4th, 5th, and 6th Street Conversion Study City Council Work Session January 18, 2022



AECOM



AECOM

4th, 5th, and 6th Street Conversion Study

- Project Scope
- Alternatives Developed
- Bicycle Accommodation
- Traffic Analysis
- Next Steps

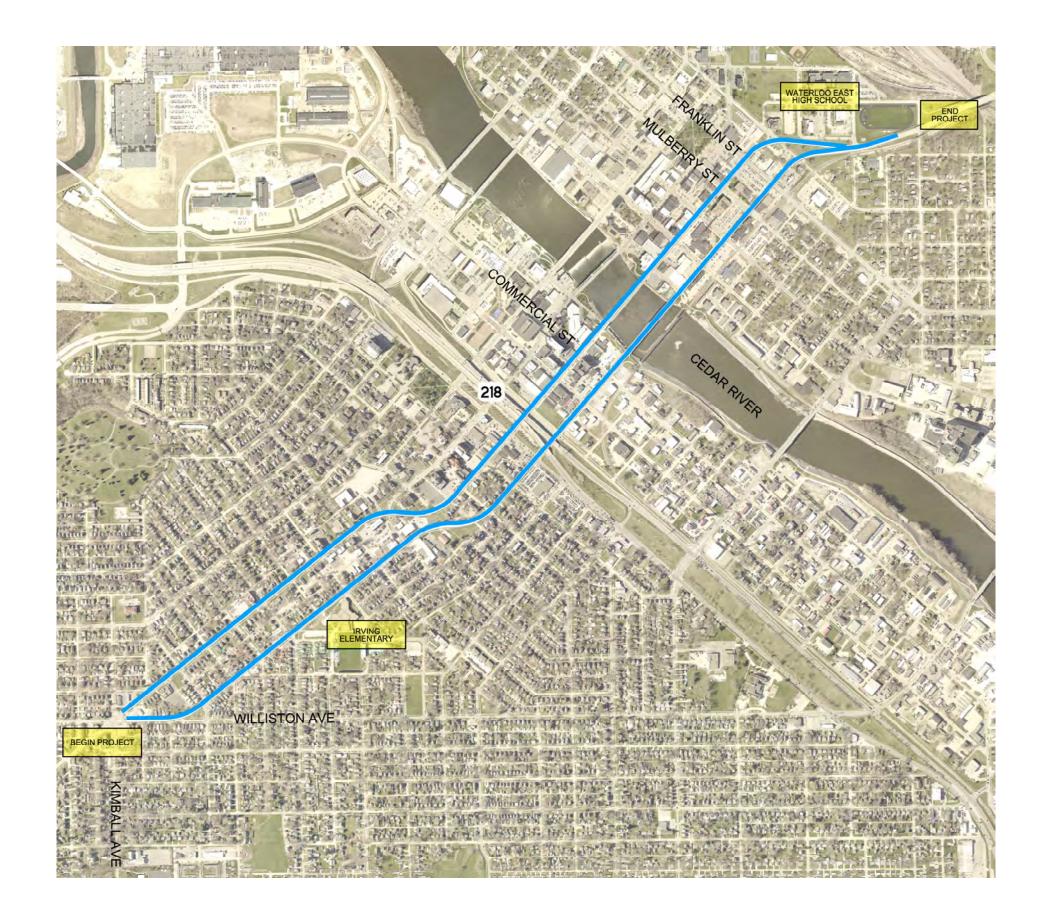




Project Scope

- Evaluation of Existing Traffic Conditions
- Crash Analysis
- Development of Alternatives
- Traffic Analysis
 - Traffic Distribution Two-Way Traffic
 - Level of Service Comparative Analysis
 - Travel Time Analysis

- Project Management
 Team Meetings
- Stakeholder / Public Information Meeting
- Final Report

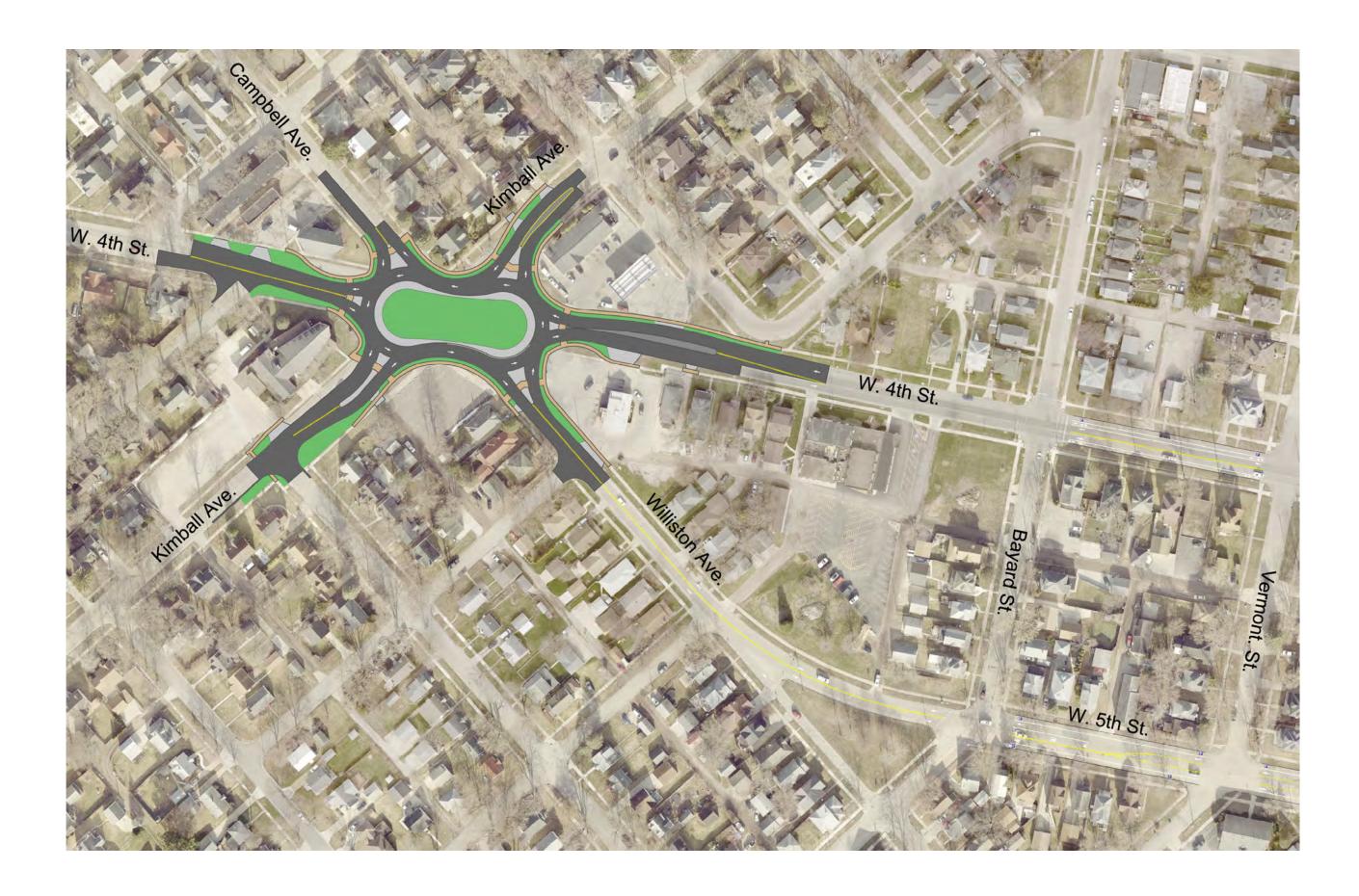






Alternative 1

- Roundabout at Six Corners
- Street Reconstruction Walnut Street / Franklin Street
 Area
- Bike Lanes on 4th Street From Six Corners to Grant Street with No Left Turn Lanes
- Allows Parking on One Side, Same as Today
- 5th Street and 6th Street Two Lanes with Center Left Turn Lanes

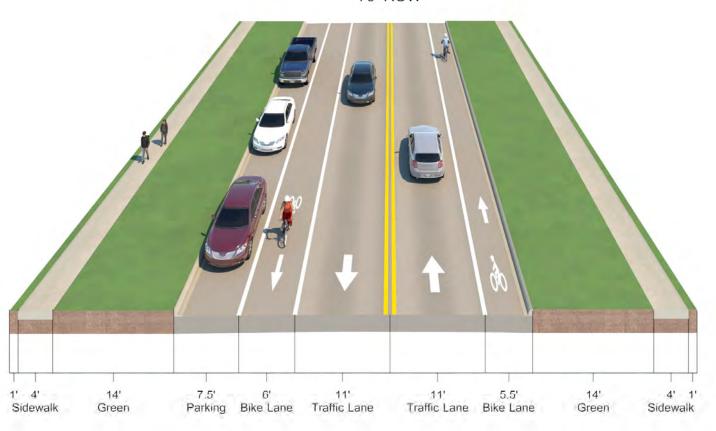






Alternative 1 – W. 4th Street

41' Wide Street with Bike Lanes 79' ROW

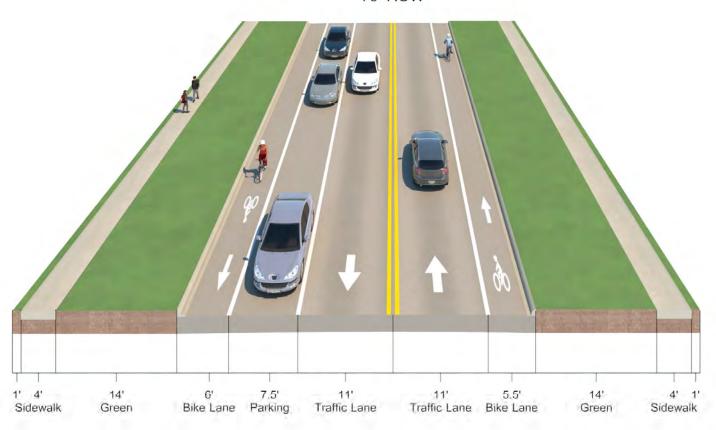






Alternative 1 – W. 4th Street

41' Wide Street with Bike Lanes 79' ROW

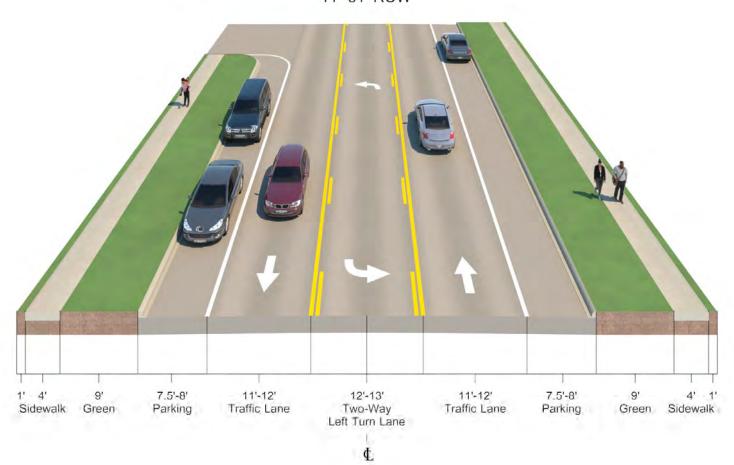






Alternative 1 – W. 5th Street

49'-53' Wide Street with Two-Way Center Left Turn Lane 77'-81' ROW

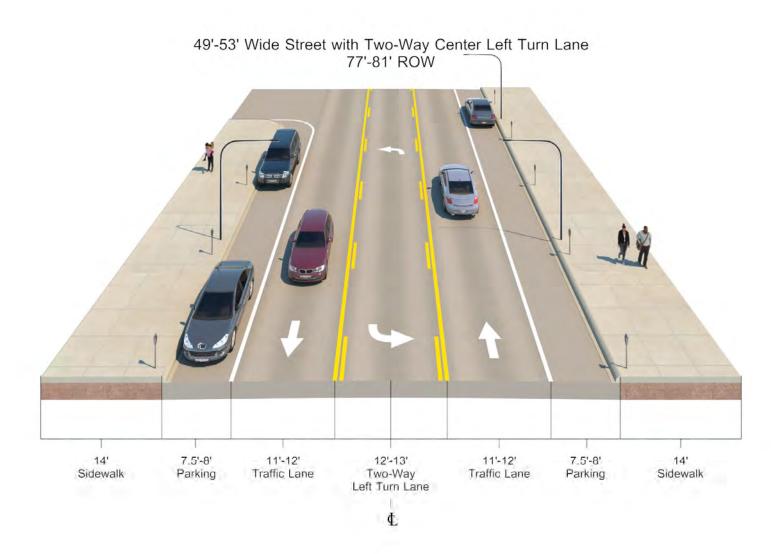






AECOM

Alternative 1 – E. 5th/6th Street







Alternative 2

 Two-Way Conversion from SB Washington Street to East High School

 One-Way Traffic Remains on W. 4th and W. 5th from Six Corners to SB Washington Street

• 5th Street and 6th Street – Two Lanes with Center Left Turn Lanes

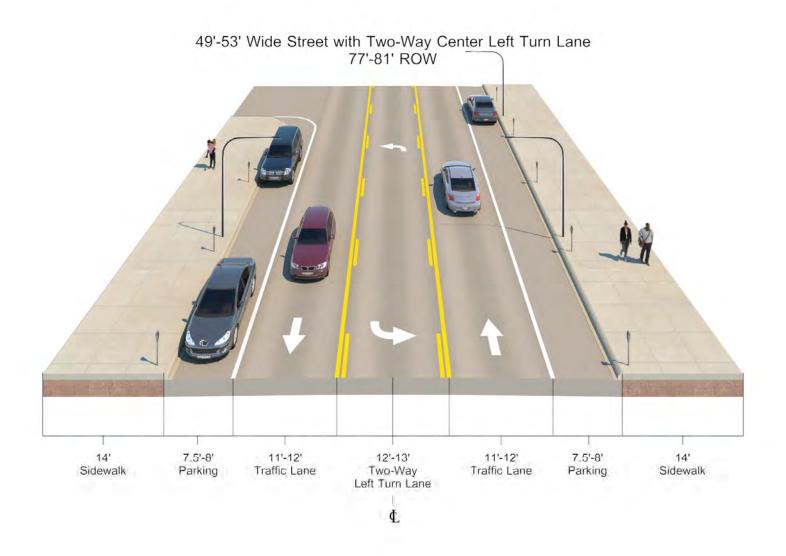






AECOM

Alternative 2 – E. 5th/6th Street







Alternative 3

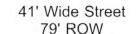
- Same as Alternative 1
- No Bike Lanes on 4th Street from Six Corners to Grant Avenue with a Center Left Turn Lane
- Removes Parking on 4th Street
- 5th Street and 6th Street Two Lanes with Center Left Turn Lanes

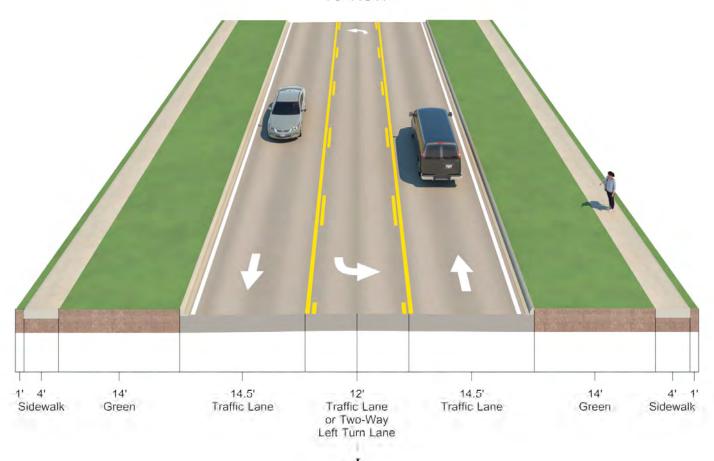






Alternative 3 – W. 4th Street









Alternative 4

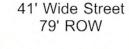
- Same as Alternative 1
- No Bike Lanes on 4th Street from Six Corners to Grant Street with Parking on Both Sides
- 5th Street and 6th Street Two Lanes with Center Left Turn Lane

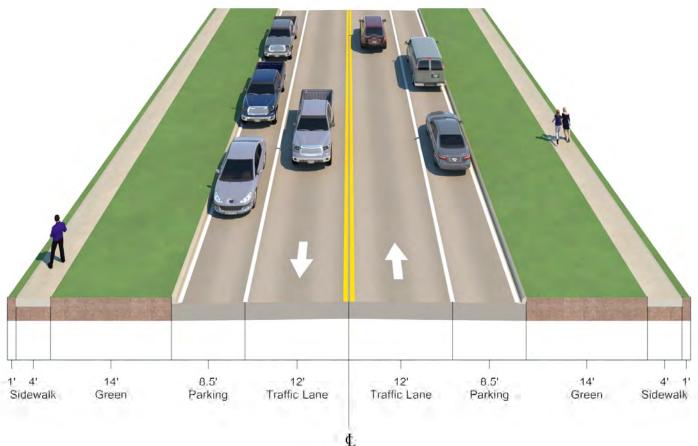






Alternative 4 – W. 4th Street

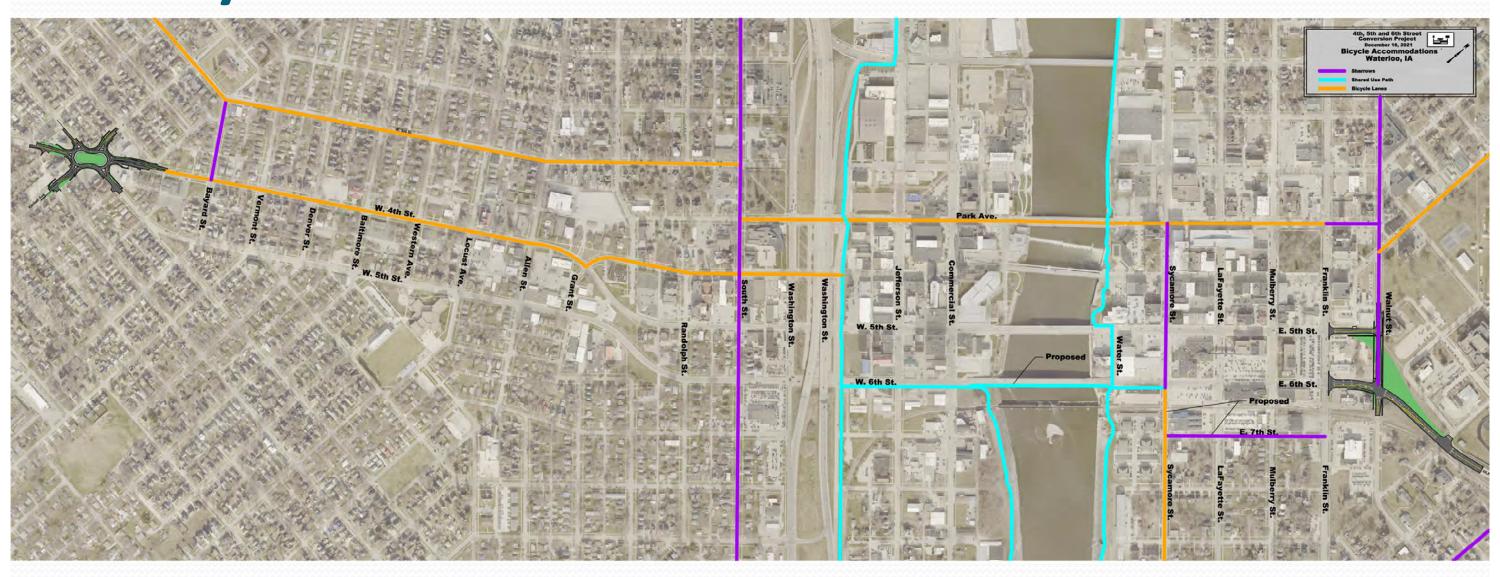








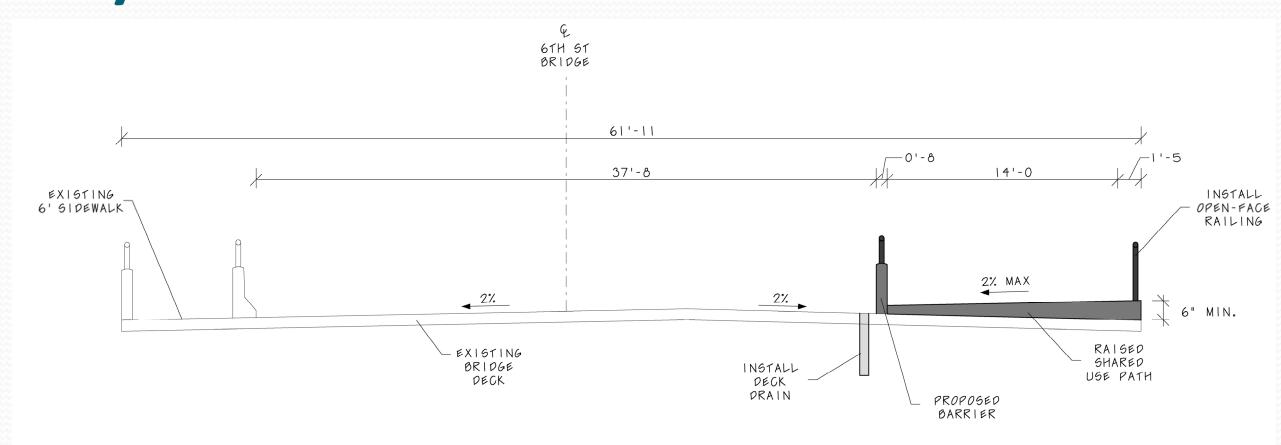
Bicycle Accommodation





AECOM

Bicycle Accommodation



PROPOSED TYPICAL SECTION





Traffic Analysis

- Analyzed Existing and Proposed Traffic Conditions
- Evaluated Level of Service at Each Intersection in the Downtown Area
- Developed Travel Time Estimates for Comparison



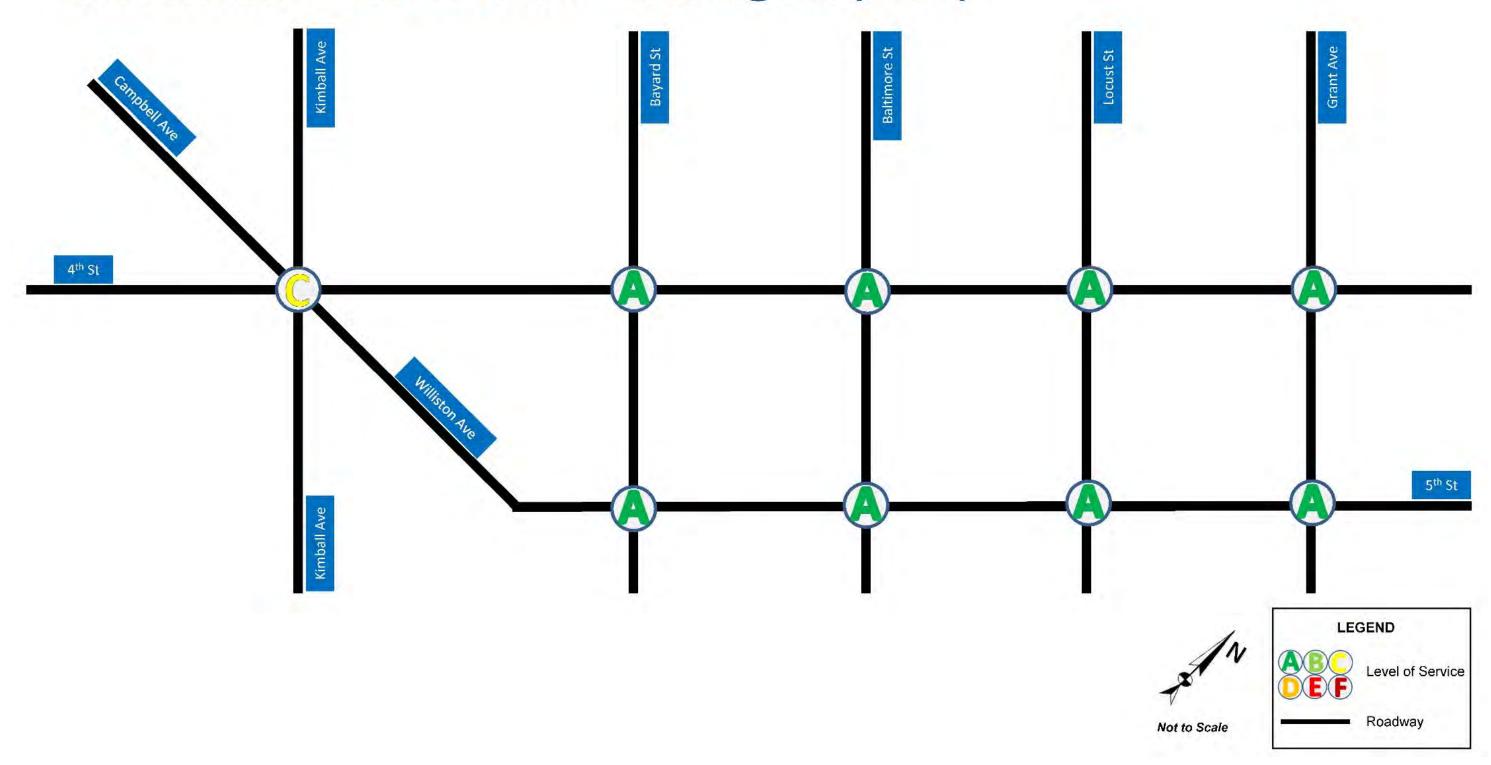


Traffic Analysis

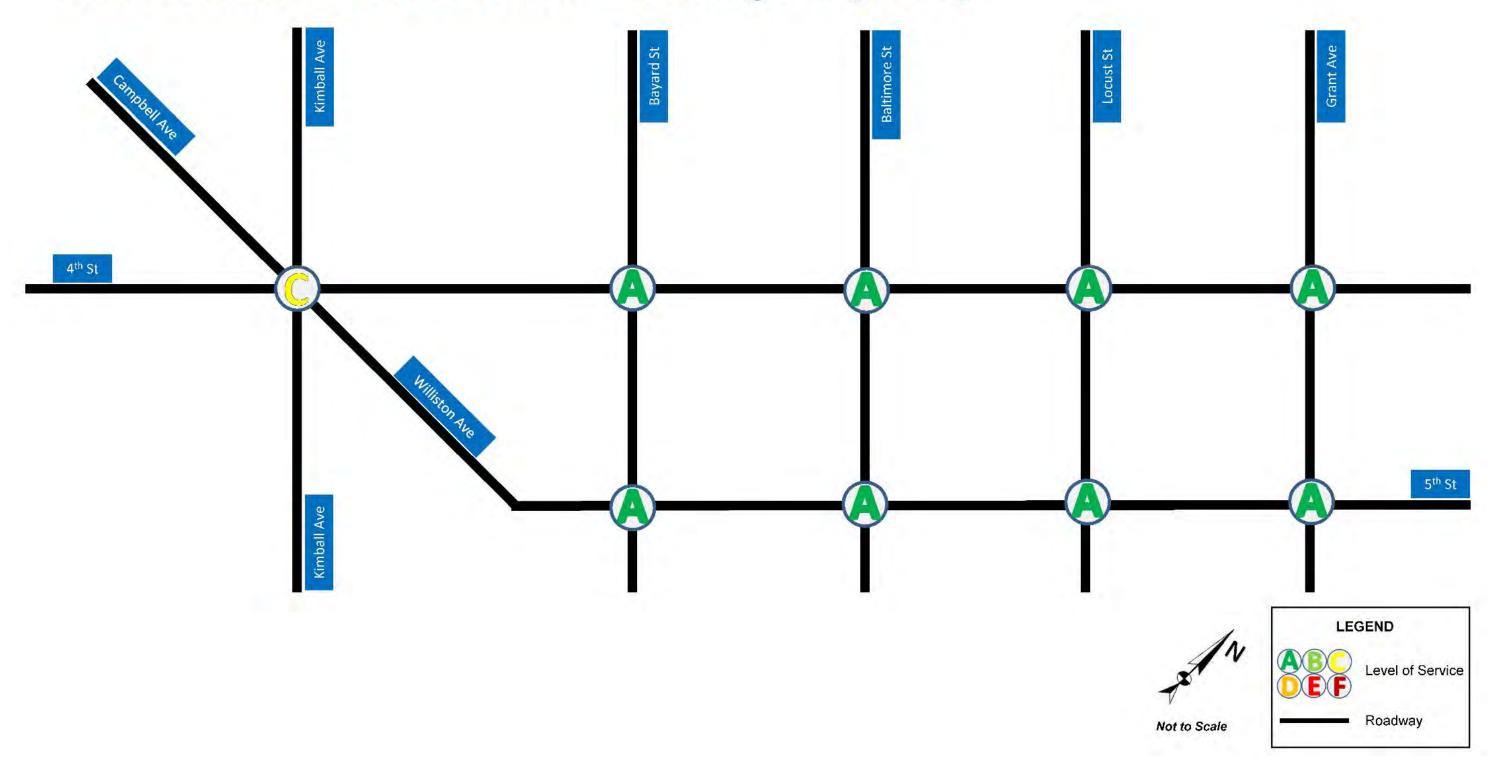
• Intersection Level of Service Criteria

	Traffic lights	Stop signs /roundabout
Level of service	Delay (s/veh)	Delay (s/veh)
Α	0-10	0-10
В	10-20	10-15
С	21-35	16-25
D	36-55	26-35
Е	56-80	36-50
F	>80	>50

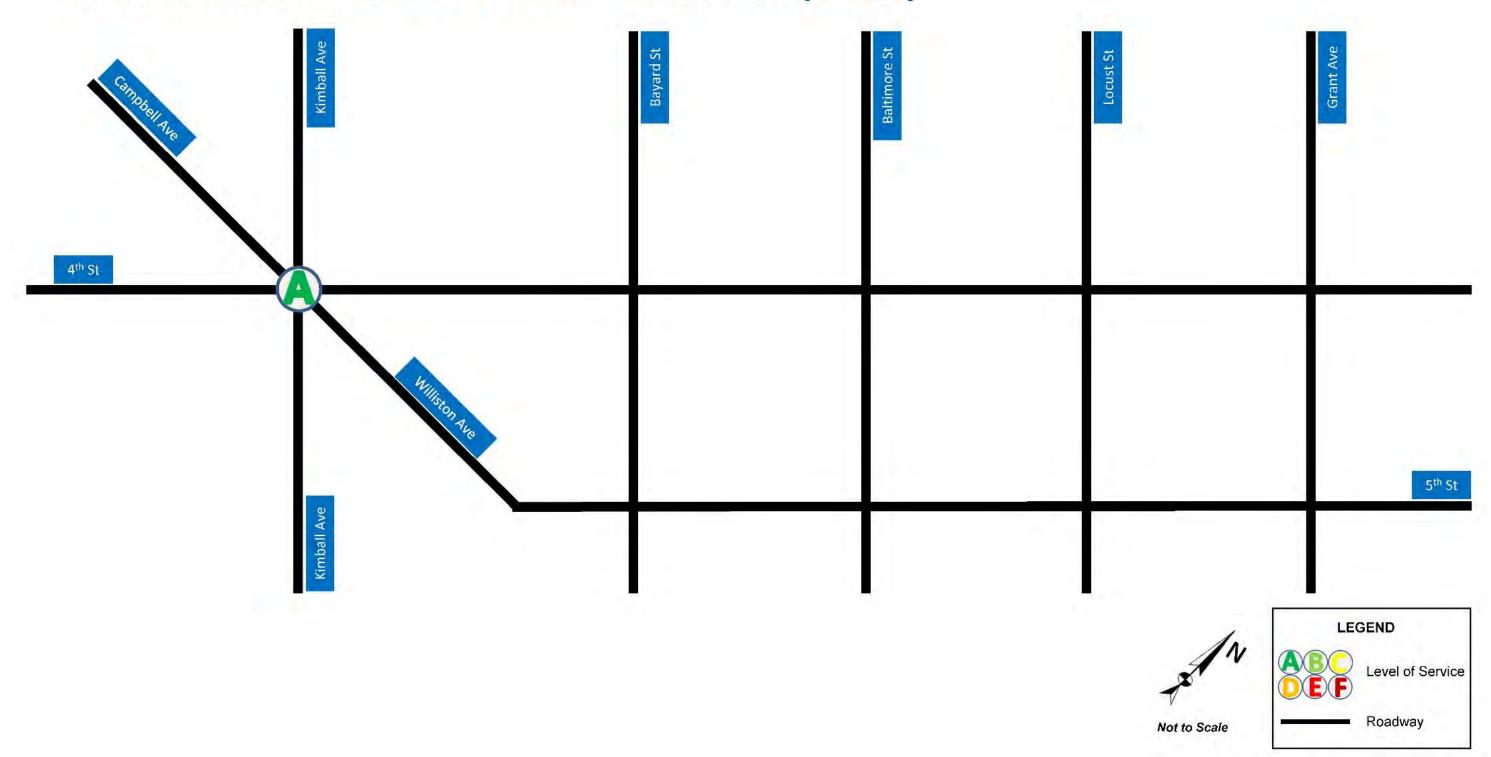
Vistro Results - West Portion - Existing AM (2021)



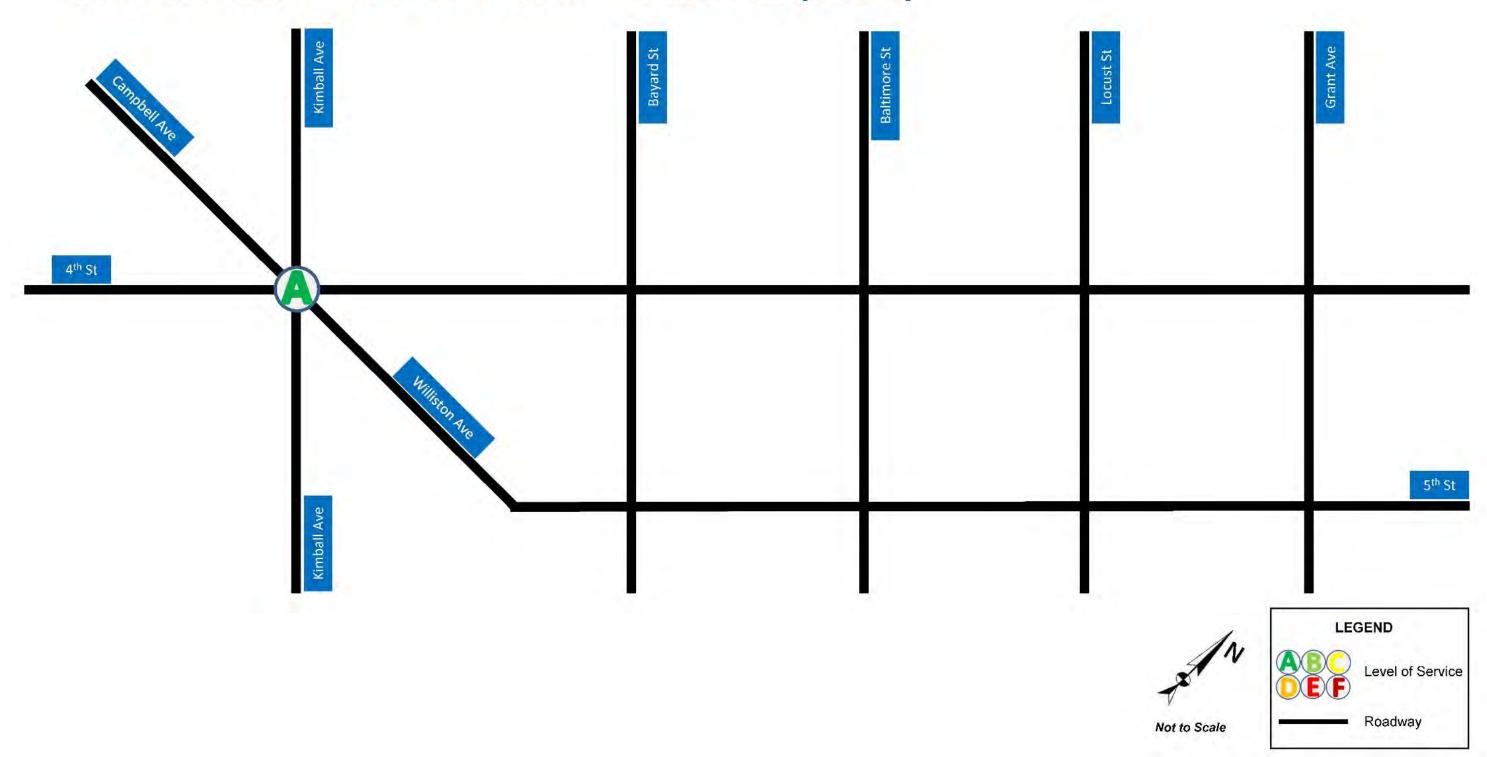
Vistro Results - West Portion - Existing PM (2021)



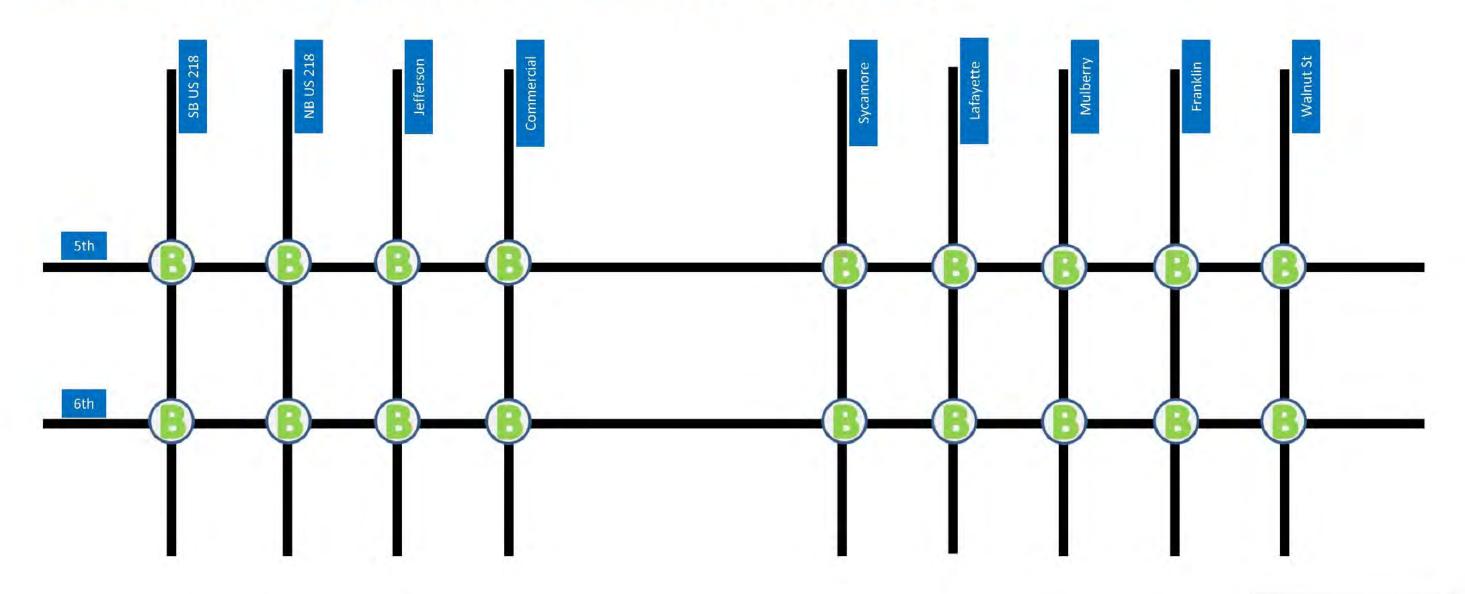
Vistro Results - West Portion - Build AM (2021)

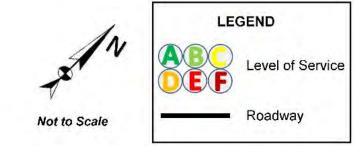


Vistro Results - West Portion - Build PM (2021)

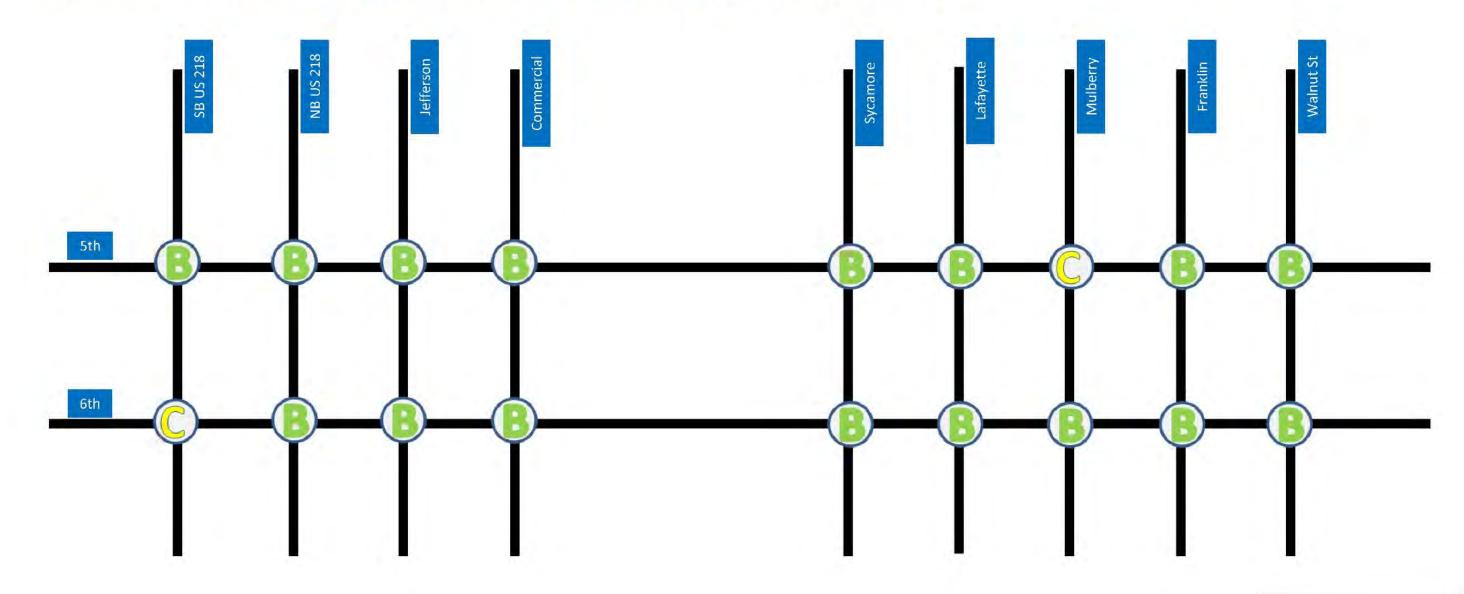


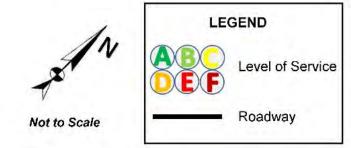
Vistro Results - East Portion - Existing AM (2017)



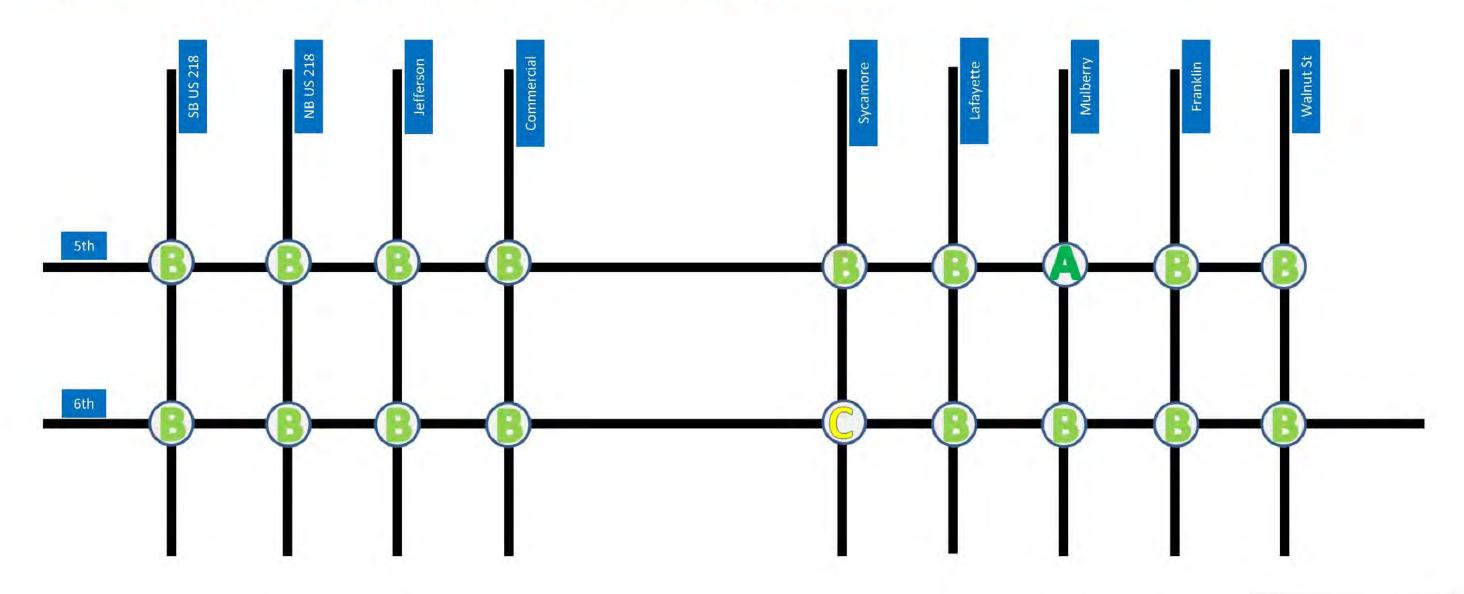


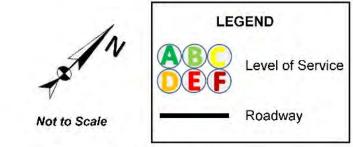
Vistro Results - East Portion - Existing PM (2017)



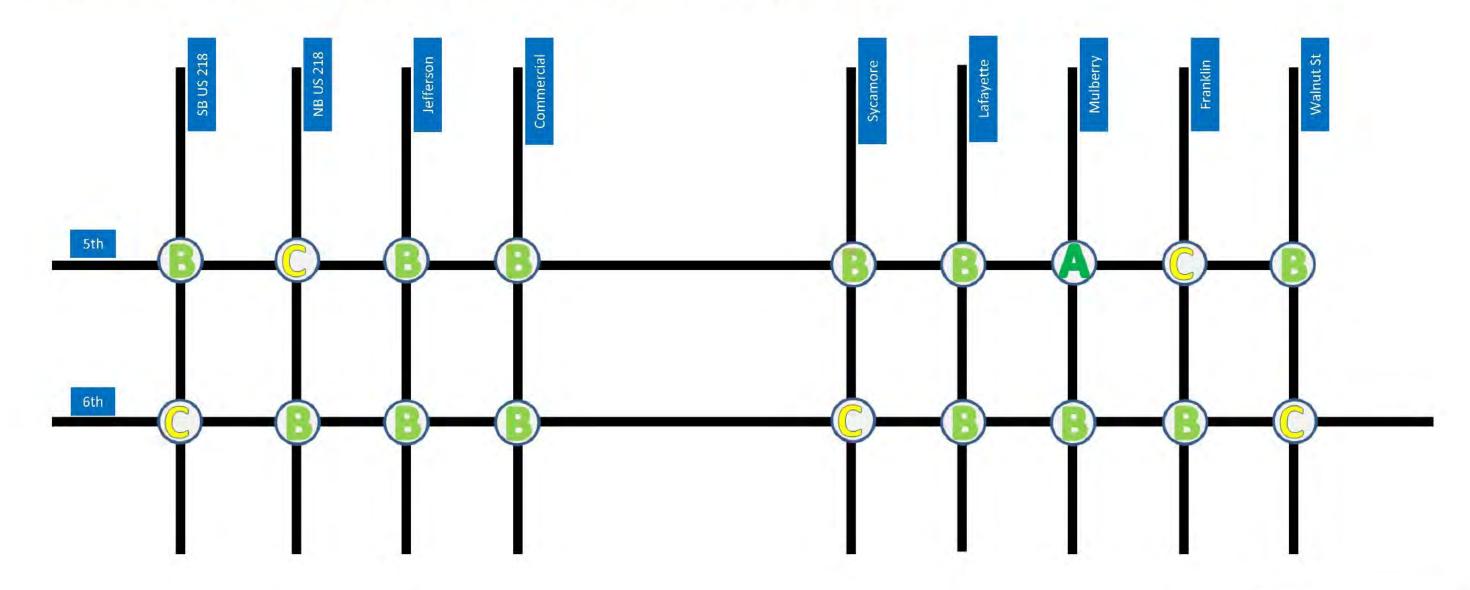


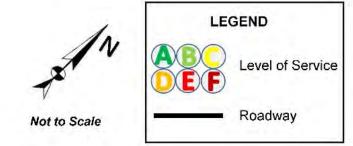
Vistro Results - East Portion - Build AM (2017)



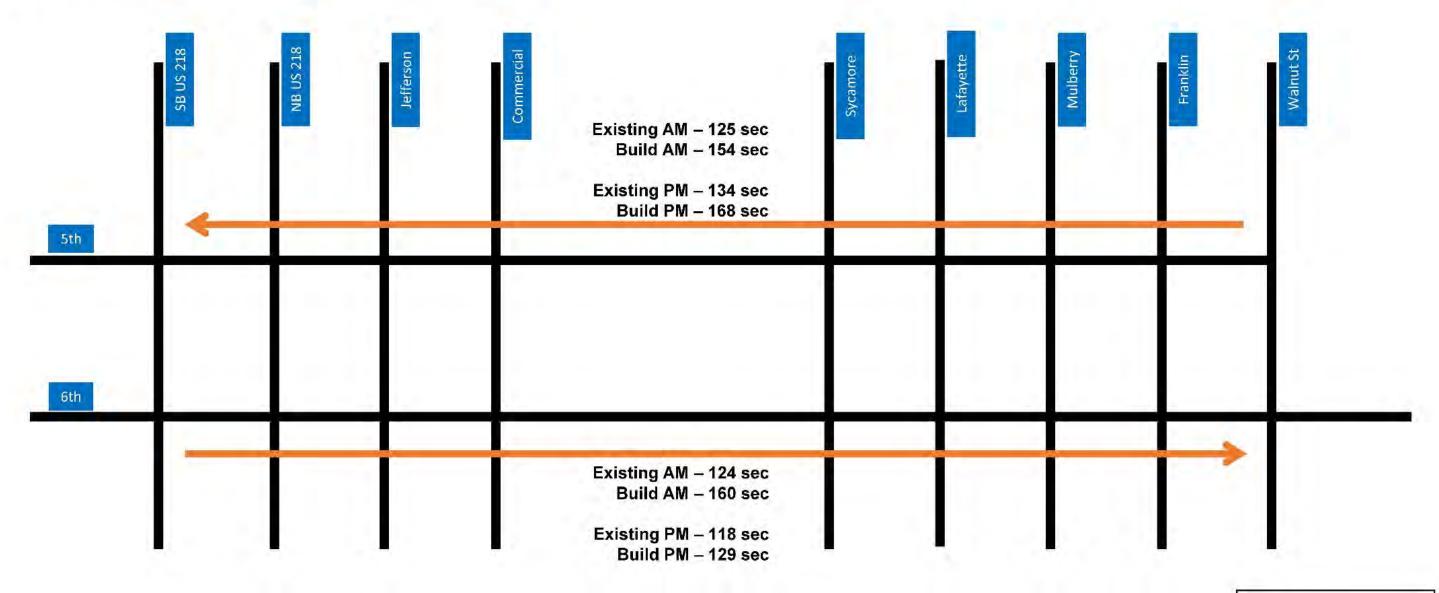


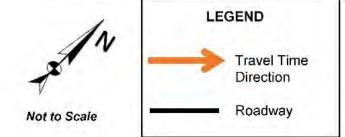
Vistro Results - East Portion - Build PM (2017)





Vissim Travel Time - East Portion









Next Steps

- Stakeholder / Public Information Meeting
 - Beginning of February
- Presentations to Complete Streets and INRCOG's Transit Advisory Committe
- Final Report



AECOM

4th, 5th and 6th Conversion Study

Questions/Comments

Mark Durbahn, PE

Mark.Durbahn@AECOM.com

Office: 319-874-6588





Thank you for your time and interest!