Central Entrance Transportation Plan

Steering Committee Meeting

October 8, 2021

Agenda

- Welcome and introductions
- Project Updates
- Survey Updates
- BRT on Central Entrance
- Guiding Values Discussion
- Access Management Discussion
- Next steps

Overview of Level of Service Analysis

Previous Synchro Analysis

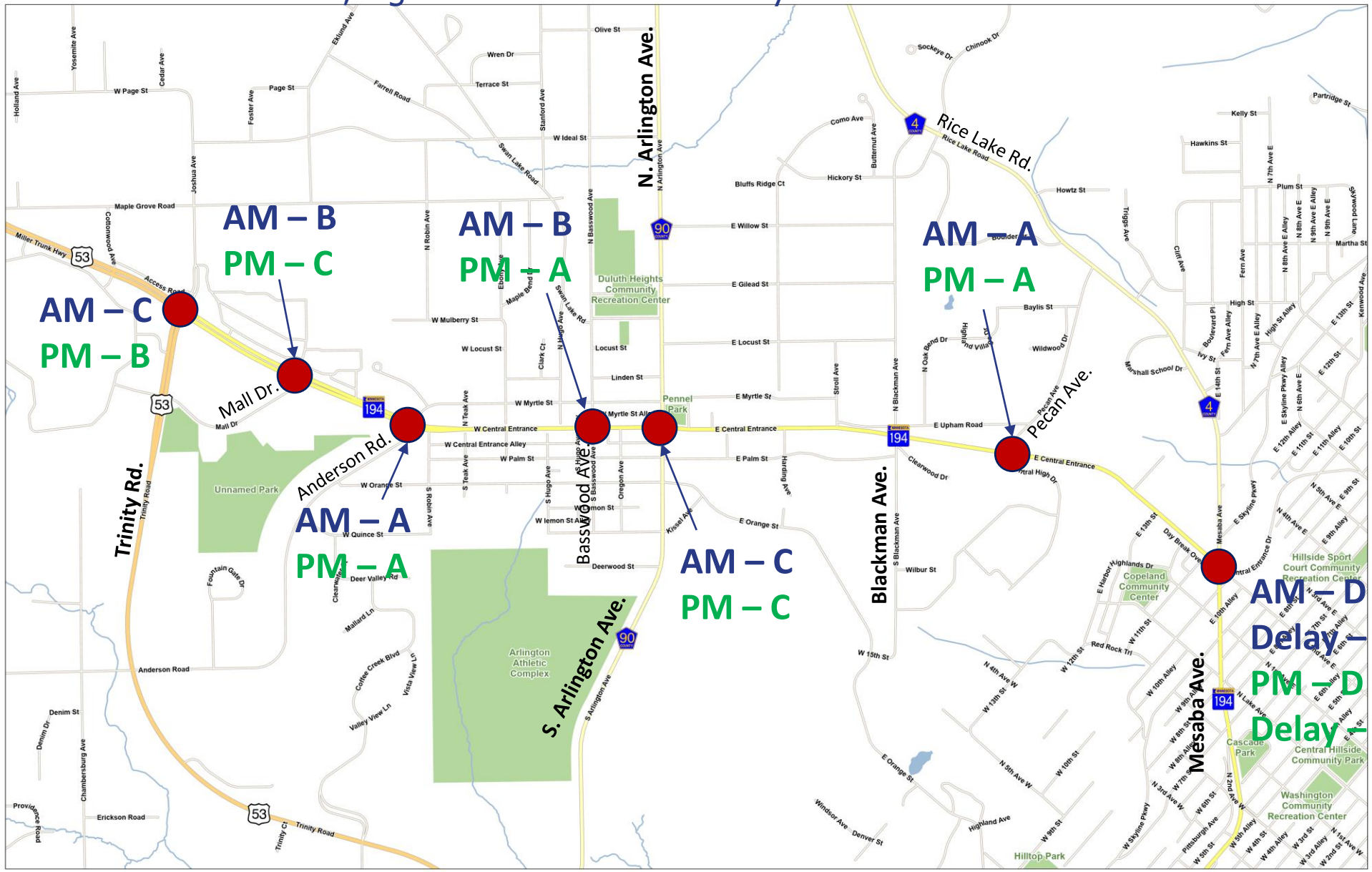
- 2018 Base Year
- 2045 No-Build (E+C Network)
- 2045 Build #1 (3-Lane Central Entrance)
  - Accounts for trips that shift to other roadways
- 2045 Build #1 (3-Lane Central Entrance – Sensitivity Analysis)
  - Assumes no trips shift to other roadways

Additional Analysis

- 2045 Build #2 (one-way pair)
- Roundabouts (HCS analysis)
  - 2045 No-Build (E+C)
  - 2045 Build #1 (3-lane)
  - 2045 Build #1 (3-lane sensitivity)

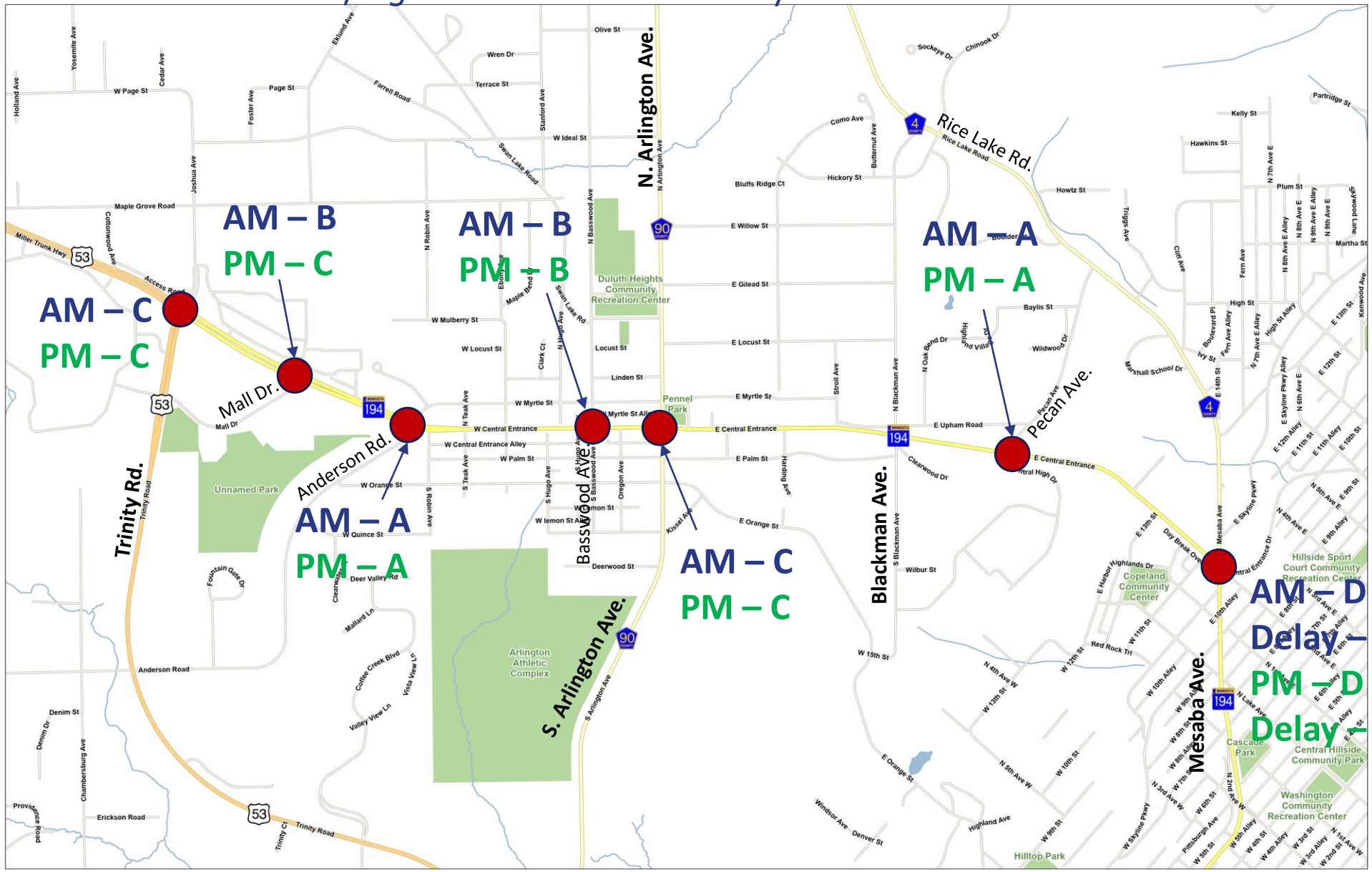
Overall Intersection Level of Service (2018)

Current cross section, signalized intersection analysis



Overall Intersection Level of Service (2045 No-Build)

Current cross section, signalized intersection analysis



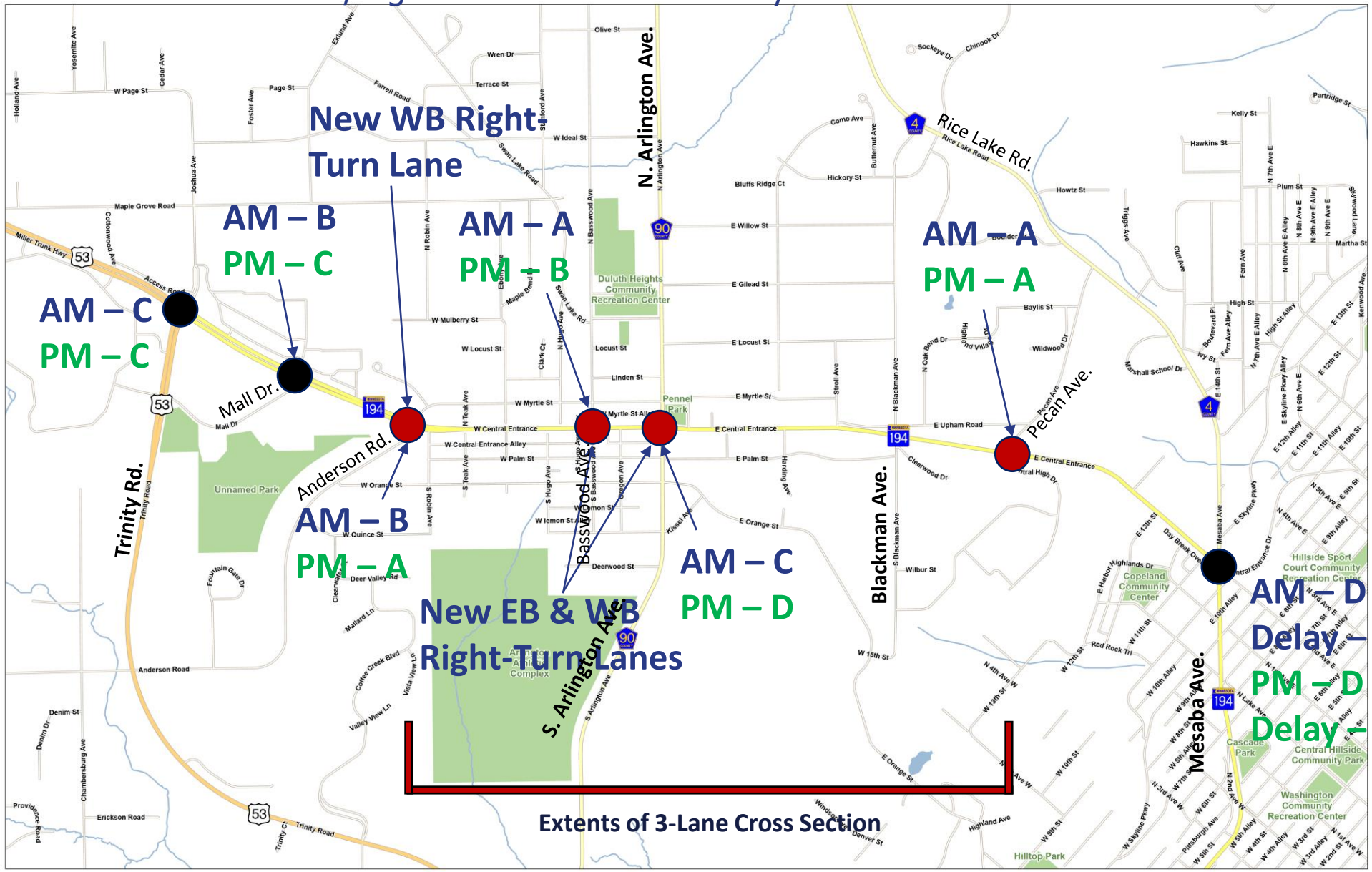
Legend

AM Peak Hour

PM Peak Hour

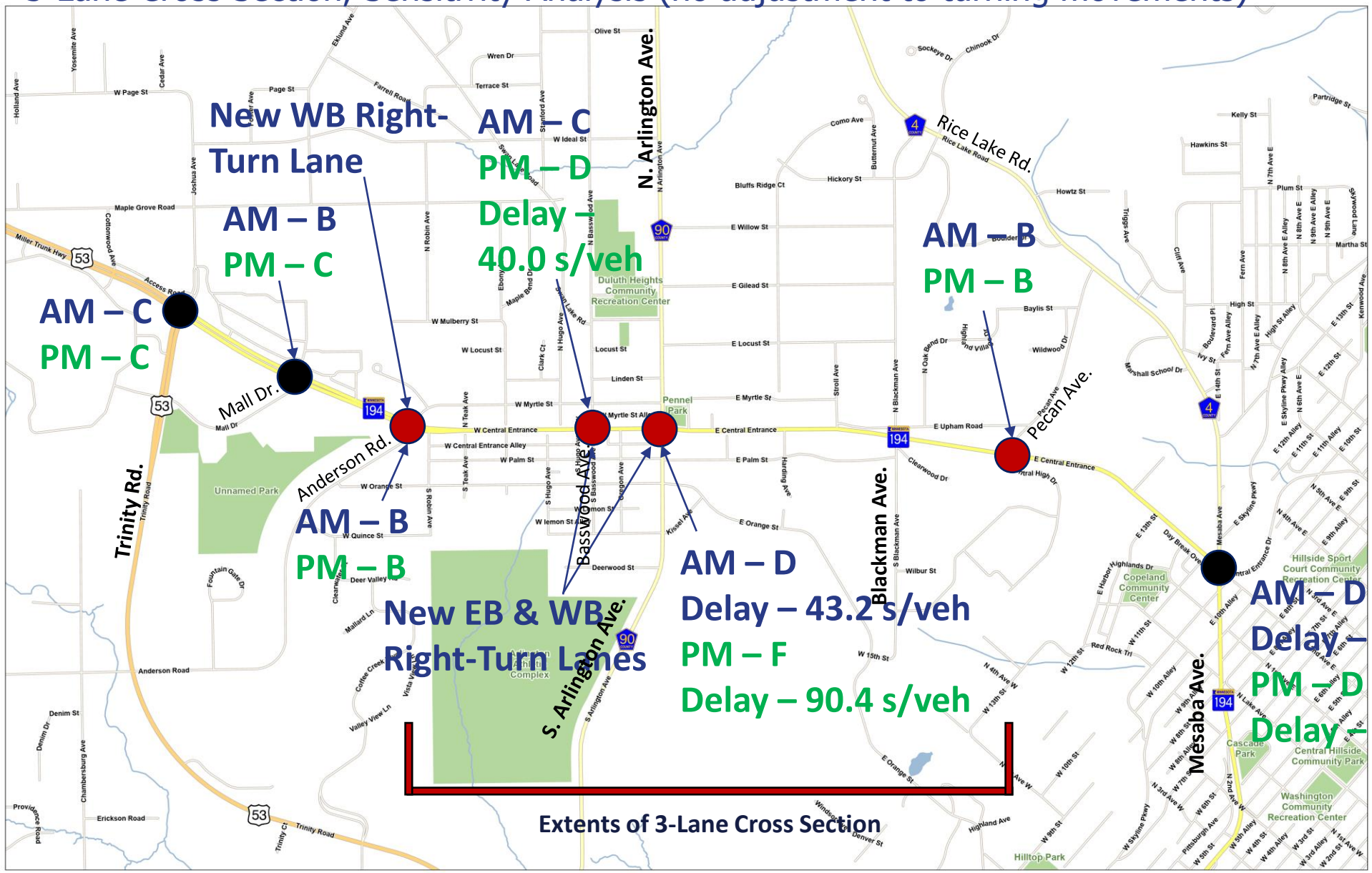
Overall Intersection Level of Service (2045 Build 1)

3-Lane Cross Section, signalized intersection analysis



Intersection Level of Service (2045 Build 1)

3-Lane Cross Section, Sensitivity Analysis (no adjustment to turning movements)



Legend

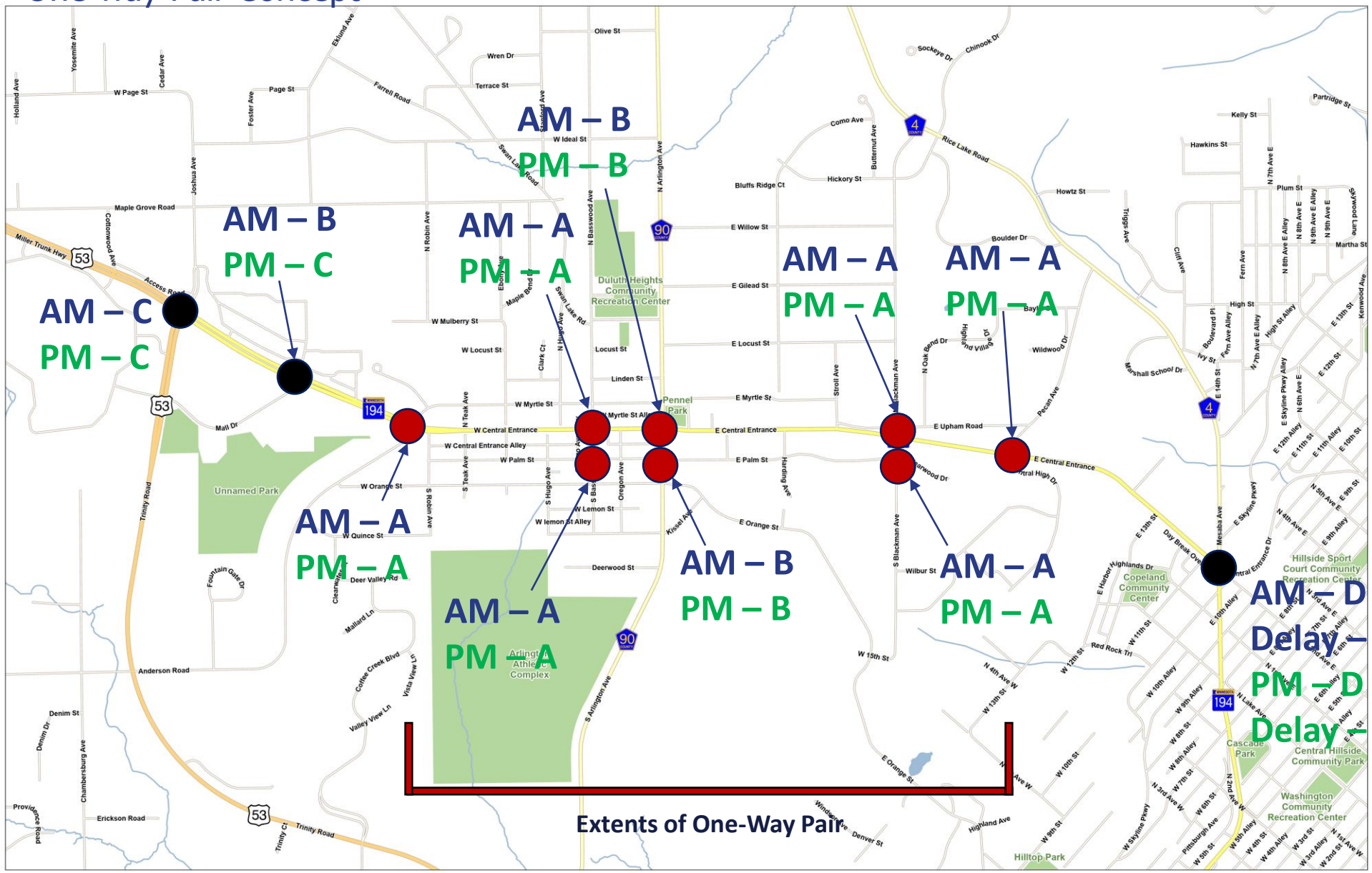
AM Peak Hour

PM Peak Hour

Sensitivity Analysis – 2045 No-Build traffic volumes applied to 2045 Build scenario (3-lane configuration)

Intersection Level of Service (2045 Build 2)

One-way Pair Concept



Legend

AM Peak Hour
PM Peak Hour

Intersection Level of Service (2045 Build 2)

One-way Pair Concept

Central Entrance @ Trinity Rd												
Movement	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	EBL	EBT	EBR
AM Peak	A	D	D	D	B	A	A	E	E	D	A	A
PM Peak	E	D	A	D	B	A	E	E	A	E	B	A

Central Entrance @ Mall Dr												
Movement	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	EBL	EBT	EBR
AM Peak	D	D	A	D	B	A	D	C		D	A	A
PM Peak	D	D	A	E	C	A	E	D		E	B	A

Central Entrance/Palm St @ Anderson Rd												
Movement	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	EBL	EBT	EBR
AM Peak	C		A	A	A	A	C		A	A	A	A
PM Peak	C		B	A	A	A	C		B	A	A	A

Central Entrance @ Basswood Ave							
Movement	NBL	NBT	WBL	WBT	WBR	SBT	SBR
AM Peak	C		A	A	A	C	A
PM Peak	C		A	A	A	C	B

Palm St @ Basswood Ave							
Movement	NBT	NBR	SBL	SBT	EBL	EBT	EBR
AM Peak	A		B		A		
PM Peak	B		B		A		

Central Entrance @ Arlington Ave							
Movement	NBL	NBT	WBL	WBT	WBR	SBT	SBR
AM Peak	A	B	A	B	A	C	A
PM Peak	B	B	B	C	A	C	A

Palm St @ Arlington Ave							
Movement	NBT	NBR	SBL	SBT	EBL	EBT	EBR
AM Peak	C		C	C	A		
PM Peak	C		B	B	B		

Central Entrance @ Blackmon Ave							
Movement	NBL	NBT	WBL	WBT	WBR	SBT	SBR
AM Peak	C		A			B	
PM Peak	C		A			B	

Palm St @ Blackmon Ave							
Movement	NBT	NBR	SBL	SBT	EBL	EBT	EBR
AM Peak	B		C		A		
PM Peak	B		C		A		

Central Entrance/Palm St @ Pecan Ave												
Movement	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	EBL	EBT	EBR
AM Peak	C		A	A	A	A	C		A	A		
PM Peak	C		A	A	A	A	C		C	A		

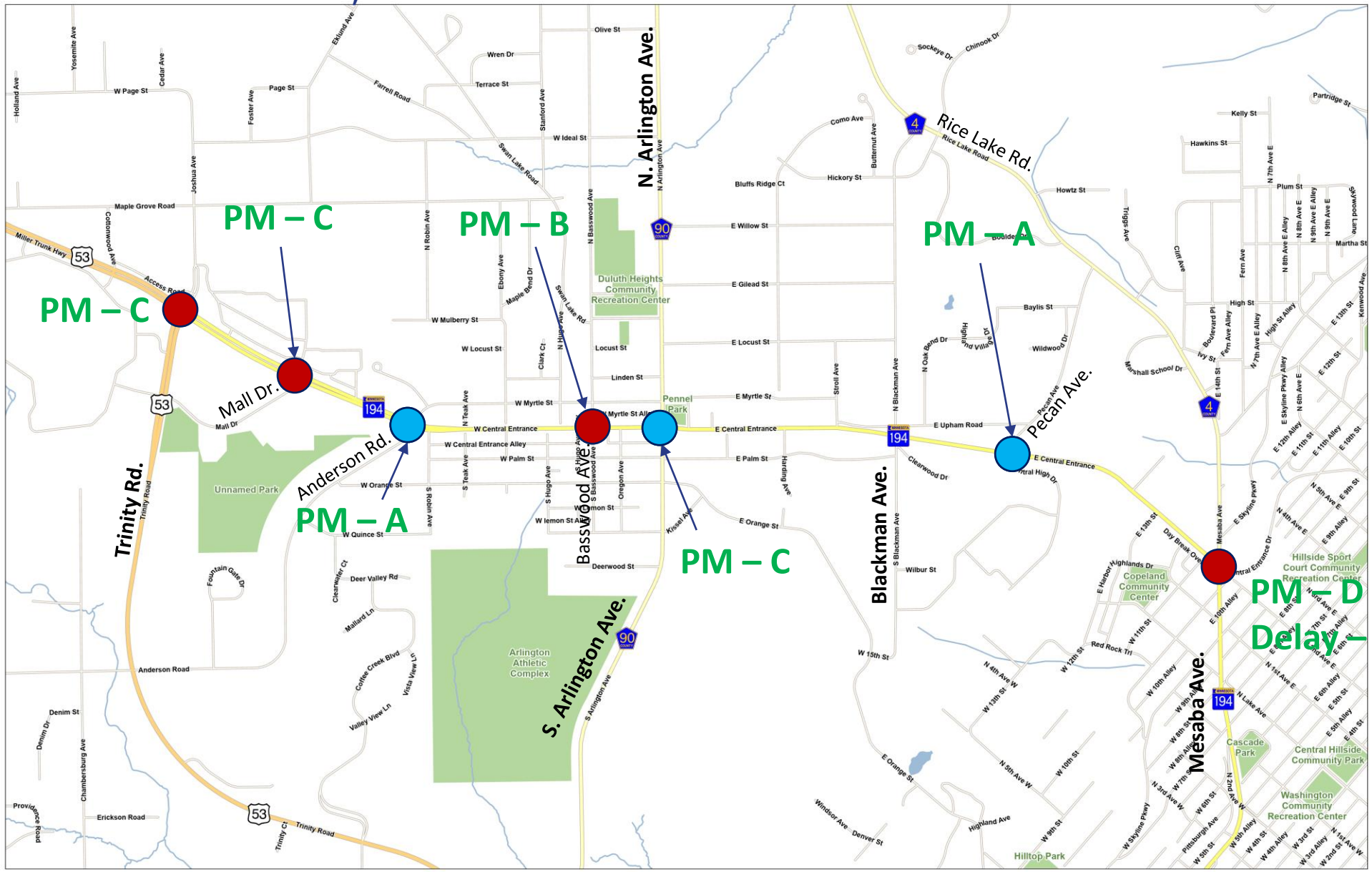
Central Entrance @ Mesaba Ave												
Movement	NBL	NBT	NBR	WBL	WBT	WBR	SBL	SBT	SBR	EBL	EBT	EBR
AM Peak	D	E	A	D	D		D	D	A	C	D	A
PM Peak	D	E	A	D	D		D	D	A	C	D	A

SimTraffic Travel Time Results (PM Peak Hour)

PM Peak Hour Travel Times				Change (in minutes)		
Scenario	Direction	Travel Time (sec)	Travel Time (min)	2018 Baseline to 2045 No-Build	2045 No-Build to 2045 Build	2045 No-Build to 2045 Build (sensitivity analysis)
2018 Baseline	EB	384.4	6.4			
	WB	443.1	7.4			
2045 No-Build	EB	372.2	6.2	-0.2		
	WB	476	7.9	0.5		
2045 Build (3-lane)	EB	378.4	6.3		0.1	
	WB	488.3	8.1		0.2	
2045 Build (3-lane) – Sensitivity Analysis	EB	418.5	7.0			0.8
	WB	693.6	11.6			3.7
2045 Build (One-way Pair)	EB	378	6.3		0.1	
	WB	427.1	7.1		-0.8	

Overall Intersection Level of Service (2045 No-Build)

Current Cross Section, with Roundabouts for PM Peak Hour



Legend

PM Peak Hour LOS

- Roundabout
- Signalized

Intersection Level of Service (2045 No-Build)

Current Cross Section, with Roundabouts for PM Peak Hour

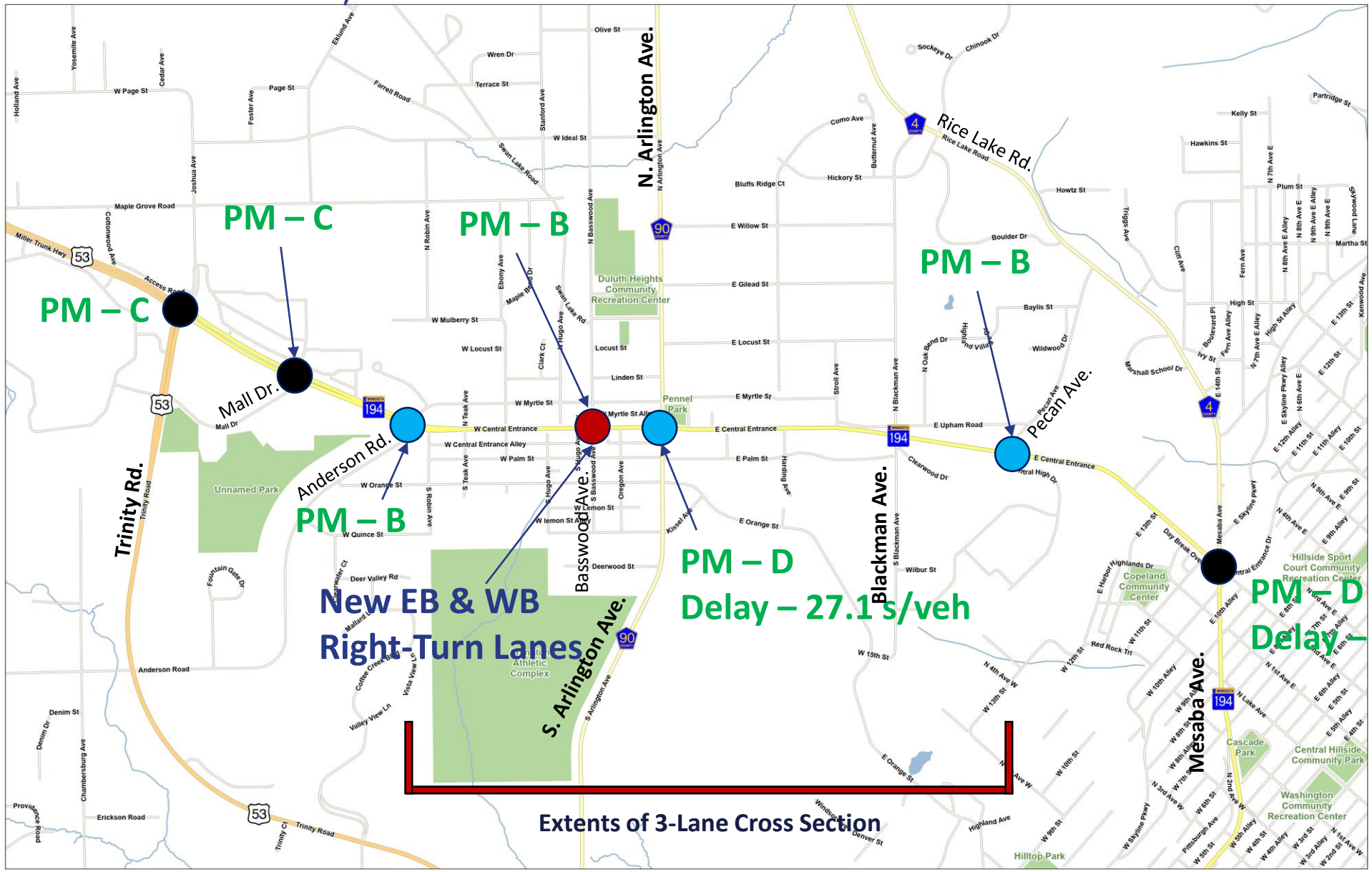
Central Entrance @ Anderson Rd									
Movement	**NBL/T**	**NBR**	**WBL/T**	**WBT/R**	**SBL/T**	**SBR**	**EBL/T**	**EBT/R**	
PM Peak	A	A	A	B	B	B	A	A	

Central Entrance @ Arlington Ave									
Movement	**NBL**	**NBT/R**	**WBL/T**	**WBT/R**	**SBL**	**SBT**	**SBR**	**EBL/T**	**EBT/R**
PM Peak	B	C	C	C	B	F	C	B	B

Central Entrance @ Pecan Ave									
Movement	**NBL/T**	**NBR**	**WBL/T**	**WBT/R**	**SBL/T**	**SBR**	**EBL/T**	**EBT/R**	
PM Peak	A	A	A	A	B	A	A	A	

Overall Intersection Level of Service (2045 Build)

3-Lane Cross Section, with Roundabouts for PM Peak Hour



Legend

PM Peak Hour LOS

- Roundabout
- Signalized

Intersection Level of Service (2045 Build 1)

3-Lane Cross Section, with Roundabouts for PM Peak Hour

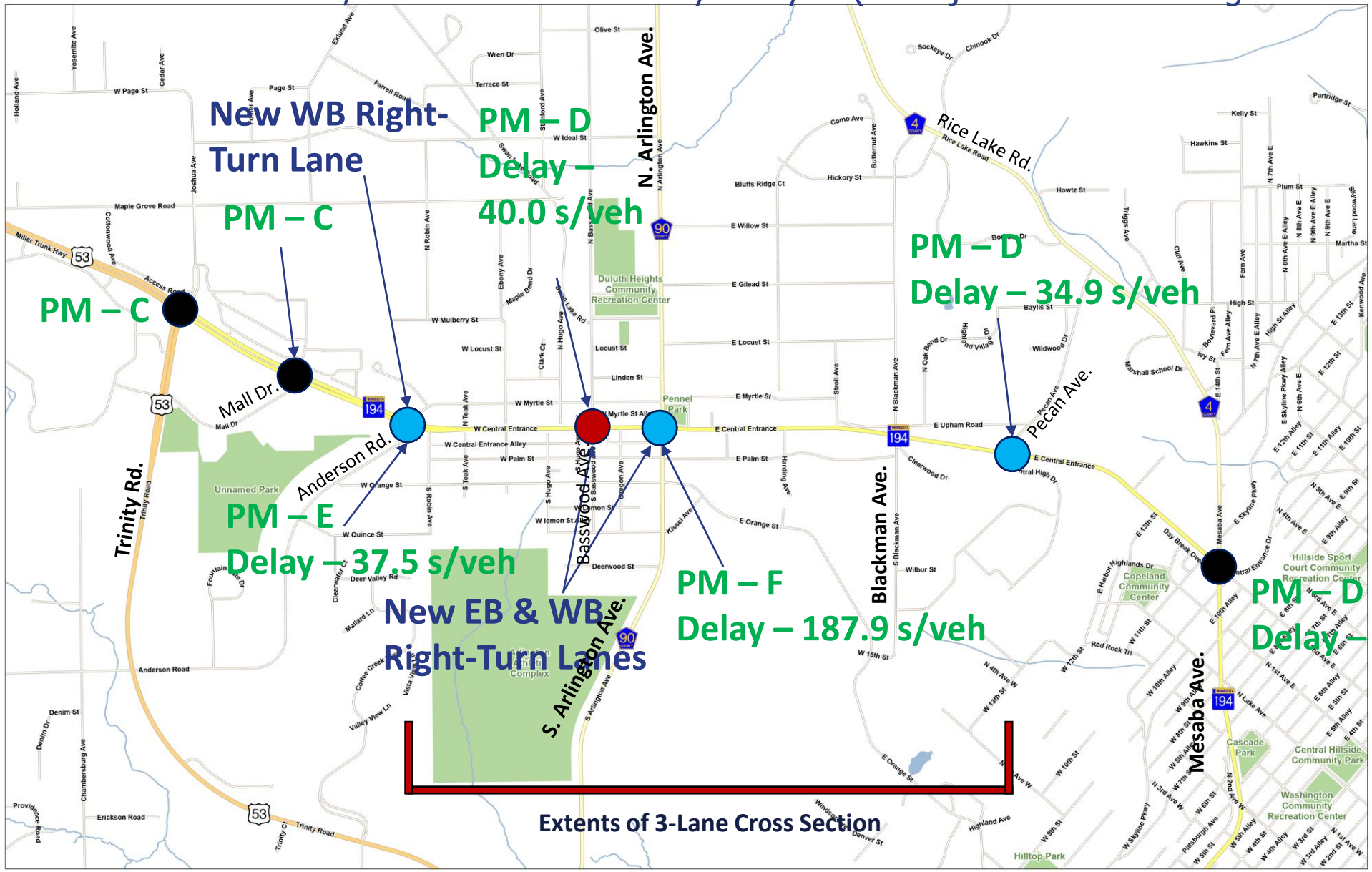
Central Entrance @ Anderson Rd												
Movement	**NBL**	**NBT**	**NBR**	**WBL**	**WBT**	**WBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**
PM Peak	A		A	A	B		A		A	A	B	

Central Entrance @ Arlington Ave												
Movement	**NBL**	**NBT**	**NBR**	**WBL**	**WBT**	**WBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**
PM Peak	A	A	A	A	F		A	C	B	A	C	

Central Entrance @ Pecan Ave												
Movement	**NBL**	**NBT**	**NBR**	**WBL**	**WBT**	**WBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**
PM Peak	A		A	A	B		A		A	A	A	

Intersection Level of Service (2045 Build 1)

3-Lane Cross Section, Roundabout Sensitivity Analysis (no adjustment to turning movements)



Legend

PM Peak Hour LOS

- Roundabout
- Signalized

Sensitivity Analysis – 2045 No-Build traffic volumes applied to 2045 Build scenario (3-lane configuration)

Intersection Level of Service (2045 Build 1)

3-Lane Cross Section, Roundabout Sensitivity Analysis (no adjustment to turning movements)

Central Entrance @ Anderson Rd (Roundabout)												
Movement	**NBL**	**NBT**	**NBR**	**WBL**	**WBT**	**WBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**
PM Peak	A		A	A	F	A	B		B	A	C	

Central Entrance @ Arlington Ave (Roundabout)												
Movement	**NBL**	**NBT**	**NBR**	**WBL**	**WBT**	**WBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**
PM Peak	B	B	A	A	F	A	B	F	C	A	F	A

Central Entrance @ Pecan Ave (Roundabout)												
Movement	**NBL**	**NBT**	**NBR**	**WBL**	**WBT**	**WBR**	**SBL**	**SBT**	**SBR**	**EBL**	**EBT**	**EBR**
PM Peak	A		A	A	F		B		A	A	B	

Sensitivity Analysis –
2045 No-Build traffic volumes applied to 2045 Build scenario (3-lane configuration)

Signalized Intersection vs. Roundabouts

(PM Peak Hour – 3-Lane Concept)

NOTE

The 2045 No-Build scenario assumes the current cross section with roundabouts tested at three intersections.

	Anderson Road				Arlington Avenue				Pecan Avenue			
	Signalized Intersection		Roundabout		Signalized Intersection		Roundabout		Signalized Intersection		Roundabout	
	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)	LOS	Delay (seconds)
2045 No-Build	**A**	7.9	**A**	8.8	**C**	27.9	**C**	21.5	**A**	8.9	**A**	7.3
2045 Build (3-lane)	**A**	5.9	**B**	11.4	**D**	37.3	**D**	27.1	**A**	8.8	**B**	10.4
2045 Build (3-lane) – Sensitivity Analysis	**B**	11.9	**E**	37.5	**F**	90.4	**F**	187.9	**B**	11.3	**D**	34.9

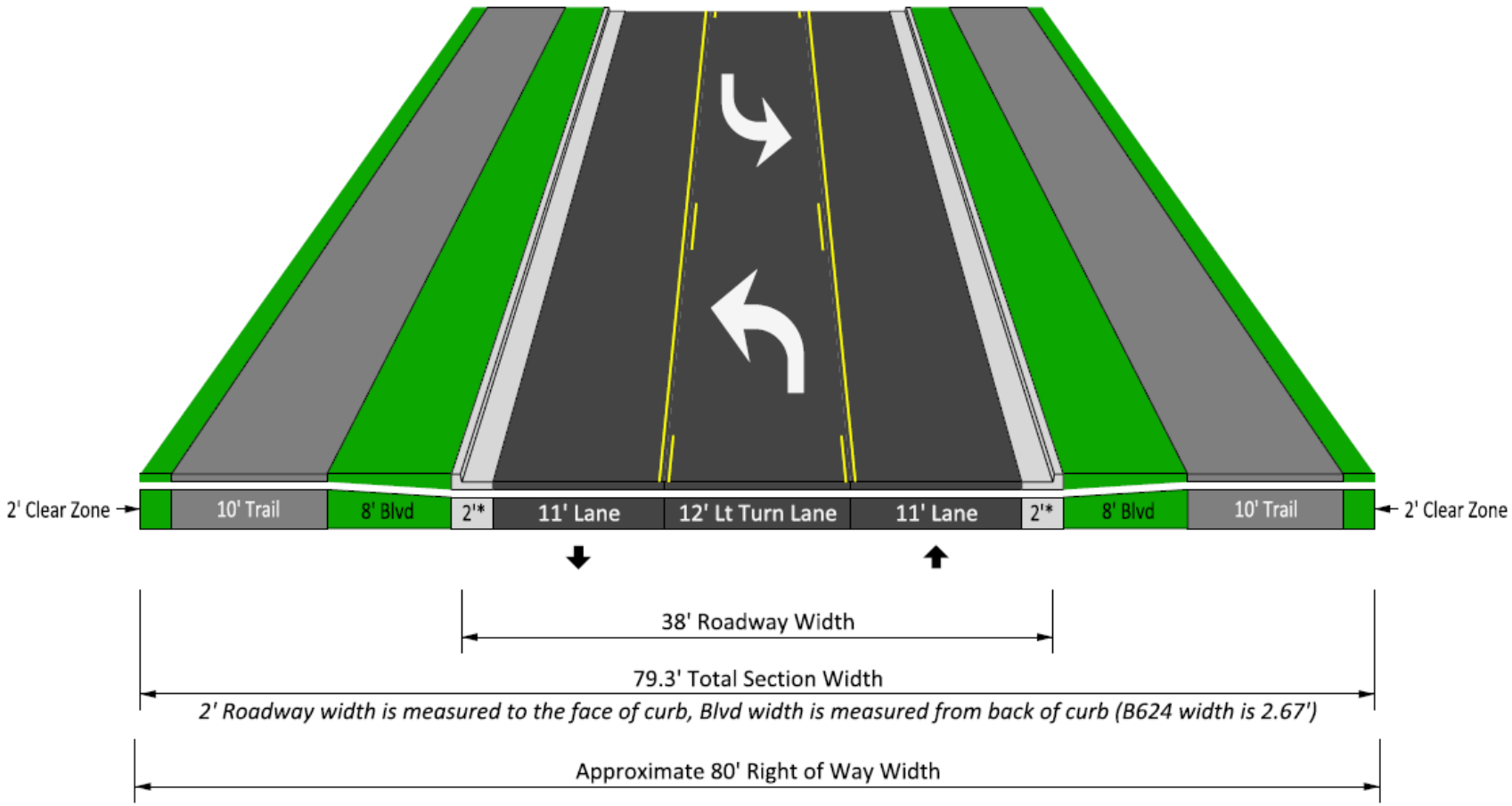
Key Takeaways

- No operational or LOS issues with the one-way pair concept
  - Roundabouts not tested for this scenario given the high LOS for signalized intersections

- Arlington Avenue is not an ideal candidate for a roundabout
  - Likely to experience operational issues and reduced LOS (as part of 3-lane cross section)
  - Heavier NB and SB movements compared to the other potential roundabout locations impacts LOS
  - Could potentially work with a 4-lane cross section (dependent on available right-of-way)

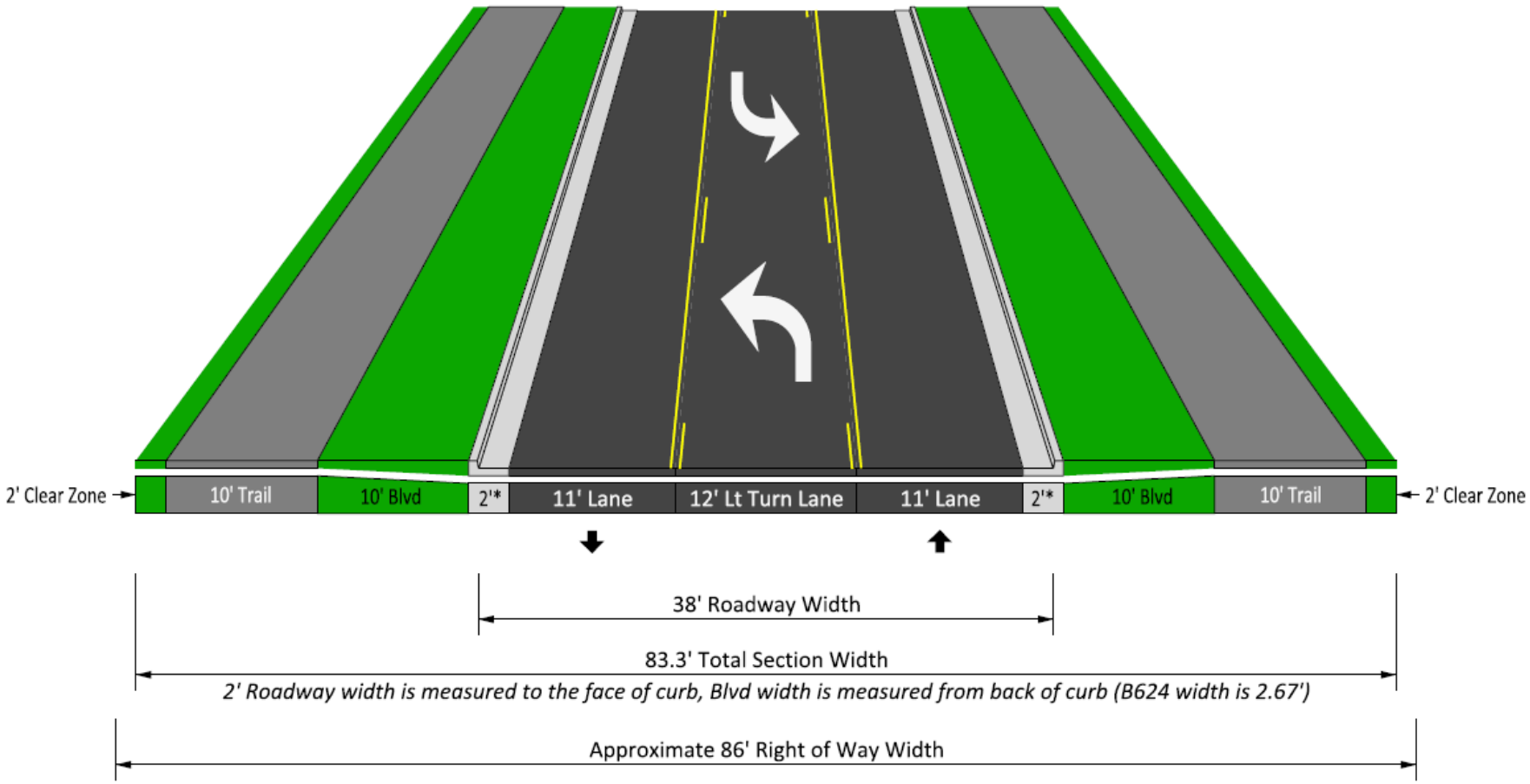
- Roundabouts at Anderson and Pecan appear to be borderline
  - **IF** a large percentage of traffic diverts to other roadways, as the regional model suggests, roundabouts could be feasible
  - **IF** no traffic diverts, there will be a noticeable increase in delay, and reduced LOS, compared to signalized intersections
  - The answer is probably somewhere in between but chances are likely high that there would be some increased delay and reduction in LOS compared to signalized intersections

Zones 2 & 3 - Anderson Road to Basswood Avenue



Typical 3-Lane Section with Trails on each side

Zone 4 - Arlington Avenue to Blackman Avenue



Typical 3-Lane Section with Trails on each side

Project Updates – Land Use – Realistic Potential Value

- 20% of ~166 new permits are in Central Entrance
- ~33 Units per year in Central Entrance
- 33 units * 25 years = **825 units created in Central Entrance**
- $~150,000/unit * 825 units = **$123.750 Million of Residential**
- 14,733 sf / 83 units = 177 sf of retail space per unit
- 177 sf * 825 units = ~146,000 sf of potential retail space
- 146,000 sf * $~100 per sf = **$14.600 Million of Retail**
- **Assumption an equal amount of strictly retail will be built as of mixed-use retail**

- Strictly retail + Mixed Use Retail = **$29.2 Million of Retail**

Project Updates – Land Use

	Existing	Max. Density Development Scenario (unrealistic)	Realistic Development Scenario
Dwelling Units	3,586 units (includes single-family homes)	180,003 units (only 5 or more dwelling units)	825 units over 25 years (only 5 or more dwelling units)
Residential Value per unit ($)	$~75,820/unit	$~150,000 per unit (based off Kenwood Village)	$~150,000 per unit (based off Kenwood Village)
Total Residential Value ($)	$~272 million	$~28 billion	$~123.750 million
Standalone Retail Space (sf)	5,655,443 sf	0 sf	146,000 sf
Mixed Use Retail Space (sf)	0 sf	90,125,640 sf	146,000 sf
Total Retail Space (sf)	5,655,443 sf	90,125,640 sf	292,000 sf
Retail Value per square-feet	$~48.50/sf	$~108/sf (based off Kenwood Village)	$~108/sf (based off Kenwood Village)
Total Retail Value	$~274 million	$~9.7 billion	$~29.2 million
Total Project Area Value	$546 million	$~37.7 billion	$~153 million

Project Updates

- Second CAC Meeting (09/29/21)

Survey Updates

- 9/15/21 – 10/5/21 | Over 150 public responses | 5 business responses

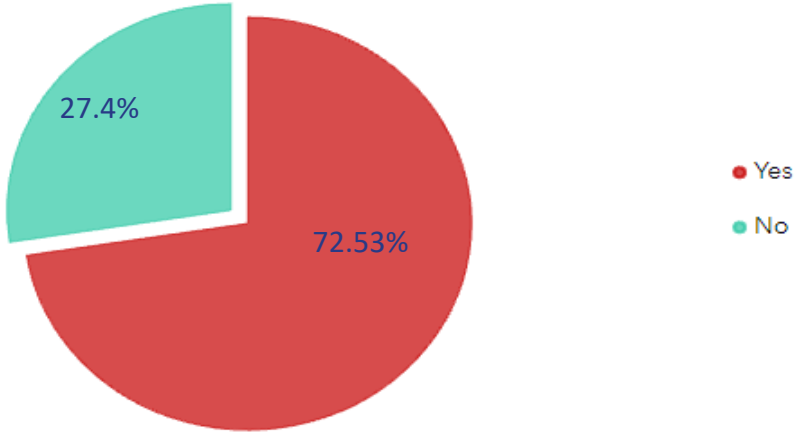
- Features most important to responders (Zones 1 & 5):
  - Shared use path
  - Sidewalk
  - Boulevard space
  - Center turn lane

- Features most important to responders (Zones 2-4):
  - Shared use path
  - Sidewalk
  - Travel lanes

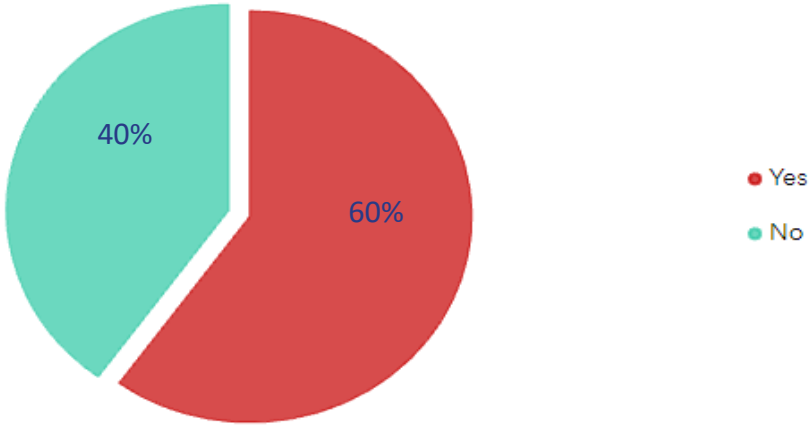
- General preferences
  - Wider Sidewalk
  - Boulevard space
  - Center turn lane

Survey Updates

- Would you like to see a roundabout at one or more intersections?



- Would you like to see a mid-block crossing at one or more locations?



BRT on Central Entrance

- Chris Belden, DTA

Guiding Values & Goals Discussion

- Structure of plan recommendations
- Opportunity to synthesize public and steering committee input, past plans, etc. and identify big picture needs/desires.

Guiding Value	Goal	Recommendations
Value 1	Goal 1	• Recommendation 1 • Recommendation 2
	Goal 2	• Recommendation 1 • Recommendation 2

Guiding Values & Goals Discussion

- **Guiding Values:** “Big picture” descriptor of the future vision for Central Entrance.
- **Goals:** Further describes how to achieve the outcomes we want. A midpoint between the values and recommendations.
- **Recommendation:** Action step, such as specific design element, additional study, things to keep in mind.

Project Goals

Advance the vision for a walkable, bikeable and transit- oriented thoroughfare which will create an attractive destination that:

(1) is safe and comfortable to use for those of all ages and abilities
(2) encourages new types of residential and commercial development

Guiding Values & Goals Discussion

- Whiteboard activity

Schedule

Event	Date
Steering Committee Meeting	November 12th
Draft Report Due	November 12th
Comments on Draft Report Due	December 8th
Steering Committee Meeting	December 10th
Final Report Due	December 31st

Next Steps

- Finish analyzing survey results
- Finalize draft values, goals, and recommendations
- Revise concepts
- Complete draft plan and draft public engagement framework

Contacts

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Thank you