



# Transportation Commission Meeting

Lower Town Area Mobility Study

City of Ann Arbor

# Why Do a Mobility Study?

- Need a holistic view of transportation conditions in the Lower Town area
- Consider all travelers in the area
- Overall goal is to make traveling around the Lower Town Area easier, safer, and more efficient

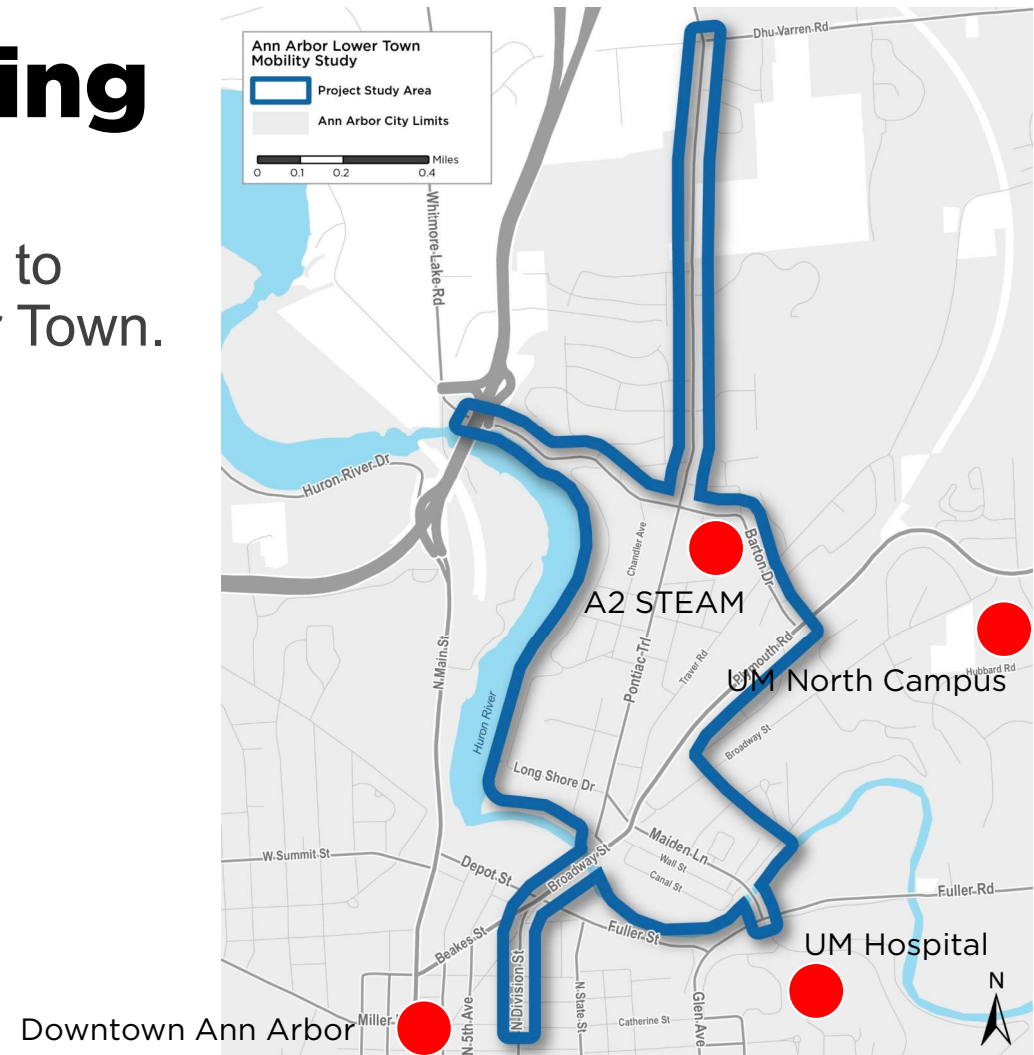


# What We're Studying

Purpose is to identify opportunities to make traveling easier within Lower Town.

Looking Specifically at:

- Traffic Congestion
- Bicycle Travel and Connections
- Pedestrian Movements
- Public Transit
- Roadway Safety
- Intersection Designs



# Study Process

- Two Year Timeline
- Near the halfway point



# Outcomes of the Study

- Identify ways to improve mobility for all users
  - Drivers, cyclists, pedestrians, transit riders, etc.
- Explore opportunities to change travel habits
  - Changing travel habits and patterns can help limit congestion issues
- Innovative solutions that improve efficiency of the system



# Public Engagement

**SEPTEMBER 25TH, 2020**  
12 - 1 PM

**WHAT IS A MOBILITY STUDY?**

**OCTOBER 9TH, 2020**  
12 - 1 PM

**TRAFFIC CONDITIONS:  
WHAT CONTRIBUTES TO TRAFFIC  
CONGESTION IN THE AREA?**

**OCTOBER 23RD, 2020**  
12 - 1 PM

**BICYCLE AND PEDESTRIAN  
CONDITIONS: HOW CAN WE MAKE  
WALKING AND BIKING EASIER?**

**NOVEMBER 6TH, 2020**  
12 - 1 PM

**SAFETY CONDITIONS:  
HOW CAN WE MAKE TRAVELING  
SAFER?**

Virtual Office Hours



Public Meetings



Stakeholder Interviews



# What We've Heard

## Stakeholder Concerns

- Gaps in non-motorized facilities
- Few walkable businesses
- Growing population in area
- Peak hour congestion from commuters
- Inadequate public transit frequency
- Traffic safety discourages walking/biking
- New development parking is inadequate
- Limited crossing opportunities of Huron River



# What We've Heard

## Concerns from Virtual Office Hours

- Specific areas in Study Area in need of safety improvements
- Residents don't feel comfortable walking and biking
- Transit is not frequent enough to use
- Heavy traffic from M-14 coming through area
- Bike infrastructure is disconnected
- Safety concerns around A2 STEAM school
- New development is adding to traffic
- Safety conflicts between bikes and pedestrians





# What We've Heard

## Opportunities

- More frequency and more visibility to transit
- Improve walking connection to Hospital
- Easier access to Border-to-Border trail
- Add more mixed-use retail to new developments
- Improve snow clearance in winter for bikes and peds
- Add safe crossing infrastructure
- Create a cultural shift to more walking and biking
- Educate public on safely using streets



# **Traffic Conditions in Lower Town**

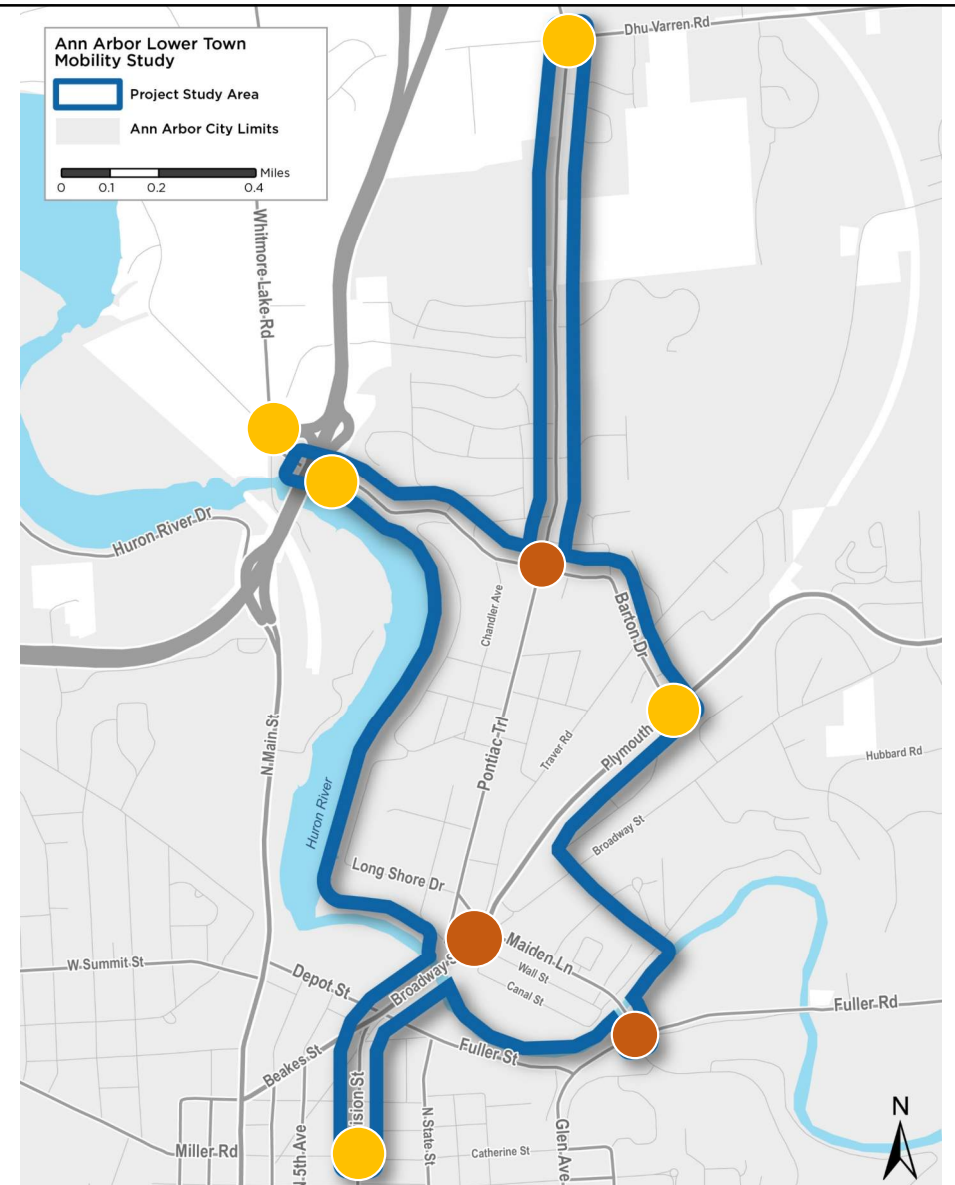
# High Congestion Intersections

Based on Model

- Plymouth Rd at Barton Dr
- US-23 off-ramp to Barton Dr
- Barton Dr to US-23 on-ramp
- Dhu Varren Rd at Pontiac Trail
- Division St at Catherine St

Based on Observation

- Barton Dr at Pontiac Trail
- Maiden Ln/Broadway St/Moore St
- Maiden Ln at Fuller Rd



# Travel Patterns

- 55% of trips along Lower Town area roads are passing through the area
- 21% are coming to Lower Town from other areas in and around Ann Arbor
- 20% are traveling from Lower Town to districts outside
- Only 4% of trips are completely within Lower Town



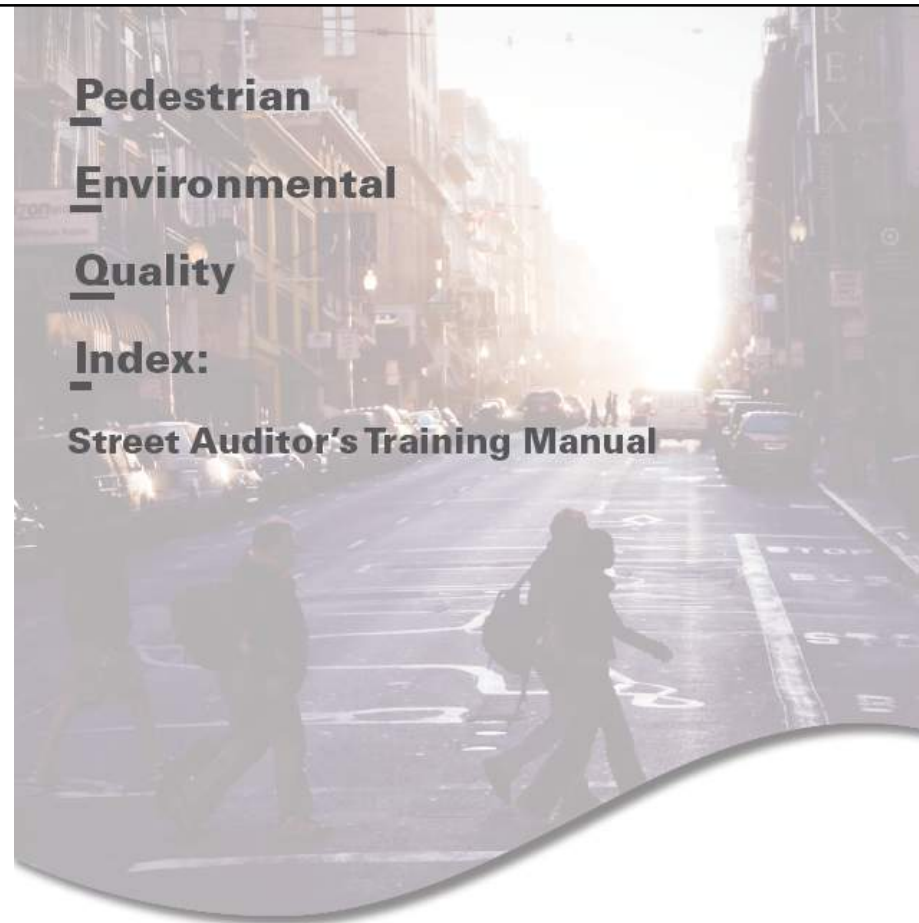
# Ped/Bike Analysis Approach

Team used two tools:

- Pedestrian Environmental Quality Index (PEQI)
- Bicycle Environmental Quality Index (BEQI)

Benefits of these tools:

- Based on feedback from national experts
- Comprehensive
- Customizable
- Observational field survey



**San Francisco Department of Public Health**

Program on Health, Equity and Sustainability

<http://www.sfpbes.org/>

October 2012



# Input Categories

## Intersection Safety

- Crosswalks
- Traffic Control

## Traffic

- Number of Lanes
- Speed Limit

## Street Design

- Width of Facility
- Connectivity

## Land Use

- Retail Use
- Public Art

## Perceived Safety

- Street Lighting
- Signs

# PEQI & BEQI Scores

- 0 - 20 Unsuitable for pedestrians/bicyclists
- 21 - 40 Poor pedestrian/bicyclist conditions exist
- 41 - 60 Basic pedestrian/bicyclist conditions exist
- 61 - 80 Reasonable pedestrian/bicyclist conditions exist
- 81 - 100 Ideal pedestrian/bicyclist conditions exist



Pontiac Trail & Dhu Varren Rd



Barton Dr & Plymouth Rd



Plymouth Rd Broadway St

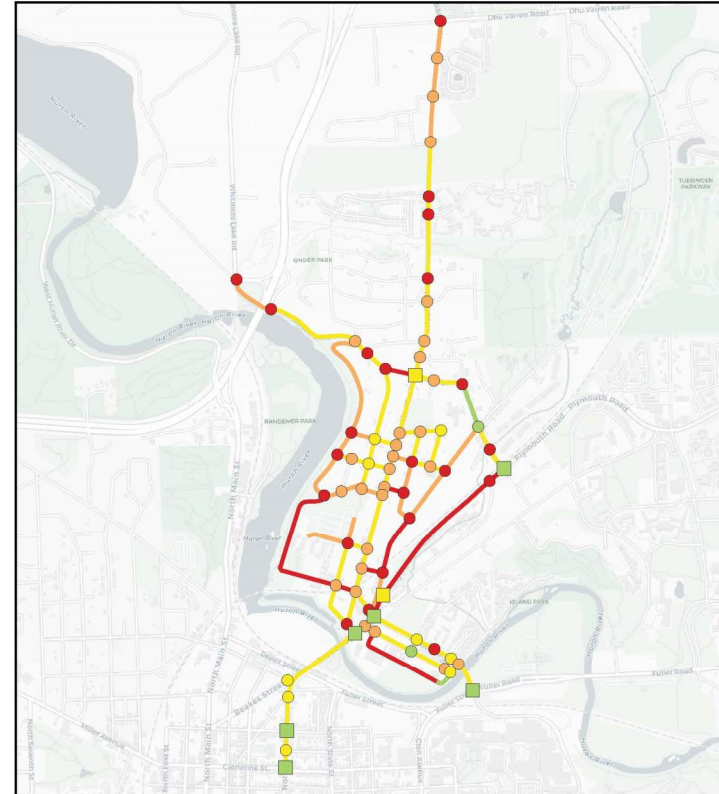
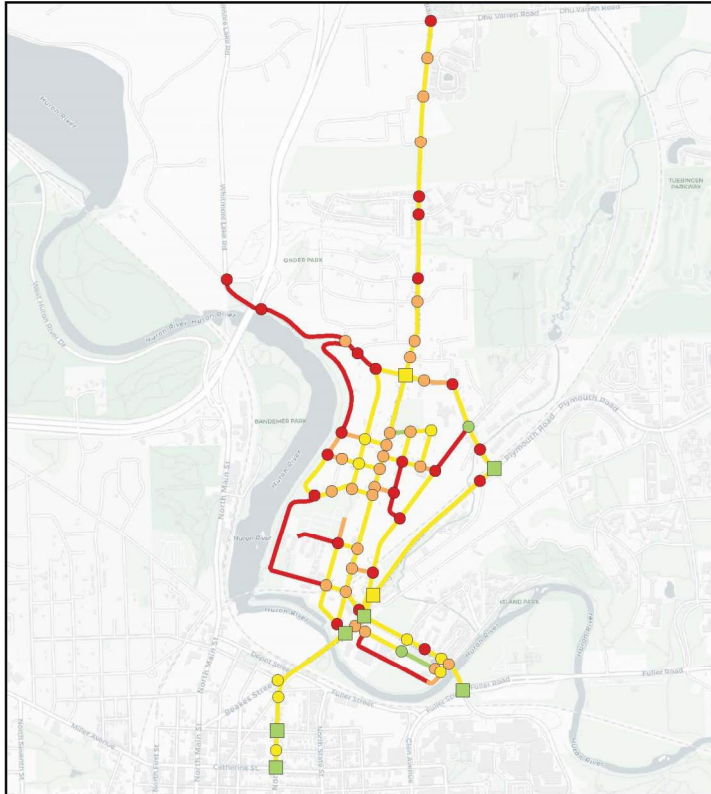


Pontiac Trail & Amherst Ave

# Pedestrian Environmental Quality Index (PEQI)

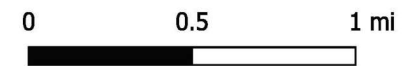
N / E Side

S / W Side



PEQI Score		Intersections	
0 - 20	Unsuitable for pedestrians	41 - 60	Basic pedestrian conditions exist
21 - 40	Poor pedestrian conditions exist	61 - 80	Reasonable pedestrian conditions exist
		80 - 100	Ideal pedestrian conditions exist

Intersections	
□	Signalized
○	Non-Signalized



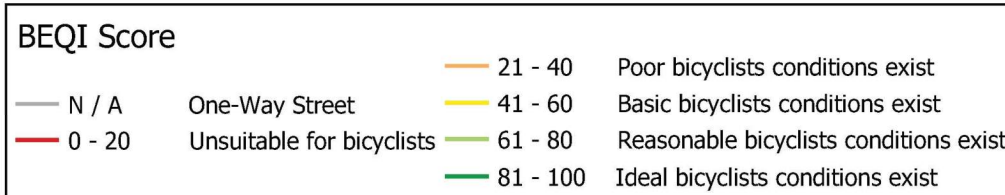
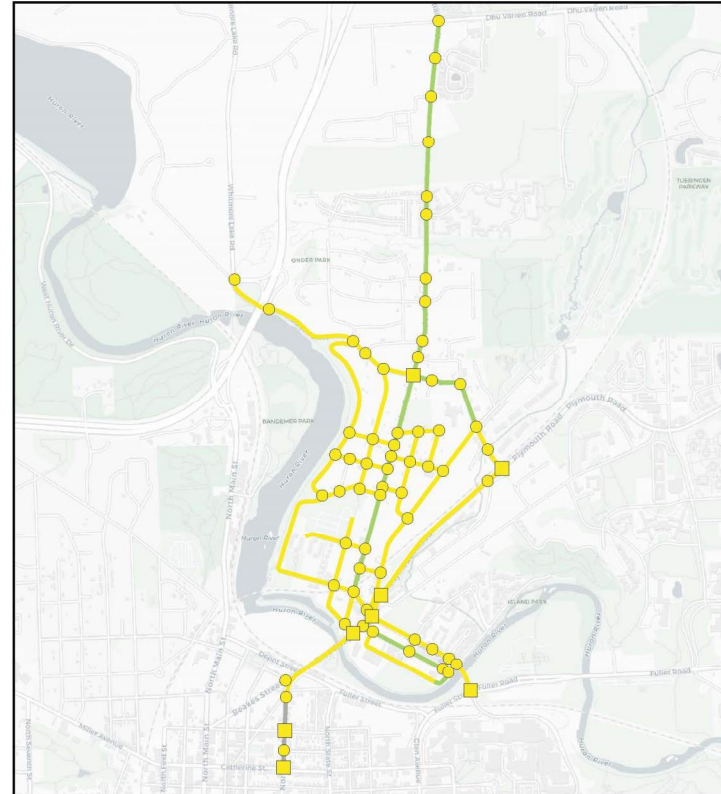
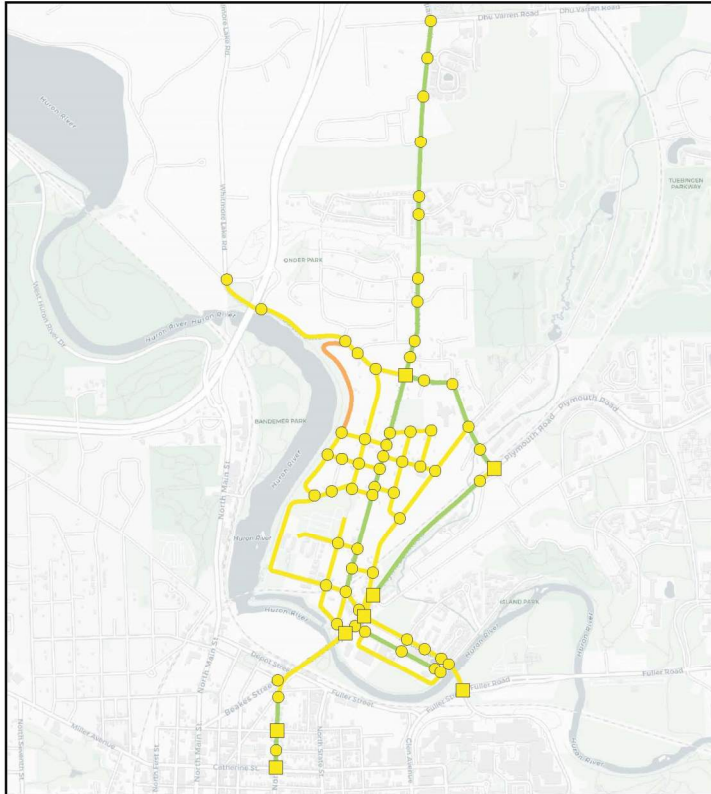
Street & Intersection BEQI Scores calculated based on San Francisco Department of Public Health Methodology.



# Bicycle Environmental Quality Index (BEQI)

N / E Side

S / W Side



Street & Intersection BEQI Scores calculated based on San Francisco Department of Public Health Methodology.

**Safety**

# Crash Analysis

- 5-year analysis
- 479 crashes (264 at 3 major intersections)
- 4 ped and 10 bicycle crashes
- Recommended mitigations include:
  - Roundabouts
  - Providing paved shoulders
  - Checking clearance intervals for signalized intersections
  - Leading pedestrian intervals
  - Alternate intersection configurations
  - Enhanced pedestrian crossings



# Review of Uncontrolled Pedestrian Crossings

- Evaluation in accordance with NCHRP 562  
“Improving Pedestrian Safety at Unsignalized Crossings”
- 31 existing pedestrian crossing were evaluated
- 1 merited Standard Plus treatment
- 30 merited Standard (5 did not have in place)
- 4 new locations identified



# Road Safety Audit



Pedestrian  
Infrastructure



Speed  
Management



Traffic  
Congestion



Bicycle  
Infrastructure



Pavement  
Conditions

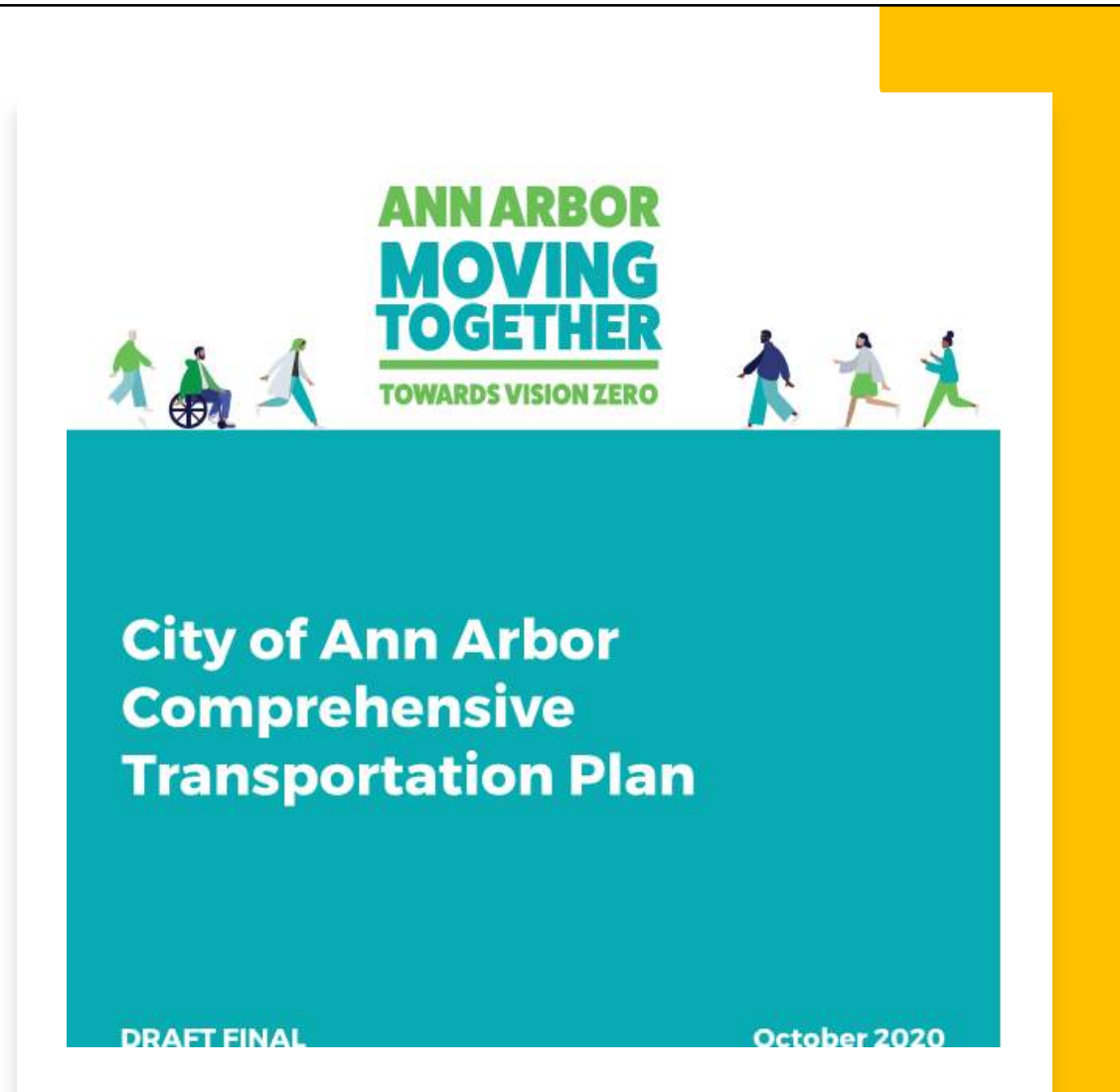


Traffic Control  
Devices



# Comprehensive Transportation Plan

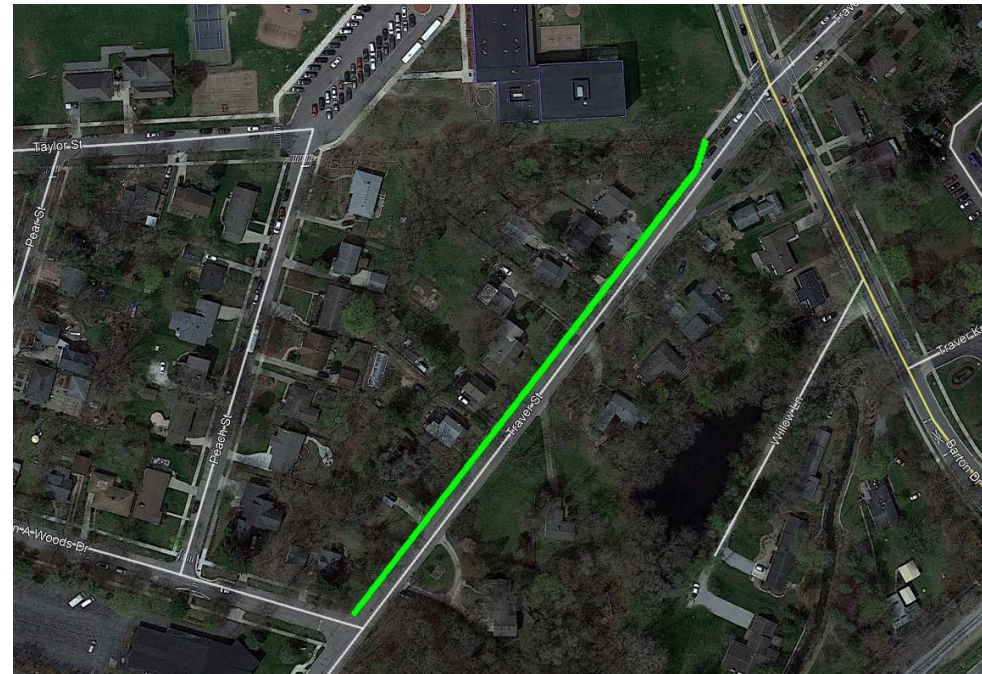
- Ann Arbor: Moving Together – creating a safer, more sustainable, accessible, and equitable transportation system for everyone.
- Mobility Values
  - Safety
  - Mobility
  - Accessibility for All
  - Healthy People and Sustainable Places
  - Regional Connectivity
- Critical Goals
  - Vision Zero
  - Carbon Neutrality



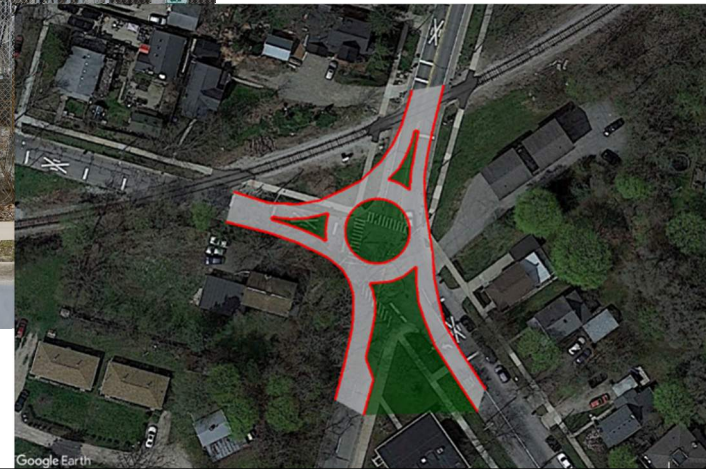
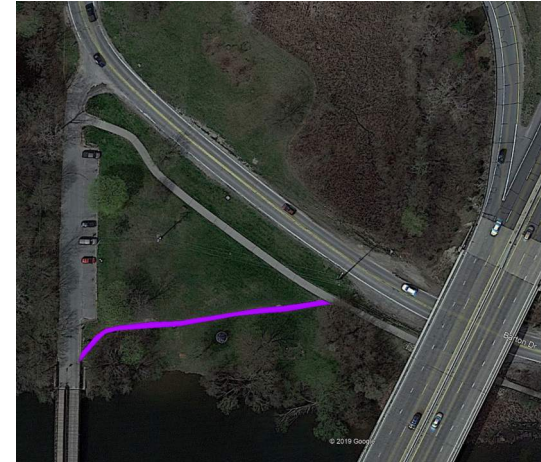
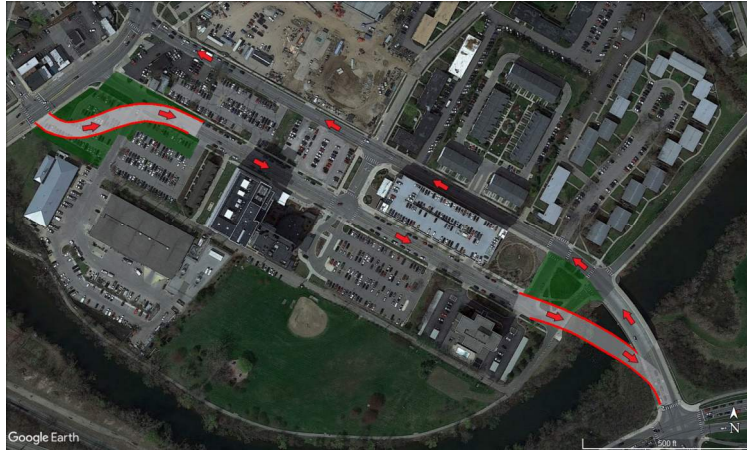
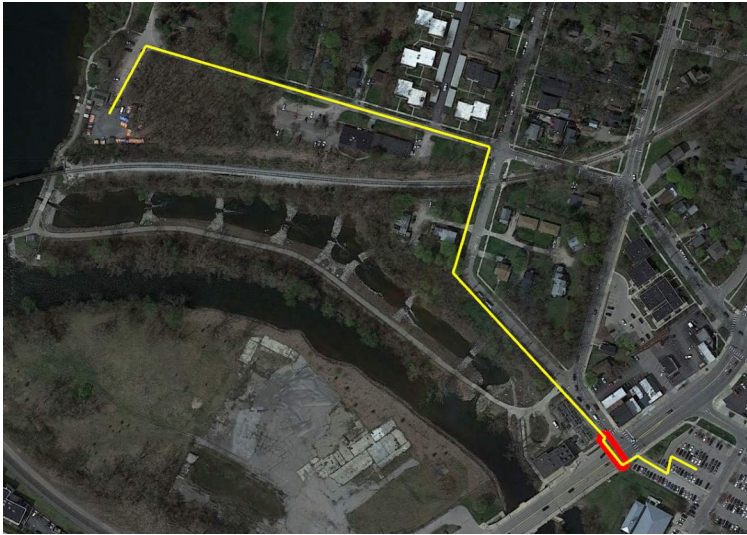
**Alternatives**

# Potential Alternatives

- Road Safety Audit Improvement Alternatives:
  - Intersection changes
  - Lighting upgrades
  - Non-motorized infrastructure
  - Transit Improvements
  - Speed Management
  - ADA Access







# Transportation Demand Management

- Strategies to redistribute when and how people travel through Lower Town
  - Improved non-motorized conditions
  - Improve public transit
  - Ridesharing programs
  - Incentives to give up parking
  - Flexible work times
  - Transit supportive development



# Improvement Ideas from the Community

- From Virtual Office Hours:
  - RRFBs along Pontiac Trail
  - Speed management along Pontiac Trail
  - Seamless Border-to-Border trail connection from Broadway
  - Green bike lane paint
  - Driver and pedestrian safety education
  - Park and Ride Locations



# Next Steps

- Consolidation and Refinement of Alternatives
- Analysis and Evaluation of Alternatives
- Public Meeting #3 – Present Alternatives
- Report Development
- Public Meeting #4 – Overall Findings and Recommendations