Florida Department of Transportation
District 6

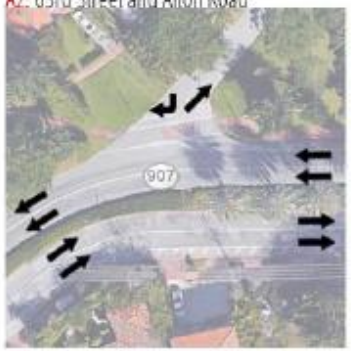
Traffic Analysis
For
West 63rd Street (SR 907) Complete Streets Study

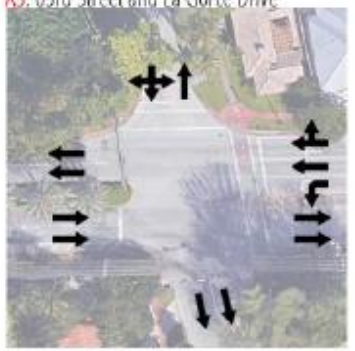
Study Segment

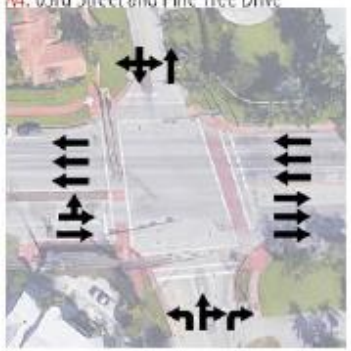
Existing Intersection Geometry

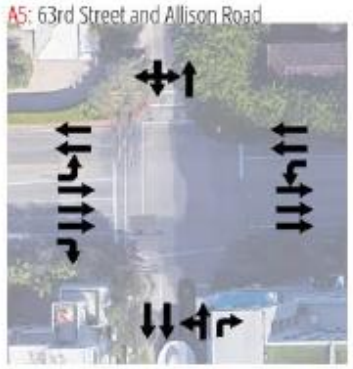
INTERSECTION GEOMETRY

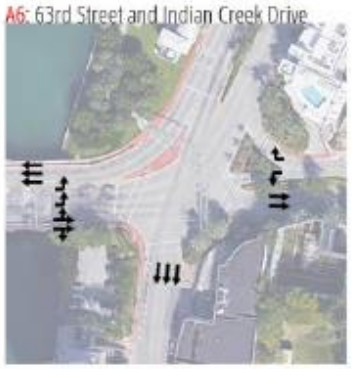
INTERSECTION GEOMETRY

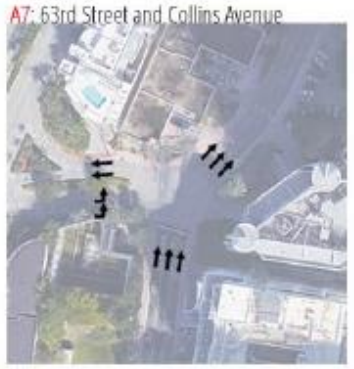




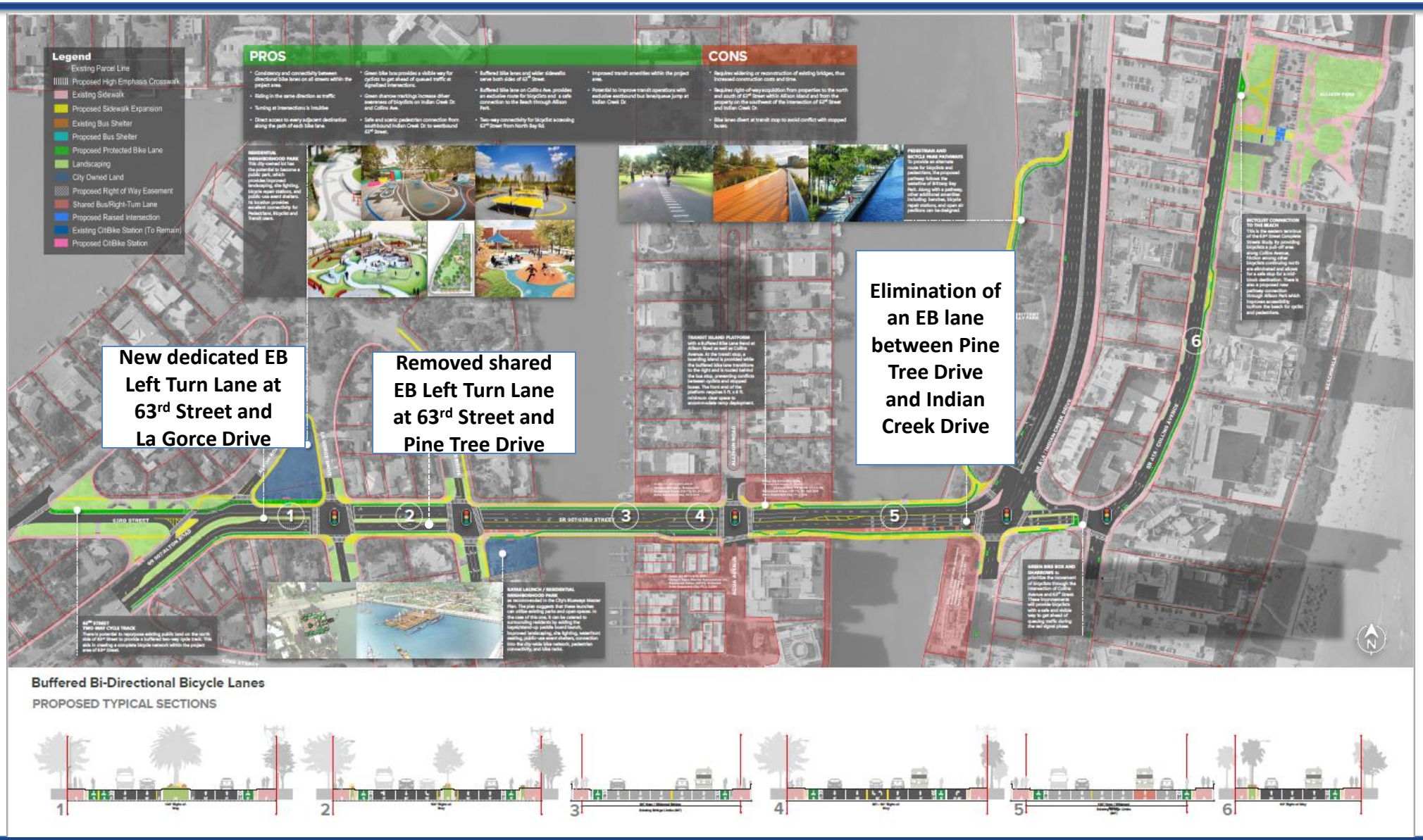








Proposed Bike Lane Alternative

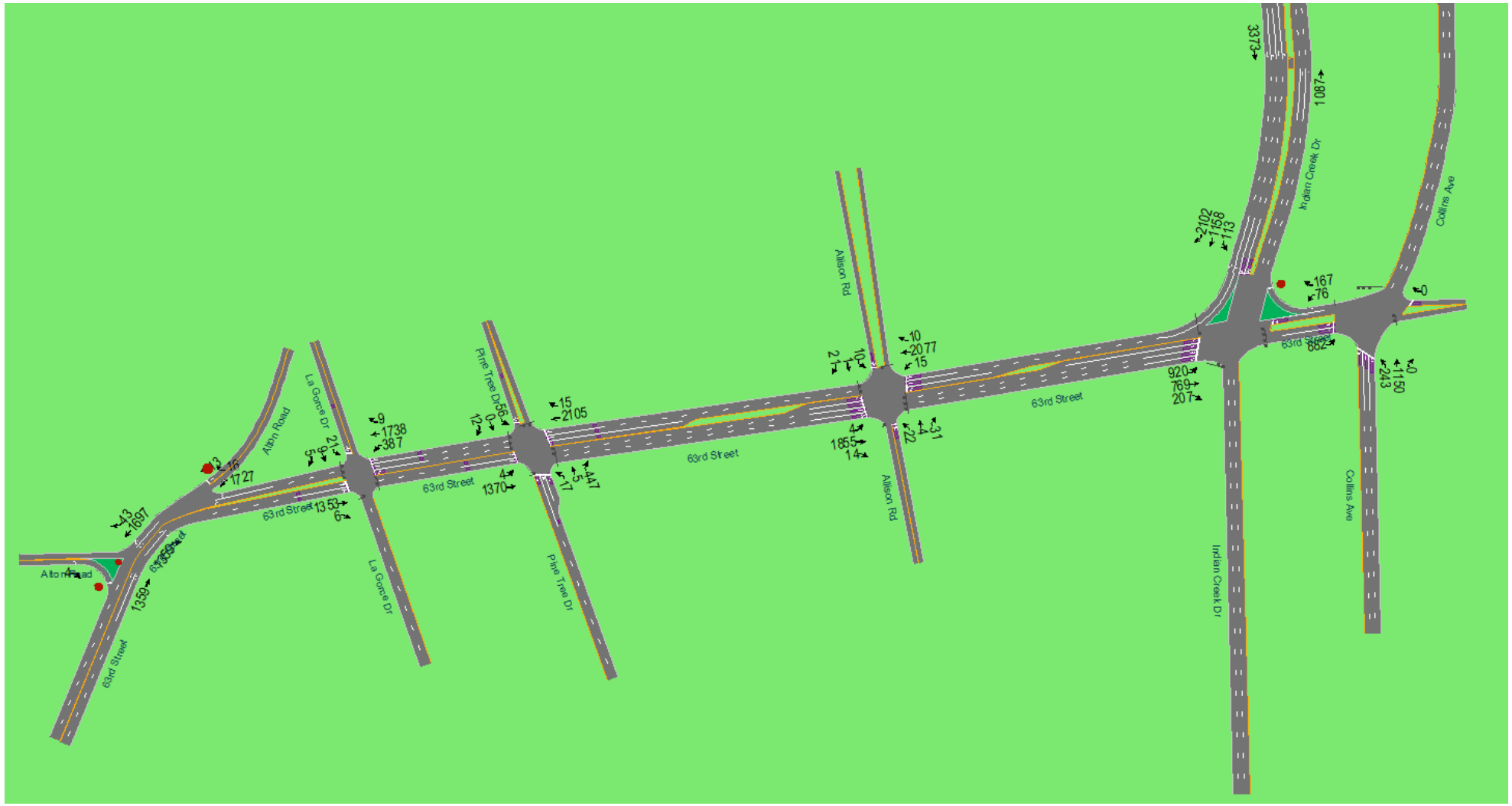


Traffic Volume Comparison

- Data Collection for the West 63rd Street Complete Street Study was done in April 2017.
- Volume imbalance was found along the corridor.
- Traffic volumes from a different traffic study - for the City of Miami Beach - collected in June 2017 were found to be more conservative.
- The more conservative volumes were used in this analysis and the traffic was balanced between intersections.

2017 AM Peak Hour Volumes

2017 PM Peak Hour Volumes



Comparison of 2017 No-Build and Build Conditions

SimTraffic Results

Network MOEs	2017AM With Opt	2017PM With Opt	2017AM Build	2017PM Build
Total Delay (hr)	63.5	123.2	66.4	177.2
Total Delay/veh (s)	39.1	63.0	40.9	91.2
Average Speed (mph)	18	15	18	12
Vehicles Entered	5,666	6,841	5,664	6,780

Traffic Growth Rate Determination

Growth Rate Based on SERPM Model Output

	63rd Street	Indian Creek North	Indian Creek south	Collins South	Collins North
Beginning Year Vol	37,500	38,500	26,500	19,000	19,000
End Year Vol	41,061	43,486	16,272	18,222	27,451
Beginning Year	2018	2018	2018	2018	2018
End Year	2040	2040	2040	2040	2040
# of Years	22	22	22	22	22
Linear Growth Rate	0.43%	0.59%	-1.75%	-0.19%	2.02%

Adopted Growth Rate of 0.5% per year

Growth Rate based on Traffic TRENDS Analysis

Roadway (Site)	AADT										Average Growth Rates		
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Annual Average Growth Rate	Trend Annual Historical Growth Rate	Trend Growth Rate (2018 to 2040)
63rd Street (871018)	35000	31500	29500	28500	33500	34500	35500	30500	37000	37500	0.79%	1.73%	1.49%
Collins Ave (872541)	21000	15000	17000	19000	21000	21500	20000	21000	18000	19000	-1.06%	0.90%	0.80%
La Gorce Dr (878602)				4800	4800	4800	4400	4300	4200	3800	-3.47%	-3.40%	-4.31%
Pine Tree Dr. (878601)				5100	5100	5100	5500	5400	5300	4700	-1.31%	-0.32%	-0.36%
									Average		***-1.26%***	***-0.27%***	***-0.60%***
Source: *Florida Traffic Online 2018*													

Comparison of 2040 No-Build and Build Conditions

SimTraffic Results

Network MOEs	2040AM No-Build	2040PM No-Build	2040AM Build	2040PM Build
Total Delay (hr)	69.7	181.7	83.1	219.6
Total Delay/veh (s)	41.3	86.2	48.9	107.8
Average Speed (mph)	18	13	17	11
Vehicles Entered	5,892	7,355	5,925	7,113

Safety Benefits

Expected Number of Crashes & Cost Savings (2020 through 2040)

Location	No-Build		Build	
	$N_{expected}$*	2019 Present Value	$N_{expected}$*	2019 Present Value
SR 907and W 63rd Street	208.79	$ 24,772,156.82	208.79	$ 24,772,156.82
SR 907 and Alton Road	57.62	$ 6,836,538.86	57.62	$ 6,836,538.86
SR 907 and La Gorce Drive	169.45	$ 20,124,442.84	147.62	$ 17,532,124.35
SR 907 and Pine Tree Drive	301.31	$ 35,800,490.20	298.36	$ 35,449,505.36
SR 907 and Allison Road	377.25	$ 28,860,337.20	377.25	$ 28,860,337.20
SR 907 and Indian Creek Drive	194.31	$ 65,843,861.07	194.31	$ 65,843,861.07
SR 907 and Collins Avenue	401.23	$ 30,680,398.80	401.23	$ 30,680,398.80
Total	**1709.95**	**$ 212,918,225.79**	**1,685.17**	**$ 209,974,922.46**

*Expected Crash

Conclusion and Recommendation

- Operational Analysis shows that the proposed Build alternative will increase the average delay per vehicle.
- All intersections are projected to operate at LOS D or better under the Build conditions.
- The Build Alternative will foster acceptance of Complete Streets vision in the community.
- The proposed Build Alternative is likely to encourage safer driving habits and acceptance of other modes of travel.
- The Build alternative is predicted to have a 20-year crash cost savings of approximately $3 Million compared to the No-Build alternative, in 2019 present value.

QUESTIONS?

THANK YOU