ACTIVE TRANSPORTATION PLAN UPDATE

# CHITTENDEN COUNTY

DECEMBER 2022

**CCRPC TAC**
**Bryan Davis**
**January 3, 2023**

# Overview of Regional Active Transportation Plan (ATP)

- Serves as the active transportation element of the long-range Metropolitan Transportation Plan (MTP).
- First ATP completed in 1993, updated every 5 years, most recently in 2017
- Why active transportation? Climate and energy goals, reduce vehicle miles traveled, positive financial impacts, improved health, increase access and mobility…goals identified in the ECOS Plan

# REGIONAL ACTIVE TRANSPORTATION PLAN

## PROJECT UPDATES

**The draft final plan is available for review:**

- **ATP Draft Final Plan »**

The following memos are included for reference:

- Material Review Memo »
- Bicycle Network Analysis Memo »
- Equity Analysis Memo »
- Trip Potential Memo »
- Pedestrian Infrastructure Recommendations Memo »
- Bicycle Infrastructure Recommendations Memo »
- Program and Policy Recommendations Memo »
- Prioritization Memo »
- Public Webmap Comments — Barriers Noted »
- Public Webmap Comments — Suggested Paths »

# Timeline

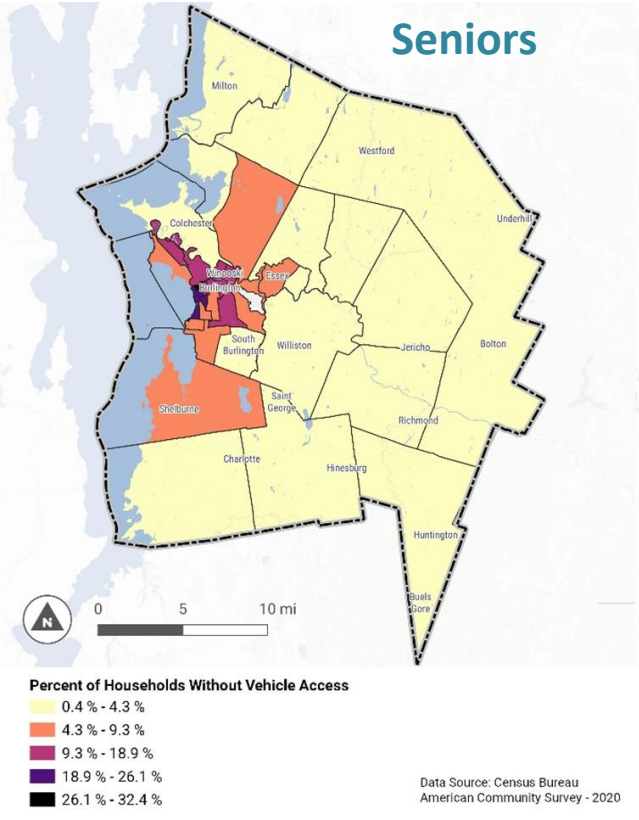
1. **Kickoff** (March) – introduce project, discuss outreach and equity, audiences.
2. **Analysis Results** (July) – Equity, Bicycle Network, Trip Potential, Off-Road Trails
3. **Recommendations** (October) – infrastructure, programs, policies.
4. **Prioritization** (November) – develop framework and scoring system to prioritize recommendations.
5. **Final Plan** (December)

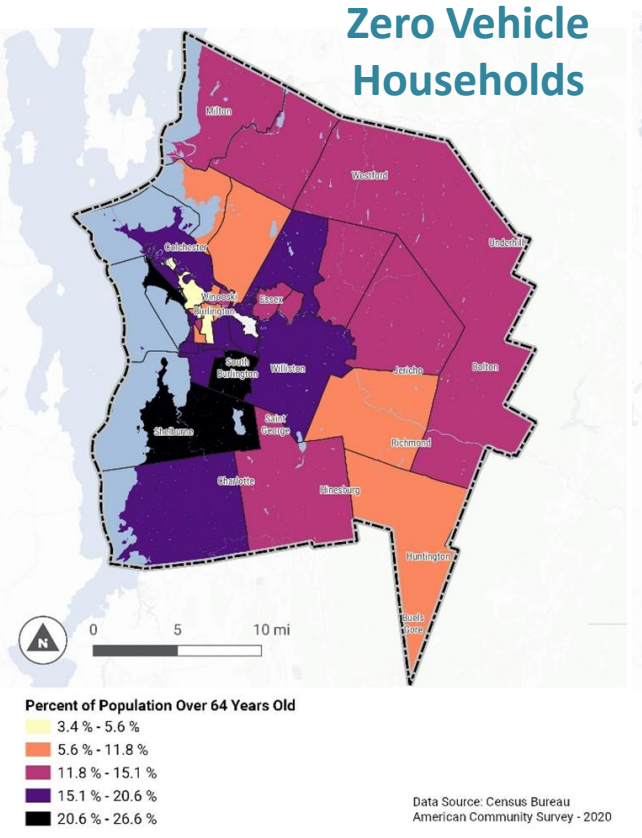
# Analysis

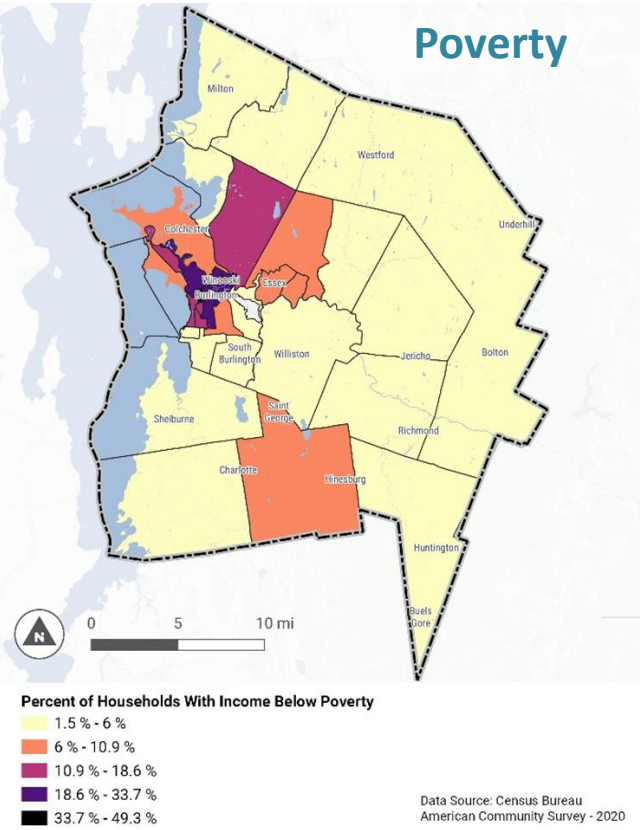
- **Equity Analysis** – create sociodemographic profile, use qualitative and quantitative data, establish equity priority areas.
- **Bicycle Network Analysis** – low stress, comfortable. Present two buildout scenarios and potential impacts. One scenario to be equity focused.
- **Trip Potential Analysis** – estimating trip potential for walking and biking. One analysis for bicyclists countywide, two for pedestrians in local areas identified by committee (i.e., suburban and rural).
- **Unpaved Trail Analysis** – can these fill gaps in the system?

# Equity Analysis

- **Historical Inequities**
- **Contemporary Inequities**
- **Quantitative Indicators**



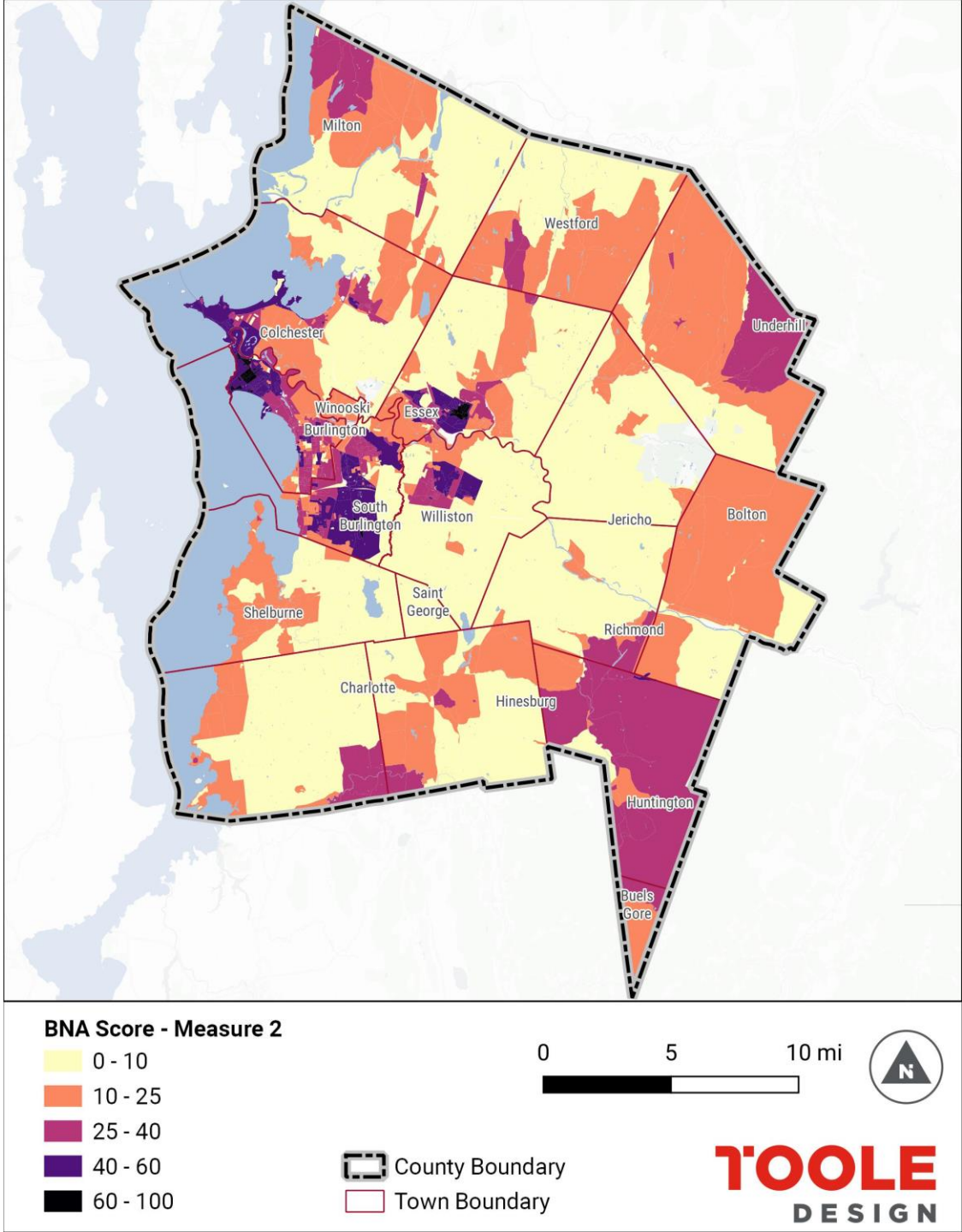



# Equity Analysis Takeaways

- Chittenden County is growing more diverse thanks to new residents.
- Police harassment and racial profiling is a problem for Black motorists…and possibly for active transportation users.
- Decisionmakers must listen to residents' priorities for better housing, education, etc., that may be more urgent and impactful than an active transportation project.

# Bicycle Network Analysis

- Three main steps:
  1. Level of Traffic Stress
  2. Block-to-block connectivity analysis
  3. Aggregation of destinations
- **Black/Purple** = connected
- Tan = not connected

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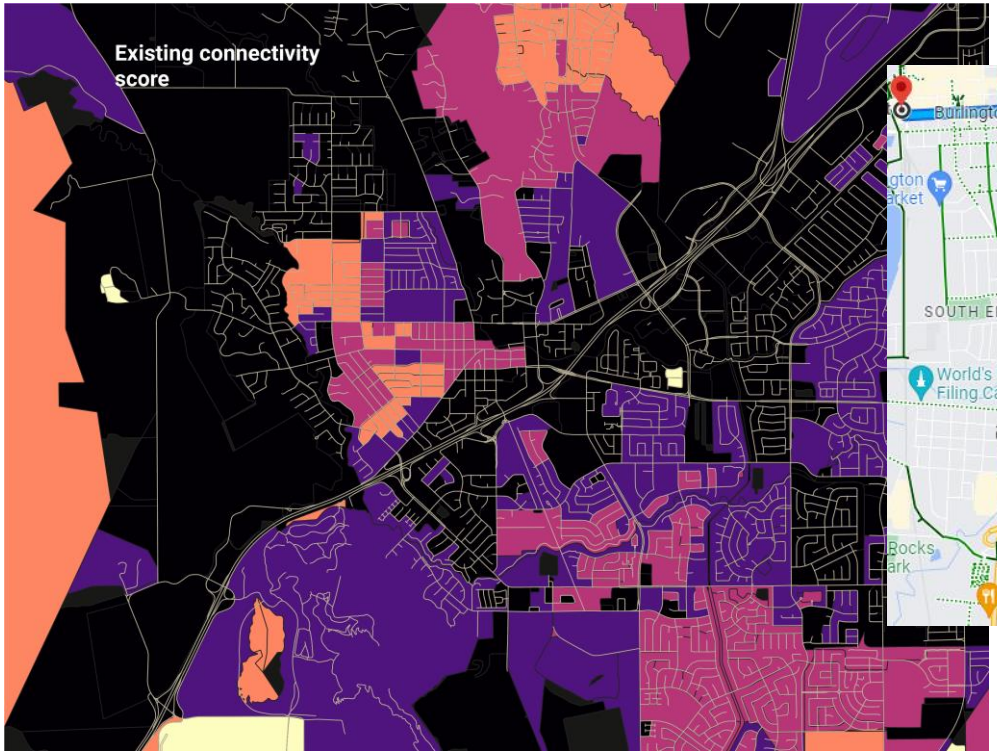
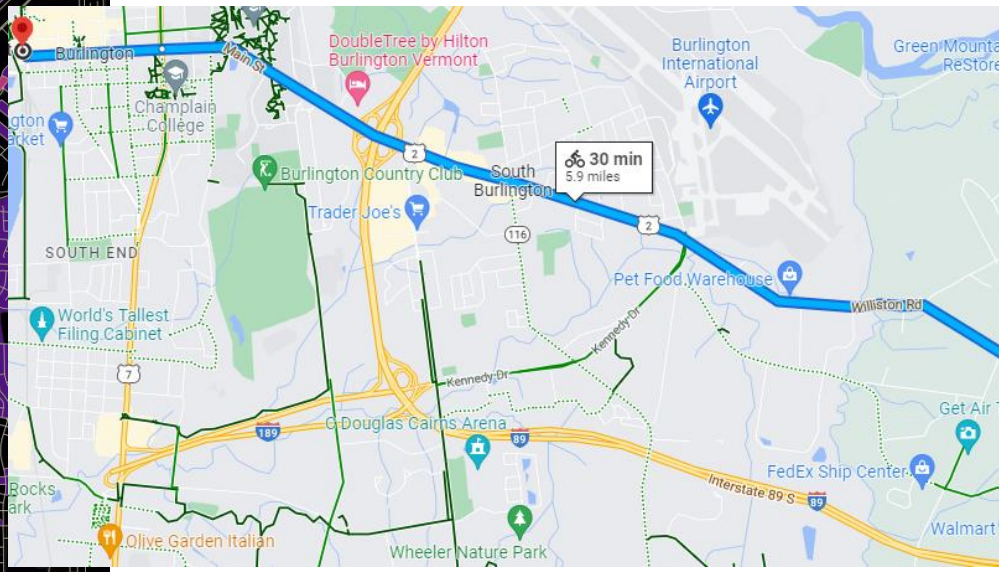
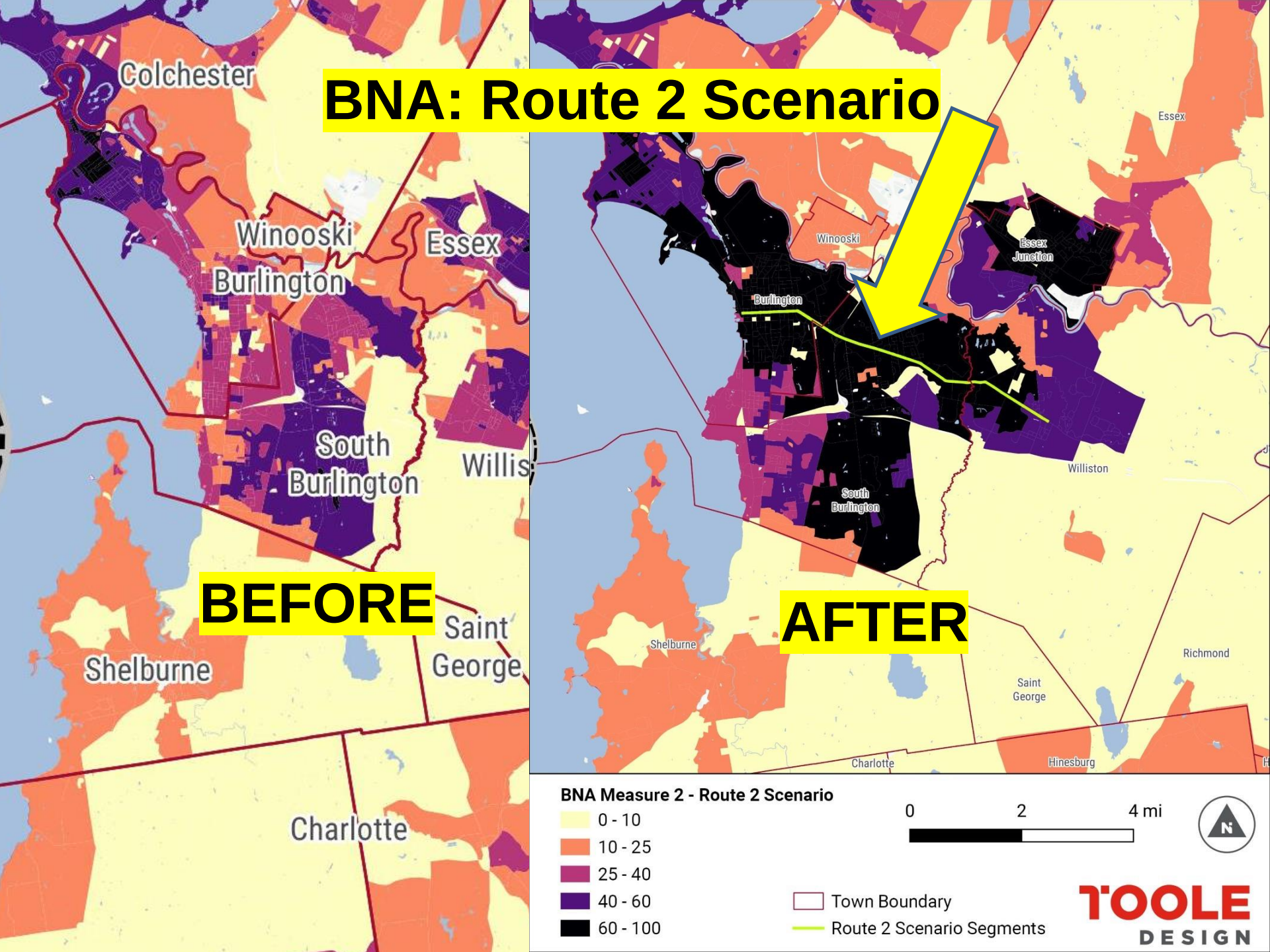
# Bicycle Network Analysis: Two Scenarios

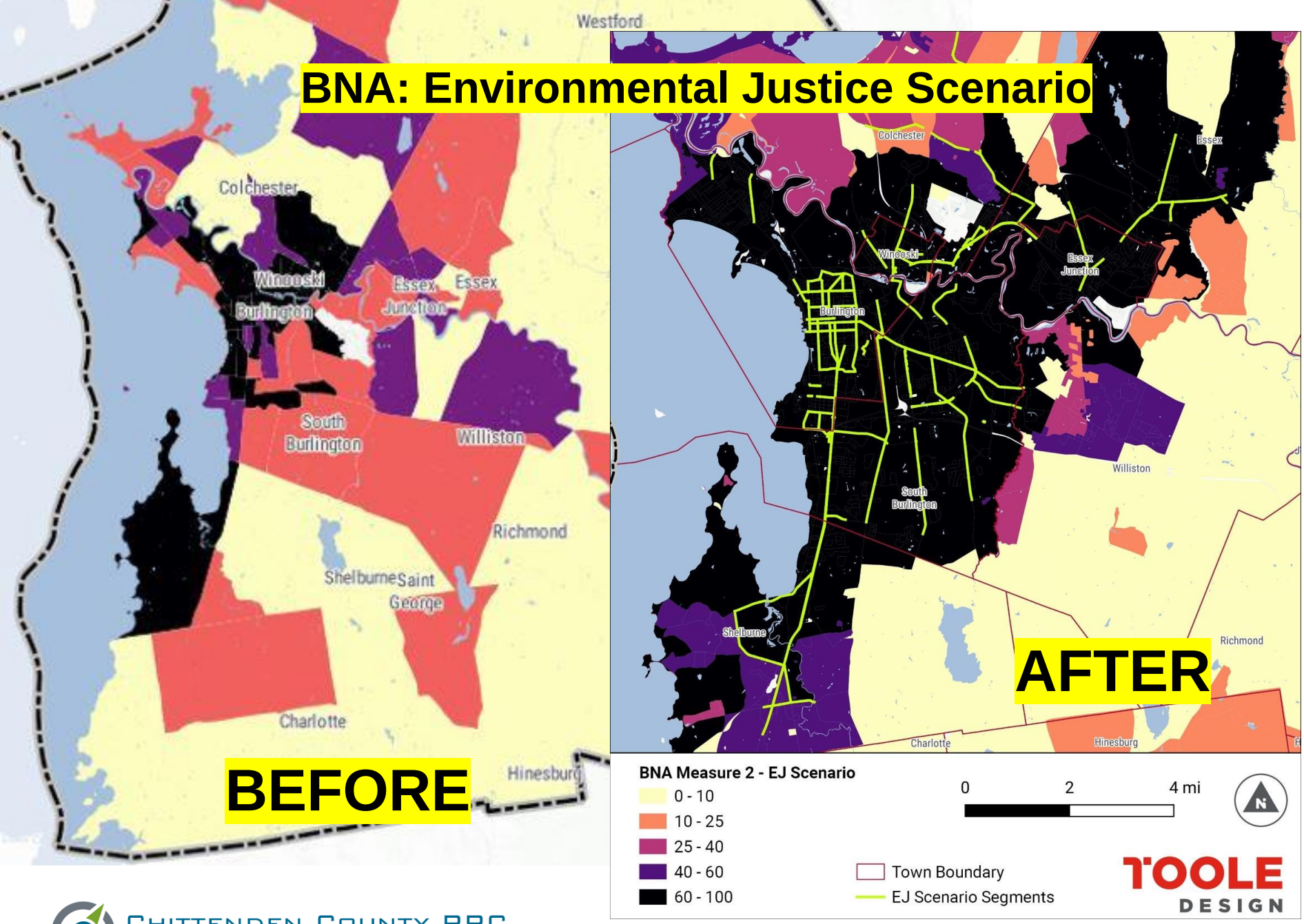
- **Route 2 corridor**
- **Environmental Justice**




BNA: Route 2 Scenario
BEFORE
AFTER
Colchester
Winooski
Burlington
Essex
South Burlington
Willis
Shelburne
Saint George
Charlotte
Essex
Winooski
Essex Junction
Burlington
Williston
South Burlington
Shelburne
Saint George
Richmond
Charlotte
Hinesburg
BNA Measure 2 - Route 2 Scenario
0 - 10
10 - 25
25 - 40
40 - 60
60 - 100
0
2
4 mi
N
Town Boundary
Route 2 Scenario Segments
TOOLE DESIGN

# BNA: Environmental Justice Scenario

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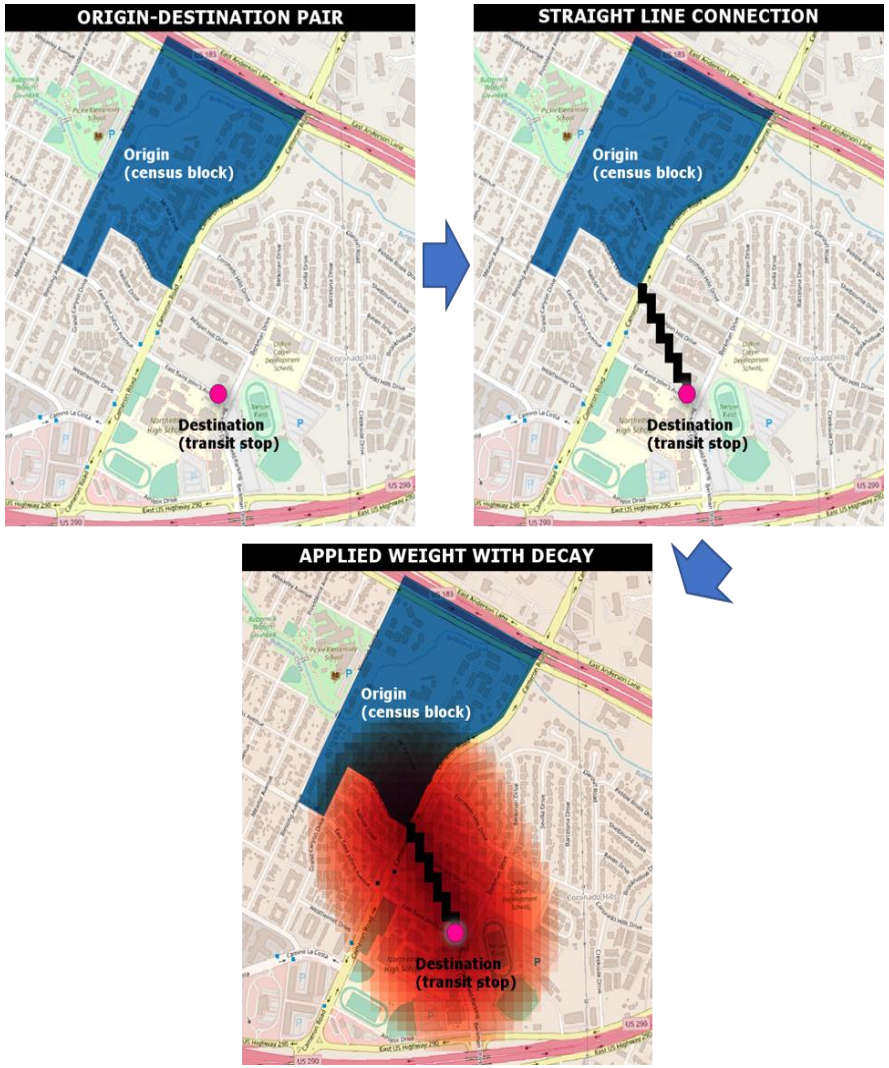
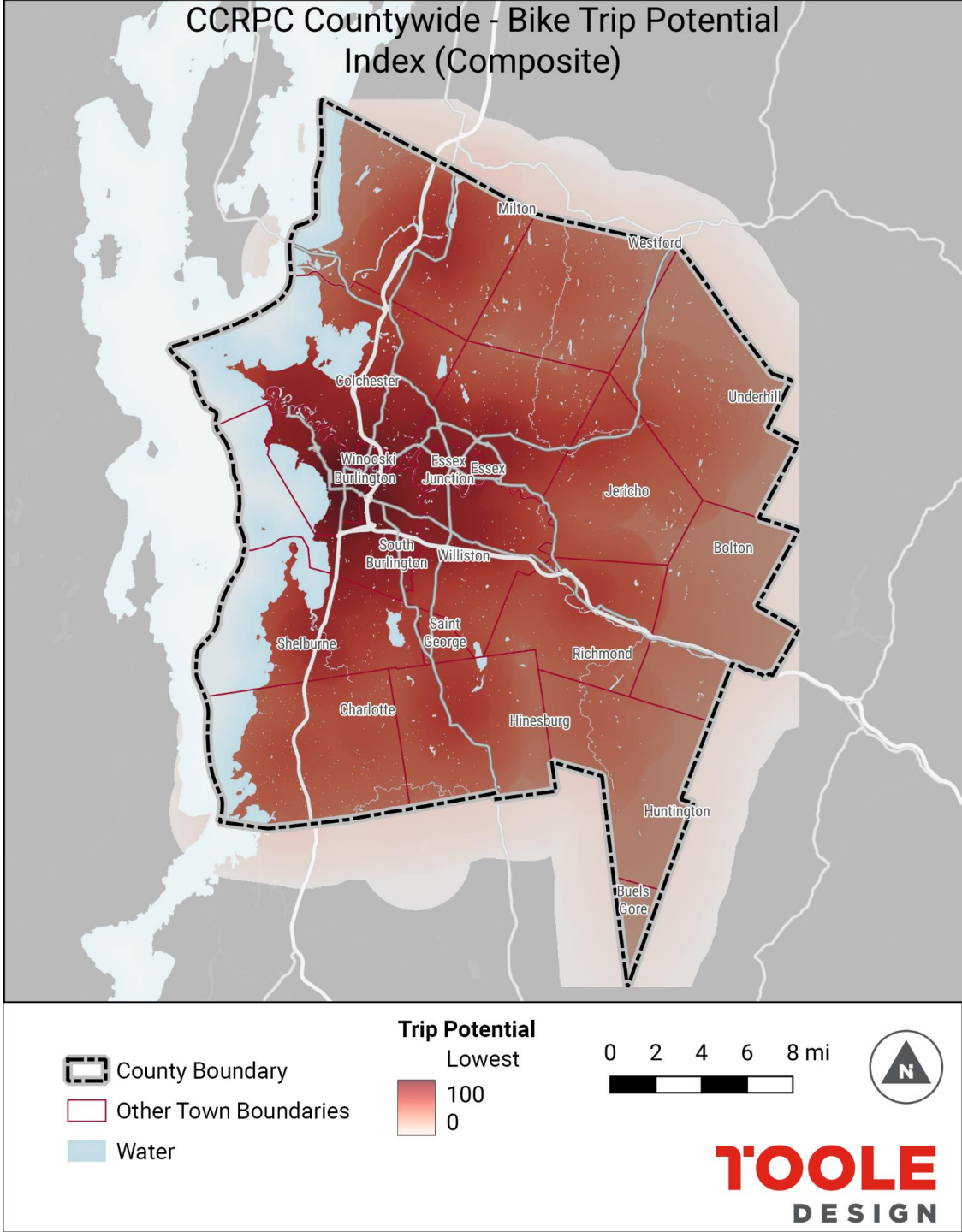
# Trip Potential Analysis

- Determine Origin-Destination (OD) pairs
  - Commercial activity
  - Employment
  - K-12 Schools
  - Parks
  - Population
  - Transit
- Draw straight line connection
- Apply value
- Apply decay factor



# Trip Potential: Bike Results

- Higher density = higher bike TP
- Combine with BNA scenario planning to identify potential improvements

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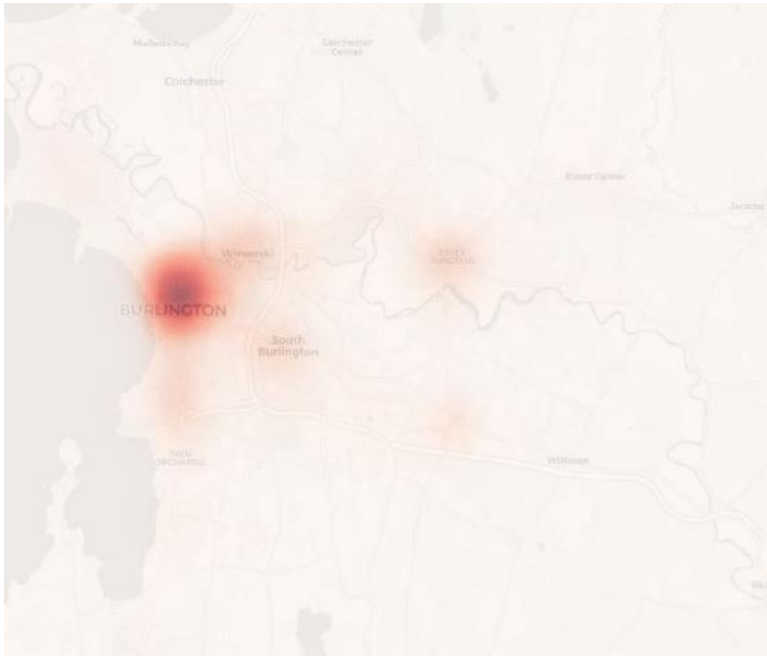
TOOLE DESIGN

# Trip Potential: Pedestrian Results

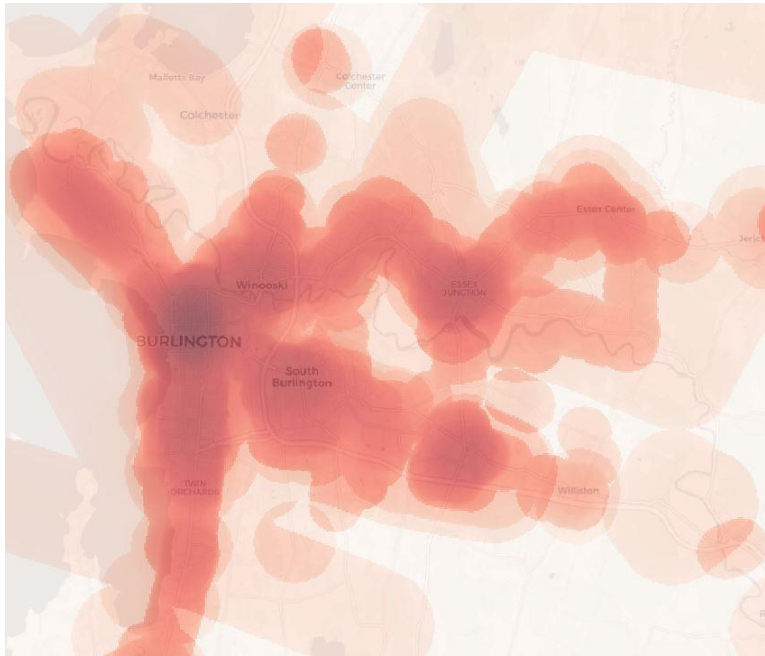
- Pedestrian potential in Burlington masks all other areas

- Revised results show more activity outside Burlington

Initial results

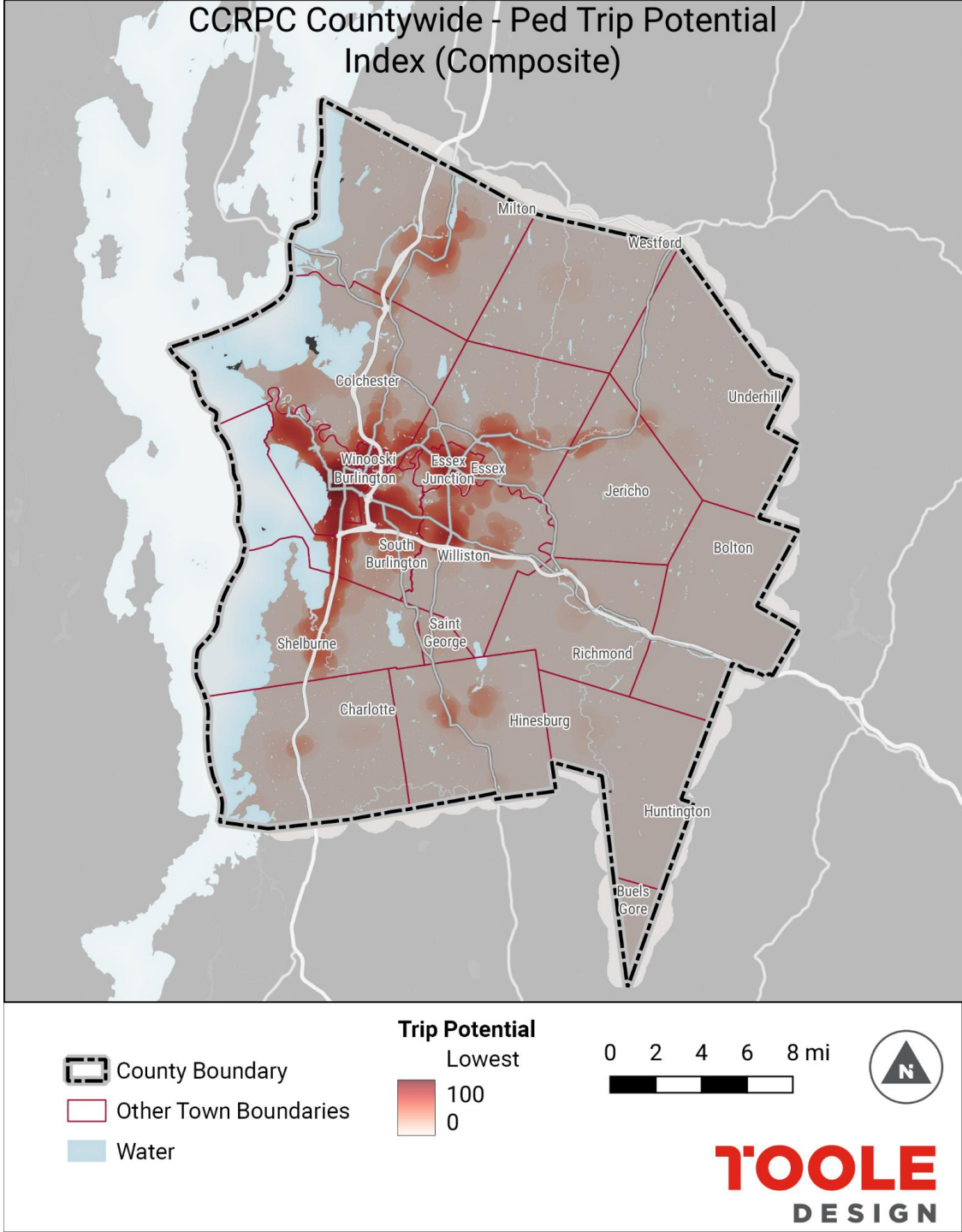



logarithmic rescaling factor



# Pedestrian Results

- Higher ped TP in:
  - Burlington
  - Essex
  - Essex Junction
  - Shelburne
  - South Burlington
  - Williston
  - Winooski
- Several other isolated pockets

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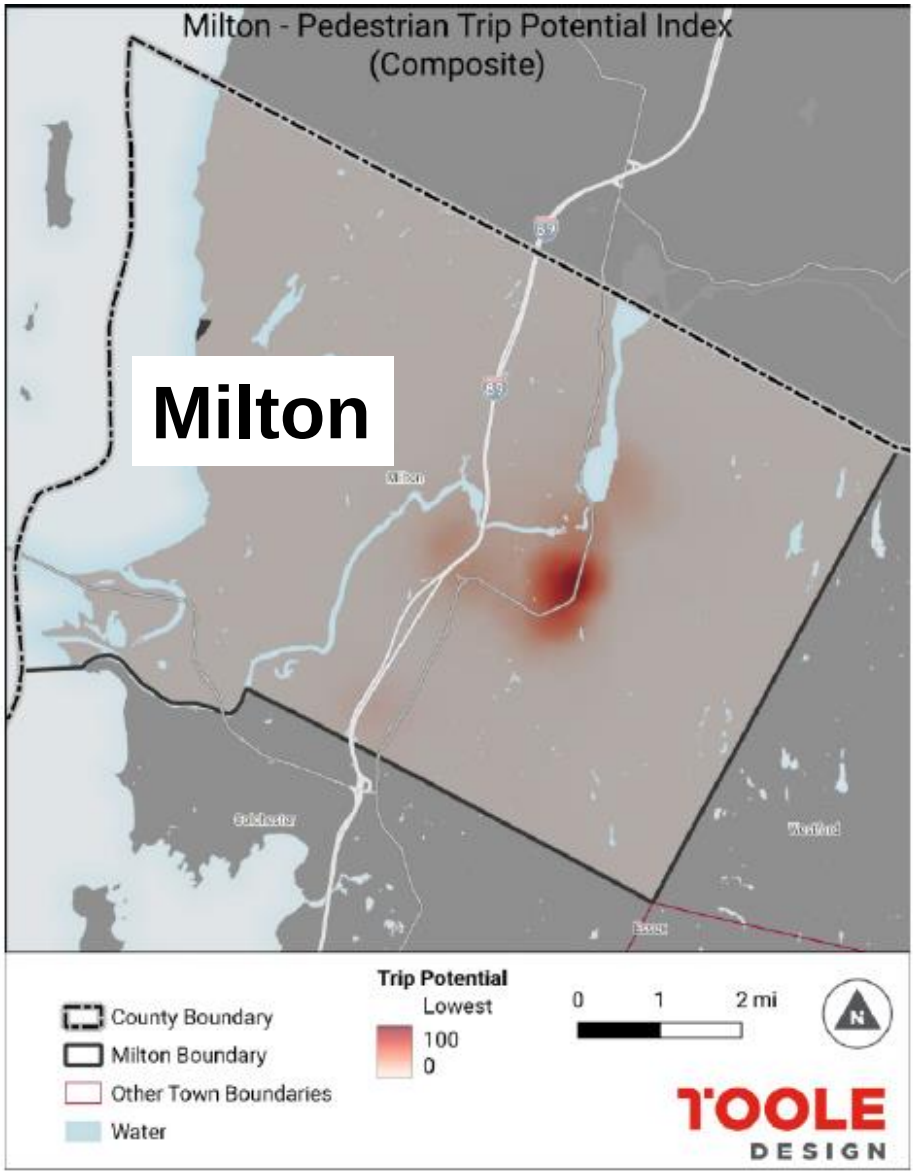
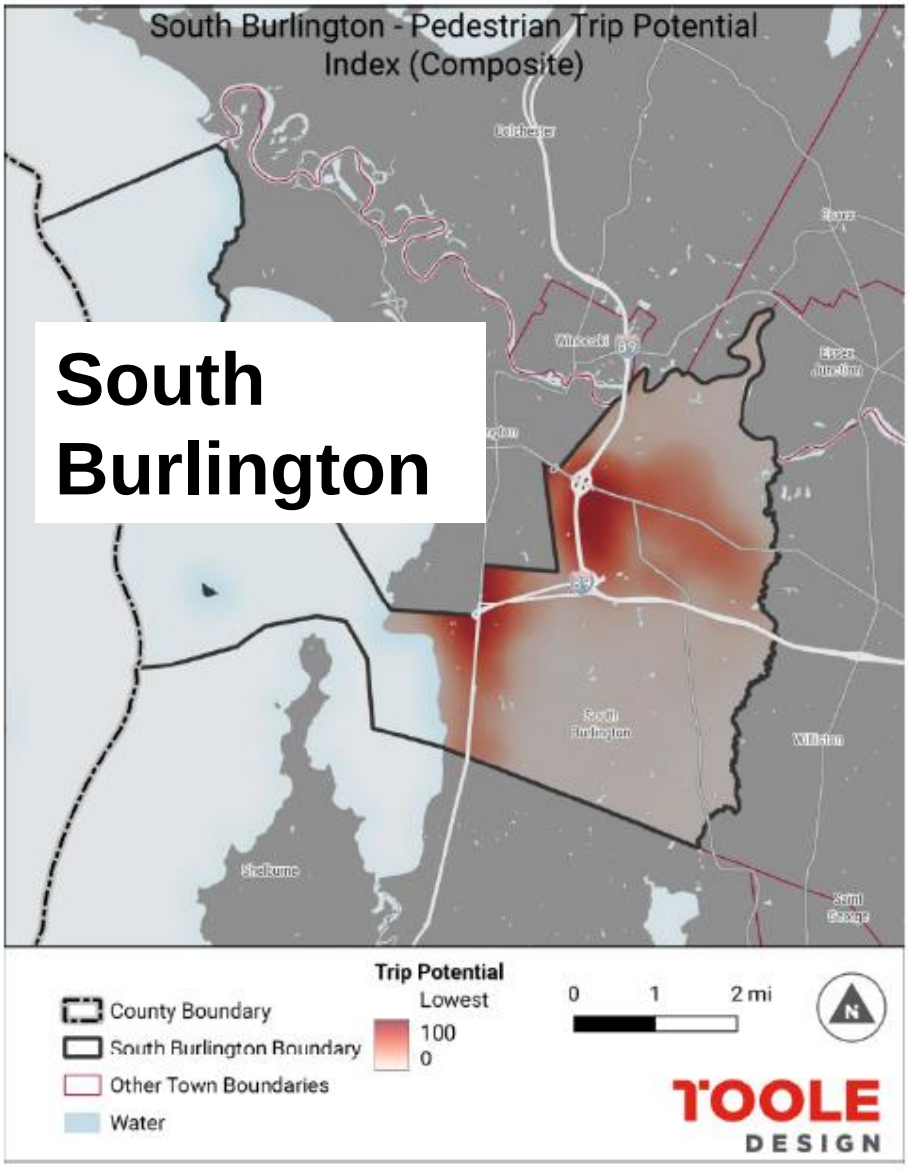
TOOLE DESIGN

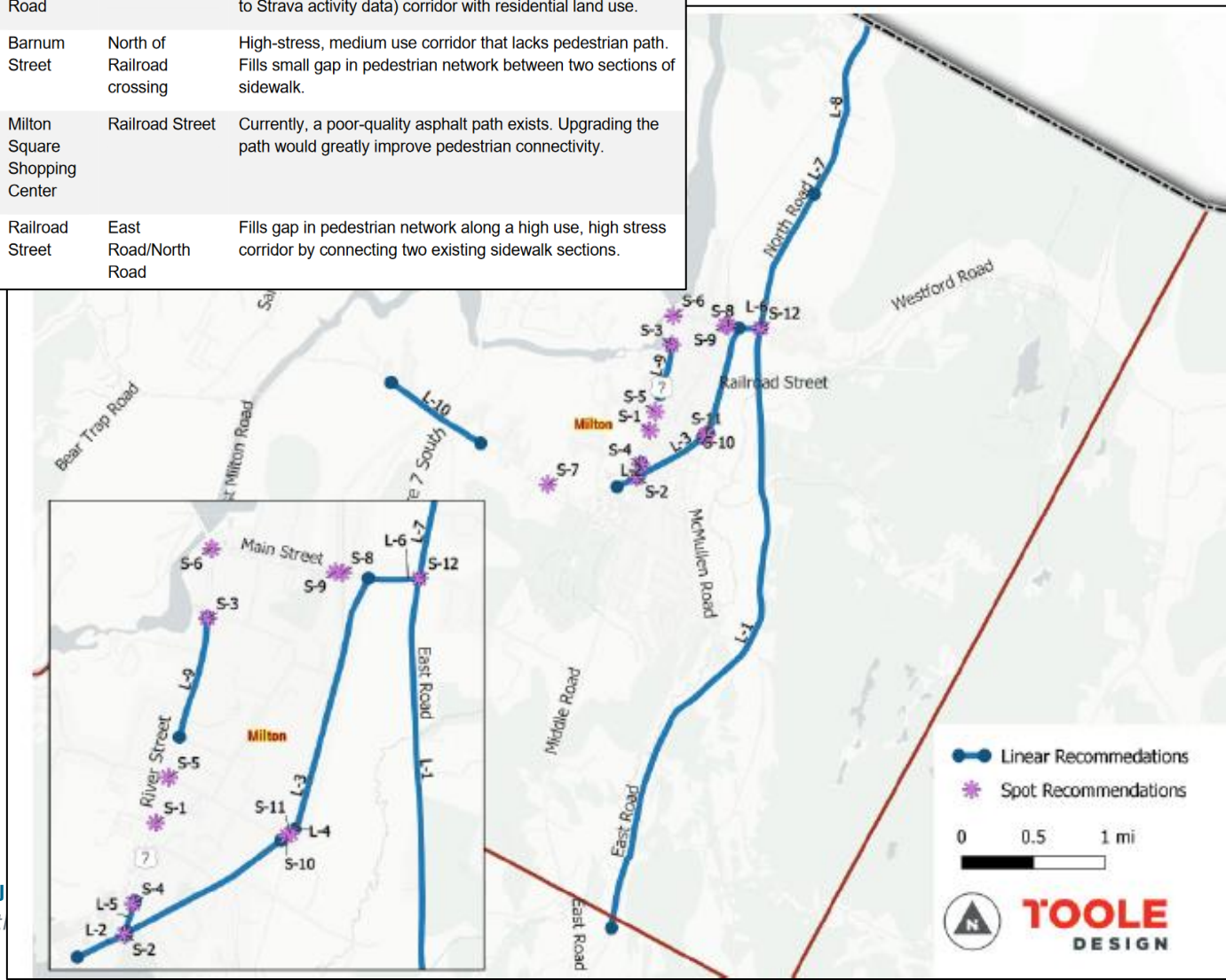
# Local Pedestrian Trip Potential Results



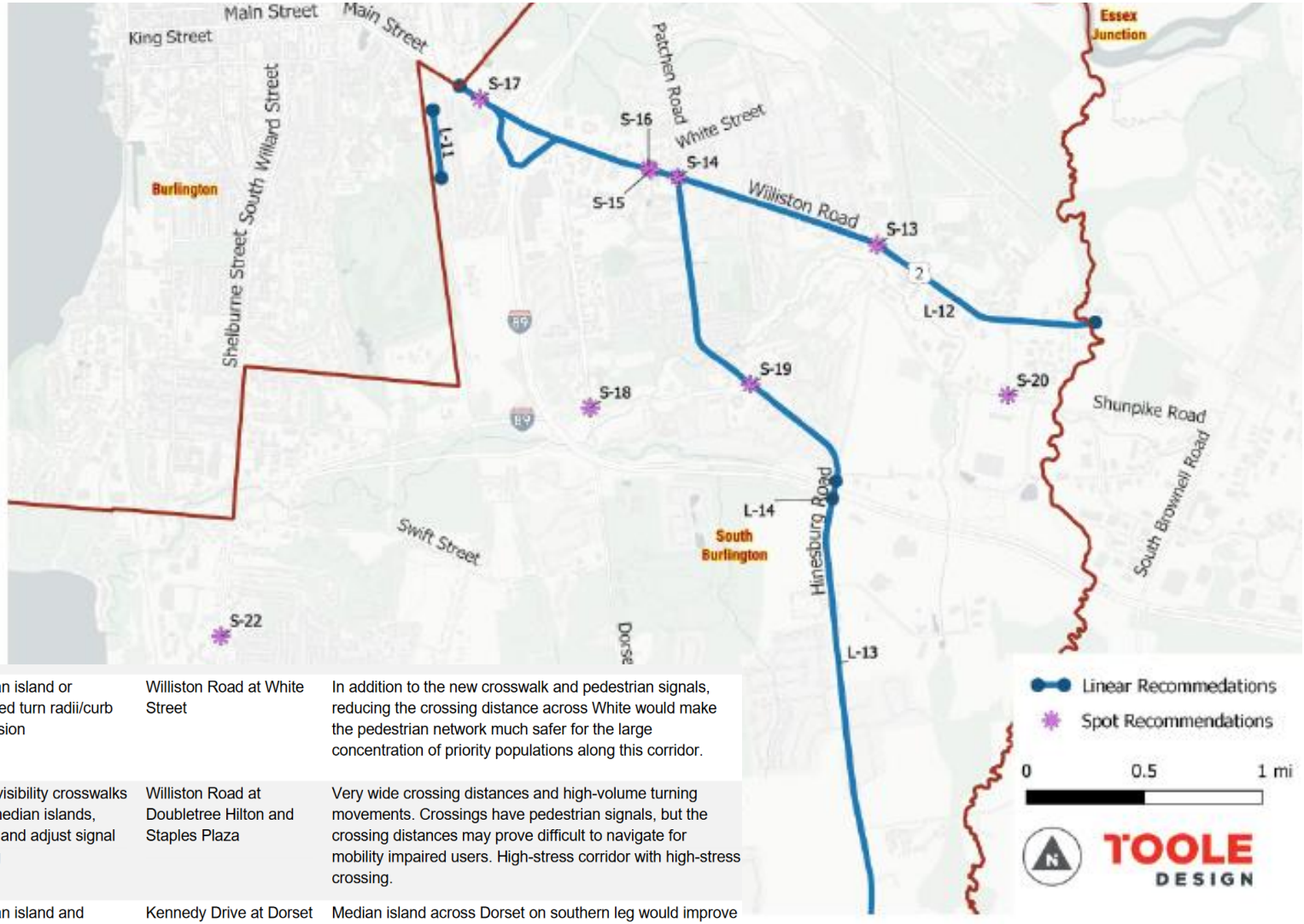



# Pedestrian Network Recommendation: Milton

| | | | | | | |
|---|---|---|---|---|---|---|
| **L-3** | Milton | Traffic calming | Railroad Street | Middle Road | Main Street | Increases safety along a high-stress, medium use (according to Strava activity data) corridor with residential land use. |
| **L-4** | Milton | Sidewalk | Railroad Street | Barnum Street | North of Railroad crossing | High-stress, medium use corridor that lacks pedestrian path. Fills small gap in pedestrian network between two sections of sidewalk. |
| **L-5** | Milton | Sidewalk | River Street | Milton Square Shopping Center | Railroad Street | Currently, a poor-quality asphalt path exists. Upgrading the path would greatly improve pedestrian connectivity. |
| **L-6** | Milton | Sidewalk | Main Street | Railroad Street | East Road/North Road | Fills gap in pedestrian network along a high use, high stress corridor by connecting two existing sidewalk sections. |



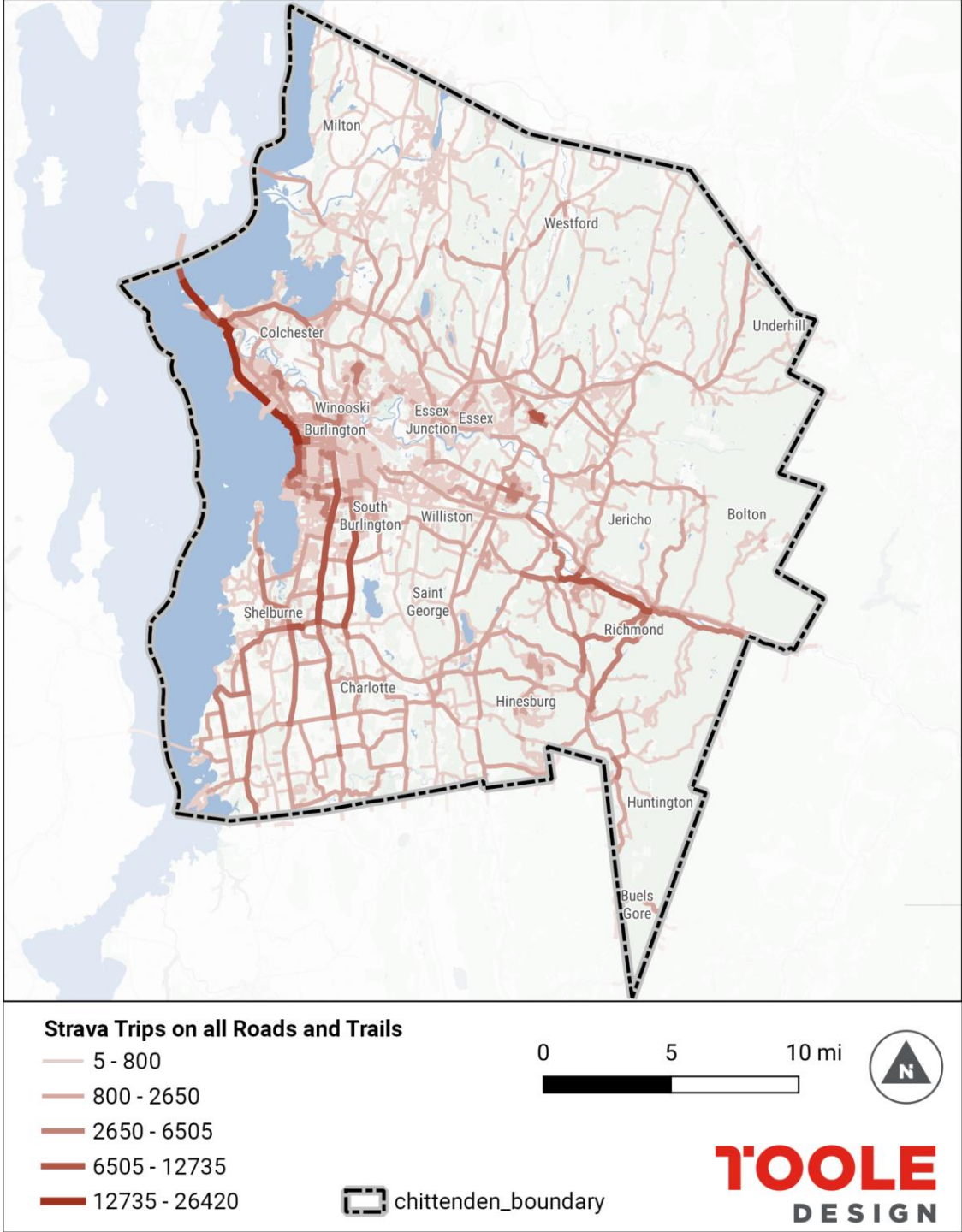
# Pedestrian Network Recommendation: South Burlington




| | | | | |
|---|---|---|---|---|
| **S-16** | South Burlington | Median island or reduced turn radii/curb extension | Williston Road at White Street | In addition to the new crosswalk and pedestrian signals, reducing the crossing distance across White would make the pedestrian network much safer for the large concentration of priority populations along this corridor. |
| **S-17** | South Burlington | High visibility crosswalks and median islands, study and adjust signal timing | Williston Road at Doubletree Hilton and Staples Plaza | Very wide crossing distances and high-volume turning movements. Crossings have pedestrian signals, but the crossing distances may prove difficult to navigate for mobility impaired users. High-stress corridor with high-stress crossing. |
| **S-18** | South Burlington | Median island and adjustment of curb ramps | Kennedy Drive at Dorset Street | Median island across Dorset on southern leg would improve safety at this high-stress/high usage intersection. Several curb ramps appear to require a wheelchair user to maneuver in roadway to make crossing. |

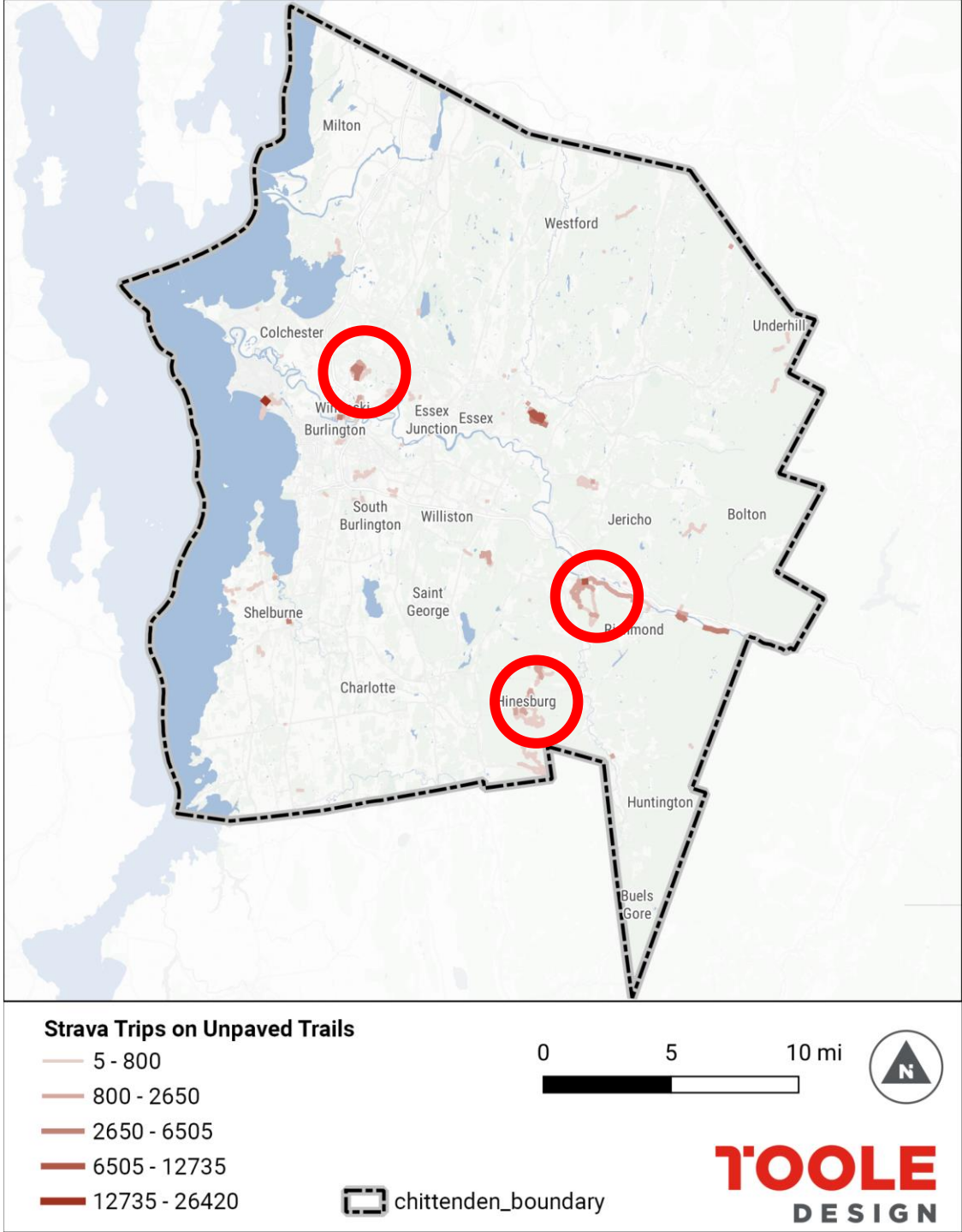
# Unpaved Trail Analysis

- Strava 2021 data
- Highlighted the segments within a 200-foot buffer of known unpaved trails



# Unpaved Trail Analysis

- High activity on **Saxon Hill** trails between Essex and Jericho
- **Sunny Hollow Trails** in Colchester shows moderate use
- Less activity in **Beeken Rivershore Preserve** in Richmond, **Hinesburg Town Forest**, and **Camels Hump State Park**



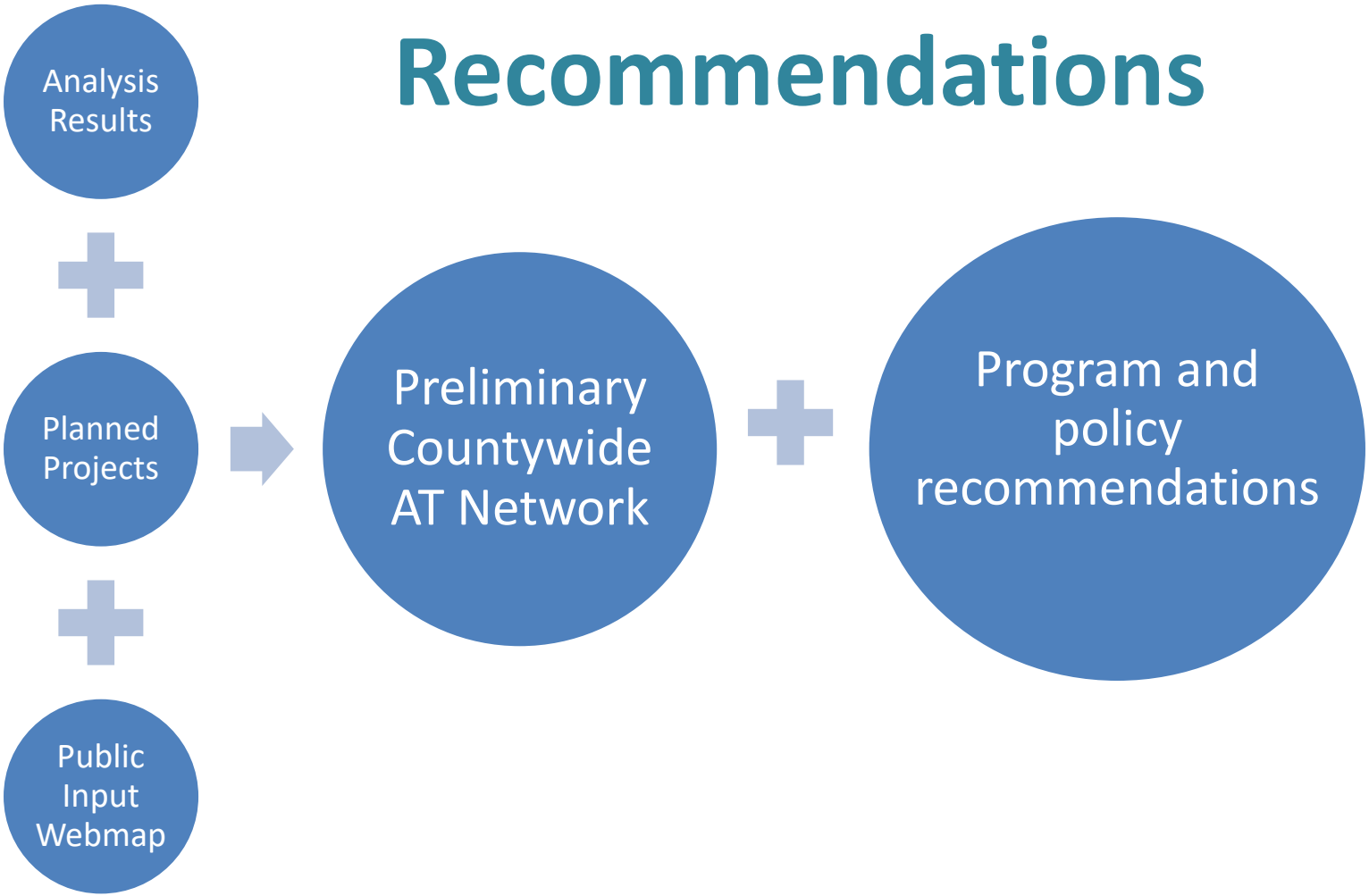
# Public Feedback

- 6 Listening sessions
- 330+ online map comments
- 40+ Emails
- Informal conversations
- Promotion via partners, newsletters, social media

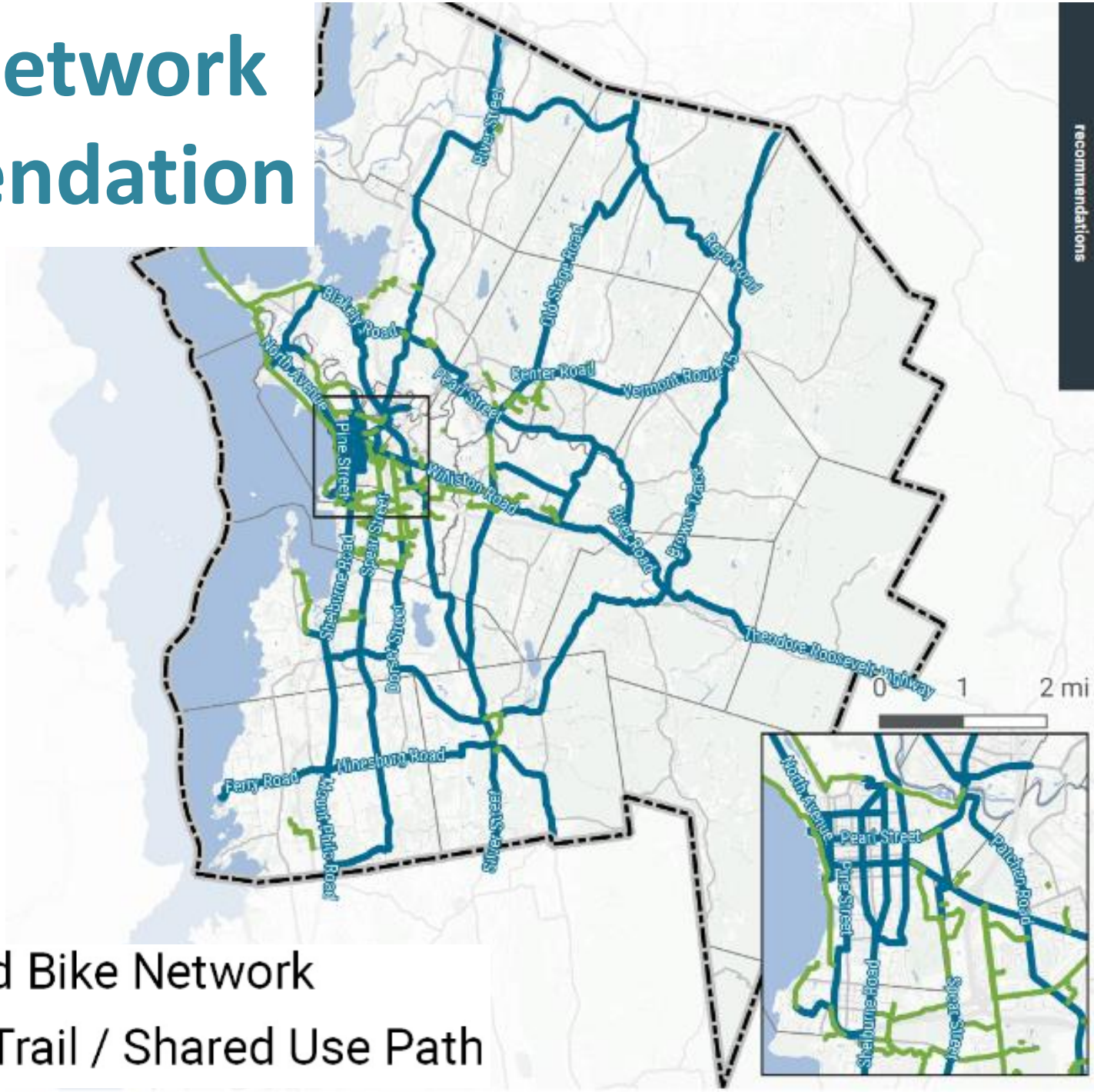
**General themes:**

- Make connections and close gaps
- Challenging intersections
- Lack of maintenance
- Traffic speeds and volumes, driver behavior
- More protection (buffers or separation)

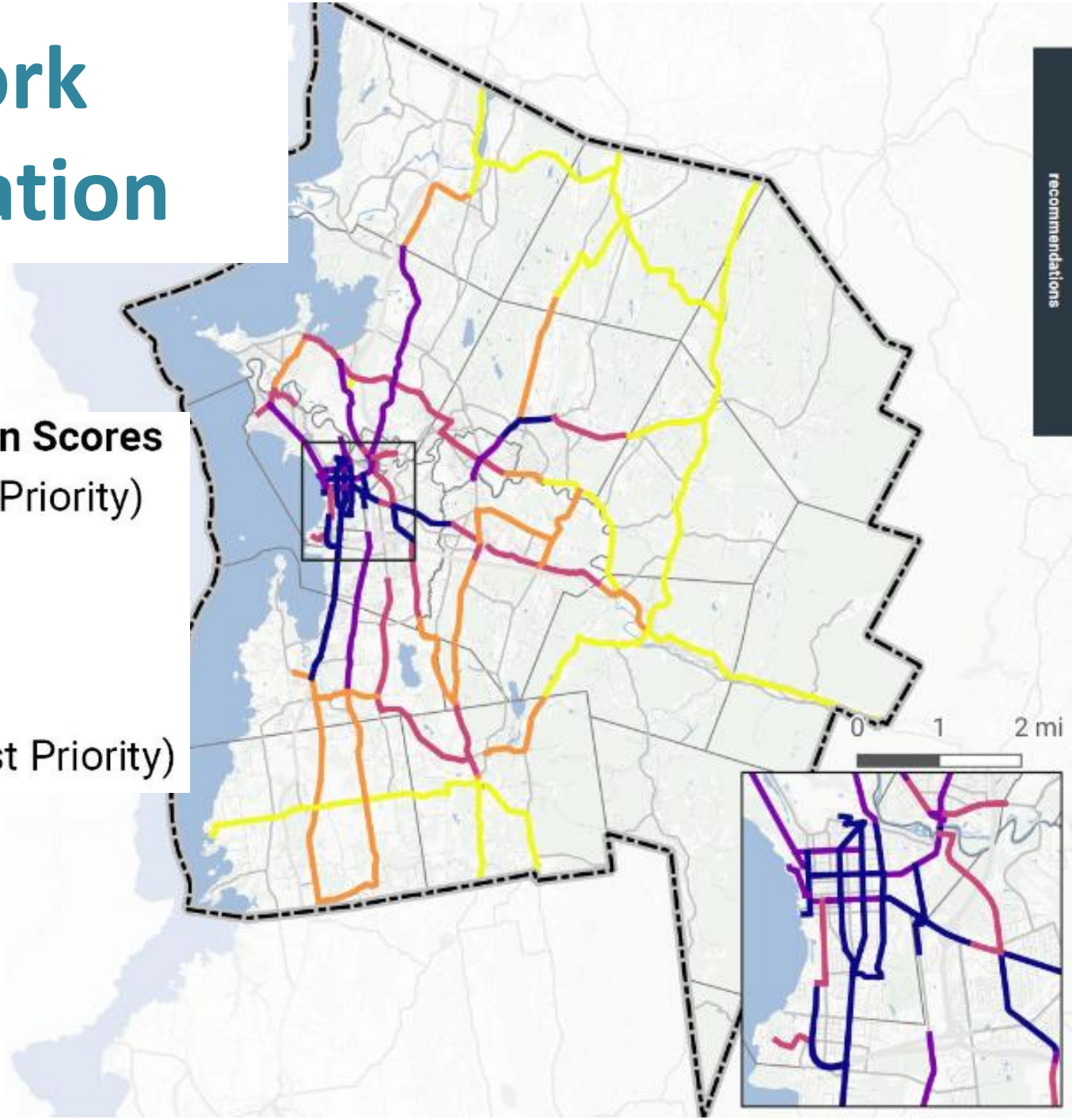
# Recommendations



# Bicycle Network Recommendation



# Network Prioritization



# Program & Policy Recommendations

1. **Equity** – Increase equitable access to transportation networks.
2. **Encouragement** – Promote a culture of walking and bicycling.
3. **Connectivity and Economic Development** – Provide safe and comfortable active transportation routes to support access to jobs, training, education, and childcare.
4. **Mode Shift** – Make it easier for people to choose low-carbon transportation modes.
5. **Maintenance** – Maintain a safe active transportation network throughout the winter by proactively managing walking and bicycling facilities before, during, and after winter precipitation.

# Discussion/Questions?

## TAC Action

- Staff recommends that the TAC approve the Chittenden County Regional Active Transportation Plan and send to the CCRPC Board for adoption



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