



NC 54 WEST CORRIDOR STUDY

I-85 in Graham to Carrboro

Town of Chapel Hill, Town Council Meeting

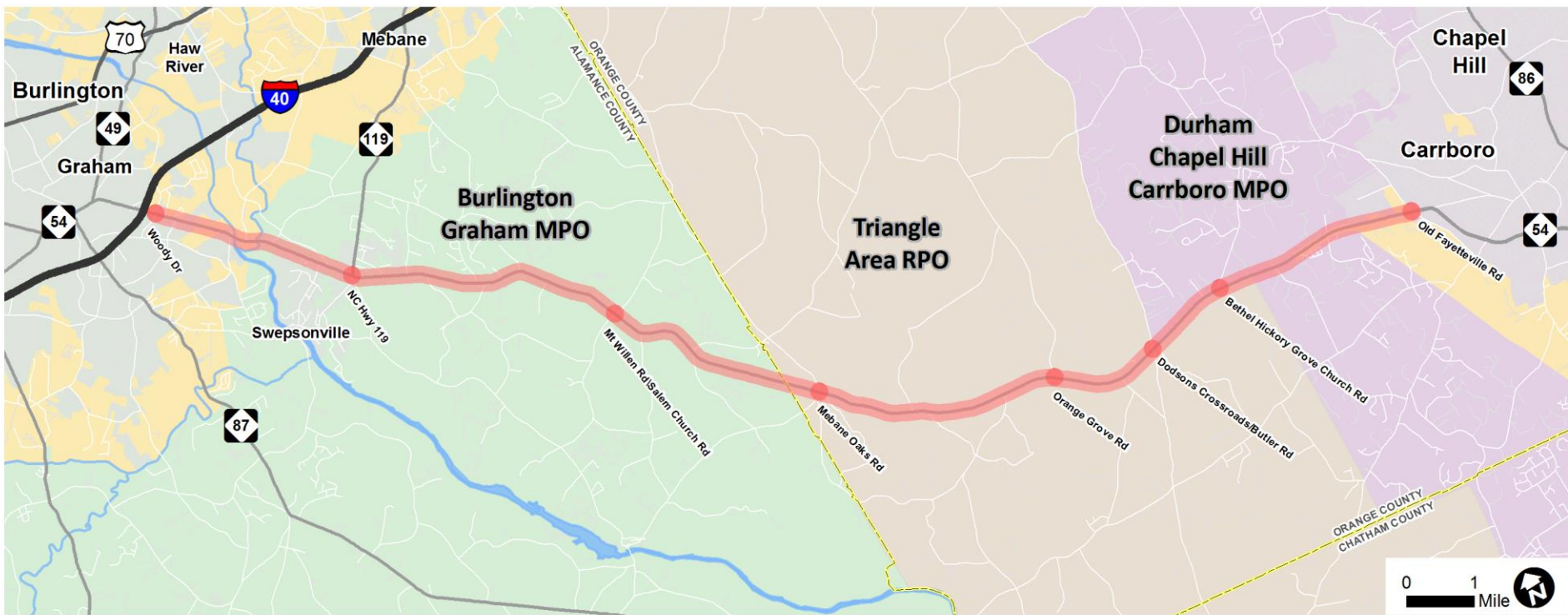
Presented by
VHB

October 30, 2019

NC 54 Study Overview

- Analyze existing & future transportation & land use conditions along this >20-mile corridor between Graham & Carrboro
- Review existing plans & proposed projects
- Clarify needs & long-term vision for the corridor
 - Safety
 - Multimodal options
 - Community character & environmental preservation
 - Economic viability
- Identify & evaluate trade-offs:
 - Low cost, low impact, easily implemented near-term solutions
 - Longer-term infrastructure improvements
 - Supportive land uses & development policies

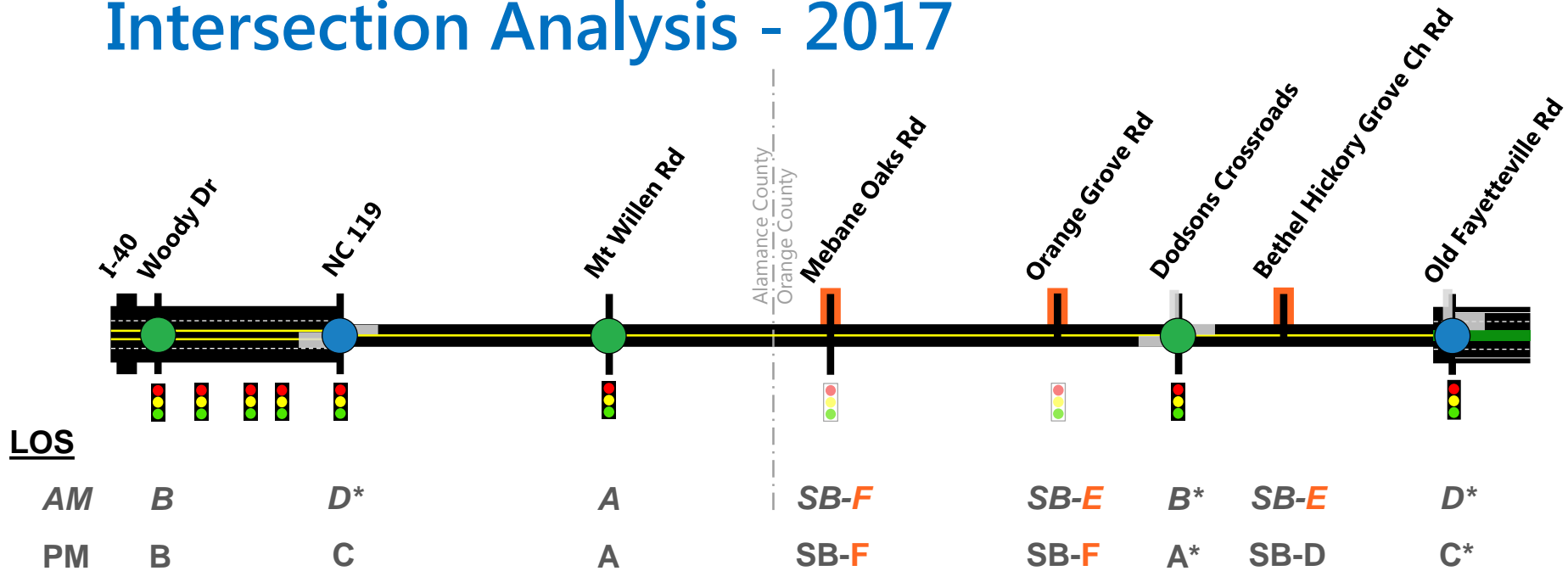
NC 54 Planning Jurisdictions



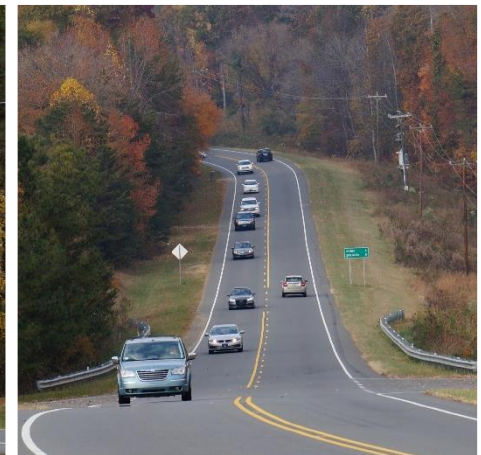
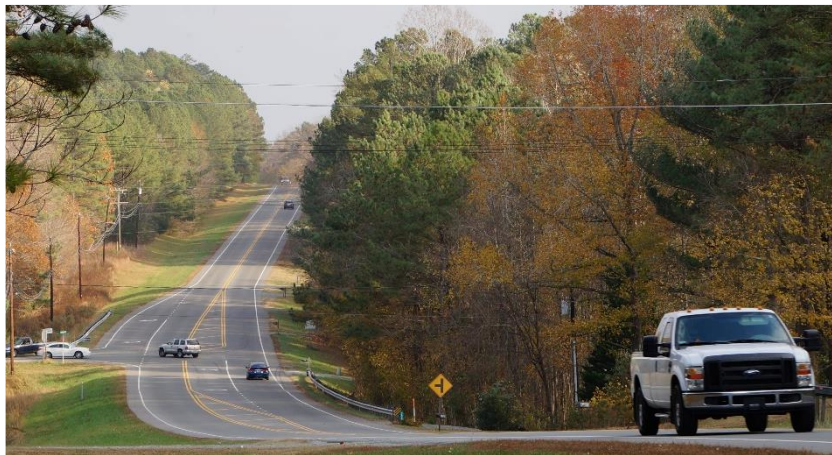
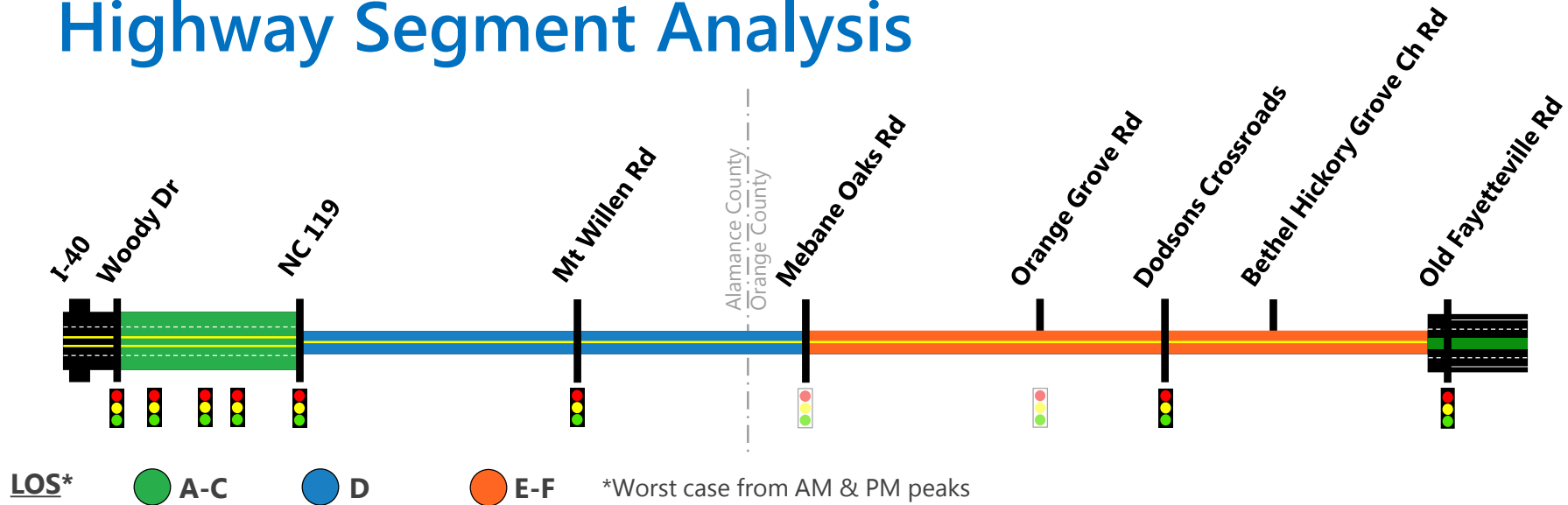
Corridor Conditions



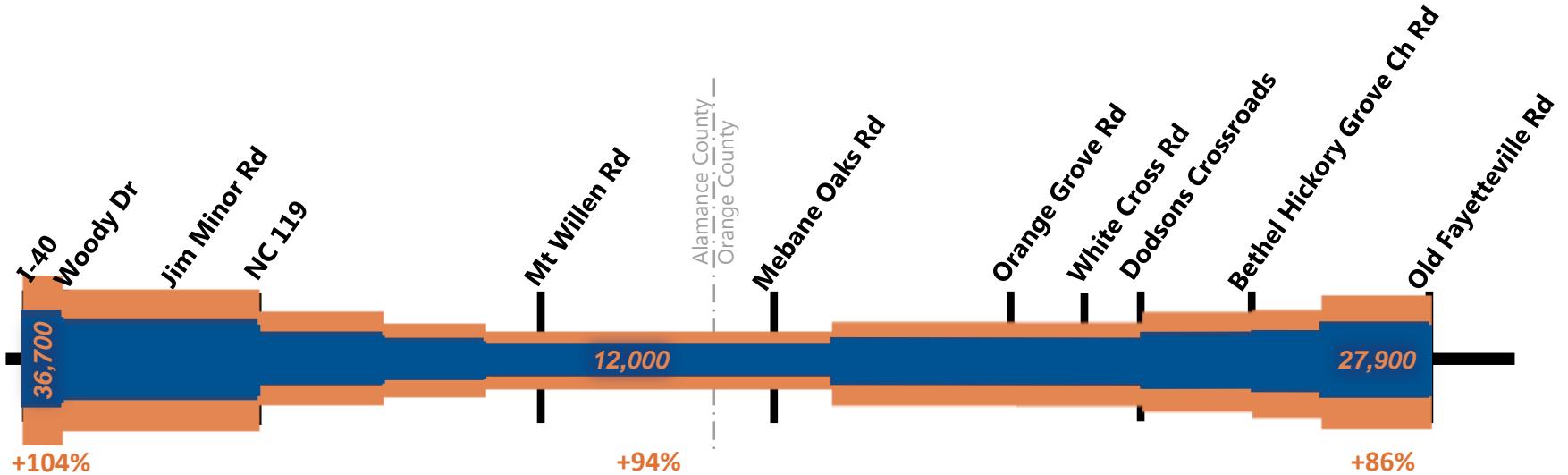
Intersection Analysis - 2017



Highway Segment Analysis



NC 54 Traffic Volumes



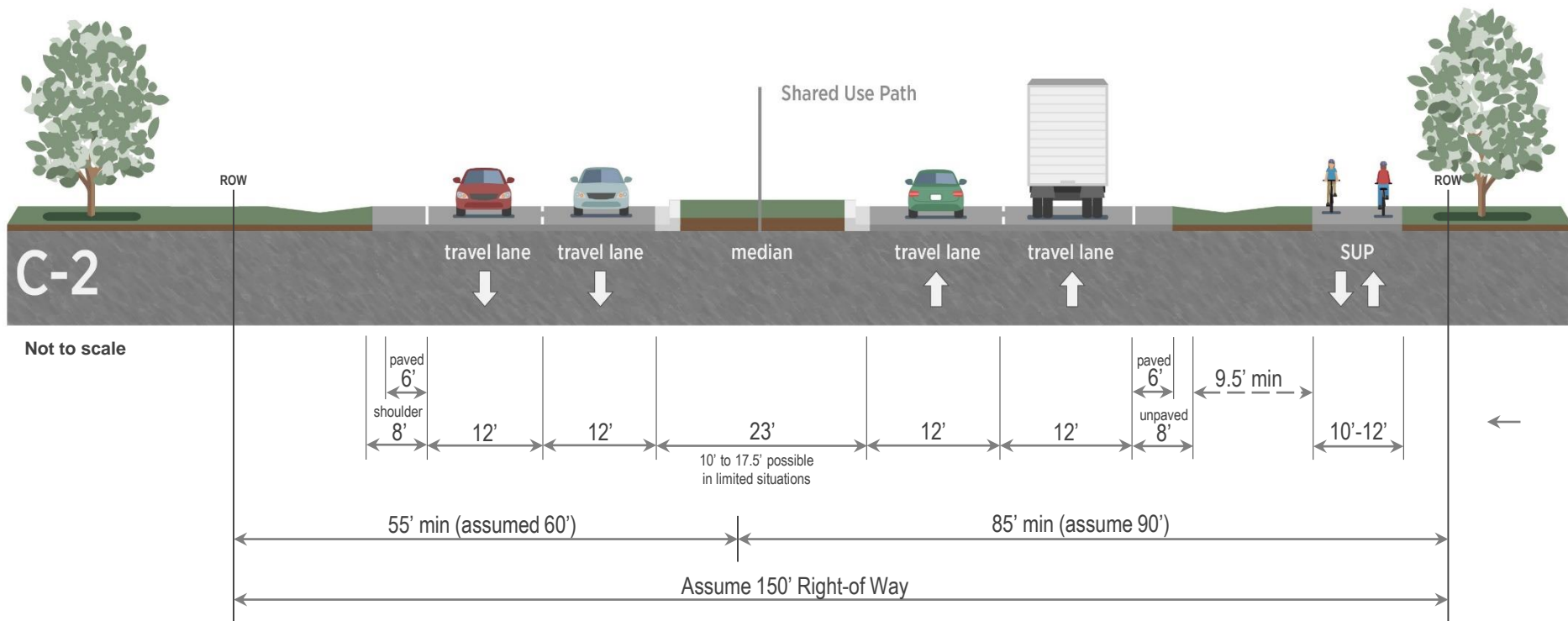
Average Annual Daily Traffic (AADT) - 2017

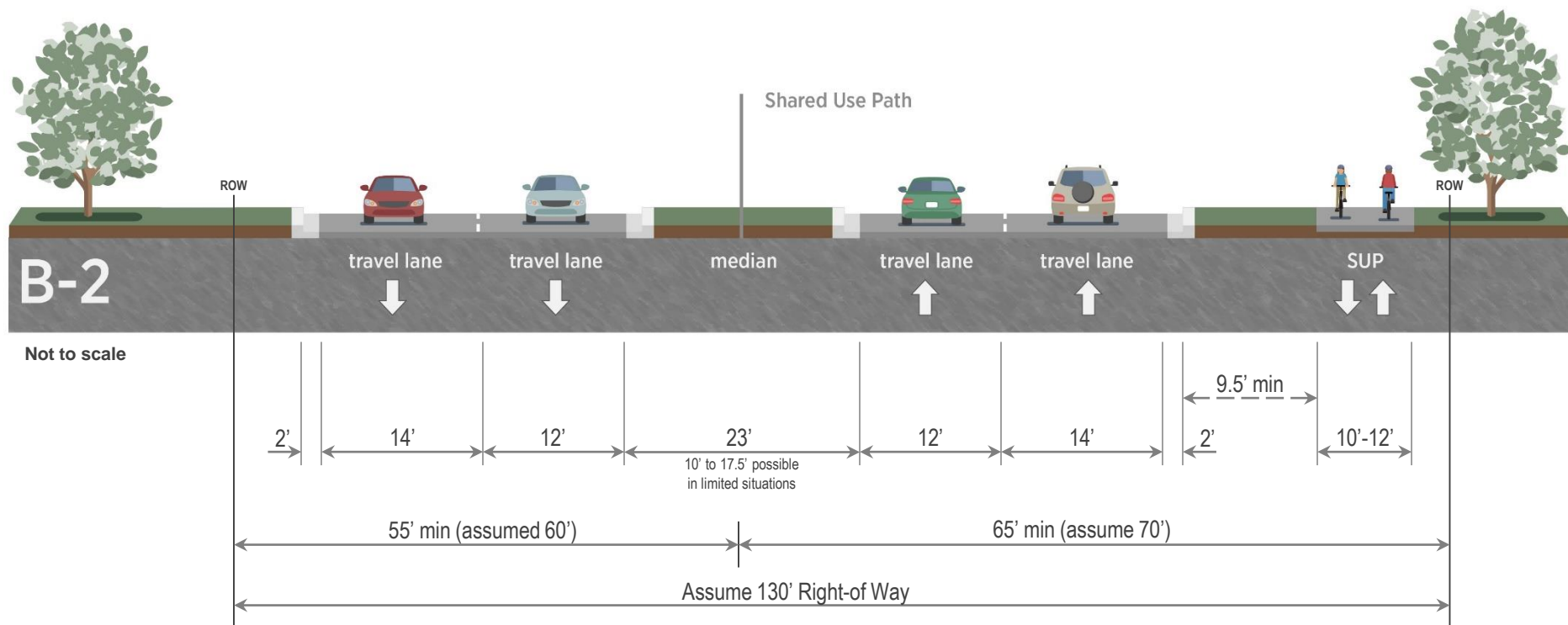
Average Annual Daily Traffic (AADT) – 2045

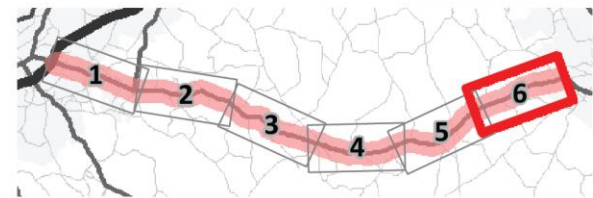
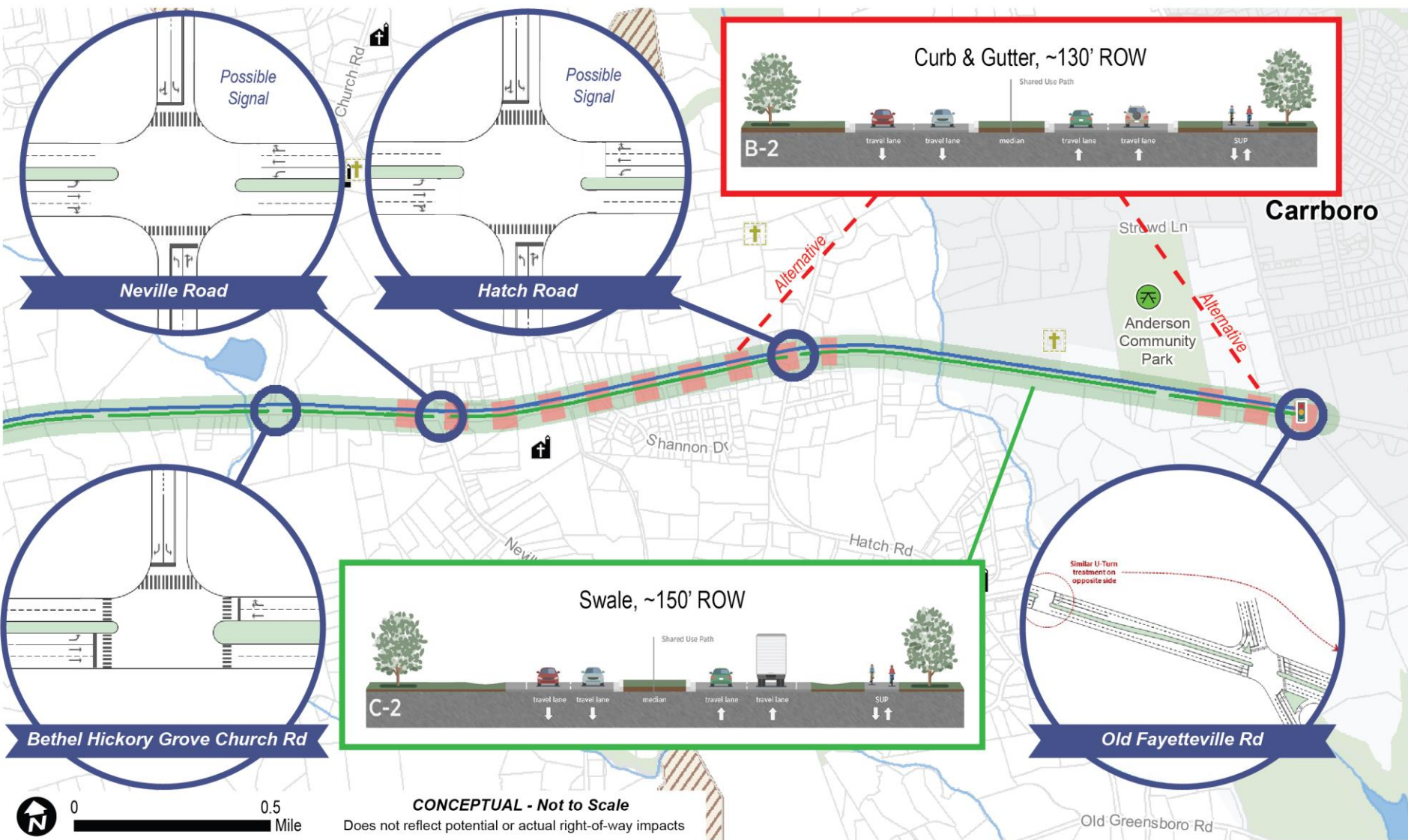
Options & Recommendations

Main Findings

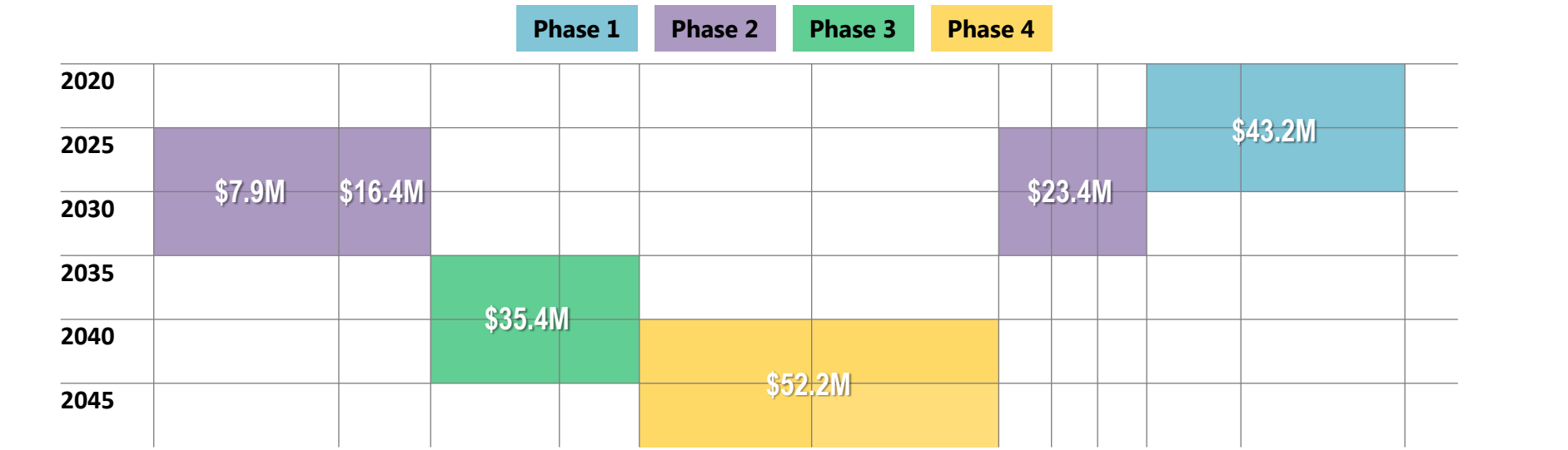
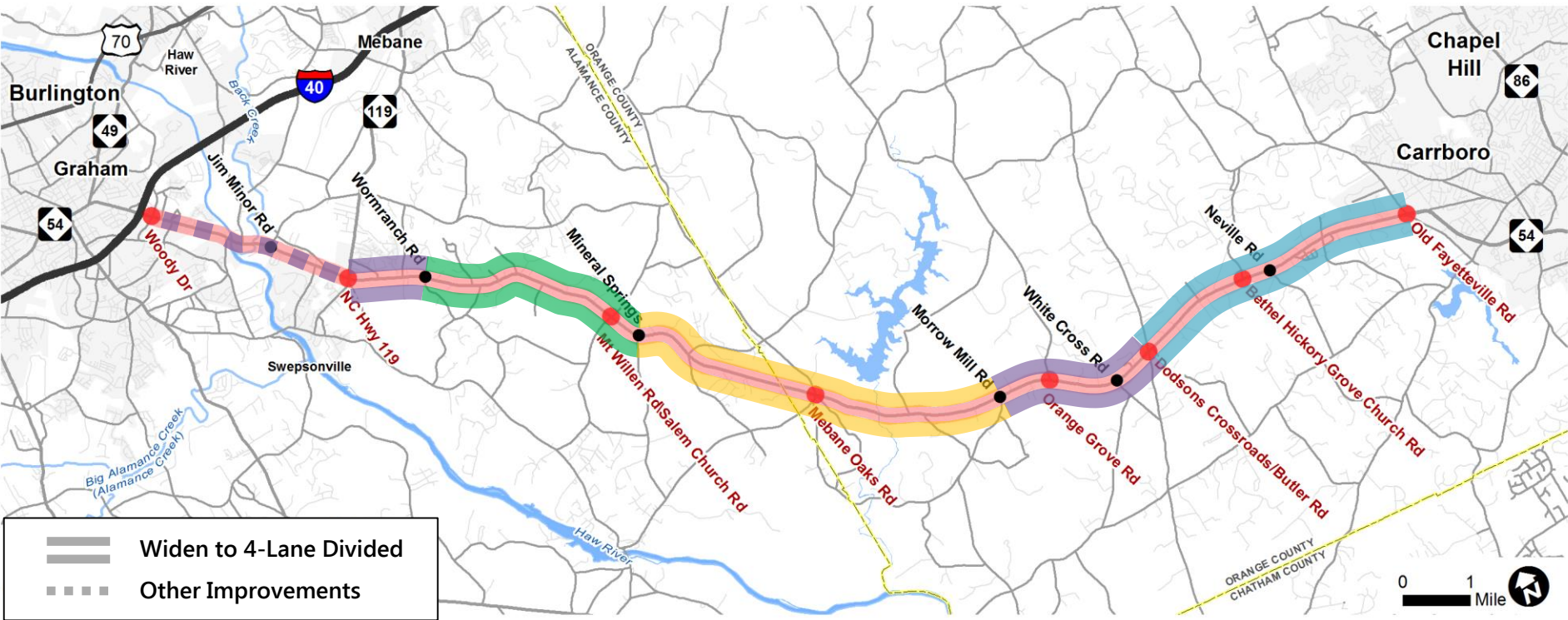
- ✓ 4 lanes eventually needed throughout the corridor
- ✓ Phasing is feasible (ends → middle)
- ✓ Access management will be critical, especially along existing 5-lane section
- ✓ Most likely 23-foot raised grassed median with ditches east of NC 119
 - Potentially narrower median in limited locations
 - Curb-&-gutter appropriate in some locations







Implementation



Supplemental Analysis



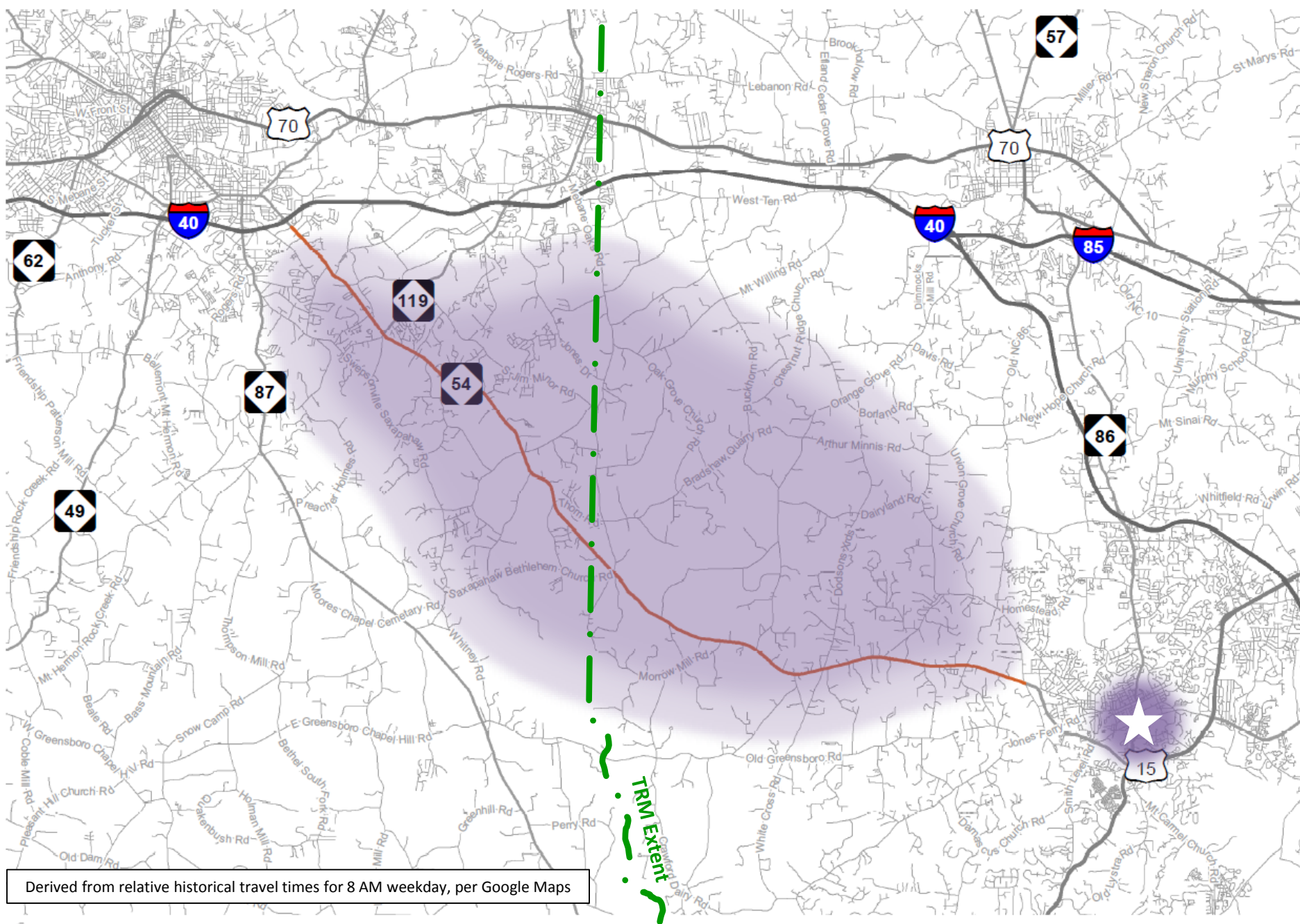


Figure 1: Estimated NC 54 Travelshed for Trips to Chapel Hill

Figure 11b: TRM & PTRM Employment Growth (2013 – 2045)

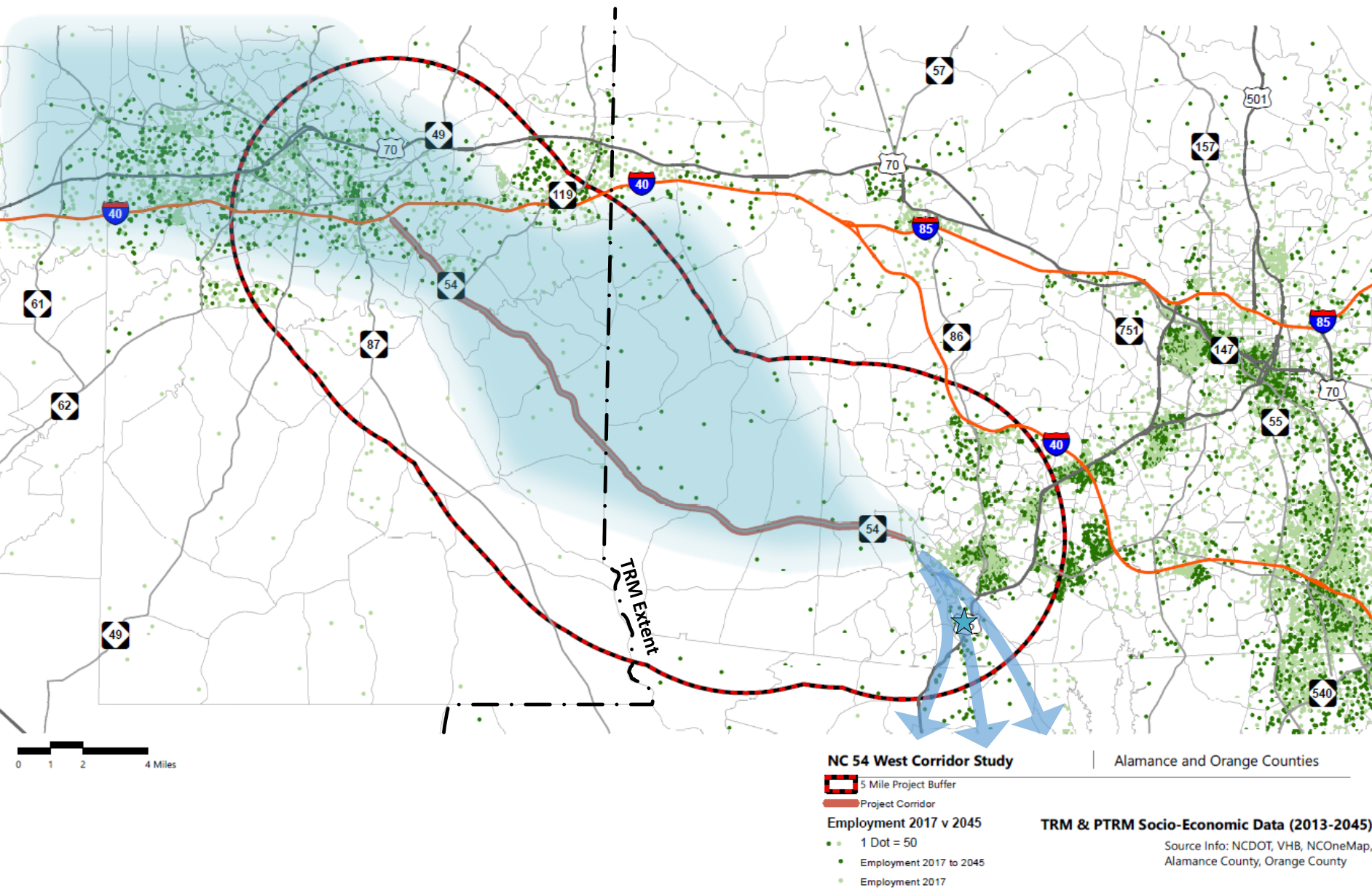
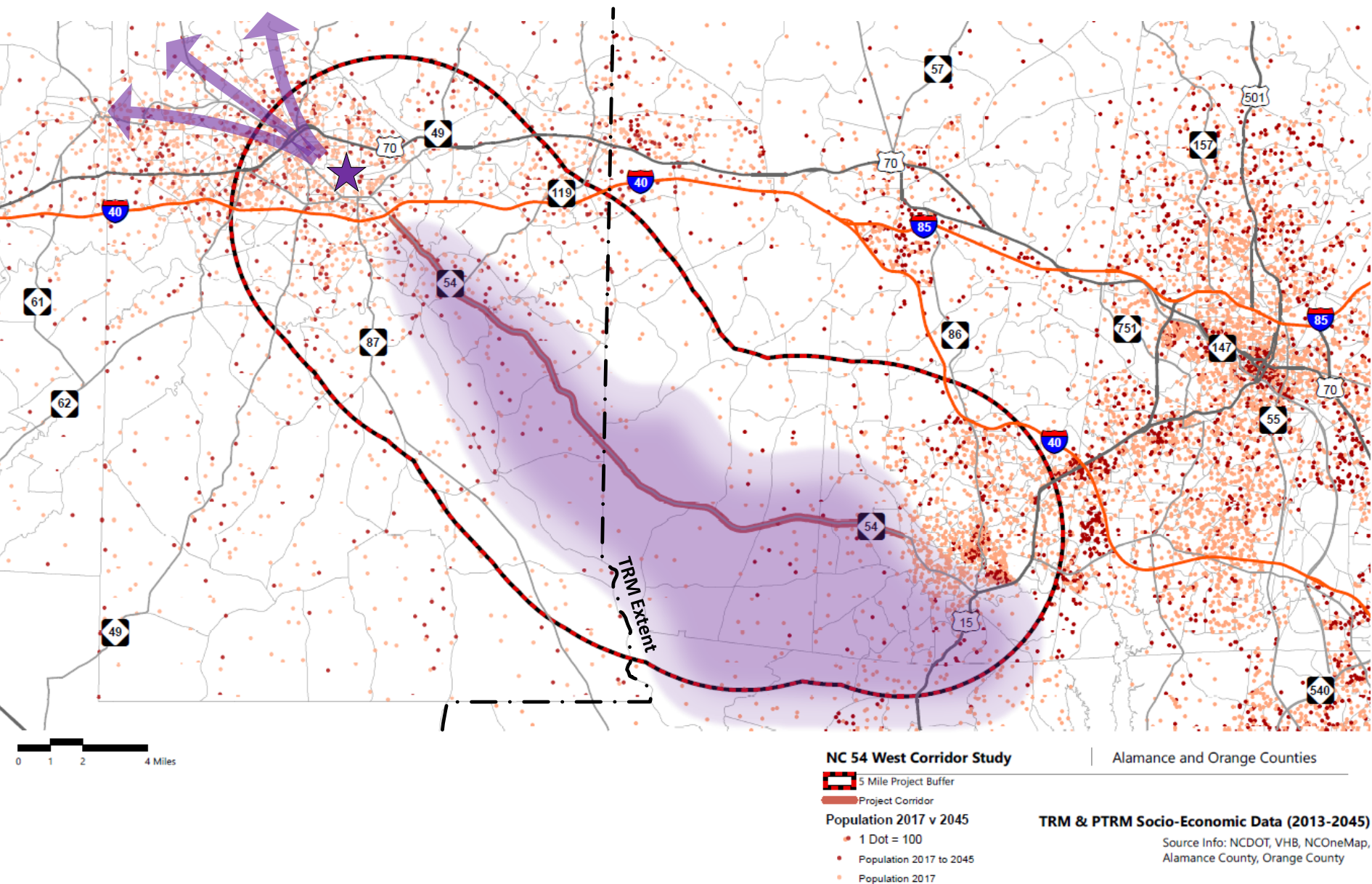


Figure 10c: TRM & PTRM Population Growth (2013 – 2045)



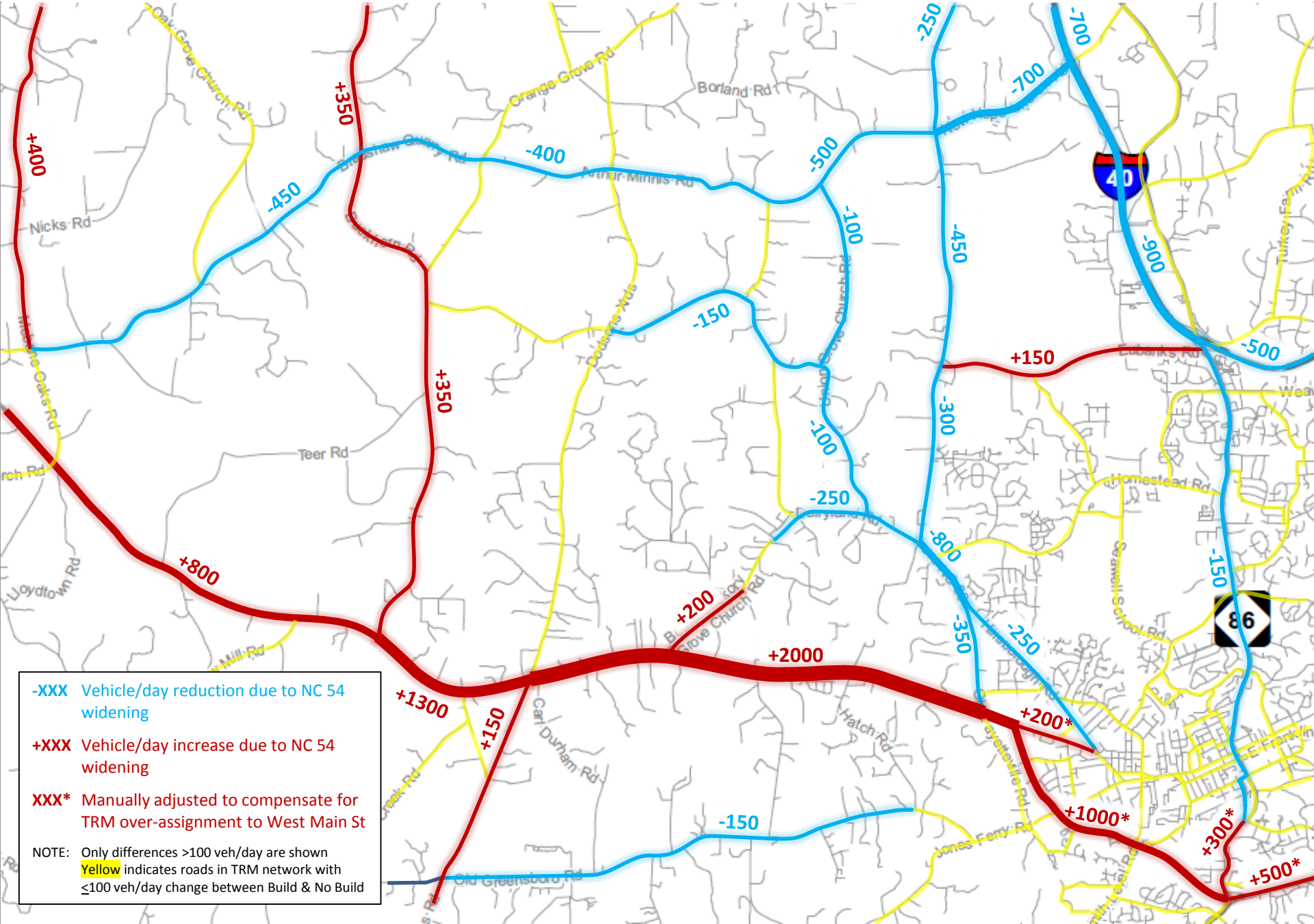


Figure 13: TRM – Daily Traffic Differences between 2045 NC 54 Widened and No-Build Scenarios

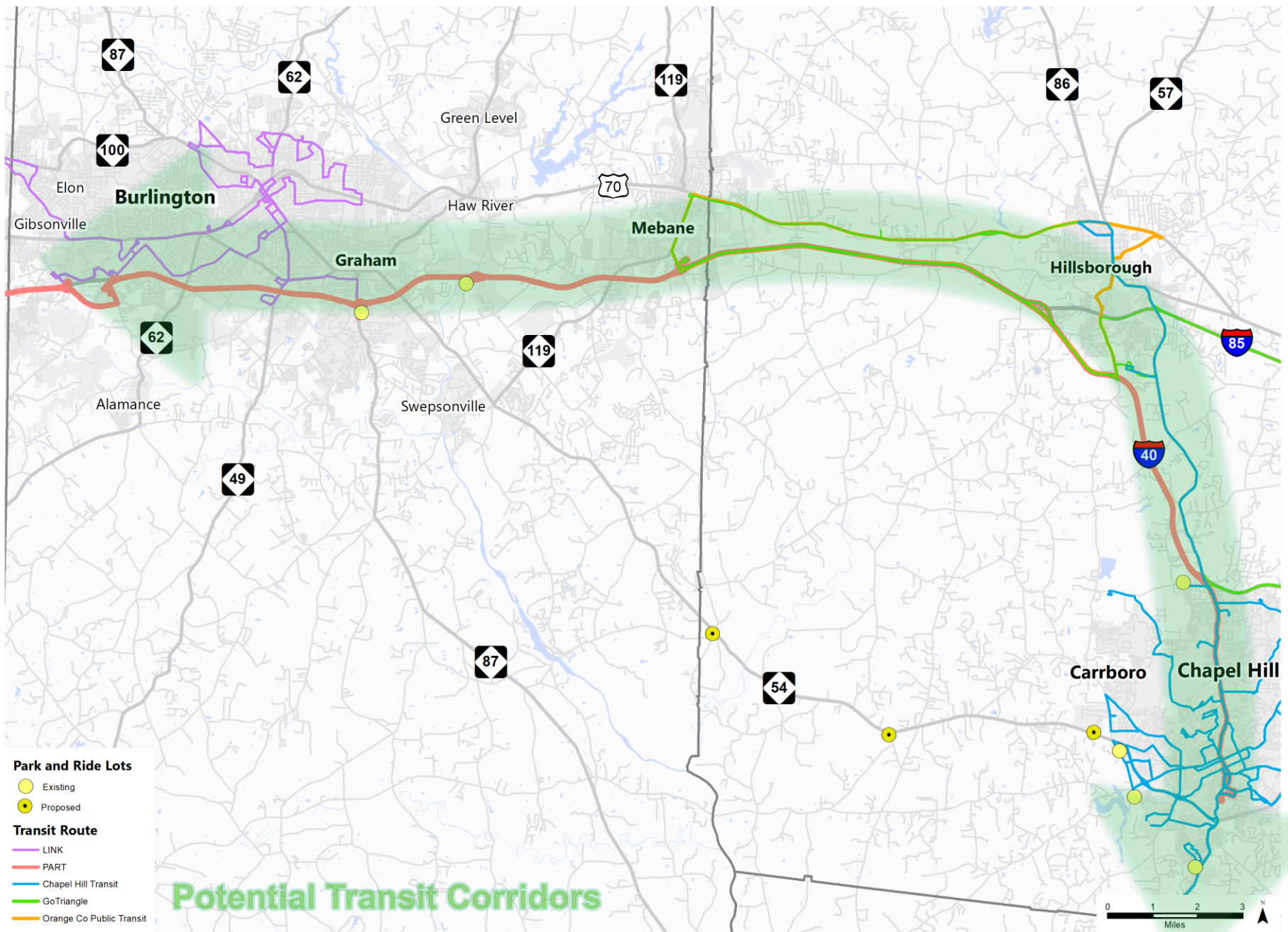
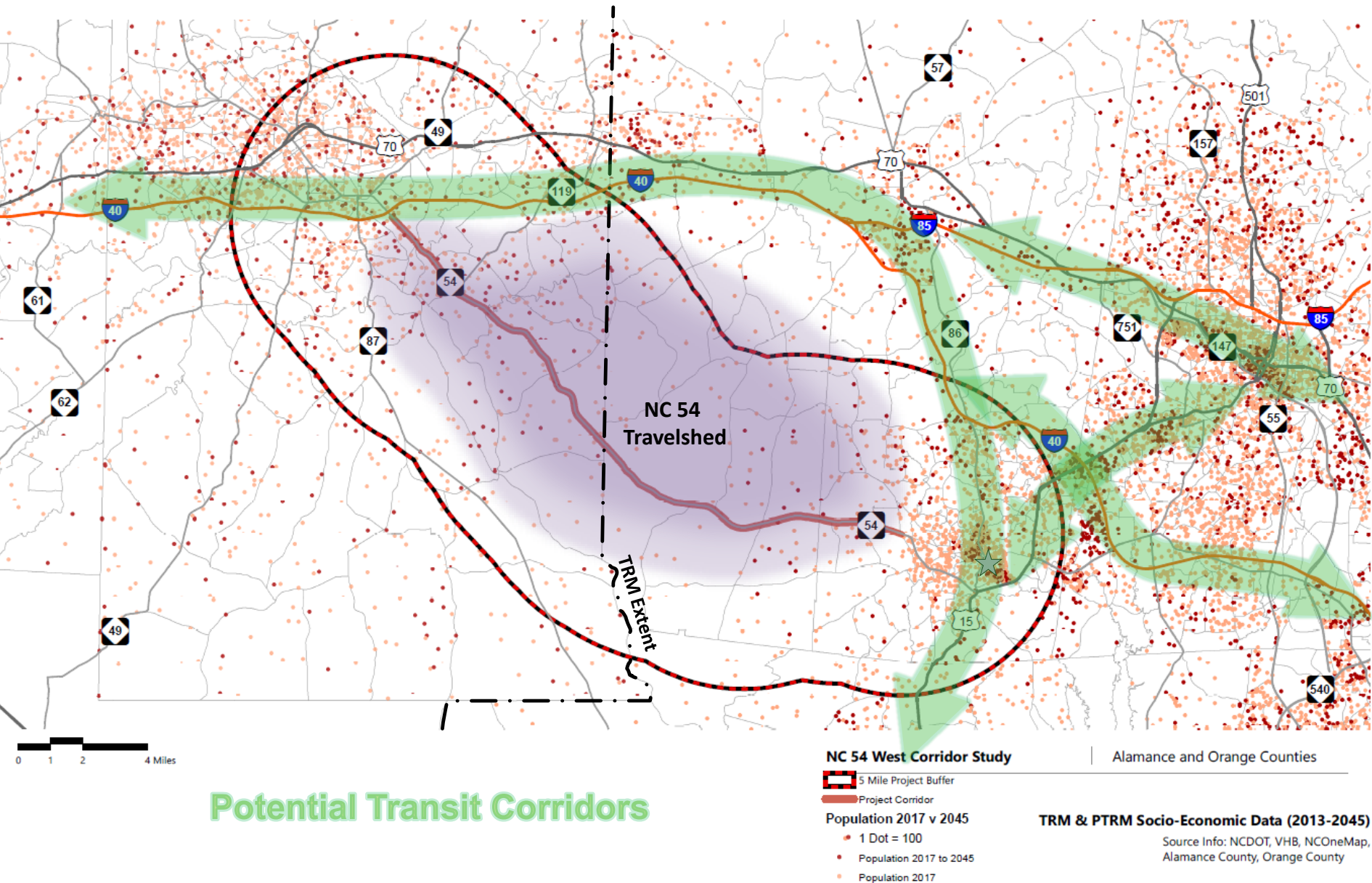
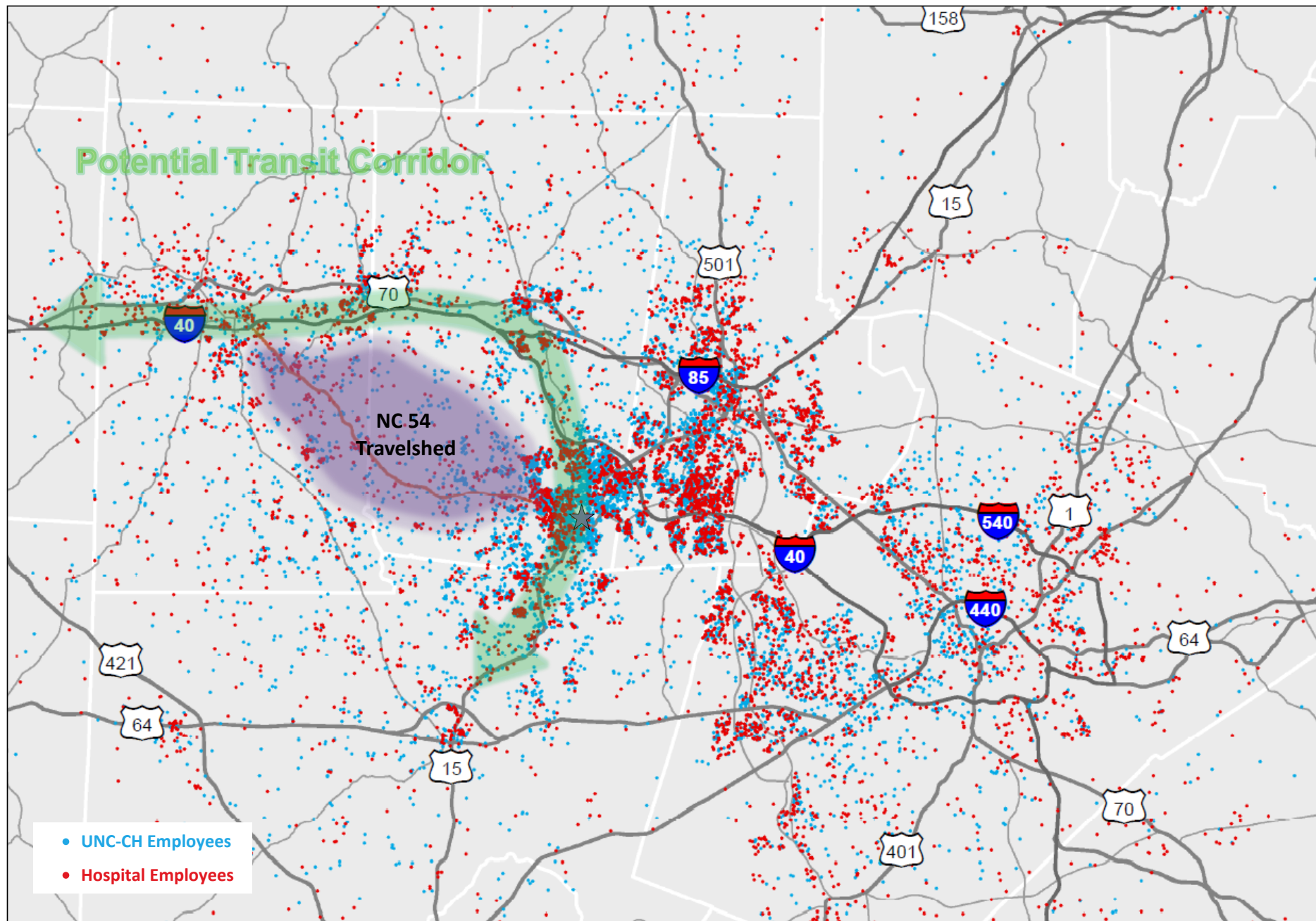


Figure 18: Transit Routes and Park-&-Ride Lots

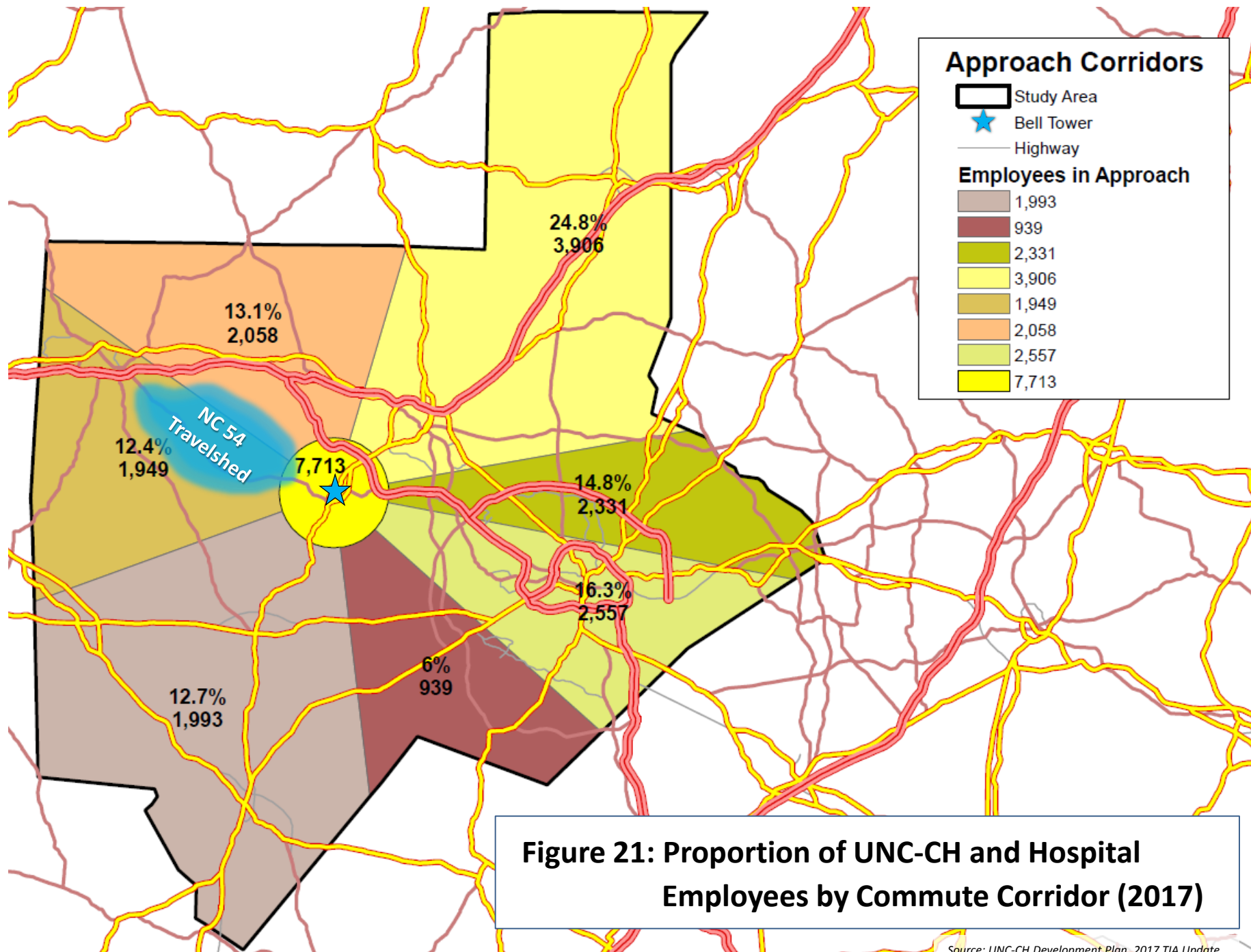
Figure 10a: TRM & PTRM Population Growth (2013 – 2045)





Source: UNC-CH Development Plan, 2017 TIA Update

Figure 19: Regional Distribution of UNC-CH and Hospital Employee Residences (2017)



Questions/Comments

To submit feedback on the study:

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