

# WELCOME!

*The Lower Town Area  
Mobility Study Meeting  
Will Begin Soon.*

## Technology Overview – Things to Know

- To help prevent “Zoombombing,” (when an unauthorized person or stranger joins a Zoom event and says offensive comments or shows offensive images), the video, speaking, and screen sharing functions are available to presenters, but disabled for participants.
- You can communicate through the Q&A feature.
- You can leave and rejoin the meeting at any time (unless the meeting is at capacity or you are removed for inappropriate behavior).
- Multiple opportunities for questions will be provided throughout the presentation.
- Presentation and additional materials are available at [www.a2gov.org/lowertown](http://www.a2gov.org/lowertown)

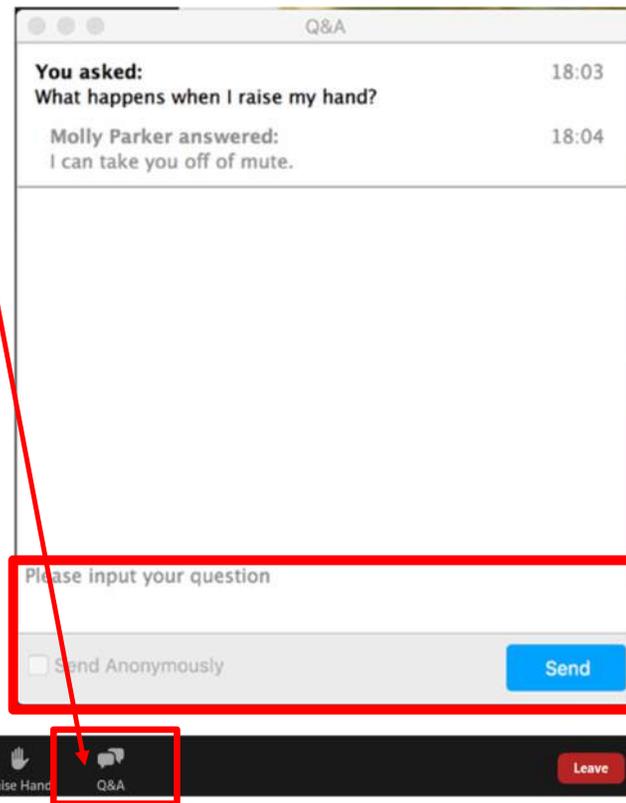
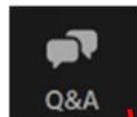
# Technology Overview - Ask a question/share a comment

We will be using the Q&A feature for those using a computer and the Raise Hand feature for those who are on the phone.

## Computer

### Q&A:

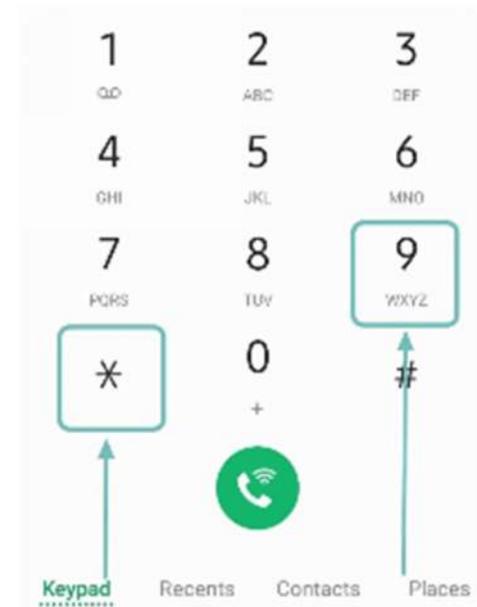
- Please use the Q&A feature located at the bottom of the screen to ask a question/comment.
- Type your question/comment.
- Click Send.



## Phone

### Raise Hand:

- Select \*9 to raise your hand
- You will be identified by the last 3 digits of your phone number



# Zoom Meeting Norms

- Commit to learning and avoid speculation – we encourage you to ask questions through the chat feature so we can explore the issue together.
- When speaking over the phone, please move to a quiet area and silence any background sounds. We want to be sure that we hear what you are saying.
- Please remember the importance of rights and the dignity of others. With that, we ask that you:
  - Critique ideas, not people.
  - Are thoughtful about your language so this can be a comfortable and respectful forum for all participants - inappropriate written and/or verbal comment or language, including personal attacks and accusations, will result in the attendee being removed from the meeting.

# Public Engagement Outreach Survey

Thank you for participating with the City of Ann Arbor. The city is trying to gain a better understanding of who we are reaching to find ways we can continuously improve public engagement efforts and support inclusivity. To help us gain this understanding, please complete this brief, anonymous survey. This survey is completely voluntary; you are not required to fill it out.

To fill out the survey, please visit: <https://bit.ly/2X7LDxW>

## Follow-up Expectations

- Meeting summaries will be posted by Monday, August 10th on the project website.
- Your feedback will be considered in addition to technical and cost considerations for the recommendations of this study.



# Lower Town Area Mobility Study

City of Ann Arbor | Washtenaw County

Prepared for:  
City of Ann Arbor

# YOUR PROJECT TEAM



**Steven Loveland,  
Project Manager**



**Lauren Hood,  
Facilitator**



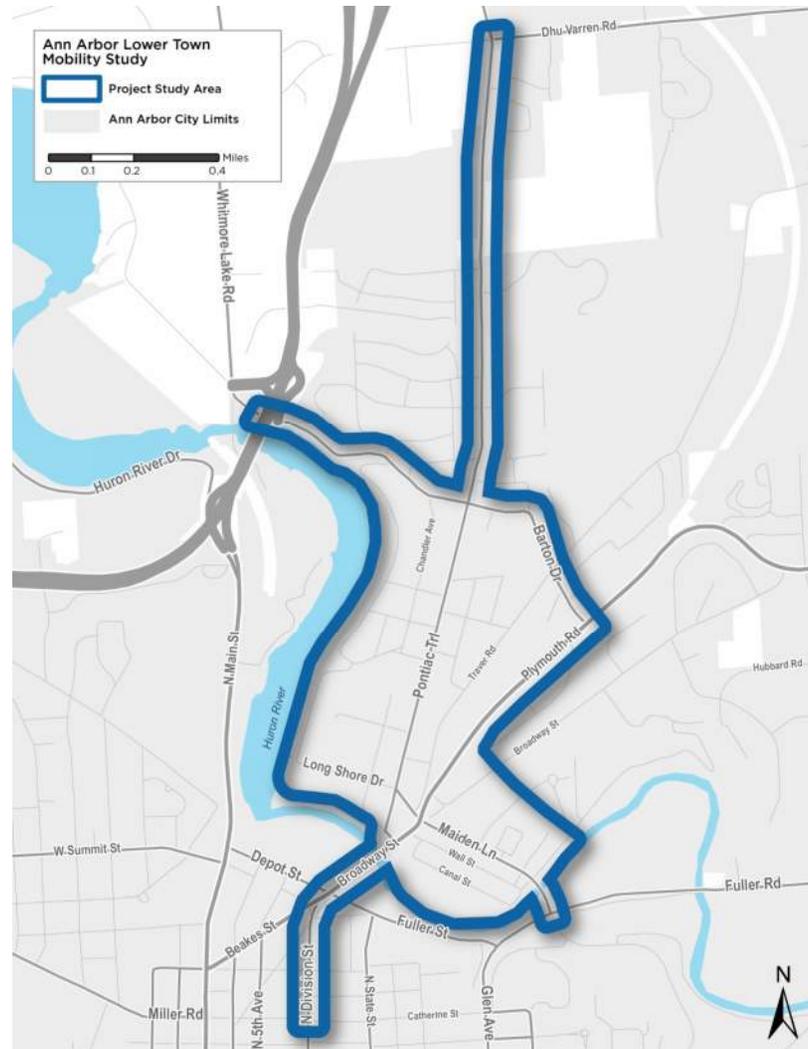
**Stephen Dearing,  
QC Reviewer**



**Luke Liu,  
City Project Manager**



# Study Area



## Project Purpose – Planning Study

- Understand how growth impacts the movement of people
- Seek ways to support the ease and safety of all travelers, including:
  - Pedestrians
  - Bicyclists
  - Transit users
  - Personal and commercial vehicles
- Obtain community input

Analysis of operations, safety, anticipated growth and congestion will shape the recommendations of the planning study.

# Project Process



# Project Schedule

We are here

Task	2019				2020												2021								
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
Task 1	Public Engagement									1			2							3					4
Task 2	Documentation Gathering and Review																								
Task 3	Crash Analysis																								
Task 4	Travel Data - Video Data Collection																								
Task 5	Road Safety Audit																								
Task 6	Modeling Software Selection Process																								
Task 7	Develop Existing Conditions Model																								
Task 8	Deficiency Analysis - Existing																								
Task 9	Travel Demand Modeling																								
Task 10	Vision, Goals and Alternatives Workshop																								
Task 11	Alternatives Analysis																								
Task 12	Reporting and Recommendations																								
Task 13	Project Management & Meetings																								

## Efforts to Date

- Public Engagement Of Stakeholder Groups
- Policy Document Reviews
- Data Collection
- Crash Analysis
- Road Safety Audit (RSA)
- Analysis Software Selection Process
- Existing Conditions
  - Field Inventory for Pedestrian and Bicyclist's Facilities
  - Modeling Existing Roadway Capacity

# Public Engagement of Stakeholders

In-Person Interviews and On-Line Engagement of:

- Ann Arbor City Council
- Ann Arbor Public Schools
- Ann Arbor Area Transit Authority (The Ride)
- University of Michigan
- Michigan Department of Transportation
- Washtenaw Area Transportation Study (WATS)
- Neighborhood Groups
- People With Disabilities Advocates
- Walking and Biking Advocates



# Public Engagement of Stakeholders Interview Results - Concerns

## Bicycle & Pedestrian Connectivity

- Gaps in Facilities
- Fewer walkable businesses

## New Development

- Growing Population
- Inadequate Parking
- Lack of Additional Retail

## Mobility Issues

- Traffic Volumes & Speeds
- Safety

## Commuting Issues

- Peak Hour Congestion
- Limited Huron River crossings
- Large Commuter Population from outside Ann Arbor

## Public Transit

- Inadequate Frequency

## School Safety @ A<sup>2</sup> STEAM

- No dedicated parent loading zone

# Public Engagement of Stakeholders Interview Results - Opportunities

## Public Transit

- More frequency
- Upgraded amenities

## Better Connections

- Enhanced walks to Hospital
- Fill in gaps for bikes and peds
- Improve access for Border to Border Trail

## Transit-Orientated Mixed-Use Development

- More retail opportunities

# Documents Reviewed

## *Understanding The Context of the Lower Town Area*

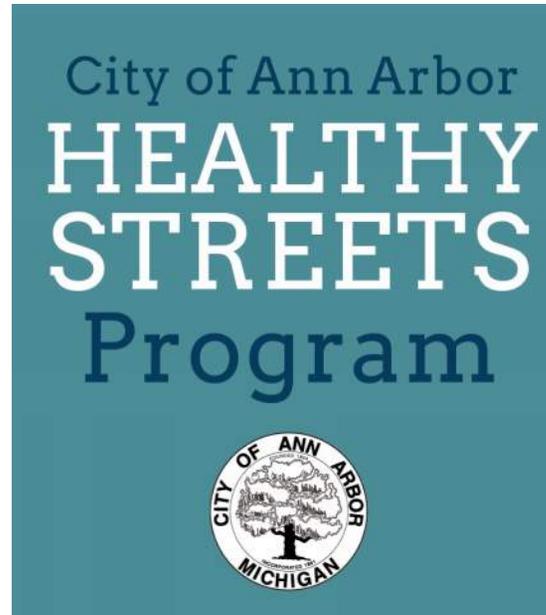
- City Master Plan – Land Use Element 2009
- City Master Plan – Transportation Plan Update 2009
- City Master Plan – Non-motorized Transportation Plan 2013 Update
- City Master Plan – Sustainability Framework 2013
- City Parks and Recreation Open Space (PROS) Plan 2016-2020
- City Capital Improvements Plan FY 2020-2025
- North Main Huron River Corridor Vision 2013
- Northeast Area Transportation Plan 2006
- The Treeline – Allen Creek Urban Trail Master Plan 2017
- Connector Feasibility and Alternatives Analysis Studies
- Fuller East Medical Intersection Improvement Analyses
- City Council Resolutions Regarding Non-motorized Improvements
- University of Michigan Medical Center Campus Master Plan (2005)
- University of Michigan North Campus Master Plan (2009)
- Ann Arbor Area Transportation Authority (AAATA) Transit Improvement Plan (2014)
- Amtrak Ann Arbor Station EA, P&N, Appendixes et al. (2014)



# Parallel Projects



NEIGHBORHOOD  
SLOW STREETS



## HEALTHY STREETS



Questions, comments or concerns:  
Cooper, Eli, A.I.C.P.  
Transportation Program Manager  
[ecooper@a2gov.org](mailto:ecooper@a2gov.org)  
734.794.6430 x43710

# Data Collection

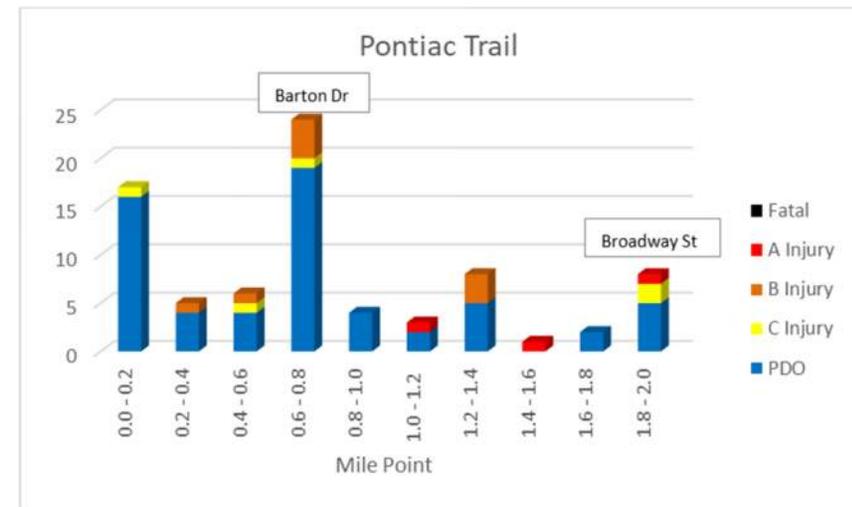
- Summary of Stakeholder Interviews
- Summary of Planning Documents
- Google Earth and Maps
- Field Observations
- Crash History
- Traffic Data

# Crash Analysis

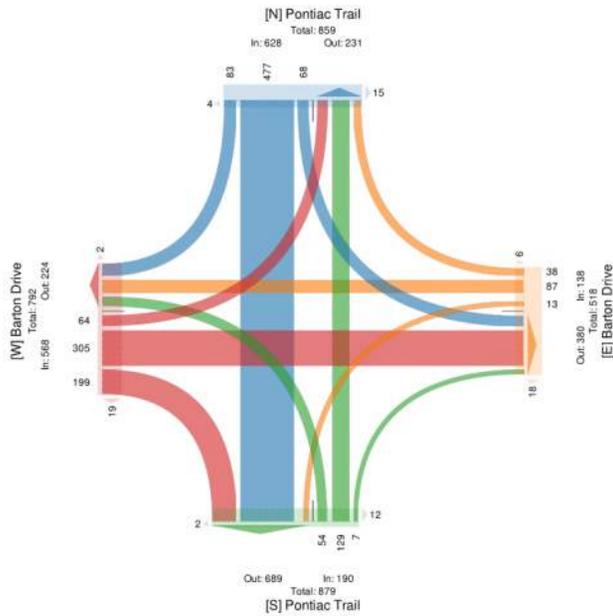
## Crash summary for study area

	Targeted Crash Patterns								5 Year Total for Study Area (All Crash Types)
	Sideswipe	Head-on	Head-on Left-turn	Angle	Rear-end	Single Vehicle	Ped / Bike	Other	
All Crashes	83 17.3%	9 1.9%	13 2.7%	93 19.4%	189 39.5%	71 14.8%	14 2.9%	7 1.5%	479
Fatal	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0 0%	0
A Injury	0 0%	1 14.3%	0 0%	0 0%	0 0%	4 57.1%	2 28.6%	0 0%	7

## Sample of crash distribution for one of the corridors in the study area



# Traffic Data

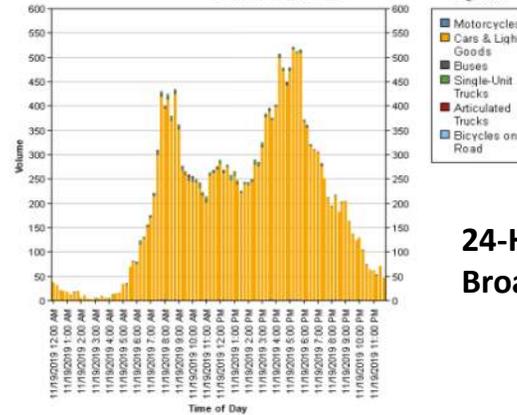


**Turning Movement Count Data: Pontiac Trail at Barton St – AM Peak**

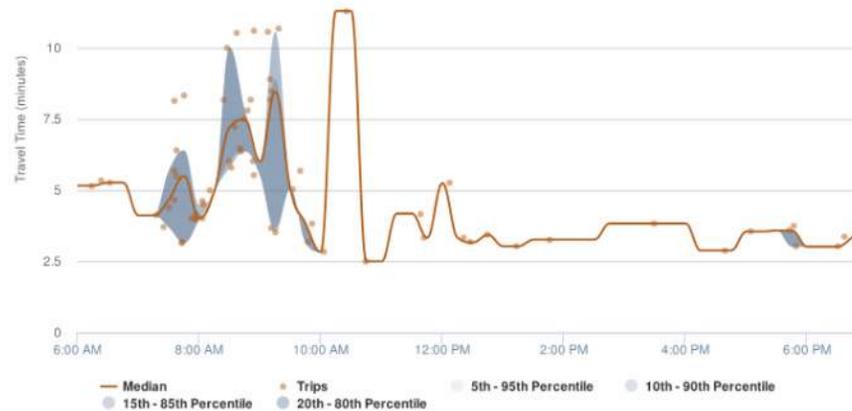
**TDC**  
 Traffic Data Collection  
**Traffic Data Collection, LLC**  
 7504 Sawgrass Drive  
 www.tdcdata.com  
 Washington, Michigan, United States 48094  
 Ph. (586) 746-5407  
 Reliable Traffic Data

Project: Lower Town Area Mobility Study  
 Corridor: Broadway Street  
 Weather: Cloudy, Dry  
 Temp: 40°  
 Video VCU ID#: SCU6H3 NE

Count Name: TMC\_14Broadway & Maiden 11-19-19  
 Site Code: TMC\_14  
 Traffic Data Collection, LLC  
 Start Date: 11/19/2019  
 Page No: 5



**24-Hour Volume Data: Broadway St at Maiden Ln**



**Origin / Destination Data: Pontiac Trail at Dhu Varren Rd to Moore St at Traver St**

# Road Safety Audit



Long-Term Planning Study...



...with some Near-Term improvements!



## Conducted Field Visits

- Walked it
- Drove it
- Made day and night visits
- School review
- Lots and lots of pictures!



## POSITIVES

- Bicycle infrastructure
- Sidewalk condition
- Leading Pedestrian Interval at Barton/Pontiac Trail
- ADA on-street parking at Northside Grill
- Bus stops with pad/bus pull-off
- Lighting
- School features



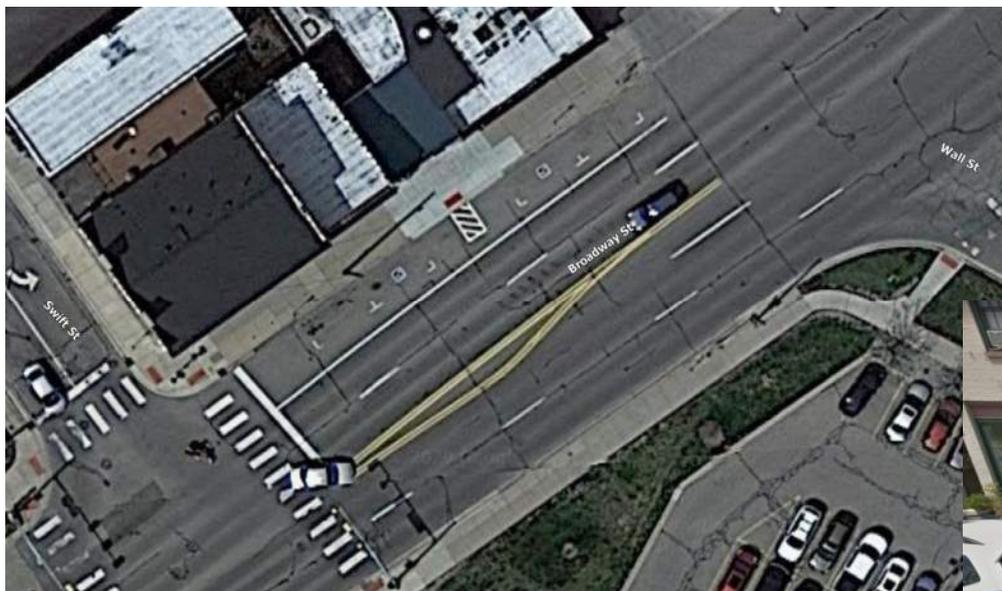
# POSITIVES – Bicycle Infrastructure



# POSITIVES – Sidewalk Condition



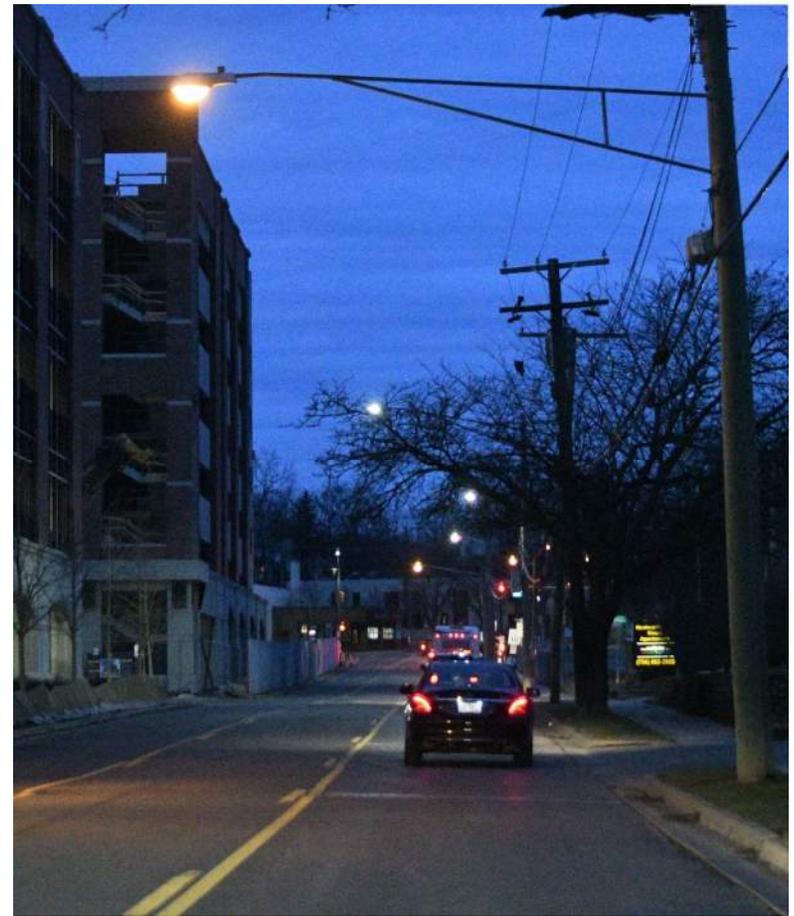
# POSITIVES – ADA on-street parking at Northside Grill



## POSITIVES – Bus stops with pad/bus pull-off



## POSITIVES - Lighting



# POSITIVES - Northside STEAM families walking to school



# Crash Potential #1

## Pedestrian Infrastructure – Fence and Rails



We found locations with gaps in fences and railings.



Suggested Mitigations for Crash Potential #1

- Fill in railing gap
- Replace fencing as needed

# Crash Potential #1

## Pedestrian Infrastructure – Pathway Sight Distance



Hidden access to boardwalk along Barton Drive.



### Suggested Mitigations for Crash Potential #1

- Clear brush
- Provide warning

# Crash Potential #1

## Pedestrian Infrastructure – Cascades Access



Pedestrians must cross Broadway to get to the Cascades when parking along Wall Street.

### Suggested Mitigations for Crash Potential #1

- Provide shortened pedestrian wait times

# Crash Potential #2

## Speed Management – Broadway Bridge



High speeds coming down off either end of Broadway Bridge.



### Suggested Mitigations for Crash Potential #2

- Provide electronic speed warning systems on each end

# Crash Potential #3

## Traffic Congestion - Broadway EB (PM)



Traffic heading EB backs up from Maiden Lane onto Broadway Bridge.

Suggested Mitigations for Crash Potential #3

- Review and adjust signal timing
- Reduce pedestrian wait time on weekends

# Crash Potential #4

## Bike Infrastructure – Transitions



Transition from bike lane to path  
over bridges

- Broadway and Beakes/Division



Bike lanes ending

- Barton Dr at Pontiac Trail
- NB Division approaching Broadway



# Crash Potential #4

## Bike Infrastructure – Transitions



### Suggested mitigations for Crash Potential #4

- Provide a ramp for bikes between path and bike lane
- Extend bike lane with dotted line (S. 7th Street) or use sharrow through intersection
- Signs – Share The Road/Bike Lane Ends

# Crash Potential #5

## Traffic Control Devices – Signs



- Sign Location
- Sign Maintenance

- Suggested mitigations for Crash Potential #5
- Sign inventory and upgrade as needed

# Crash Potential #5

## Traffic Control Devices – Pavement Markings



- Inconsistencies in treatments.
- Old markings not fully removed showing mixed message.

### Suggested Mitigations for Crash Potential #5

- Survey to identify markings to be corrected or replaced

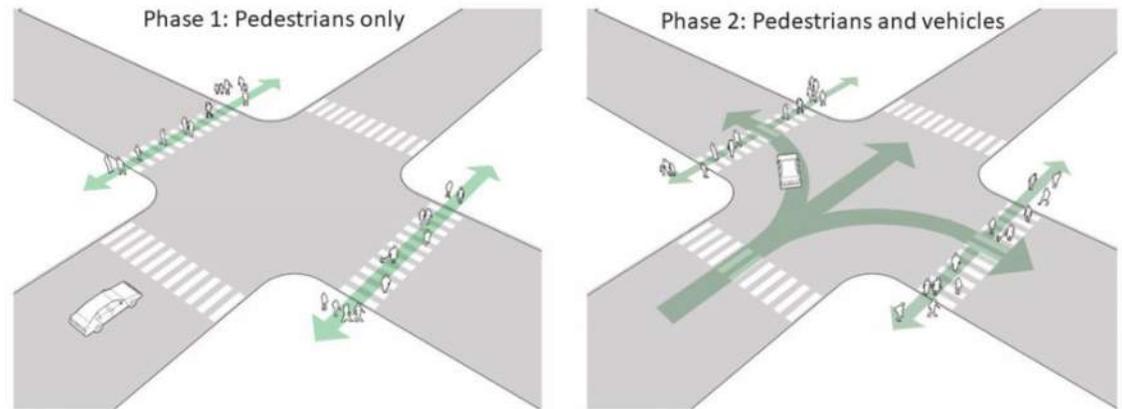
# Crash Potential #5

## Traffic Control Devices – Signals



Location of the crosswalk at Catherine and Division makes it difficult to see pedestrian

### Leading Pedestrian Interval (LPI)



- Activate ped signal 3-7 seconds prior to green light

### Suggested Mitigations for Crash Potential #5

- LPI has been implemented through the city

## Other Items Considered



### Parking

- Bus Stop on Broadway

### Suggested mitigations

- Remove the parking in this area

## Other Items Considered



### Lighting

- Fuller/Maiden Lane intersection (*lights set back from crosswalks*)
- Pontiac Street (*Moore to Swift is dark*)

# Selection of Analysis Tools

## Goals:

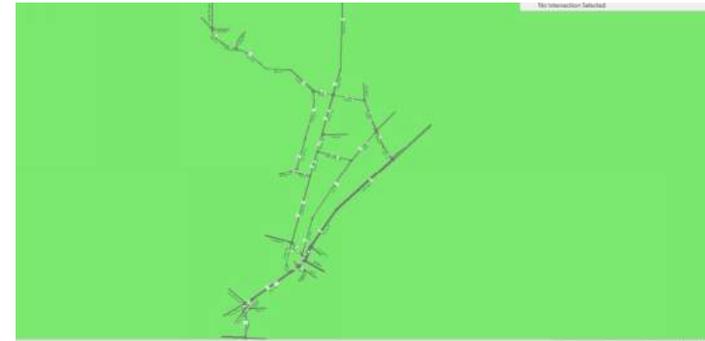
- Identify the tools that allow Ann Arbor to understand the pressures, causes and challenges to mobility in the Lower Town Area.

## Objectives:

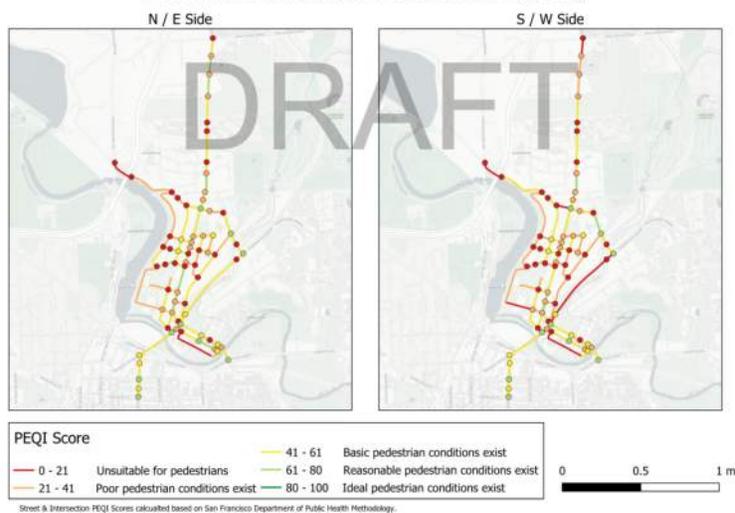
- Evaluate and select modeling software that analyses multi-modal mobility for pedestrian, bicycle, transit, and vehicular traffic. The project team worked together with MDOT, WATS, and SEMCOG to determine the tools to use for the planning study.

# Existing Conditions

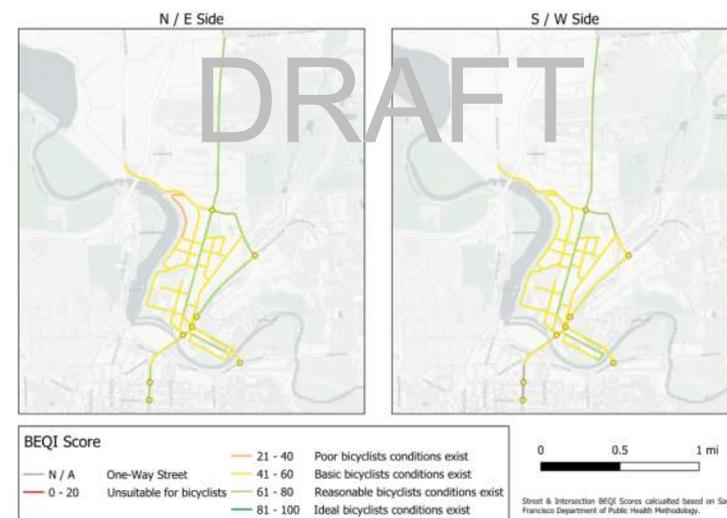
- Pedestrian and Bike Inventory
- Existing Condition Traffic Models



Pedestrian Environmental Quality Index (PEQI)

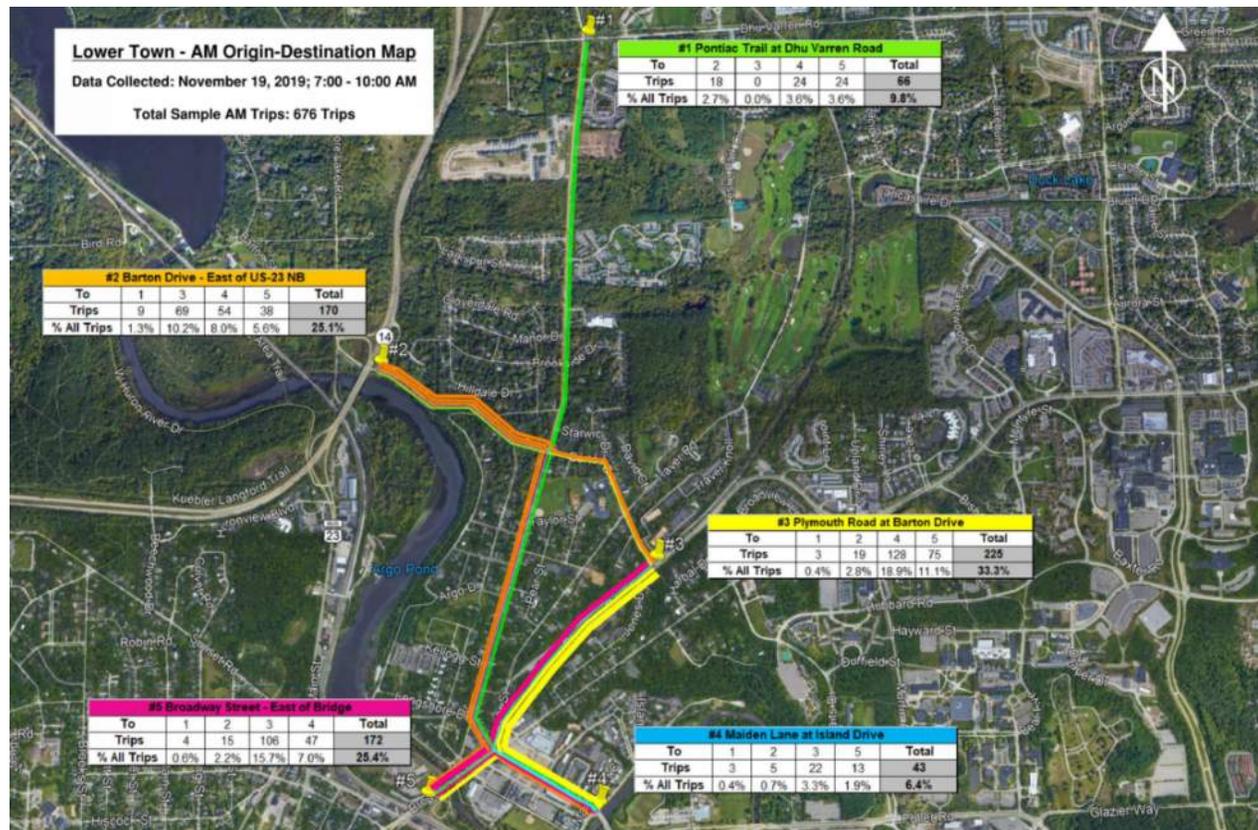


Bicycle Environmental Quality Index (BEQI)



# Existing Conditions

- Origin and Destination Conclusions



## Moving Forward, Next Steps

- Complete Existing Conditions analysis
- Perform Deficiency analysis of existing conditions
- Use the Travel Demand Model to forecast future travel
- **Vision, Goals and Alternatives workshop and Public Meeting #2**
- Perform an analysis of alternatives considered
- Report out recommendations to City and its residents

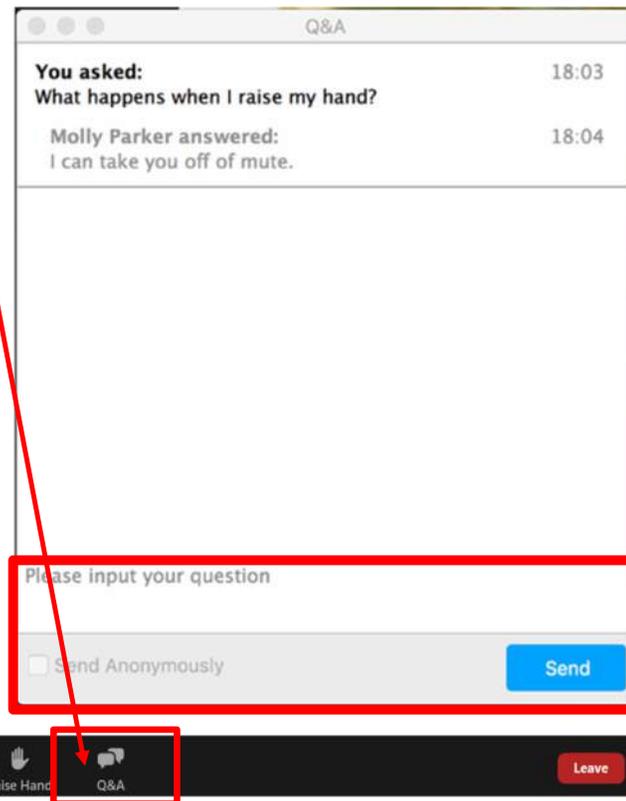
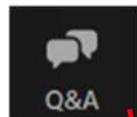
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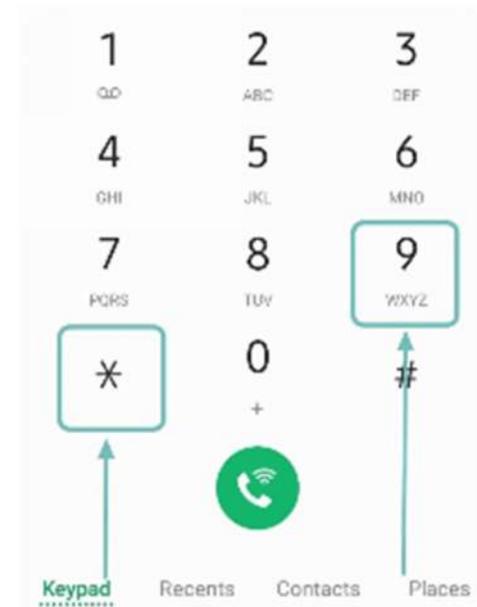
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# Thank you!



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**Project Website:** [www.a2gov.org/lowertown](http://www.a2gov.org/lowertown)

