Community Engagement Meeting

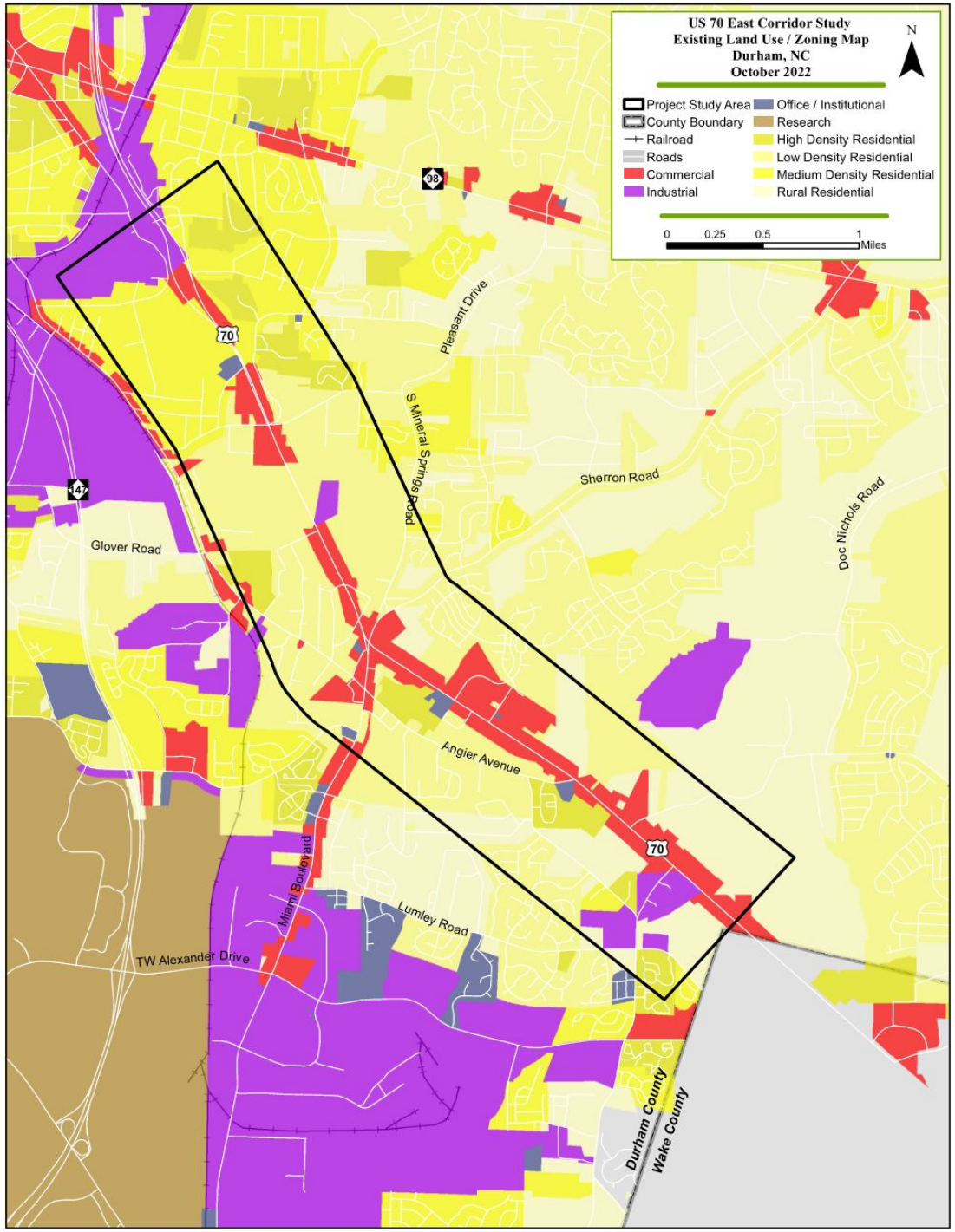
US 70 Corridor Study East

DECEMBER 2022

Introductions
Existing Conditions
Future Conditions
Design Trade Offs
Next Steps

Vision Statement

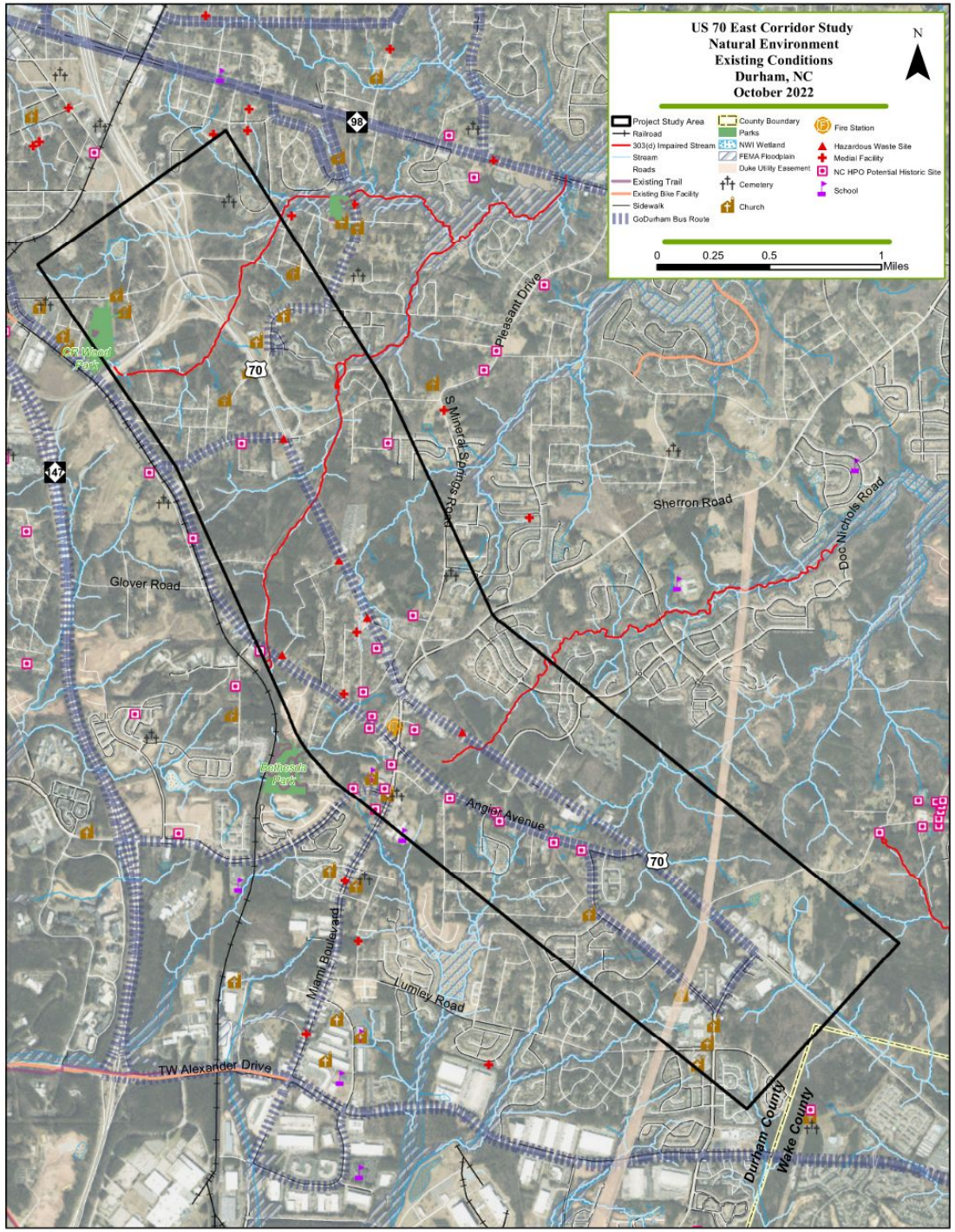
The US 70 East Corridor Plan will provide a framework for a safe, efficient and equitable multimodal transportation system that offers a choice between public transit, pedestrian and bicycle use, and automobile travel to create a seamless connection between different modes of transportation and ensures that transportation serves development in an appropriate manner.



Existing Land Use

Existing Zoning

Medium and low-density residential uses dominate the area within the PSA. Commercial uses are located adjacent to the US 70 corridor. Areas toward the termini of the US 70 corridor are zoned for industrial uses.

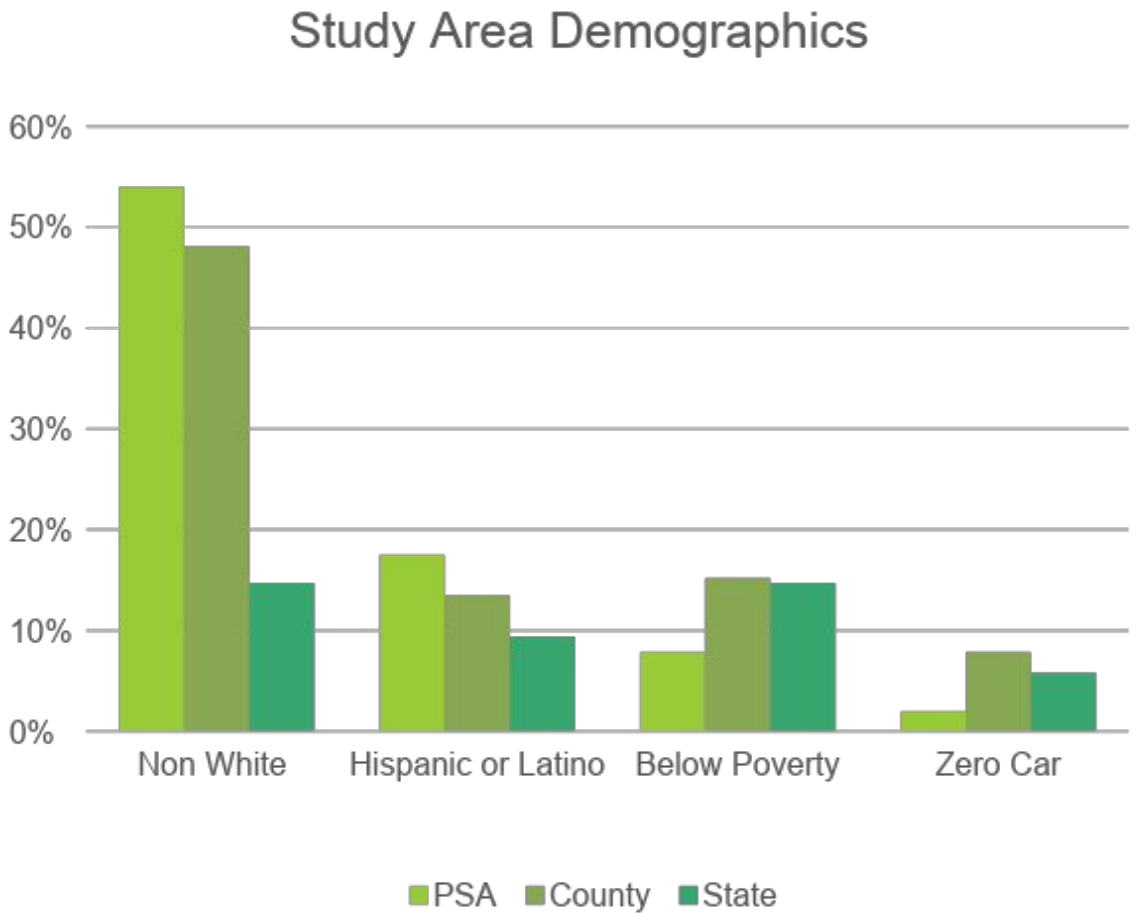


Community Considerations

- Duke Power Utility Easement
- Little Lick Creek, UT 2 of Little Lick Creek, and Lick Creek - 303d Streams
- 6 Potentially Hazardous Waste Sites
- 0 National Register Historic Sites
- Calvary Baptist Church and Living Waters Christian Community
- Businesses along the US 70 Corridor

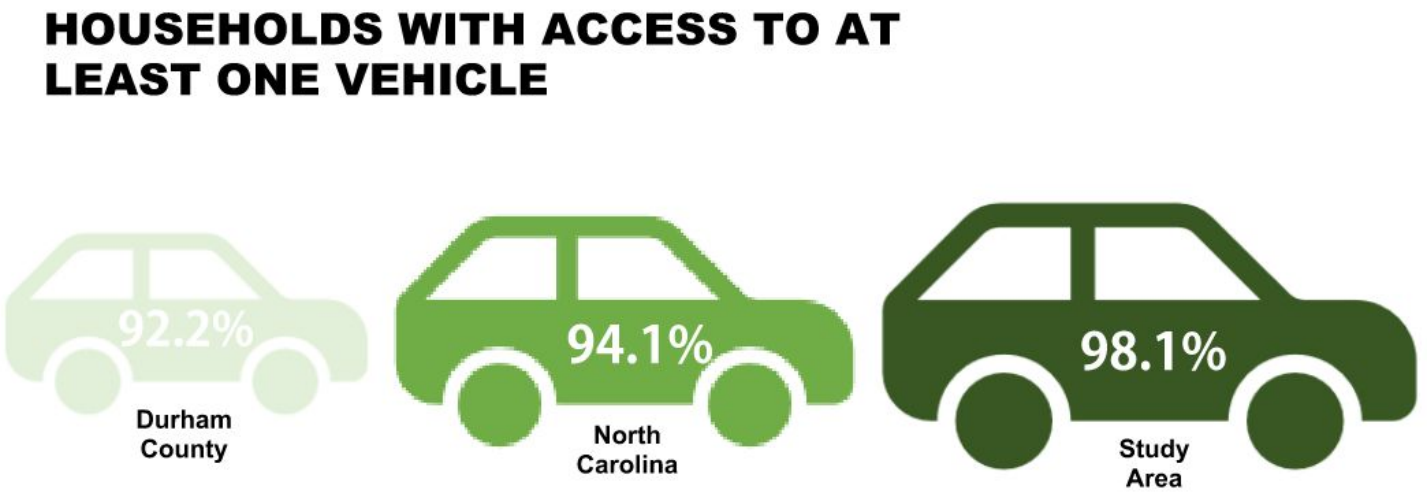
Household Characteristics

- 54% non-white; 65% minority (non-white + Hispanic persons)
- % minority increases moving east to west through the corridor
- Concentrations of households below poverty near the western end of the corridor but corridor overall has a smaller % of persons below poverty than the County or State



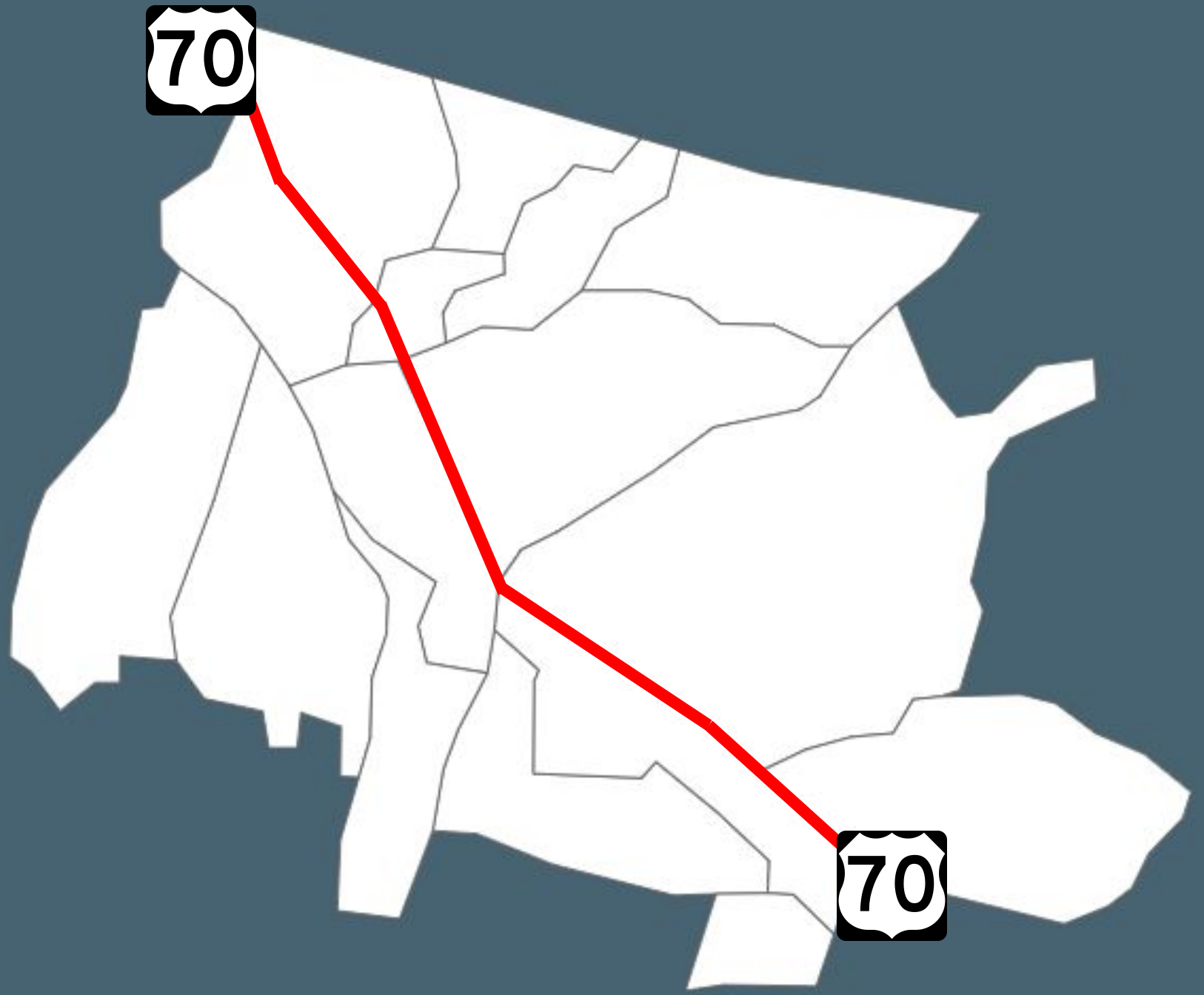
Mobility

- 98% of households have at least 1 vehicle
- 97% of homes in the study corridor south of US 70 between Mineral Springs Road and S. Miami Boulevard are within ¼ mile of a bus stop
- 80% of homes at the west end of the corridor are within ¼ mile of a bus stop.
- Few in the corridor take transit to work; even fewer walk or bike to work



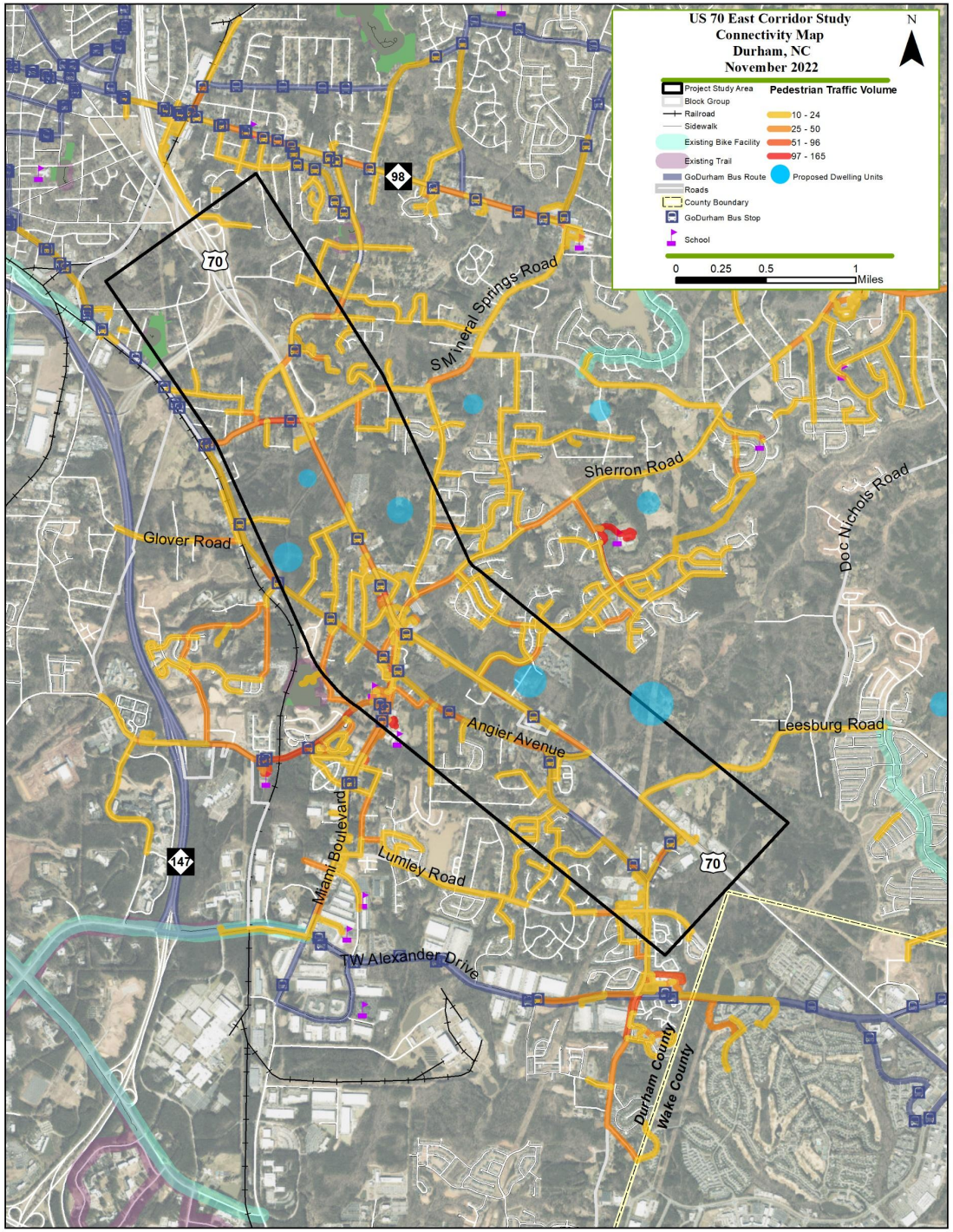
Existing Pedestrian Movements

- Turning movement counts show minimal ped volume at intersections
  - (<20 peds in 13 Hour Counts)
- Streetlight analysis indicates larger ped volume in study area
- 23% of ped volume from Streetlight analysis noted to cross US 70. The majority of the crossings occur in the vicinity of Sherron Road and Miami Boulevard.



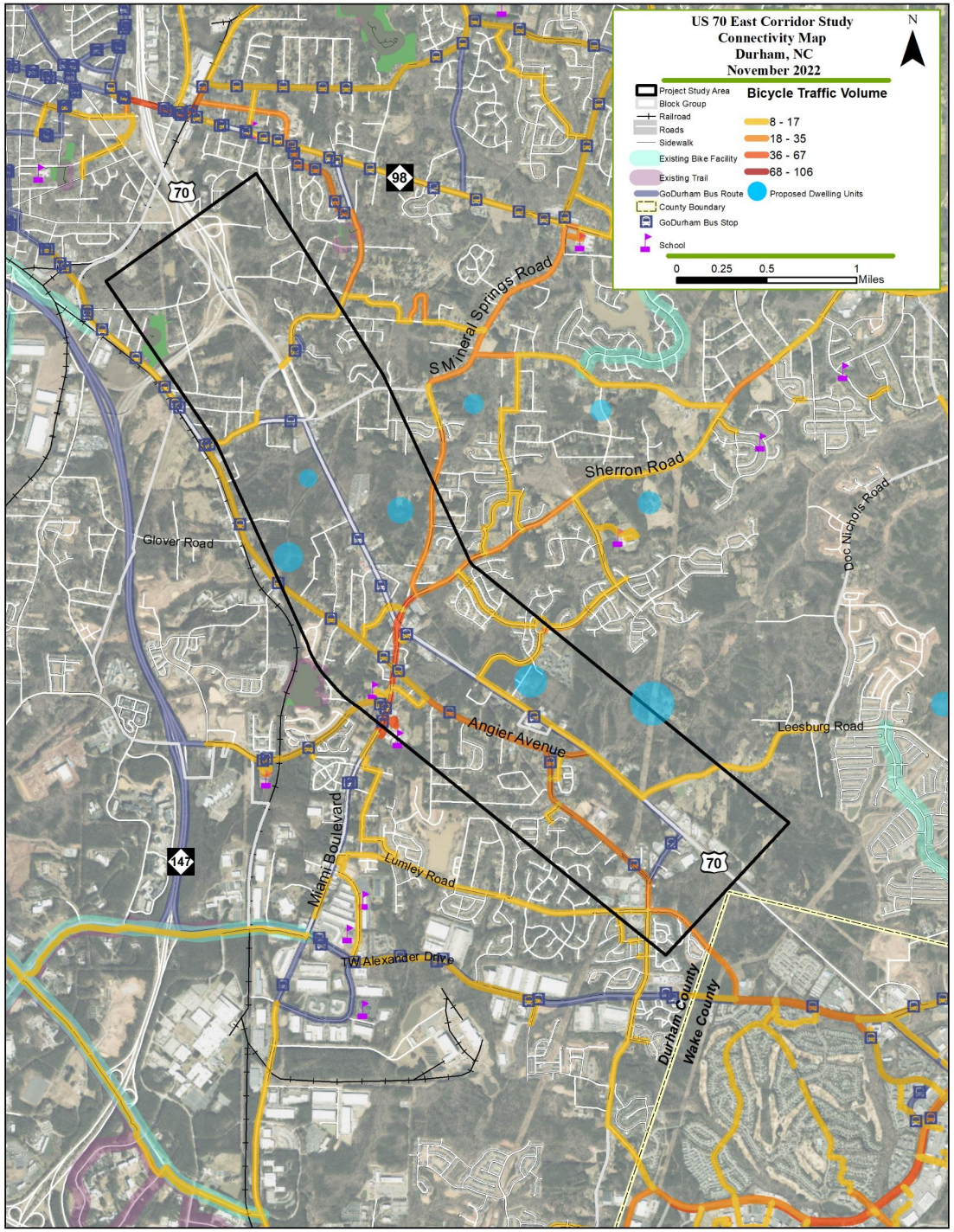
Connectivity – Pedestrian

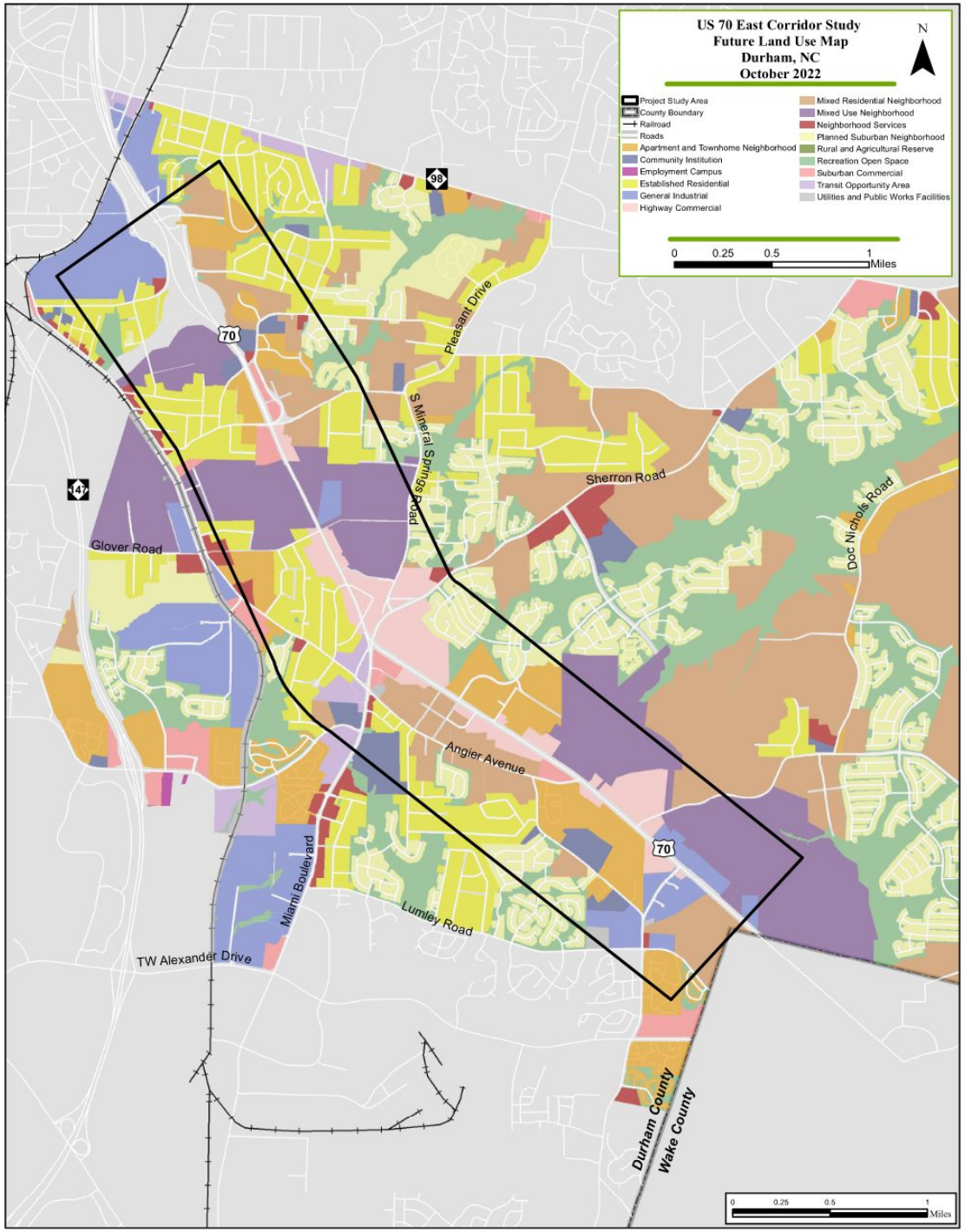
- Pedestrian facilities are sporadic and concentrated around bus stops
- Low volumes of pedestrians along and crossing over 70
- Locations of concentration on Angier Avenue, US 70/Sherron Road and US 70 /Mineral Springs Road intersections
- Commercial uses, schools, multiple apartment complexes and Bethesda Park could be drivers for this activity
- Proposed dwelling units will increase demand for pedestrian facilities



Connectivity – Bicycle

- Low volumes of bicycle activity
- No bicycle facilities are present along the corridor.
- Locations of concentration on Angier Avenue, US 70/Sherron Road and US 70 /Mineral Springs Road intersections
- US 70 is acting as a barrier to bicycle and pedestrian activity.





Future Land Use

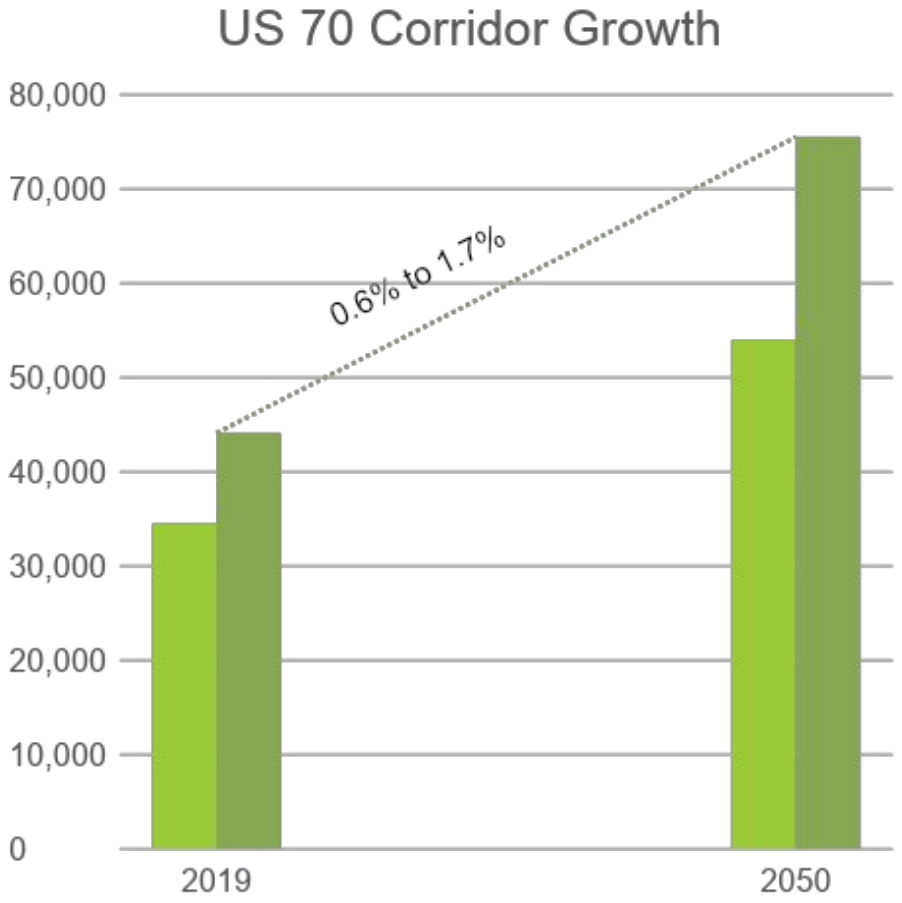
Place Types

The ENGAGE Durham Comprehensive Plan (Draft) proposes place types as the future land use typology. The Place Type guide describes the place, key characteristics about land use, mobility, green space, and what services will be needed to support that place.

The proposed Place Types along US 70 integrate uses to a greater extent than the current zoning map, as well as proposes increased density in the uses along the corridor.

The integration of uses and increased density support the need for multimodal efforts along the corridor.

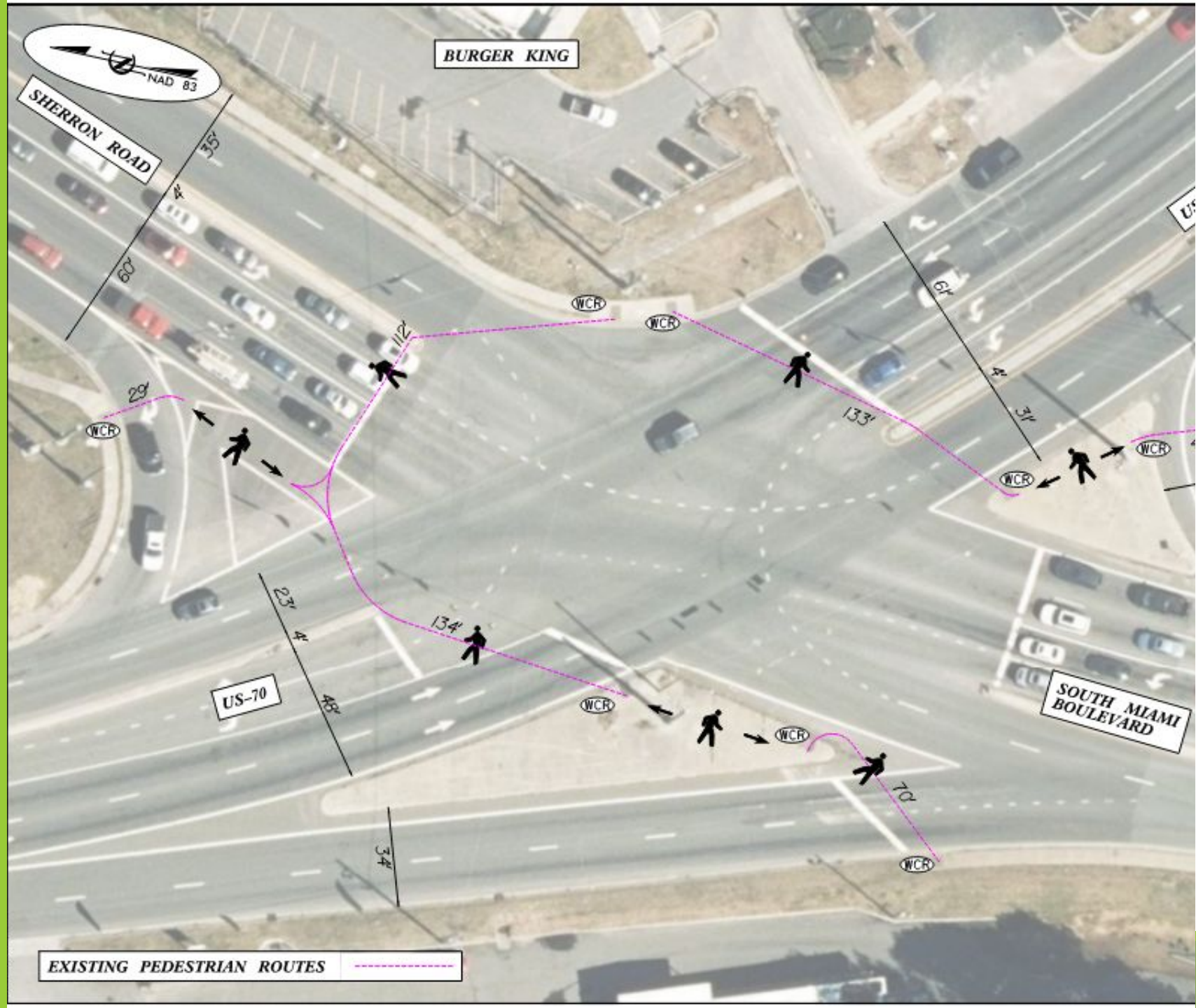
US 70 Corridor Traffic Volume Growth



- 2019 daily traffic volumes range along US 70 from 34,500 (south of Page Rd Ext.) to 44,100 vehicles per day (north of Pleasant Dr)
- Triangle Regional Model annual growth rates along US 70 range from 0.6% to 1.7%
- 2050 daily traffic volumes are estimated to range from 54,000 to 75,500 vehicles per day along US 70
- The typical capacity for a four-lane boulevard is 36,600 for 45 mph and 40,500 for 55 mph (Based on NCDOT LOS D Standards of capacity changing from LOS D to E)
- LOS D is of high-density traffic reaching capacity. LOS E represents low speeds, considerable delay, and volumes slightly over capacity.

US-70 at Miami Blvd

- No crosswalk markings
- Sub-standard ADA accommodations
- Sub-standard pedestrian refuges
- No pedestrian signal phase or pedestrian signal heads
- No bicycle accommodations



US-70 at Pleasant Dr

- Limited crosswalk markings
- Sidewalk gaps
- Sub-standard ADA accommodations
- No pedestrian refuges
- No pedestrian signal phase or pedestrian signal heads
- No bicycle accommodations

US-70 at Angier Ave

- No crosswalk markings
- No ADA or Sub-standard ADA accommodations
- Non-signalized intersection
- No bicycle accommodations

Moving Forward

- Based information collected in community meetings, the study team will identify multimodal improvement options at key study intersections
- Boulevards with daily traffic volumes of 40,000 vehicles per day and above in North Carolina:
  - Capital Blvd (44,000+ , 6-lanes)
  - Independence Blvd, Charlotte (47,000+, 6-lanes, portions grade separated)
  - US 117, Wilmington (44,000+, 6-lanes)

Design Tradeoffs – Low vs. High Speed

LOWER SPEEDS - 50 MPH AND UNDER

- Safer for cyclists & pedestrians
- Less right of way needed for vehicles
  - Narrower lanes
  - Smaller clear zones
- Potentially slower travel times through the corridor
- Prioritizes local and multimodal traffic

HIGHER SPEEDS - 55 MPH AND ABOVE

- Bike/ped and vehicular traffic complete separation desired (pedestrian bridges)
- Larger right of way footprint required for vehicles
  - Wider lanes
  - Larger clear zones
- Potentially faster travel times through the corridor
- Prioritizes through traffic, options for separated multimodal accommodations

Design Tradeoffs – Mixed Facilities

- Mix of Design Speeds and Facility Types
  - Local users (of all modes) utilize lower speed frontage roads
  - Through traffic utilizes higher speed through lanes
  - Separation between bike/ped/local traffic and faster moving vehicular traffic
    - Separation can provide green space
- Flexibility
  - Can be utilized strategically (i.e., between intersections with high local traffic)
  - Allows for flexibility of prioritizing different modes in different areas of the corridor
  - Can be informed by current and future land uses

Next Steps

- Stakeholder Survey / In Person Public Outreach – December
- Completion of Traffic Studies
- Refinement of Bike/Pedestrian/Transit Performance Metrics used to Evaluate Alternatives
- Concept Development
- Next Round of Outreach - April or May 2023
  - Sharing design plans for the US 70 East Corridor with the public for input