

FLORIDA DEPARTMENT OF TRANSPORTATION

Interchange Operational Analysis Report

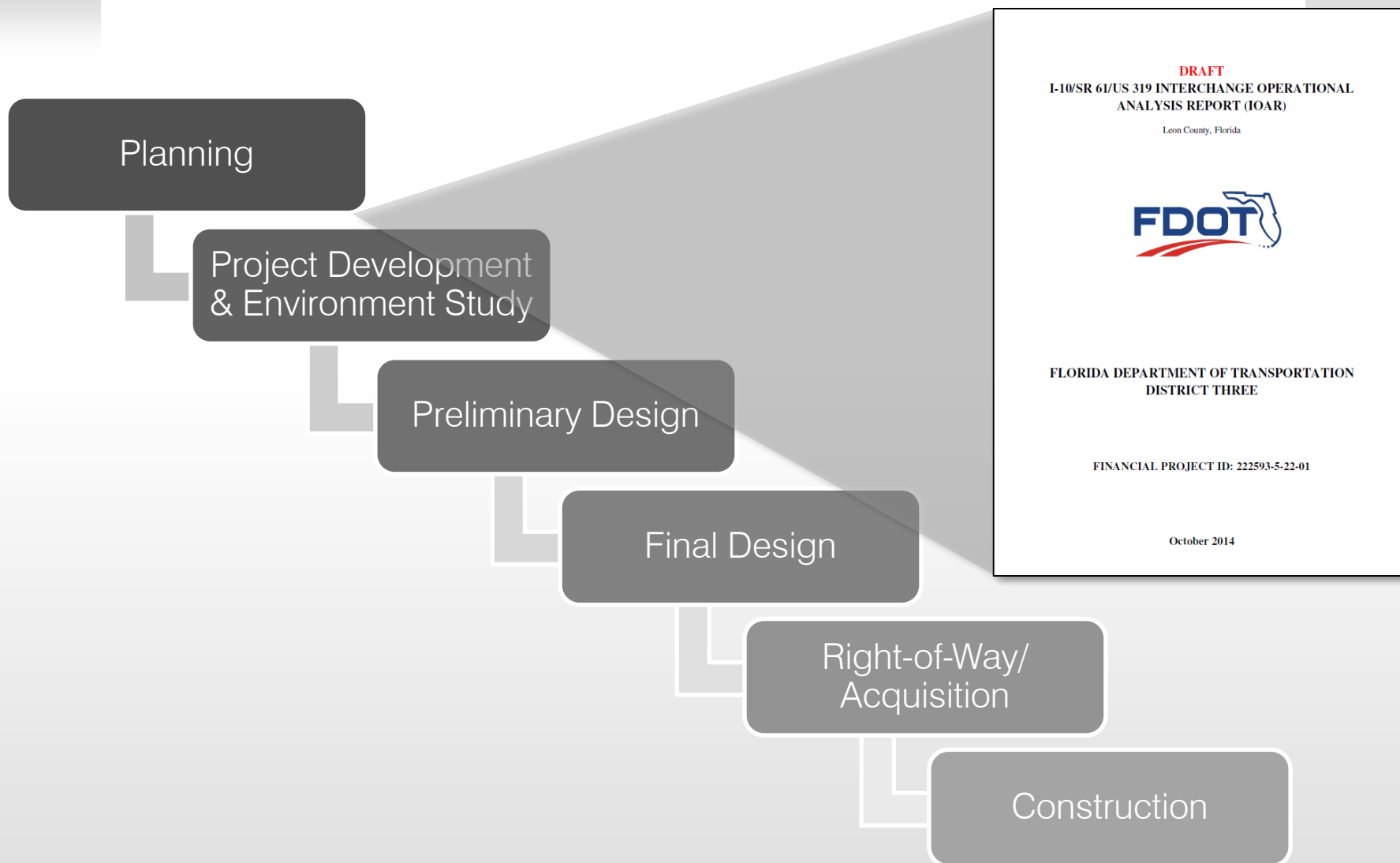
INTERSTATE 10 AT SR 61 AND US 319, TALLAHASSEE, FL

PD&E GROUP 22-01

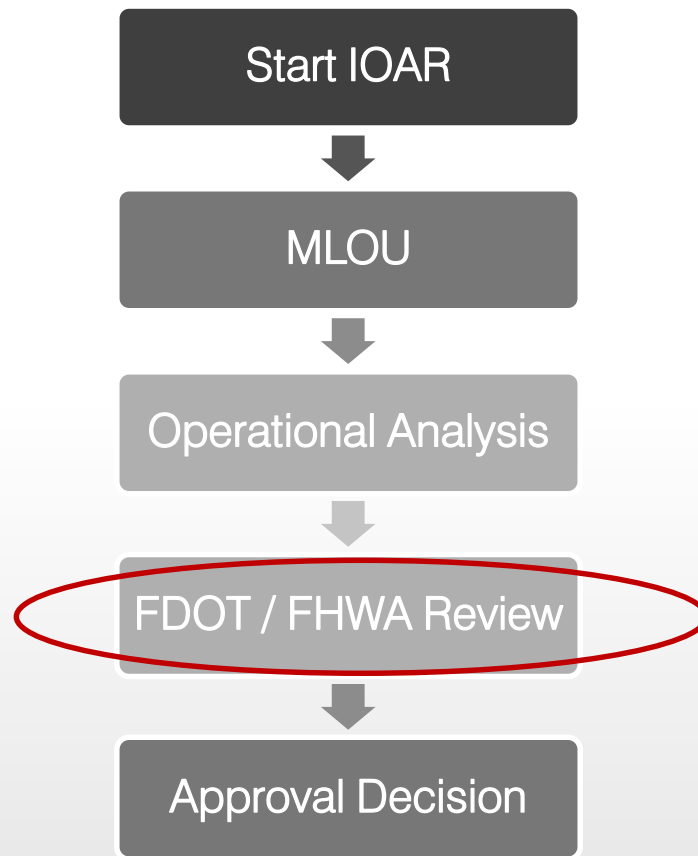
November 17, 2014

Project Location





- **IJR** - Interchange Justification Report
 - *New access to a limited facility*
- **IMR** - Interchange Modification Report
 - *Modifying geometry*
 - *Relocation of ramp terminal*
 - *Adding lanes at the gore point*
- **IOAR** - Interchange Operational Analysis Report
 - *Documents traffic/safety analysis*
 - *Minor modifications*



Purpose and Need

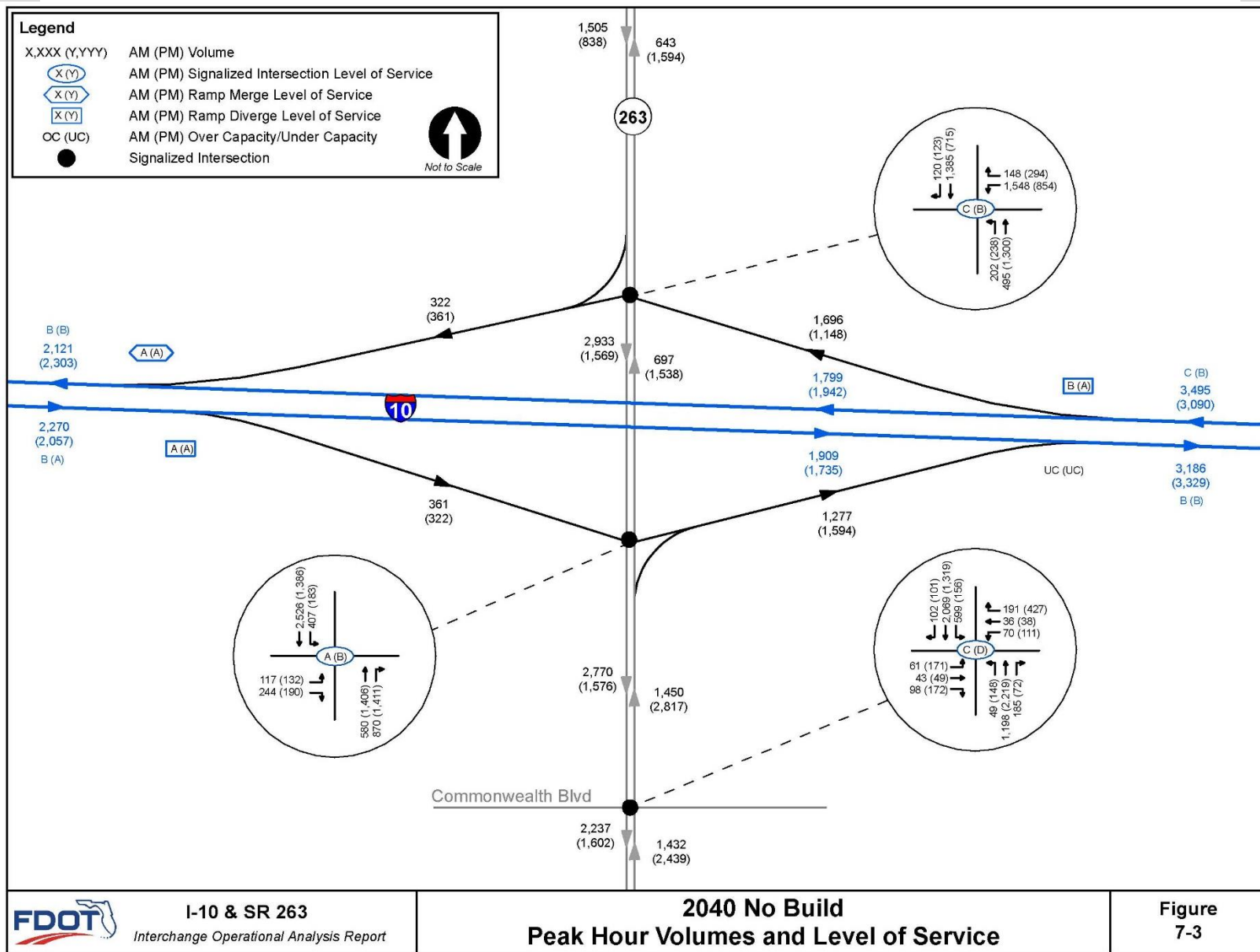
Table 3-20: 2040 Signalized Intersection LOS Analysis Results – AM Peak Period

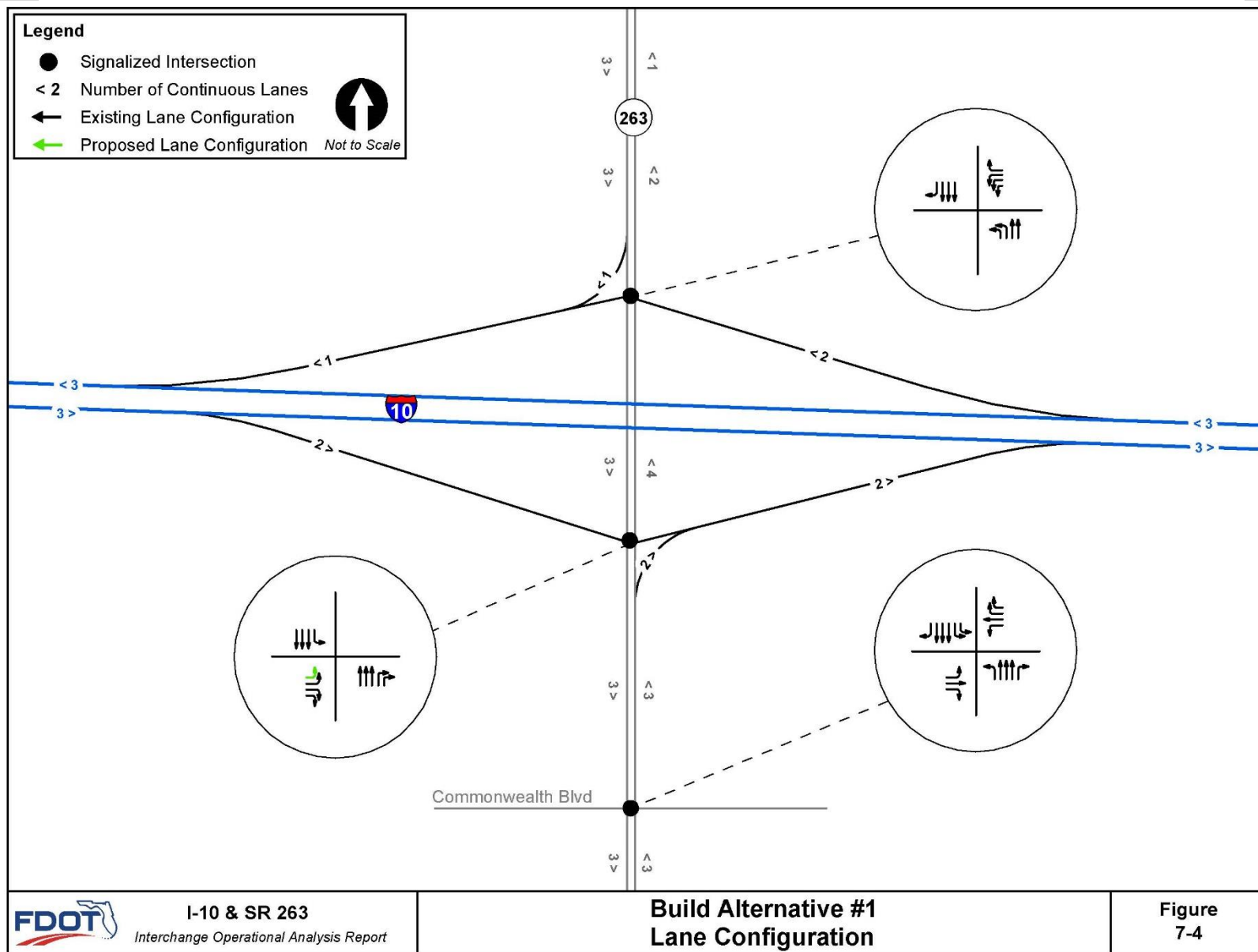
I-10 Exit Number	Intersection Description	LOS Standard	EB		WB		NB		SB		Intersection	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	HCM Avg. Control Delay (s)	HCM LOS
196	I-10 WB Off Ramp & Capital Circle NW	D	-	-	65.7	E	48.8	D	48.5	D	56.1	E
	I-10 EB Off Ramp & Capital Circle NW	D	84.4	F	-	-	37.3	D	37.0	D	42.2	D
199	I-10 WB Off Ramp & Monroe St	D	15.8	B	4.2	A	-	-	76.9	E	26.7	C
	I-10 EB Off Ramp & Monroe St	D	30.7	C	15.2	B	77.2	E	-	-	36.0	D
203	I-10 WB Off Ramp & Thomasville Rd	C	-	-	350.0	F	12.9	B	126.5	F	106.3	F
	I-10 EB Off Ramp & Thomasville Rd	C	114.8	F	148.9	F	30.5	C	111.3	F	101.5	F
	I-10 EB On Ramp & Raymond Diehl Rd	D	15.4	B	5.4	A	37.4	D	-	-	14.2	B
	I-10 WB Off Ramp & Capital Circle NE	D	-	-	107.5	F	39.8	D	70.2	E	60.5	E

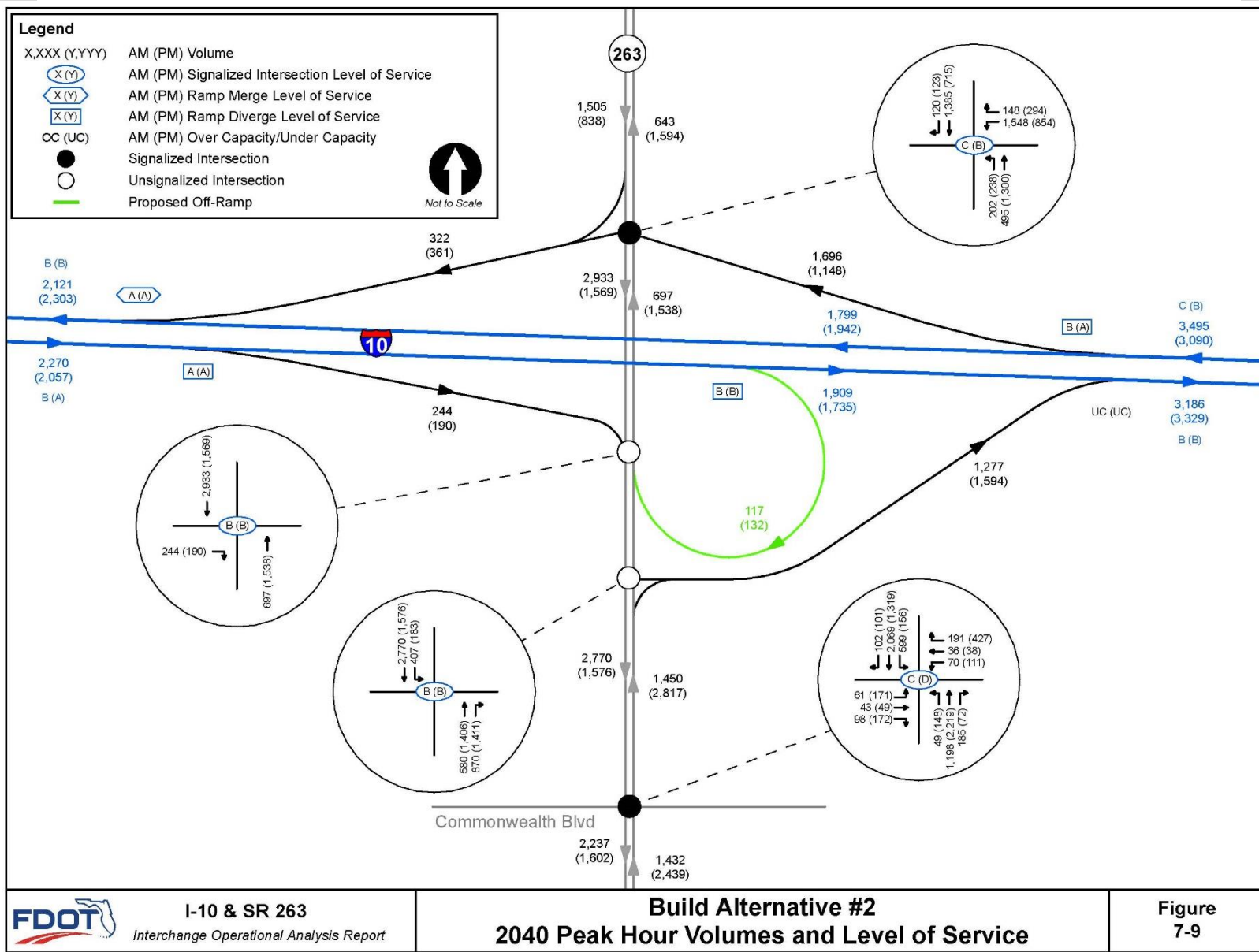
Table 3-22: 2040 Signalized Intersection LOS Analysis Results – PM Peak Period

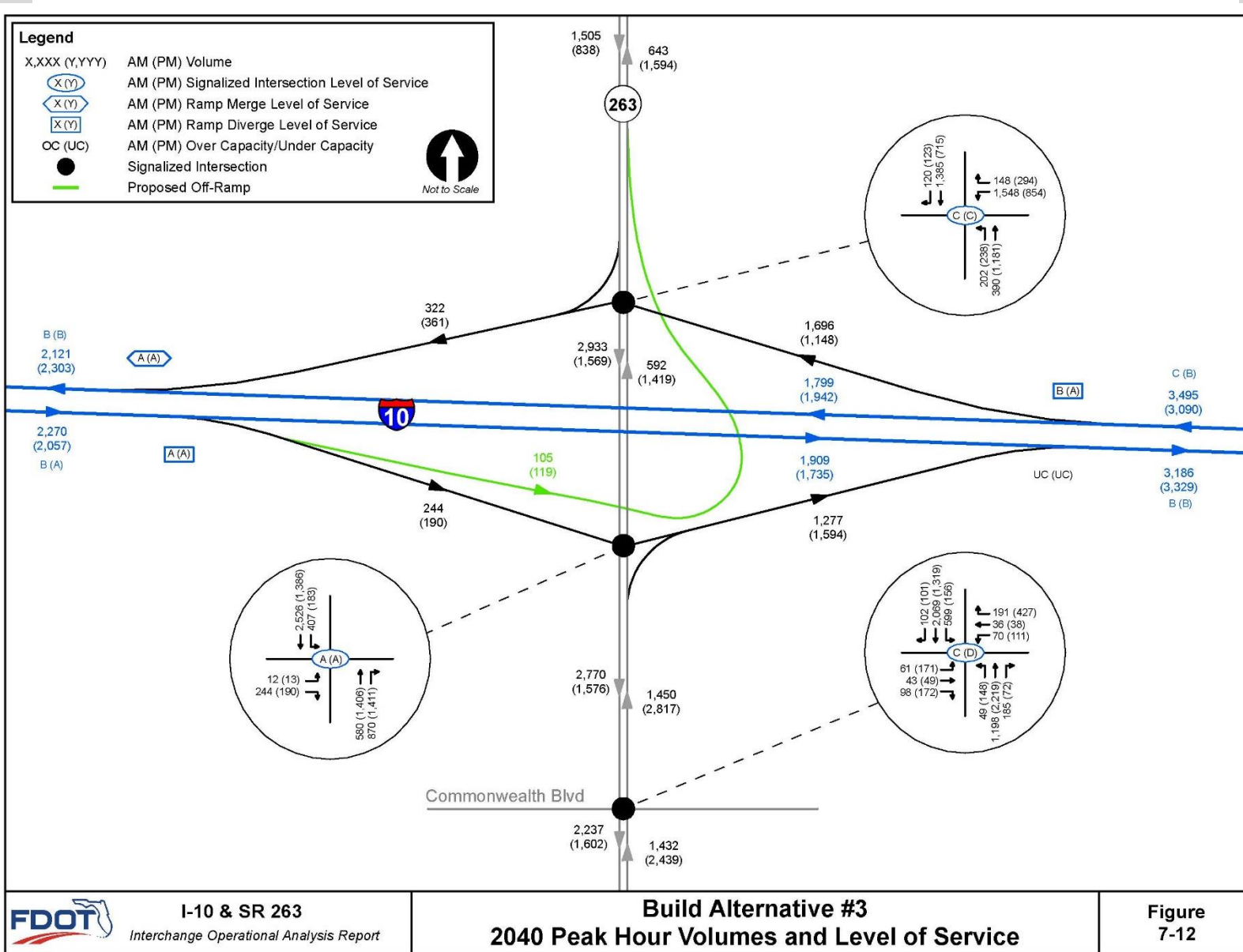
I-10 Exit Number	Intersection Description	LOS Standard	EB		WB		NB		SB		Intersection	
			Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	HCM Avg. Control Delay (s)	HCM LOS
196	I-10 WB Off Ramp & Capital Circle NW	D	-	-	24.9	C	14.6	B	22.0	C	19.6	B
	I-10 EB Off Ramp & Capital Circle NW	D	108.9	F	-	-	73.7	E	27.3	C	60.2	E
199	I-10 WB Off Ramp & Monroe St	D	43.8	D	62.9	E	-	-	86.0	F	64.0	E
	I-10 EB Off Ramp & Monroe St	D	23.8	C	19.7	B	75.9	E	-	-	28.7	C
203	I-10 WB Off Ramp & Thomasville Rd	C	-	-	227.0	F	28.6	C	137.0	F	72.4	E
	I-10 EB Off Ramp & Thomasville Rd	C	108.2	F	126.7	F	44.8	D	14.5	B	65.5	E
	I-10 EB On Ramp & Raymond Diehl Rd	D	9.1	A	7.1	A	35.5	D	-	-	10.7	B
	I-10 WB Off Ramp & Capital Circle NE	D	-	-	98.3	F	31.8	C	64.6	E	44.7	D

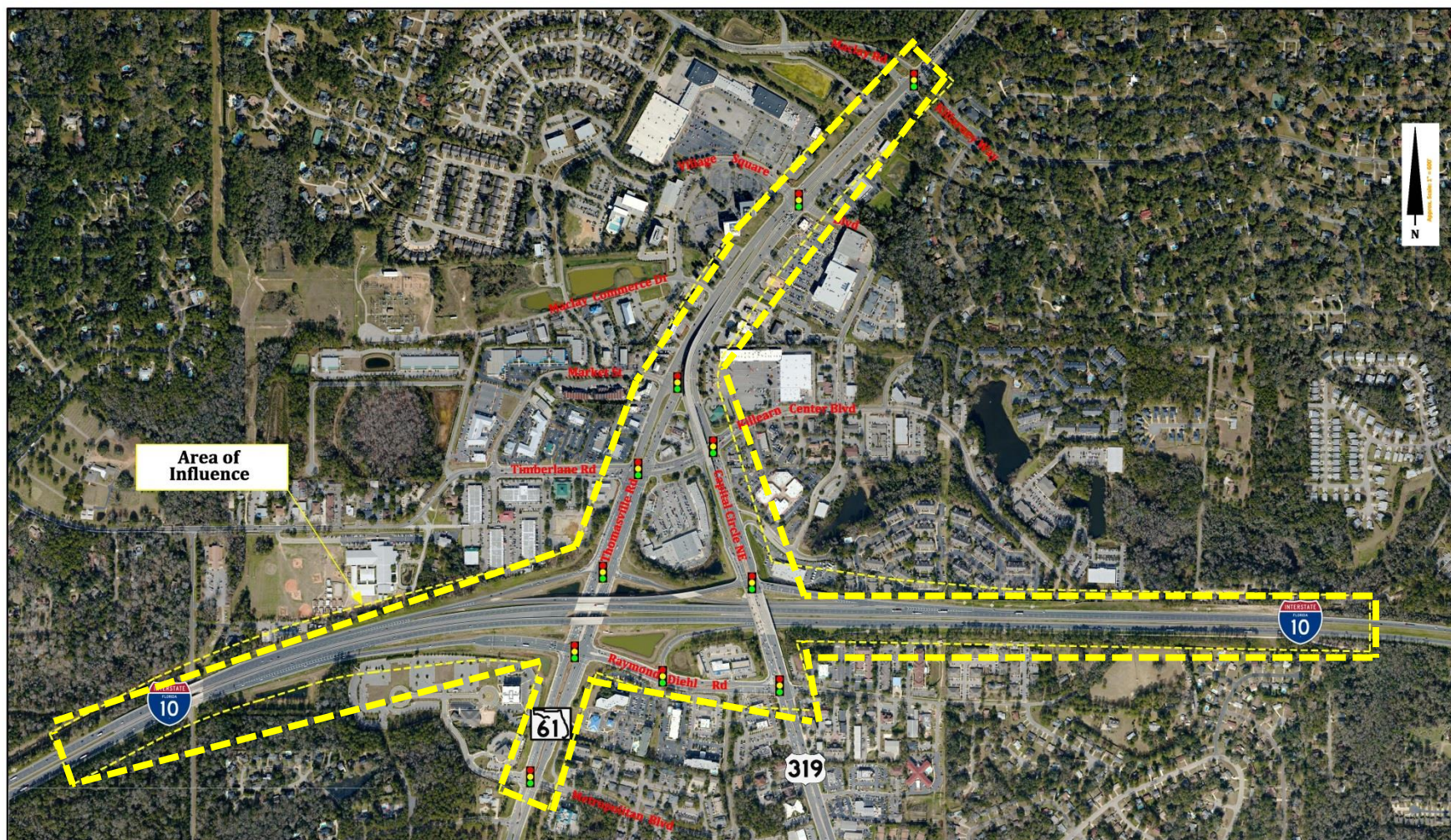












Area of Influence

Area of Influence

Figure 2



CCNE Issues

- 3 major roadways
- Traffic volume
- Signals
- Driveways





CCNE Network

- 2013 AM Peak Hour Operational Analysis
- Failing Intersections
 - *SR 61 @ Timberlane*

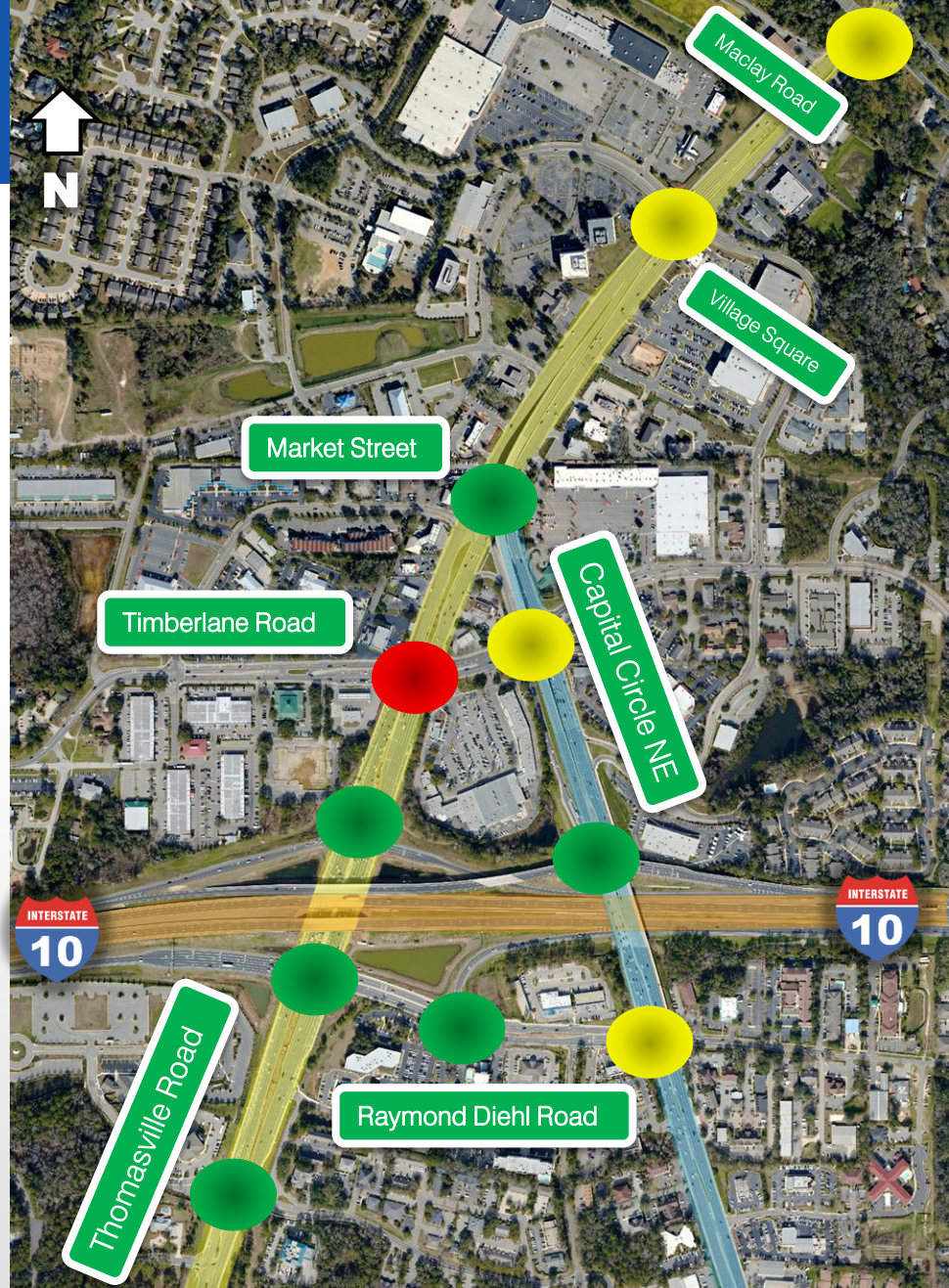
LOS A / B / C



LOS D



LOS E / F





CCNE Network

- 2013 PM Peak Hour Operational Analysis
- Failing Intersections
 - *SR 261 at Raymond Diehl*
 - *SR 61 @ Timberlane*
 - *SR 61 @ Market St.*
 - *US 319 @ Village Sq.*
 - *US 319 @ Maclay Rd.*

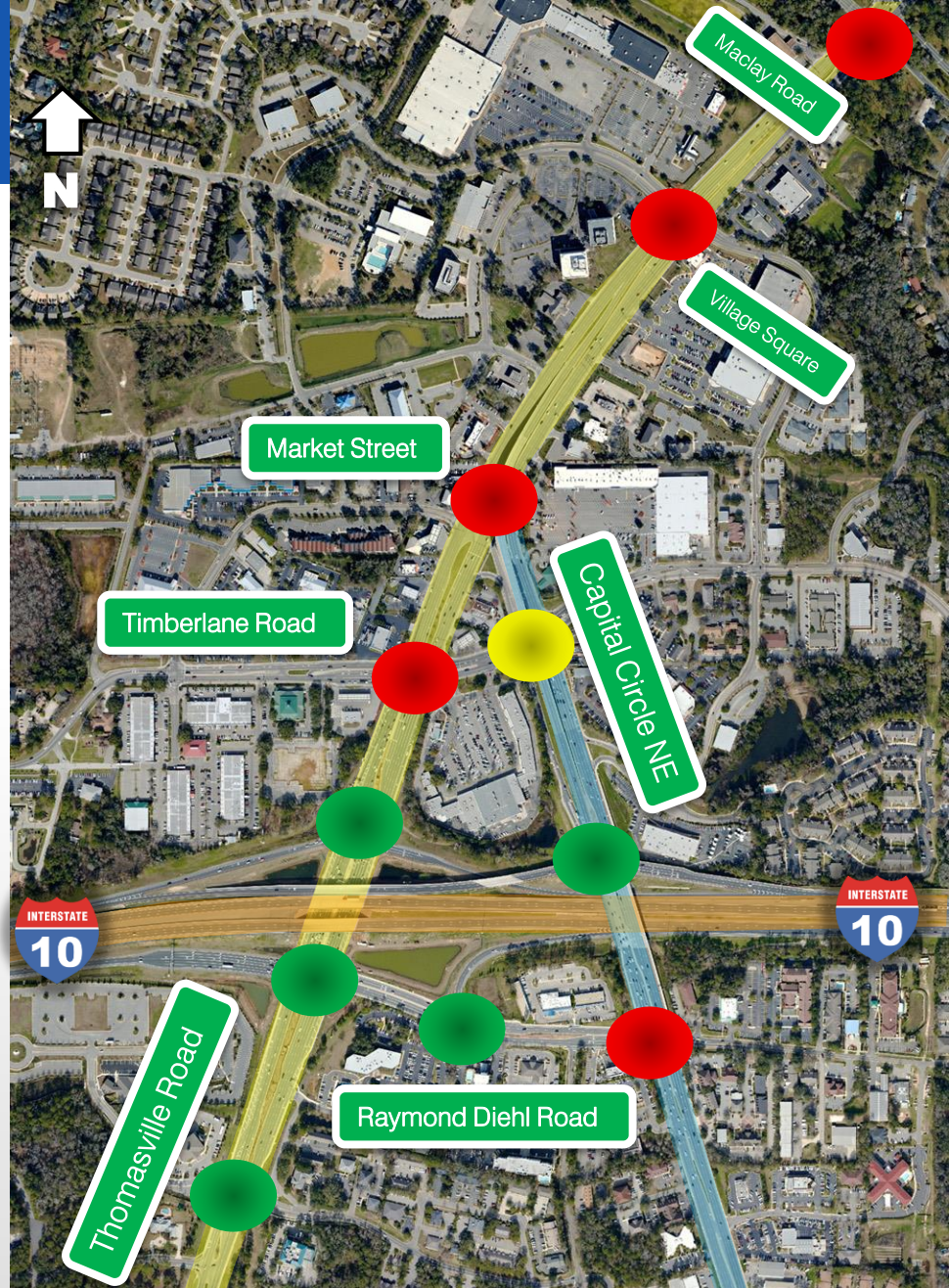
LOS A / B / C



LOS D



LOS E / F



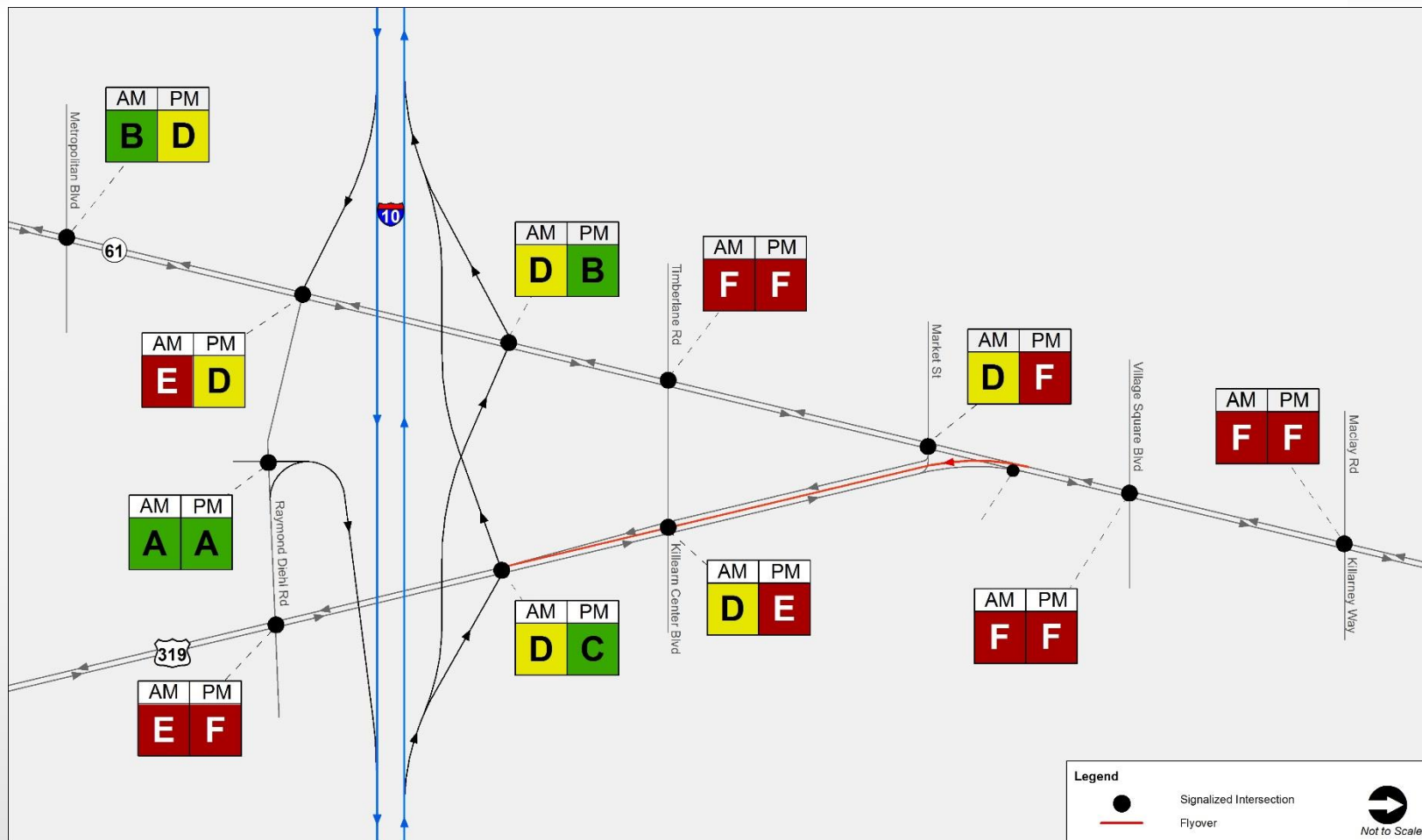
- No-Build
- TSMO – Transportation System Management & Operations

Geometric Constraints

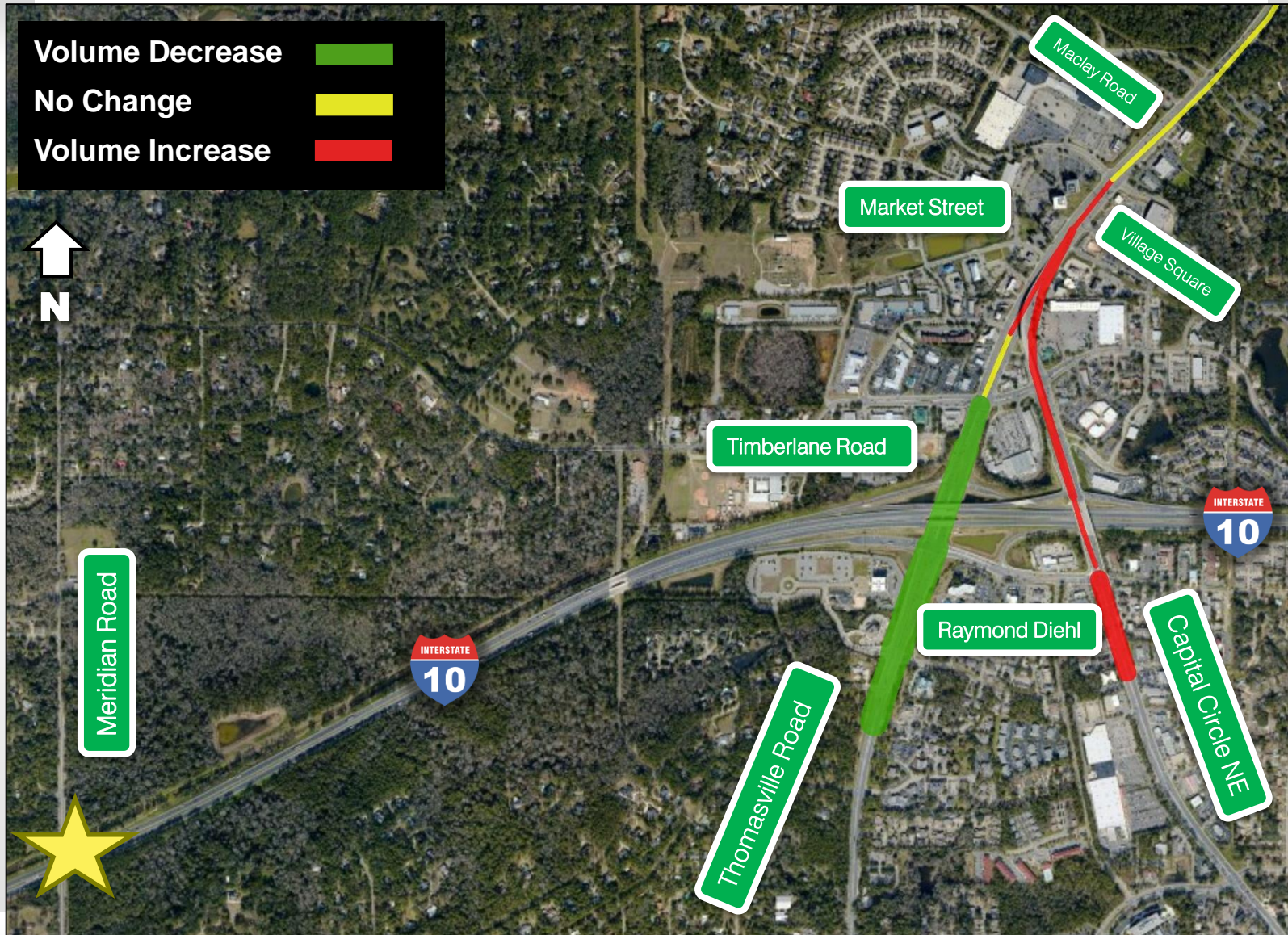
Extensive ROW impacts

Limited Level of Service Improvements

- 1. Basic Improvements – add turn lanes, etc.
- 2. CCNE Flyover from N. of I-10 to N. of Killarney Way
- 3. Existing flyover, modified for reversible operations
- 4. SR 263 flyover to I-10 WB On Ramp
- 5. I-10 EB Off Ramp Flyover to SR 61
- 6. Reversible SR 61 Flyover
- 7. Bi-directional SR 61 Flyover
- 8. Diverging Diamond Interchange



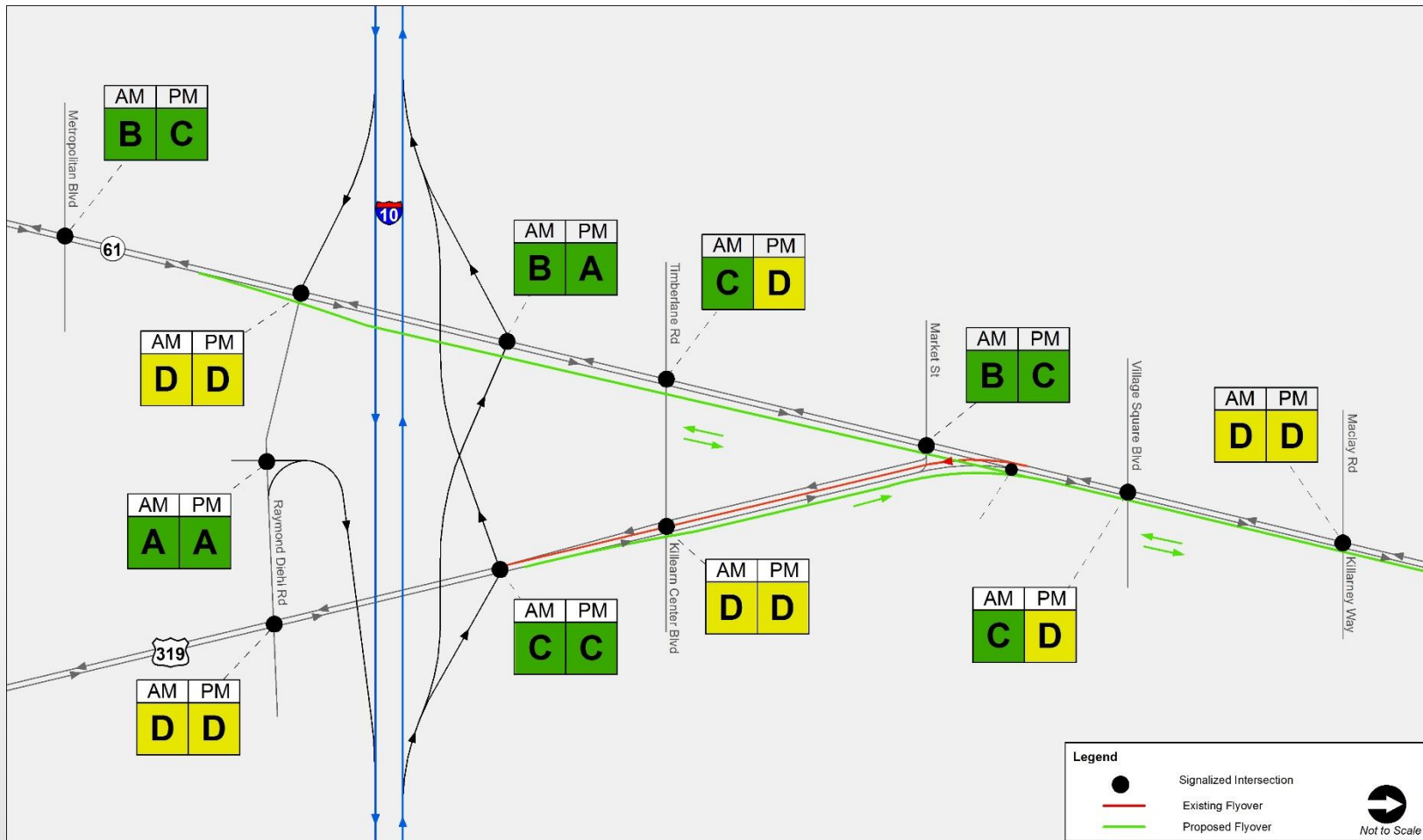
Proposed Interchange at Meridian Road



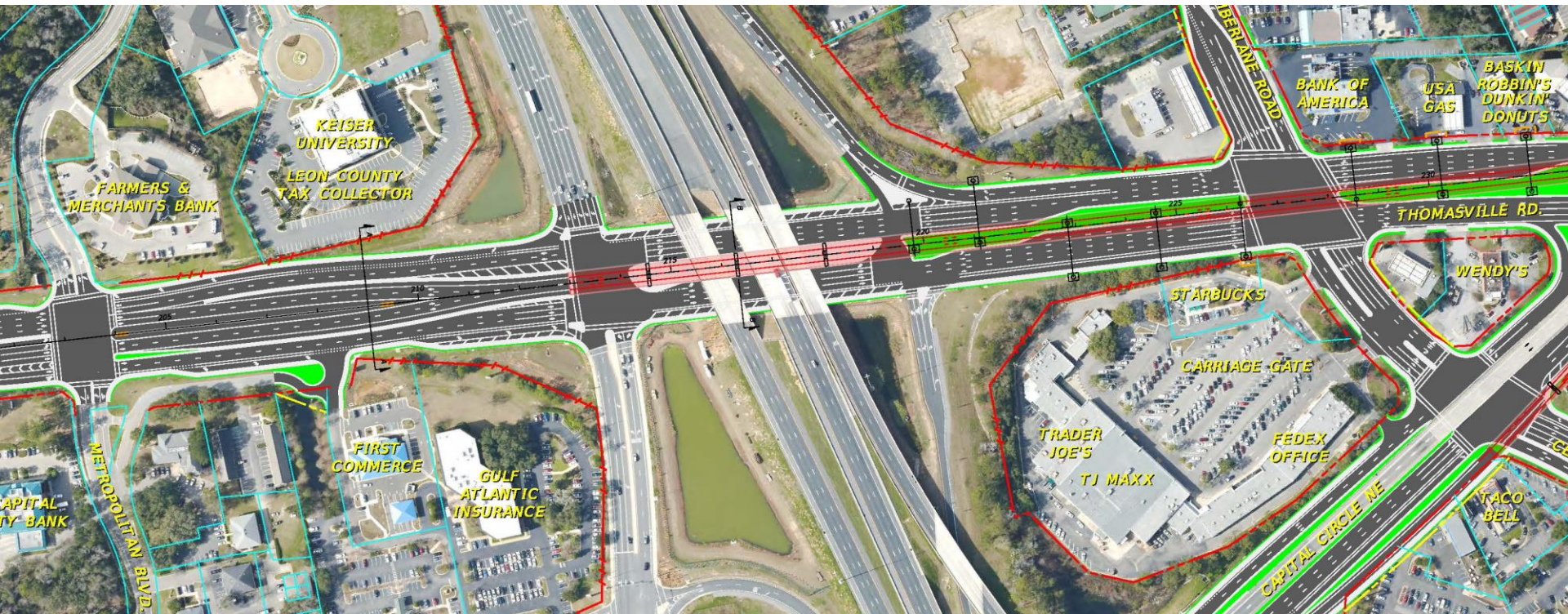
Proposed Interchange at Welaunee



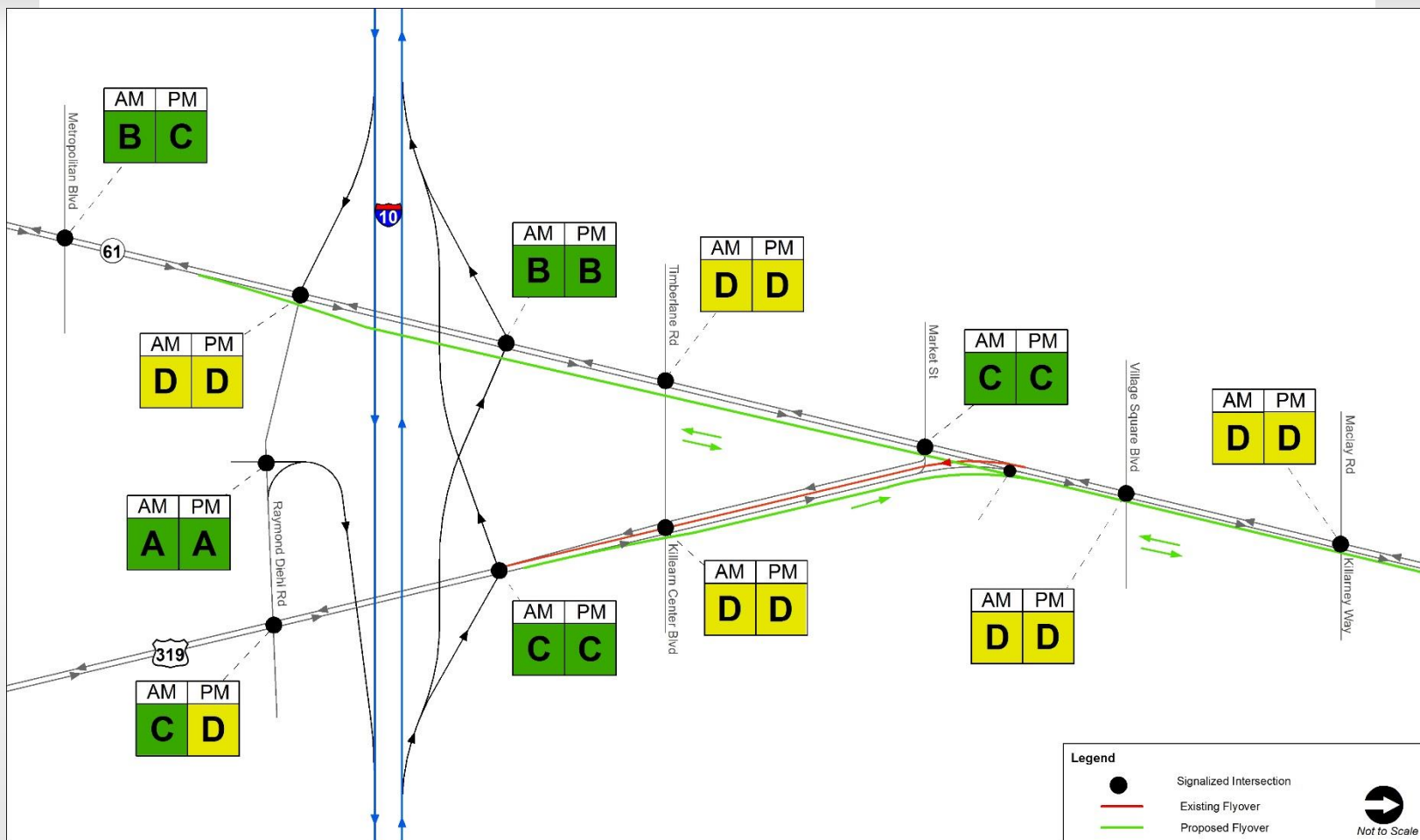
Alternative 6 – Reversible Flyover



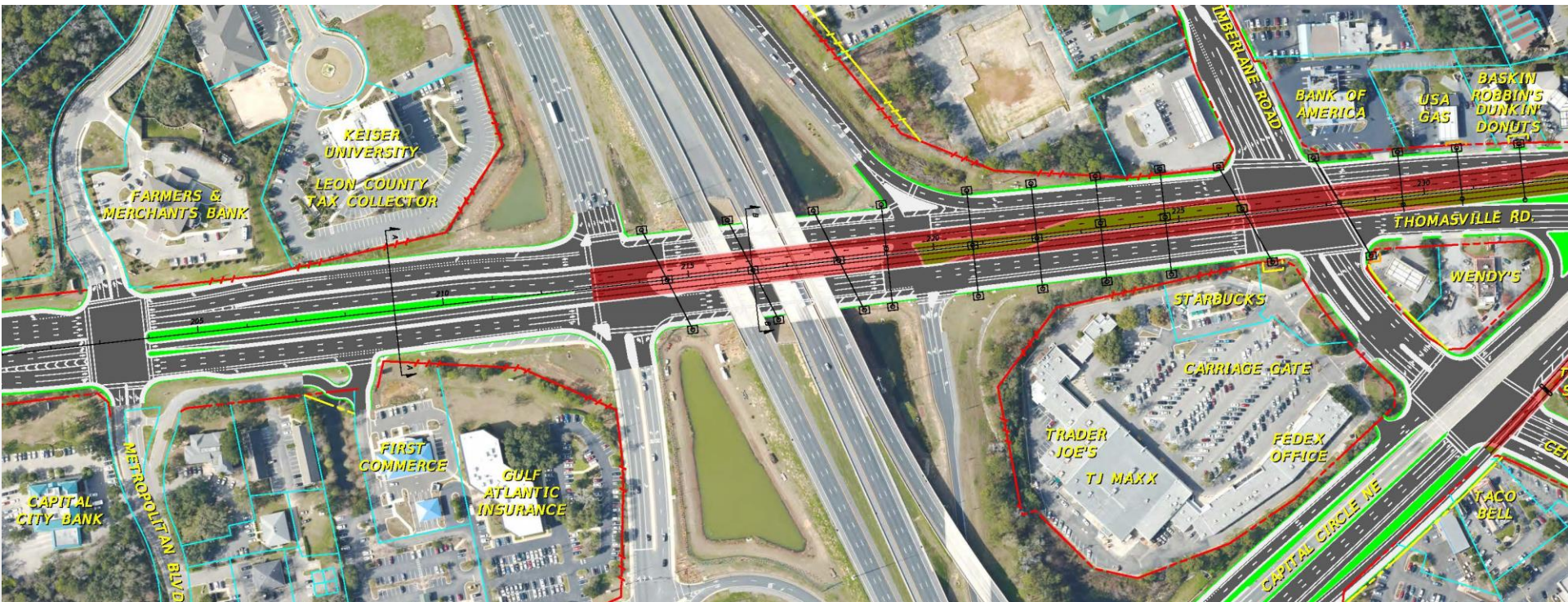
Alternative 6 – Reversible Flyover



Alternative 7 – Two-way Flyover



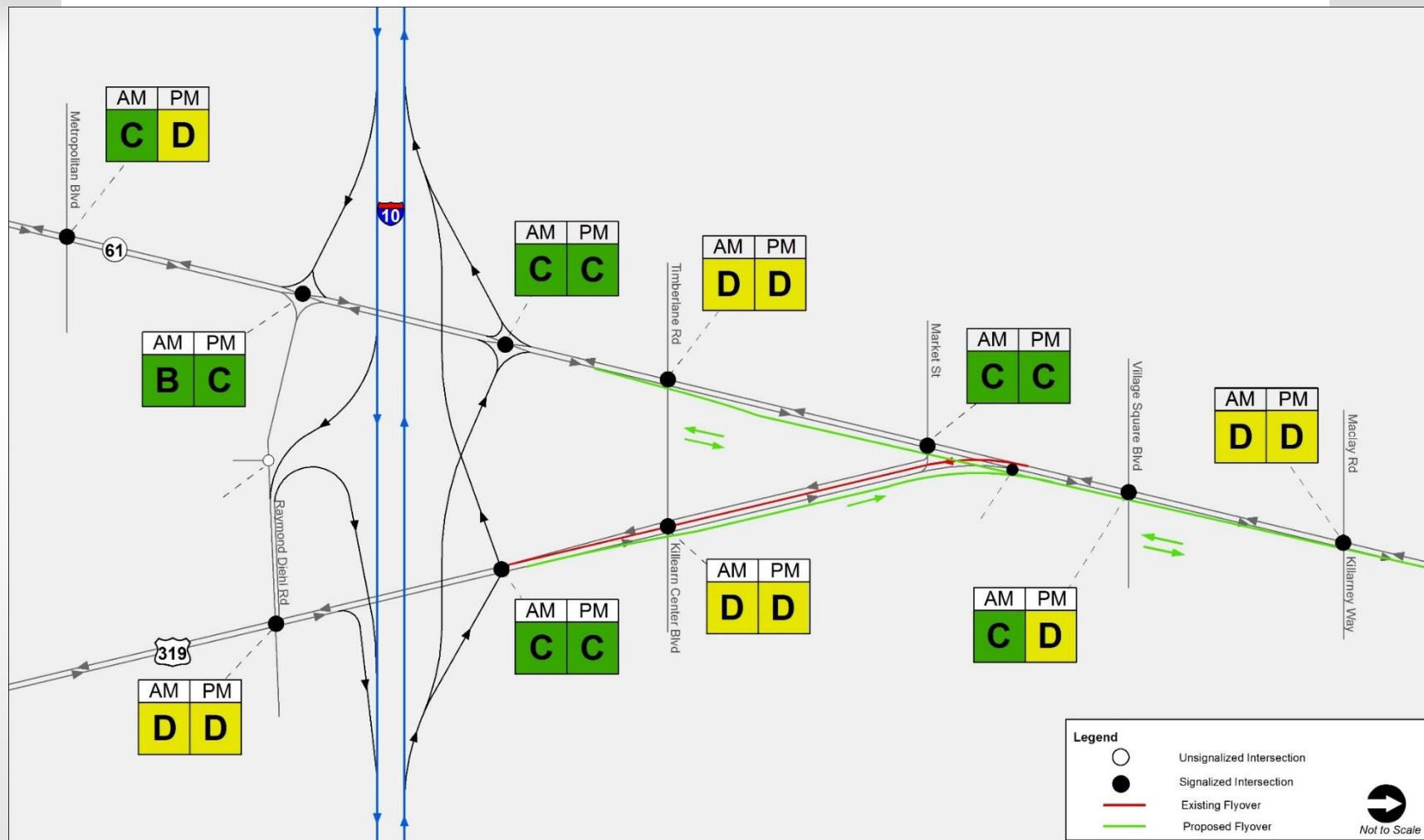
Alternative 7 – Two-way Flyover

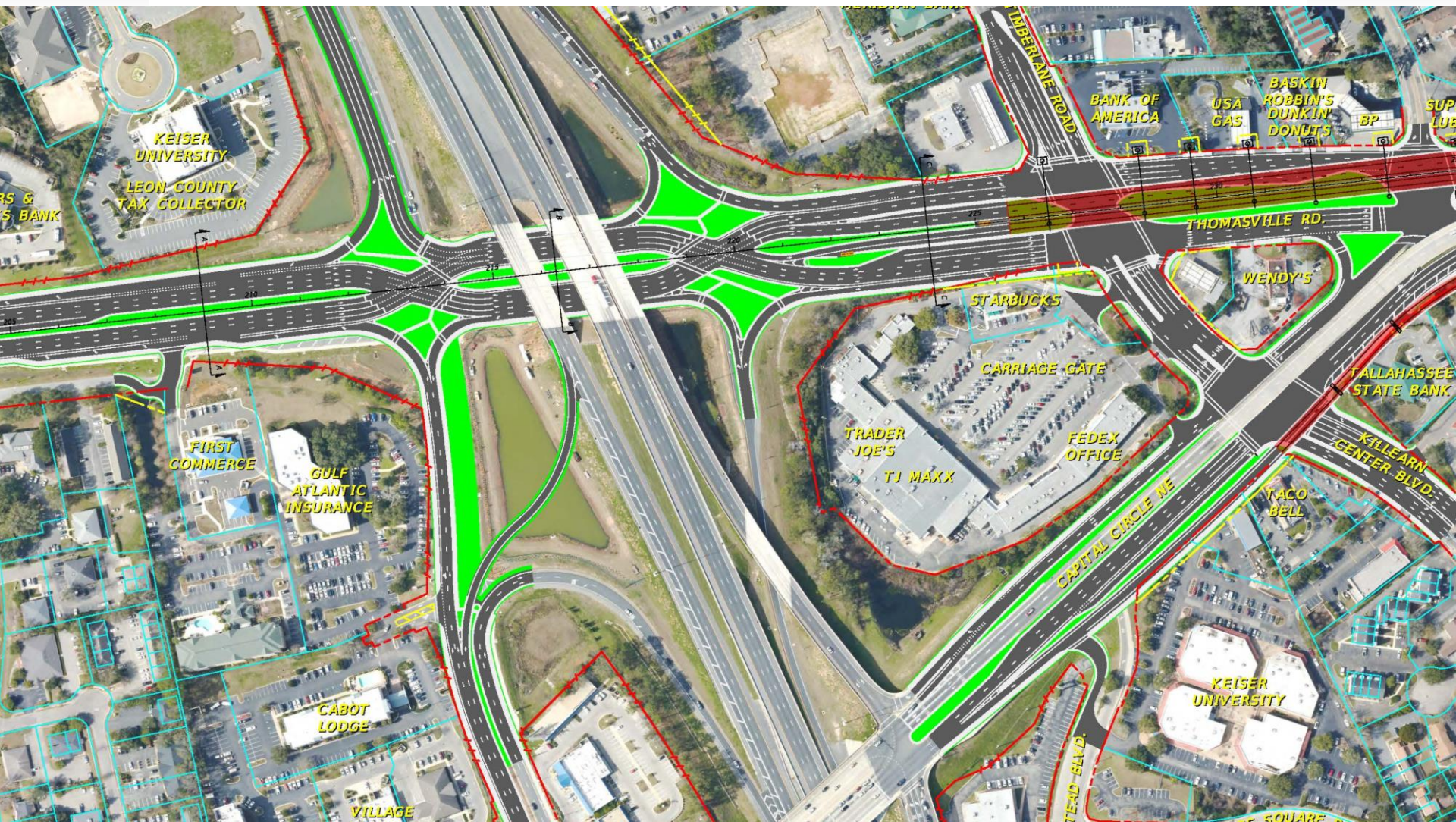


Straddle Bent Example



Alternative 8 – Diverging Diamond Interchange (DDI)







2040 Alternative MOEs



Alternative	Network Delay (hours)	
	AM	PM
No-Build	1,480	2,027
Alternative 6	493	462
Alternative 7	427	381
Alternative 8	444	394

Alternative	Roadway Cost	Bridge Cost	Engineering Cost	Total*
Alternative 6 – Reversible Flyover	\$30,488,000	\$84,994,000	\$23,096,000	\$138,578,000
Alternative 7 – Bi-directional Flyover	\$29,913,000	\$134,598,000	\$32,902,000	\$197,413,000
Alternative 8 – Diverging Diamond Interchange	\$34,279,000	\$113,826,000	\$29,621,000	\$177,726,000

*Right-of-way cost were not available

PD&E

- Include in CRTPA LRTP
- Include in FDOT Work Program
- Exercise Optional Service (PD&E and/or IMR)

- IOAR: November 2013 – October 2014
- PD&E: November 2014 – August 2017
- Design: September 2017 – March 2019
- ROW: April 2019 – November 2019
- Construction: December 2019 – January 2023



Thank You!

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