLT trucks blocked



Field Observations and Assessment



Field Observations and Assessment

Oct. 6 from Admin Building

- EBRT Truck Queue Spillback



Field Observations and Assessment



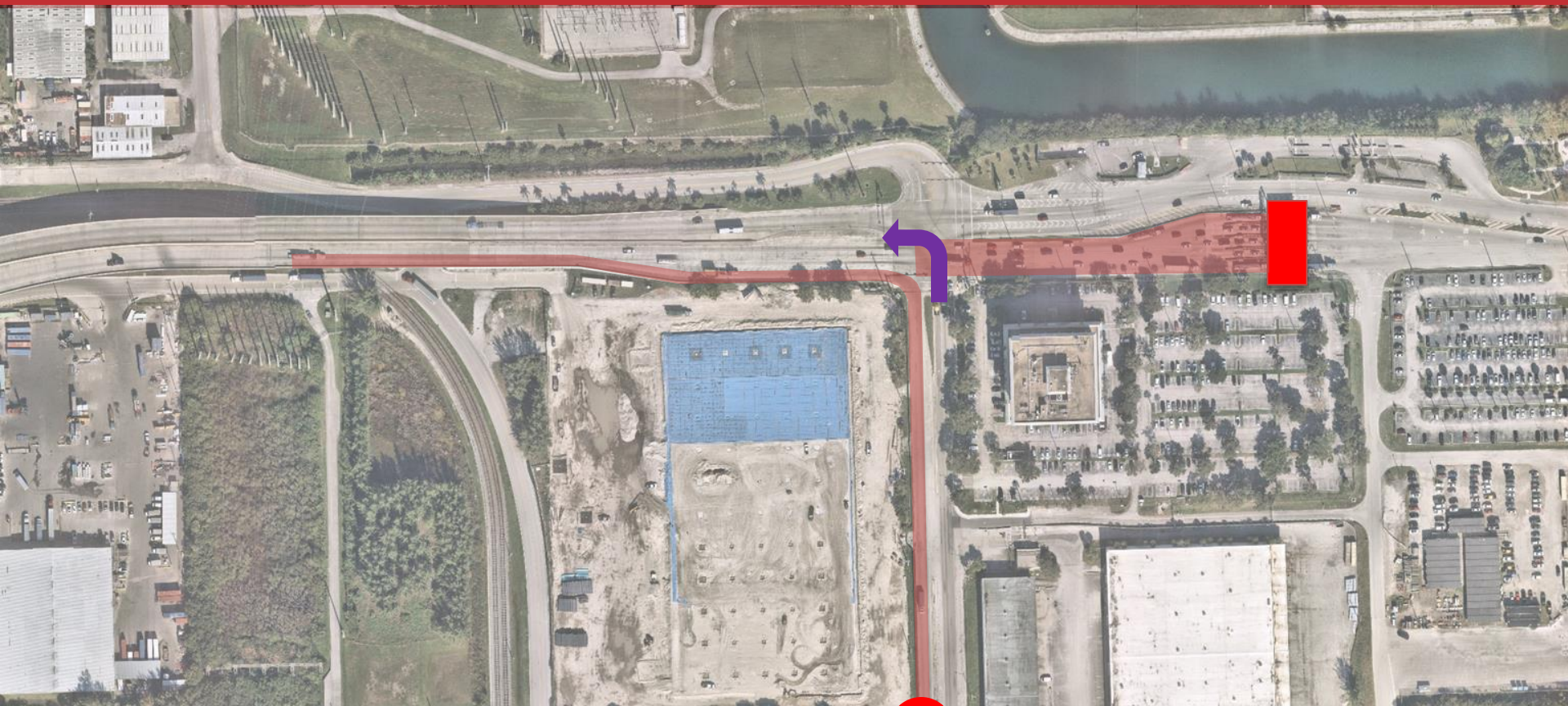
Field Observations and Assessment

- EB Queue Spill Back
- NBLT trucks operation
- EBRT truck queue

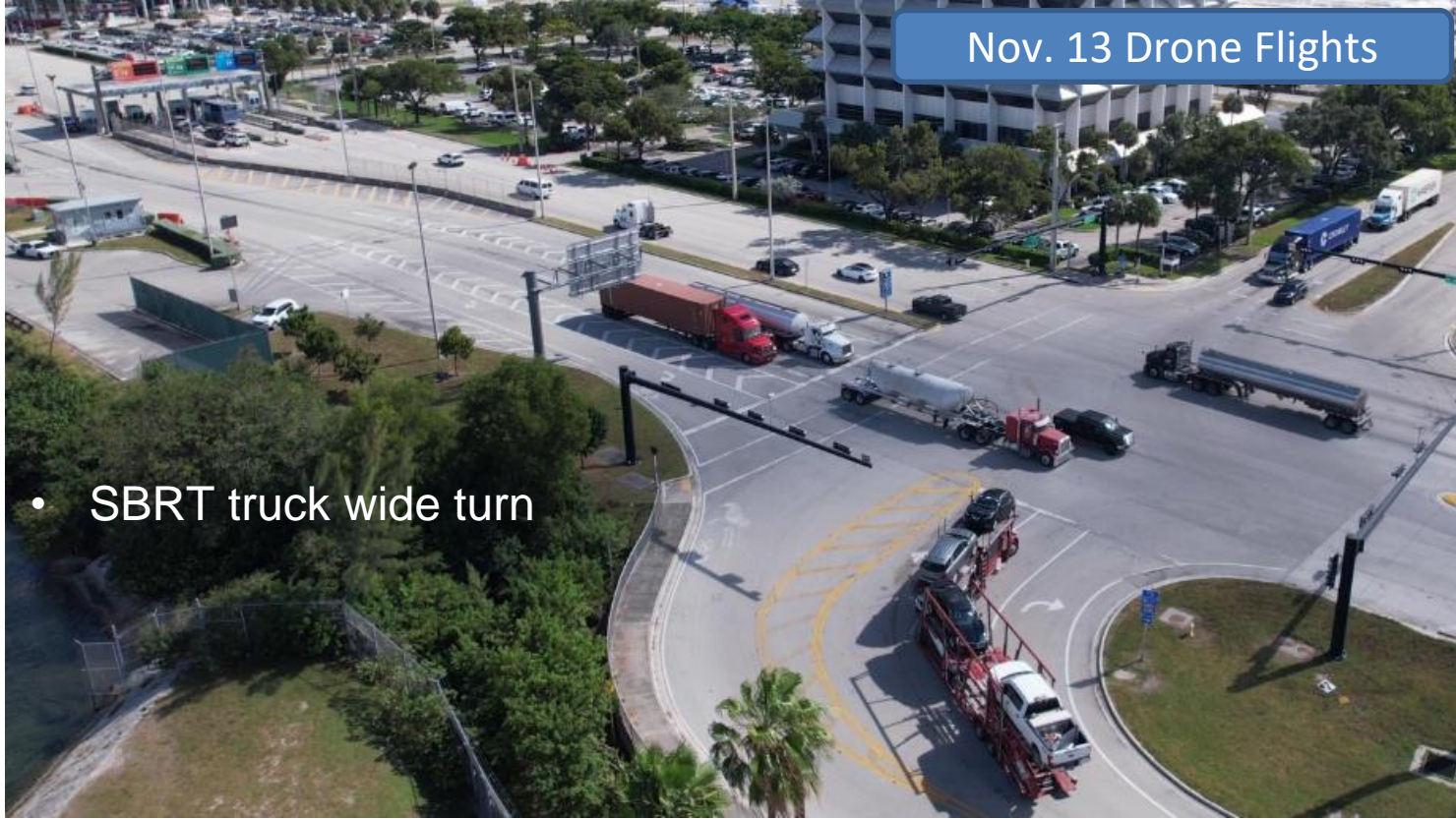
Nov. 13 Drone Flights



Field Observations and Assessment



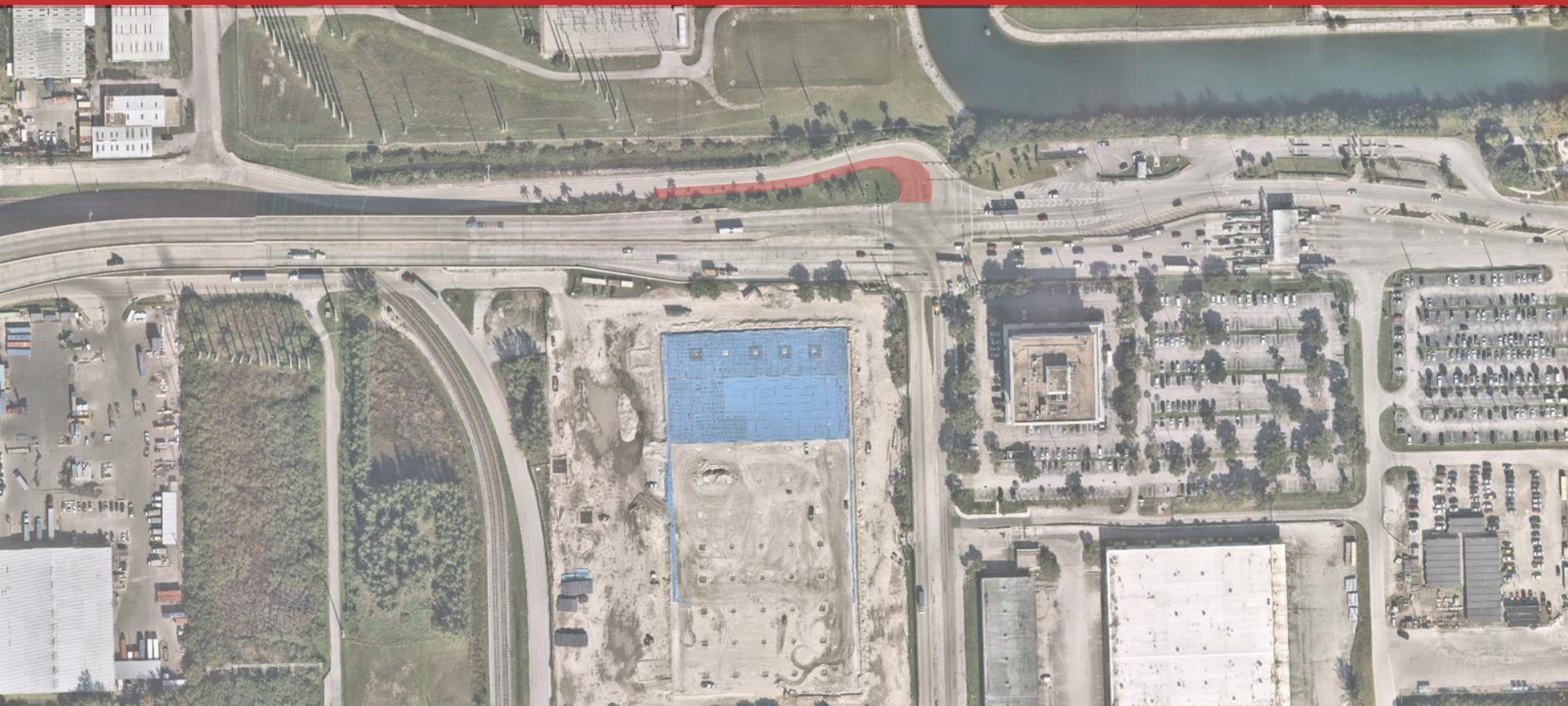
Field Observations and Assessment



- SBRT truck wide turn



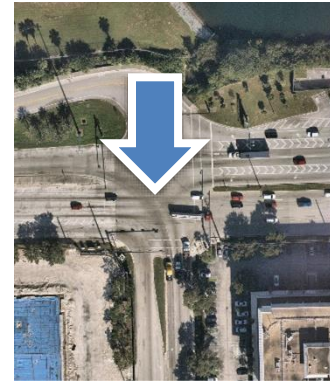
Field Observations and Assessment



Field Observations and Assessment

Nov. 30 Data Collection

- EBRT truck queue



Field Observations and Assessment



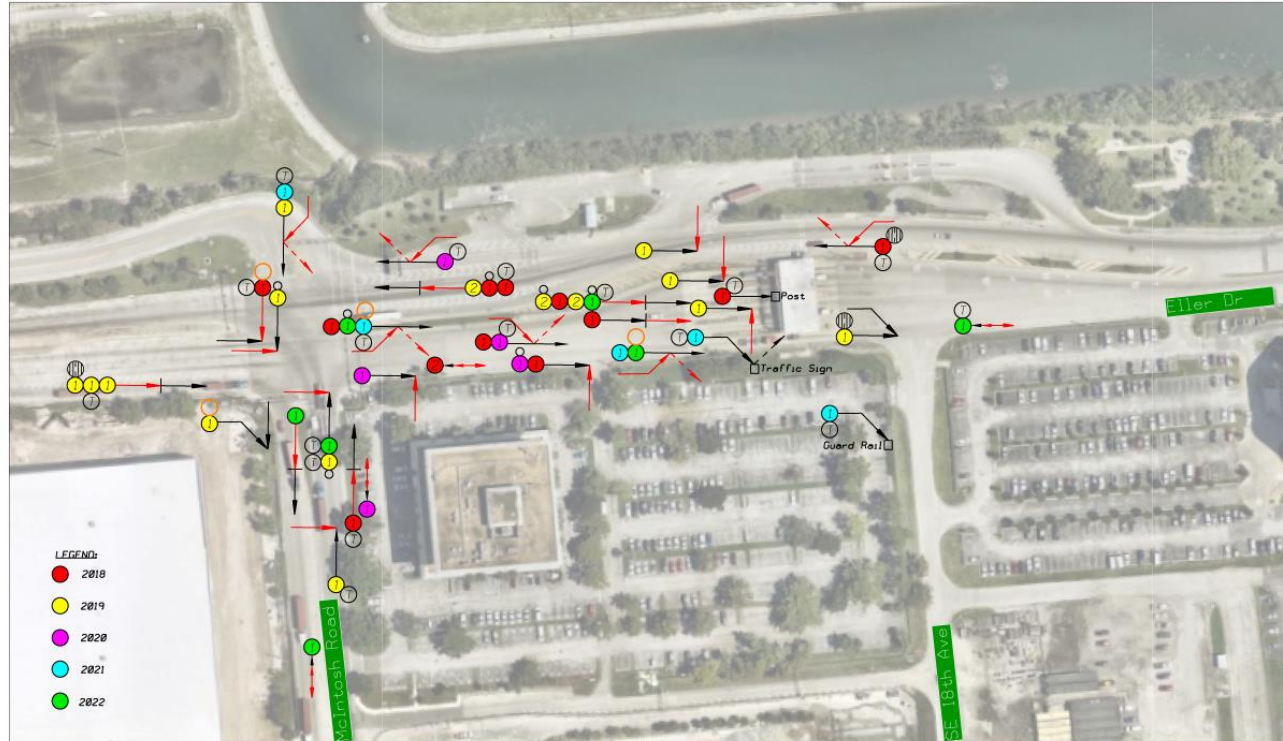
Field Observations and Assessment



- Eller Drive security gate
- Lack of EB storage before gate
- EB thru traffic competing with NBLT traffic
- Short turn radius for SBRT trucks
- McIntosh Road gate and/or Southport terminals operations

Existing Conditions Analysis

Existing Conditions – Crash History



- LEGEND:
- 2018
 - 2019
 - 2020
 - 2021
 - 2022

- Head-on Collision
- Rear End Collision
- Vehicle Direction
- Backing
- Pedestrian Collision
- Out of Control
- Overturn
- Angle Collision
- Right Turn Collision
- Left turn Collision
- Side swipe opposite direction
- Side swipe same direction
- Vehicle involved Vehicle at fault
- Dark Lighting Condition
- Driver under influence
- DUI + Dark Lighting Condition
- Commercial Truck
- Personal Injury
- Fatal
- Fixed Object
- Parked Vehicle
- Wet Conditions

TOTAL CRASHES ON PAGE	
FREQUENCY	CRASH SEVERITY
13 2018	48 NON - INJURY
18 2019	8 INJURY OR FATAL
5 2020	
5 2021	
7 2022	48 TOTAL

COLLISION DIAGRAM
 ELLER DRIVE AT MCINTOSH ROAD
 2018-2022

Crash Type	Frequency	Percent
Rear-End	21	28.38%
Angle	10	13.51%
Backing	8	10.81%
Sideswipe	24	32.43%
Turning	3	4.05%
Fixed Object	8	10.81%
Total Crashes	74	100%

Existing Conditions – Microsimulation



Existing Conditions – Intersection Operations

Analysis completed for:

- Weekday morning, **mid-day**, afternoon
- Weekend morning, mid-day, afternoon

Intersection	Direction	Movement				Approach		Intersection	
		Volume	Delay (sec)	Queue (ft)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Eller Drive at Mcintosh Road	EBL	29	83.5	81.1	F	62.6	E	51.27	D
	EBT	640	79.1	392.2	E				
	EBR	205	8.0	164.6	A				
	WBL	41	76.7	77.0	E	16.0	B		
	WBT	242	11.0	128.1	B				
	WBR	189	9.3	165.2	A				
	SBL	50	108.7	105.5	F	82.4	F		
	SBT	13	73.0	42.6	E				
	SBR	16	7.8	39.9	A				
	NBL	229	60.7	339.7	E	63.2	E		
	NBT	48	65.3	190.2	E				
	NBR	38	75.8	85.9	E				

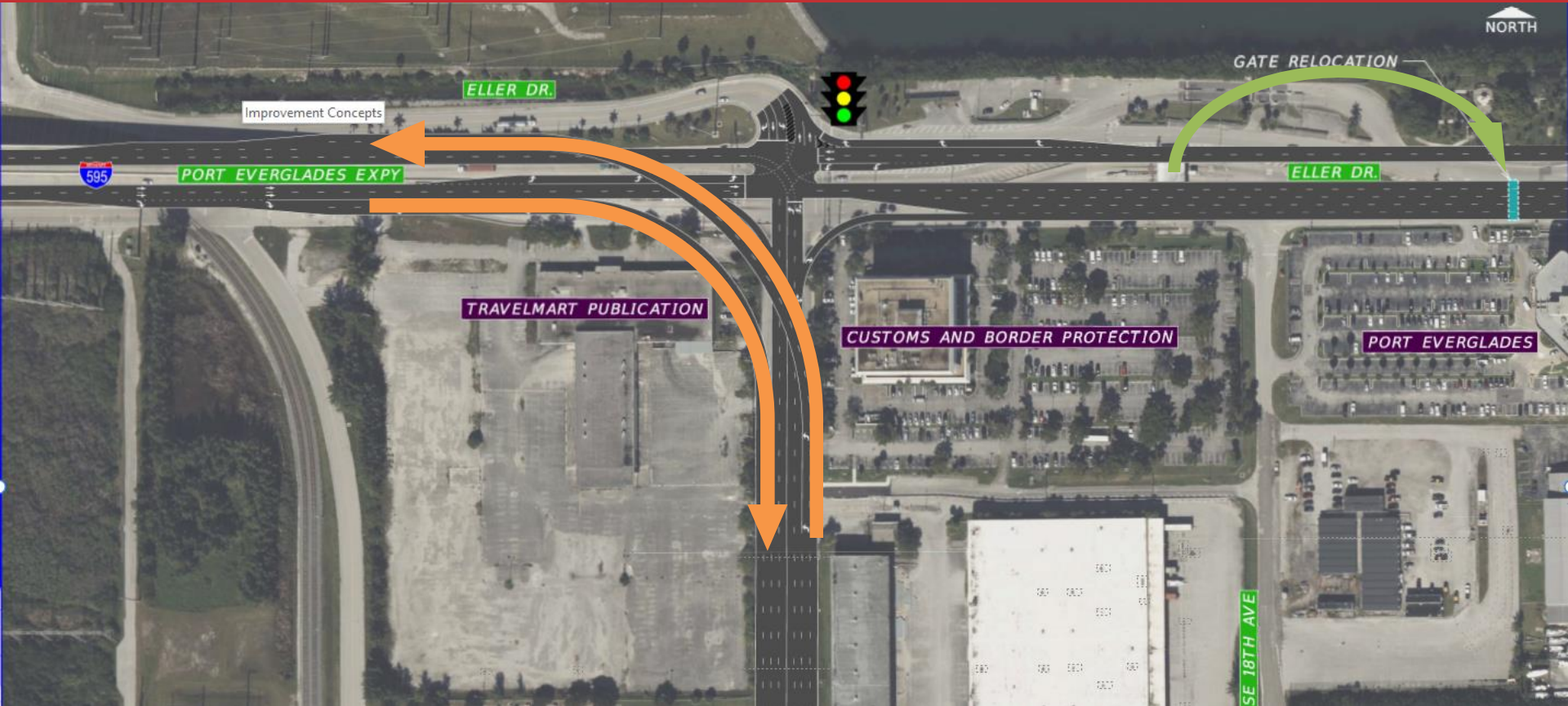
Improvement Concepts

Approach to Improvements

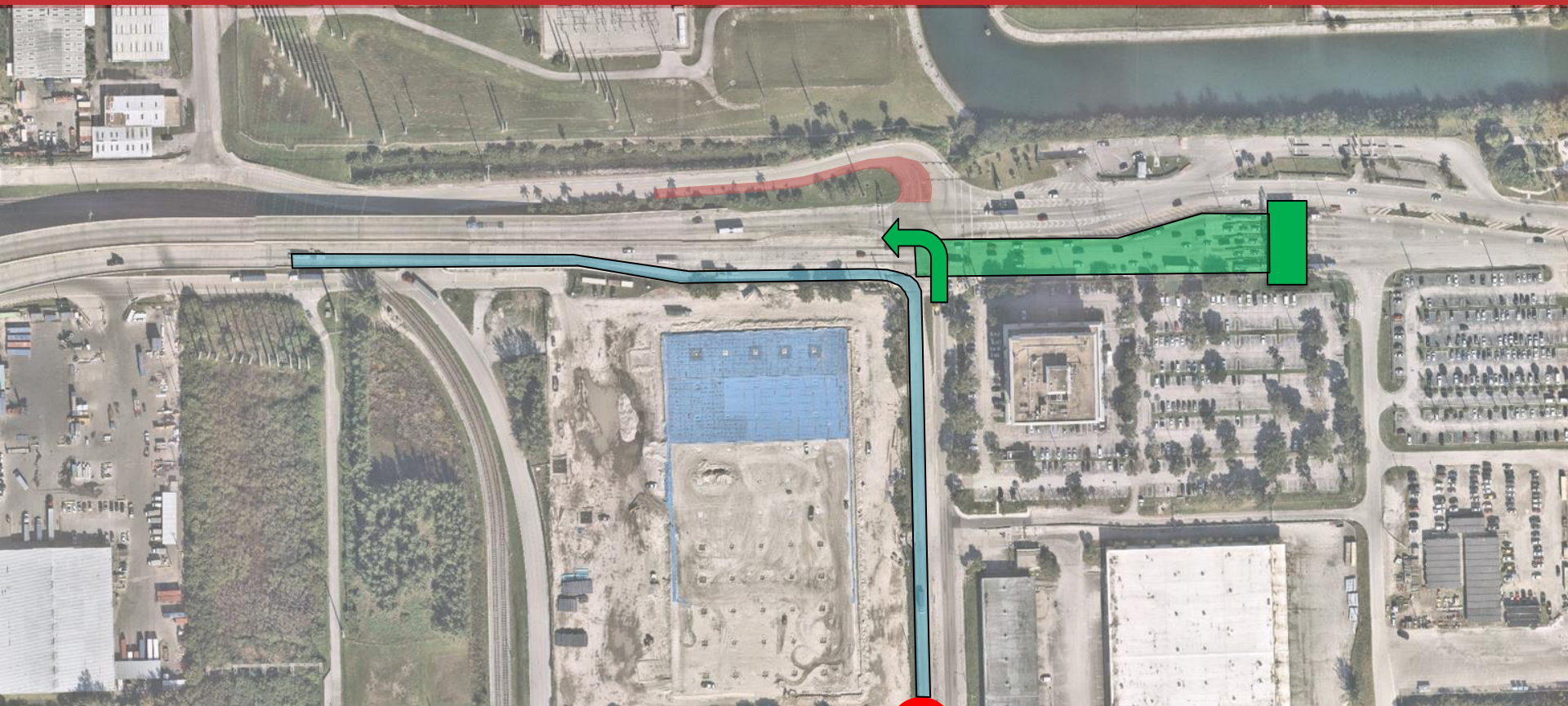


- Eller Drive gate location
- Increase EB storage before gate
- Eliminate/reduce EB thru traffic competition with NBLT traffic
- Increase SBRT turn radius
- McIntosh Road gate and/or Southport terminals operations

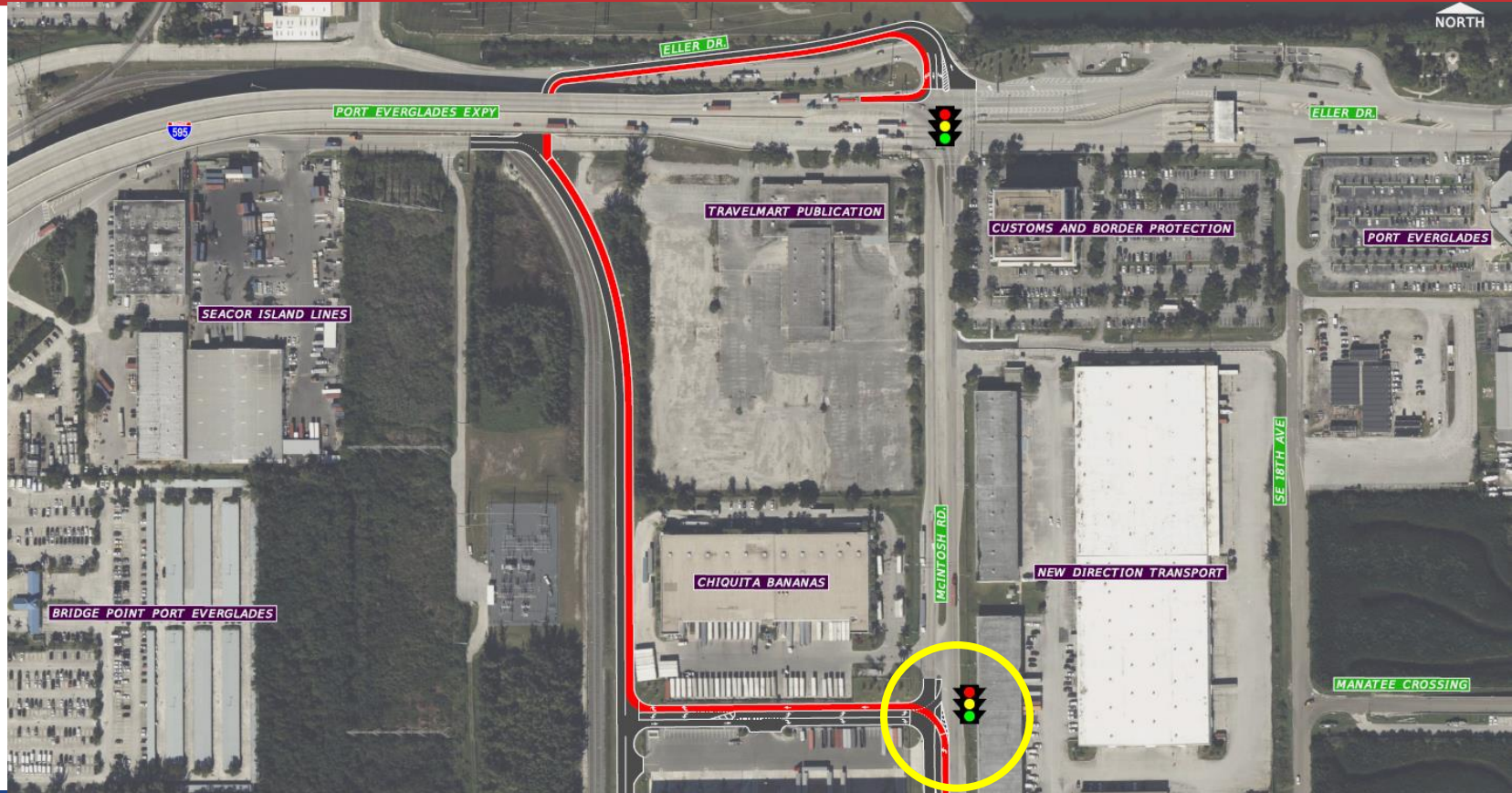
1. I-595 to McIntosh Rd Flyover + Eller Dr Gate Relocation



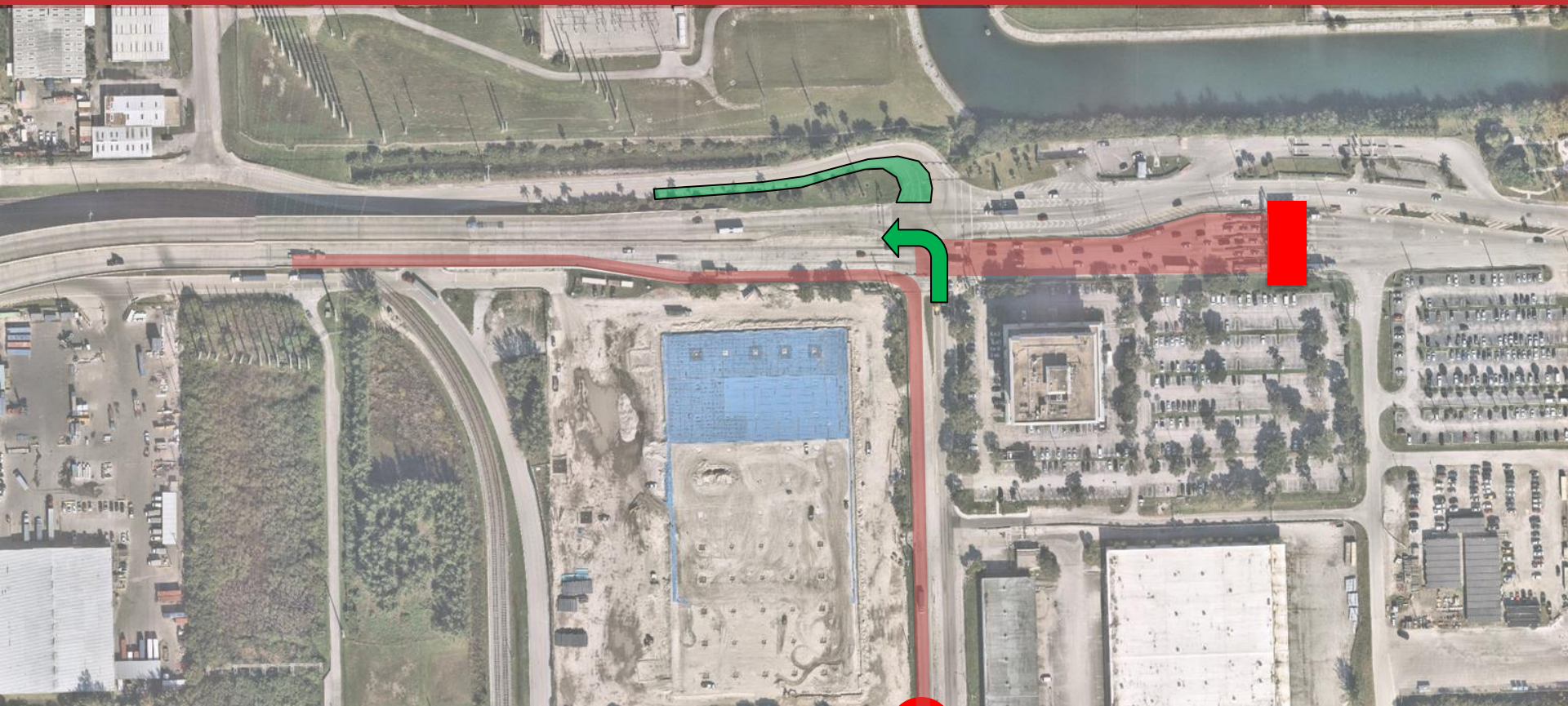
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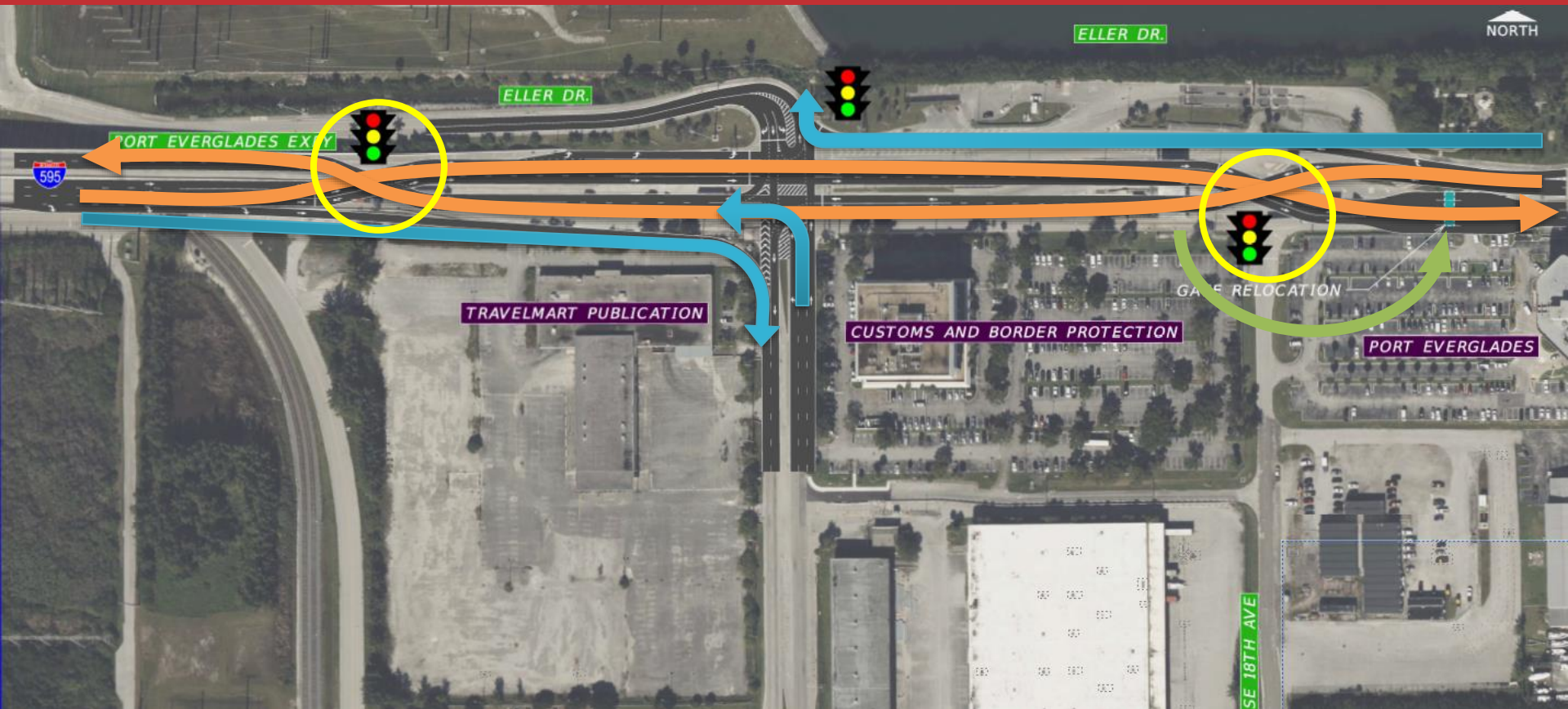
2. NB Truck Re-Routing



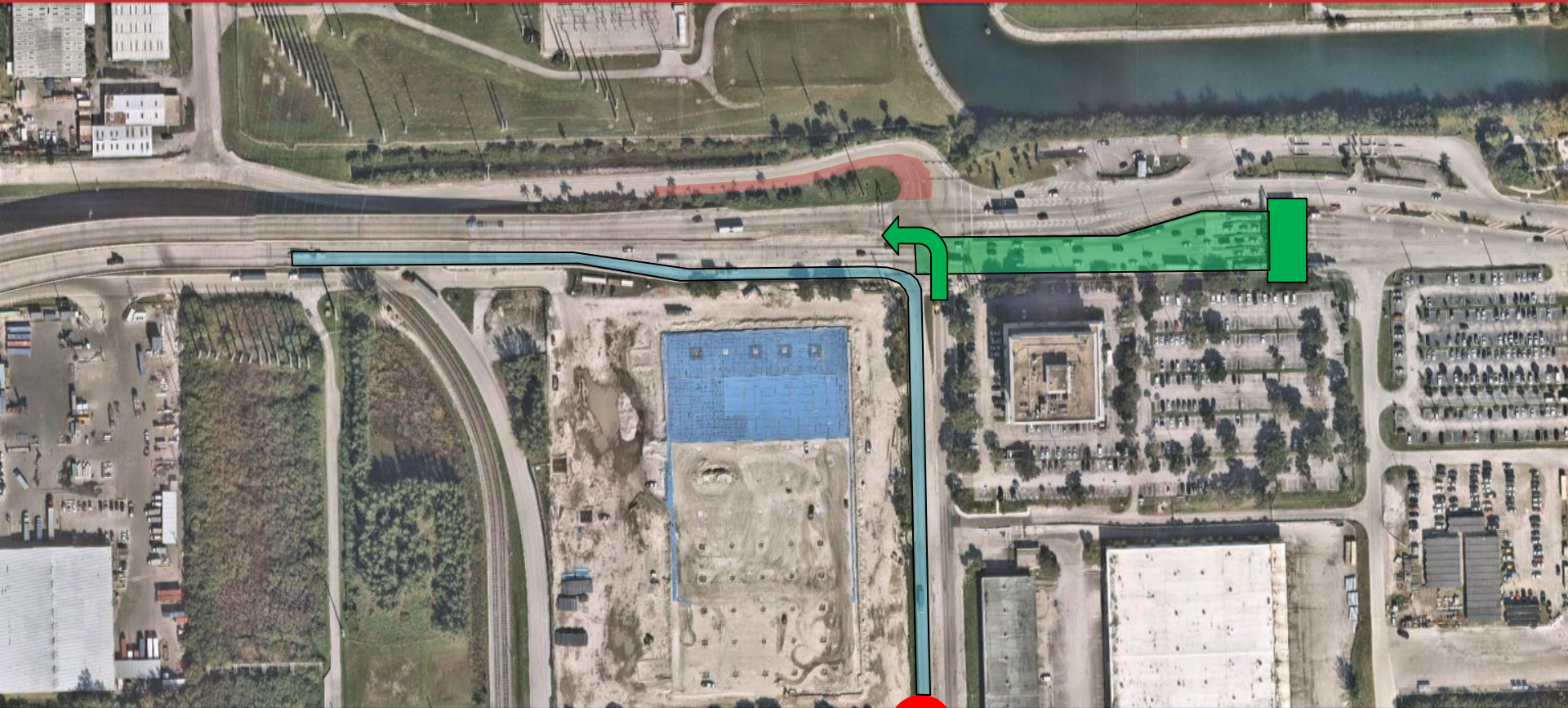
2. NB Truck Re-Routing



3. Diverged East/West + Eller Dr Gate Relocation



3. Diverged East/West + Eller Dr Gate Relocation



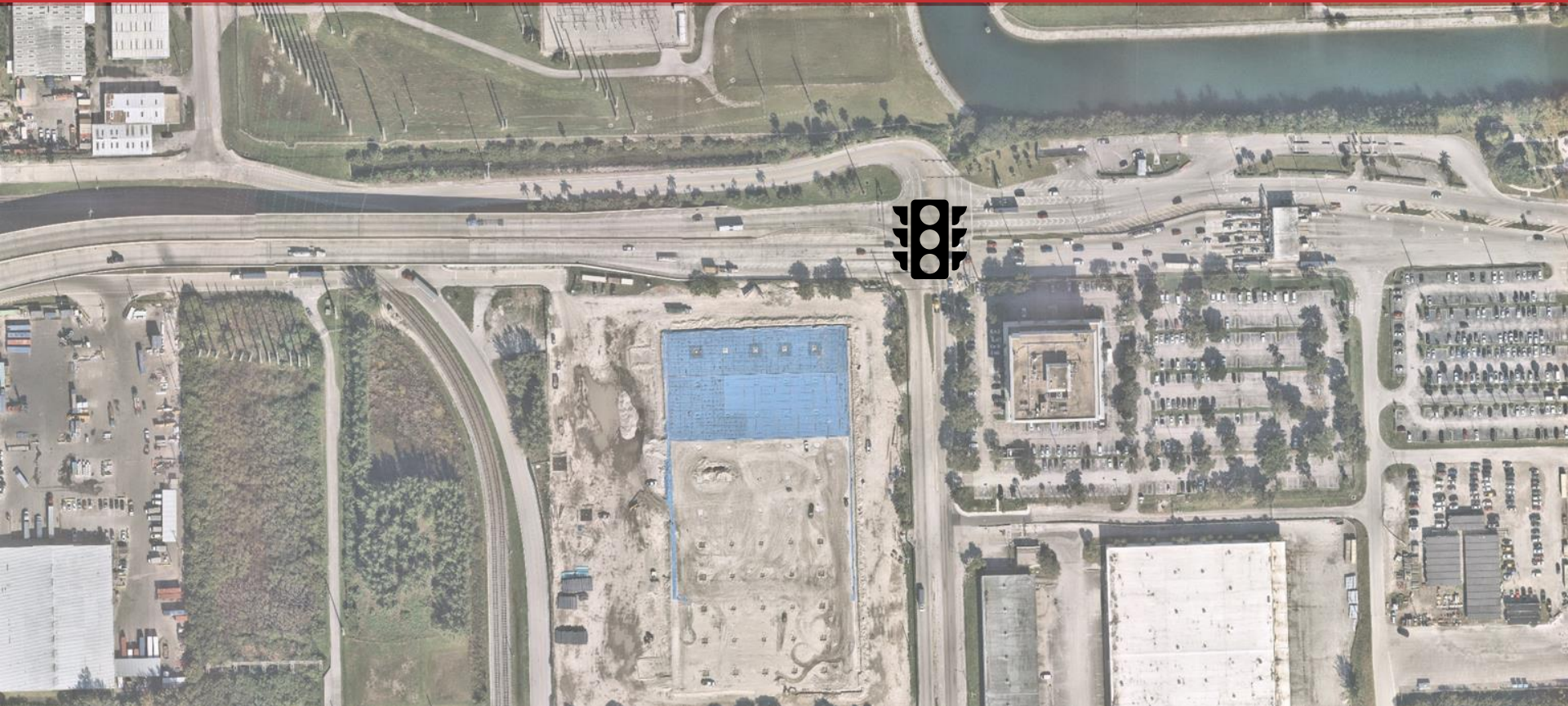
4. Eller Dr Gate Elimination



4. Eller Dr Gate Elimination



5. No Build



Improvement Concepts for Further Evaluation

- 1. I-595 to McIntosh Rd Flyover + Eller Dr Gate Relocation**
- 2. NB Truck Rerouting**
- 3. Diverged East/West + Eller Dr Gate Relocation**
- 4. Eller Dr Gate Relocation**
- 5. No Build**

Next Steps

Next Steps

- **Conceptual Designs**
- **Flaws and Constraints**
- **Cost Estimate and BCA**
- **Alternative Evaluation**

Next Meeting: Early Summer 2024 – Flaws and Constraints

Project Contact

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