

Appendix E Growth Rate Sensitivity Analysis

Aurora Road Future No-Build Alternative Sensitivity Analysis - Intersection/Segment Operational Summary

Table 1: Historical AADT and Growth Rates (2007-2016)

Year	Aurora Rd., from Wickham Rd. to Croton Rd.	Aurora Rd., from Croton Rd. to Stewart Rd.	Aurora Rd., from Stewart Rd. to US 1
	Space Coast TPO Site 515	Space Coast TPO Site 366	Space Coast TPO Site 376
2016	11,150	11,460	10,280
2015	11,600	10,910	9,830
2014	10,840	11,140	10,160
2013	11,600	11,150	10,320
2012	11,320	10,800	10,070
2011	11,370	11,010	10,190
2010	11,380	11,080	10,380
2009	11,750	11,560	10,750
2008	11,710	11,630	10,550
2007	12,000	12,130	10,860
Annual Linear Growth Rate	-0.66%	-0.67%	-0.82%
R ²	44.97%	33.73%	63.86%

Table 2: CFRPM 6.1 Model Growth Rate Summary

Roadway Segment	AADT		Annual Linear Growth Rate (%)
	Base 2010	Cost Feasible 2040	
Wickham Rd to Croton Rd	16,710	3,134	-2.71%
Croton Rd to Commodore Blvd	13,365	4,131	-2.30%
Commodore Blvd to Stewart Ave	12,004	3,143	-2.46%

Table 3: Brevard County BEBR Population Projections

Estimation	2016 Estimate	2040 Projection	Annual Linear Growth Rate (%)
Brevard County			
Low	568,919	597,700	1,199 (0.21%)
Medium		681,700	4,699 (0.83%)
High		777,800	8,703 (1.53%)

*BEBR Volume 50, Bulletin 177, April 2017

Table 4: 2040 AM Peak Hour Intersection Operational Summary

Intersection Name	Control Type	Applied Annual Linear Growth Rate			
		0.5%	1.0%	1.5%	2.0%
Aurora Rd & Wickham Rd	Signalized	38.5 (D)	52.3 (D)	70.0 (E)	99.4 (F)
Aurora Rd & Lansing St	TWSC	14.4(B)	15.8(C)	17.7(C)	23.6(C)
Aurora Rd & Croton Rd	Signalized	29.7(C)	30.5(C)	33.7(C)	41.7(D)
Aurora Rd & Commodore Blvd	Signalized	17.1(B)	20.9(C)	32.8(C)	64(E)

Table 5: 2040 PM Peak Hour Intersection Operational Summary

Intersection Name	Control Type	Applied Annual Linear Growth Rate			
		0.5%	1.0%	1.5%	2.0%
Aurora Rd & Wickham Rd	Signalized	65.7 (E)	93.7 (F)	113.3 (F)	146.4 (F)
Aurora Rd & Lansing St	TWSC	17.6(C)	20.6(C)	24.8(C)	31(D)
Aurora Rd & Croton Rd	Signalized	38.3(D)	37.6(D)	37.3(D)	30.2(C)
Aurora Rd & Commodore Blvd	Signalized	19.4(B)	25.3(C)	38(D)	78(E)

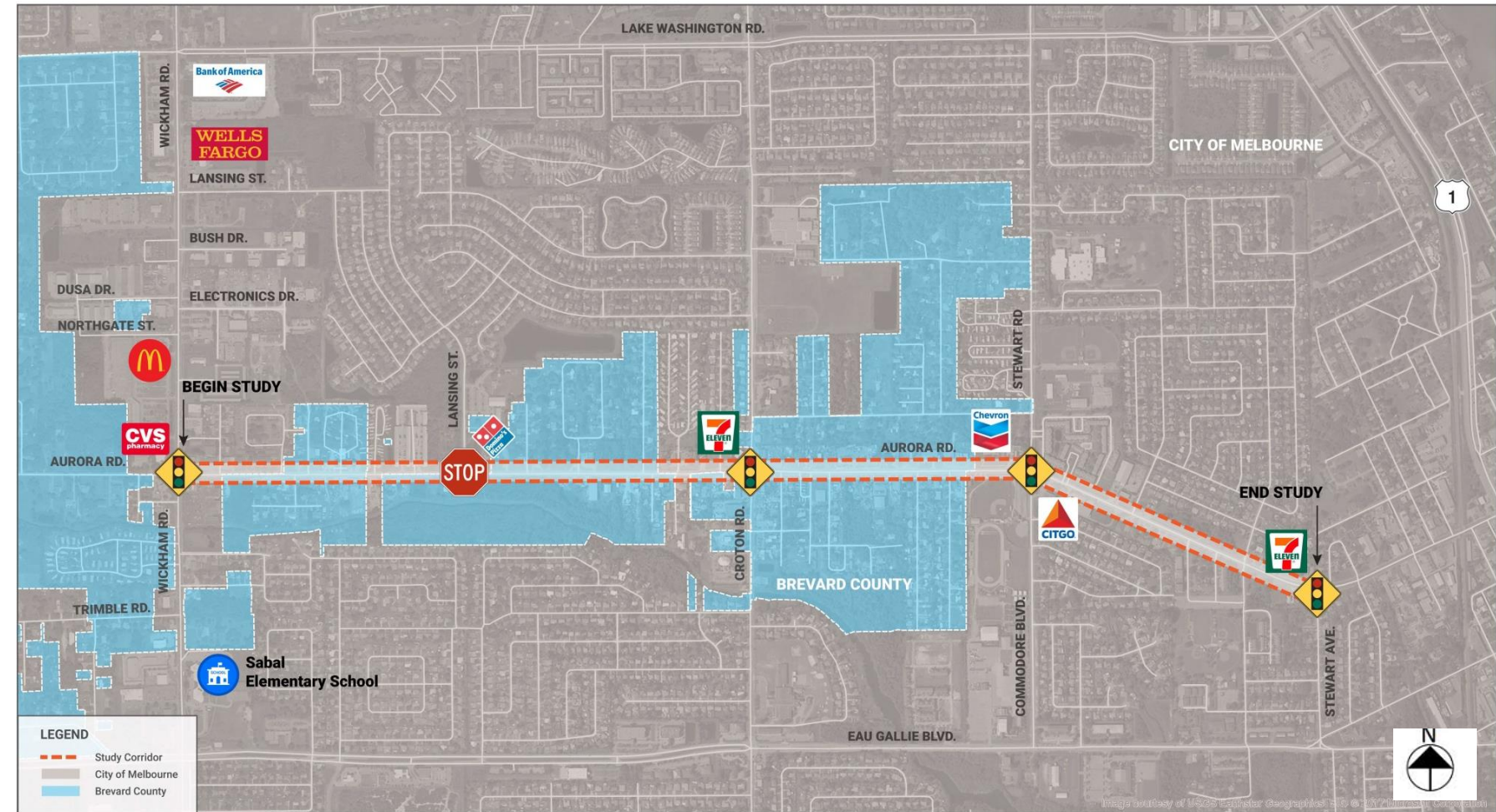


Table 6: 2040 AM Peak Hour Segment Operational Summary

Direction	Segment #	Segment	Applied Annual Linear Growth Rate			
			0.50%	1.00%	1.50%	2.00%
Eastbound	1	Wickham Rd to Croton Rd	C	C	D	D
	2	Croton Rd to Commodore Blvd	D	D	D	E
	3	Commodore Blvd to Stewart Ave	C	C	C	C
Westbound	3	Stewart Avenue to Commodore Blvd	D	D	E	F
	2	Commodore Blvd to Croton Rd	D	D	D	D
	1	Croton Rd to Wickham Rd	D	D	D	E

Table 7: 2040 PM Peak Hour Segment Operational Summary

Direction	Segment #	Segment	Applied Annual Linear Growth Rate			
			0.50%	1.00%	1.50%	2.00%
Eastbound	1	Wickham Rd to Croton Rd	D	D	D	C
	2	Croton Rd to Commodore Blvd	D	D	E	F
	3	Commodore Blvd to Stewart Ave	C	C	C	C
Westbound	3	Stewart Avenue to Commodore Blvd	D	D	E	F
	2	Commodore Blvd to Croton Rd	E	E	E	D
	1	Croton Rd to Wickham Rd	E	F	F	F

Note: This document was developed for discussion purposes only. Please refer to the full text report for additional information and context.