

Anson County CTP Health Equity Technical Assistance Part II

Review of Draft CTP Recommendations

Updated 7/21/2023.

General Review of Benefits and Burdens

Roadway corridors with higher traffic volumes are expected to have higher negative impacts for local communities in terms of air quality impacts and noise pollution. Roadway widening and new roadway location projects are expected to have the highest associated negative impacts to public health due to an increase in air quality pollutants, noise, and increased barrier to local trips on foot and by bicycle when crossing the wider roadway corridor.

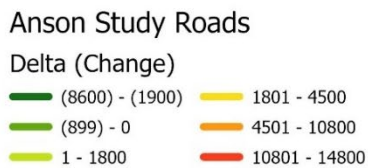
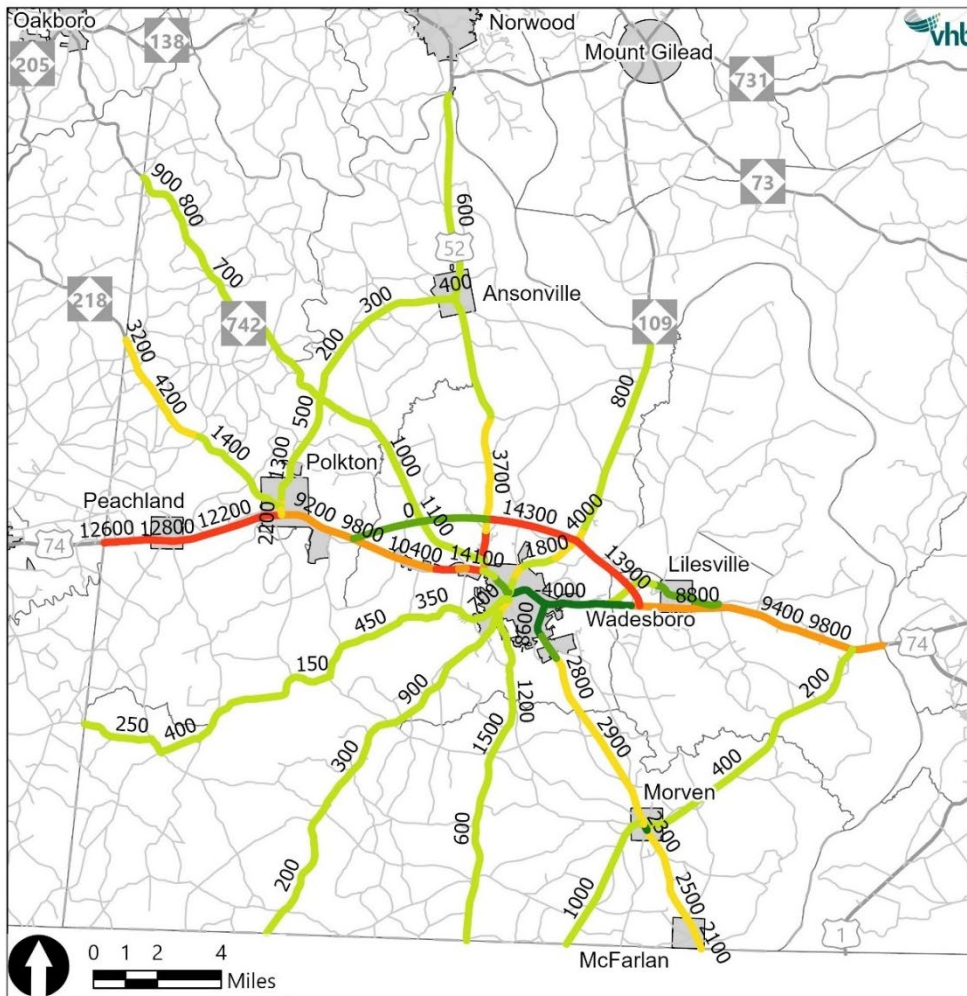
Roadway modernization and intersection improvement projects are likely to have a more neutral effect, or less likely to have an obvious overall positive or overall negative impact on public health outcomes. Adding turn lanes, medians and improving intersections for safety could lead to a reduction in some types of crashes and potentially decrease congestion, which could have a positive impact on safety and air

quality. On the other hand, widening intersections could mean a wider crosswalk and a larger barrier to pedestrian trips.

Bicycle and pedestrian improvements are likely to have an overall positive effect on public health outcomes, allowing individuals to be more physically active, to reach some of the needed key community destinations on foot and by bicycle, and have a safer space to walk and bicycle away from roadway traffic.

Figure 1 below illustrates the expected change in future roadway traffic volumes between 2019-2050 based on the travel demand model files for Anson County dated as of March 2023. Figure 3 on one of the following pages identifies Census block groups with at least one roadway widening or new location project. The figure also identifies which of those block groups have a high Transportation Disadvantage Index (TDI) score, indicating a high presence of transportation-disadvantaged populations. Figure 5 includes roadway projects overlaid with the Health Risk Score results at the Census Tract level, highlighting those areas where the Health Risk Score is “of concern” or “worse than average” in addition to block groups with a high TDI score. Those areas of the County and those draft CTP projects deserve further consideration for ways to mitigate the negative impacts to public health.

Figure 1 Change in Future Year Traffic Volumes (Delta), 2019-2050



Draft CTP Recommendations Review for Health Equity Concerns

In preparing a health equity review of draft Anson County Comprehensive Transportation Plan (CTP) recommendations, the Anson County CTP draft recommended projects were examined in relationship to the Census block groups marked as having a high Transportation Disadvantaged Index (TDI) score due to the higher presence of transportation-disadvantaged populations. By overlaying the CTP project data with the block groups with a high TDI score, it is possible to view the transportation projects in relation to areas of concern within the County. Length of the projects was not considered for this analysis.

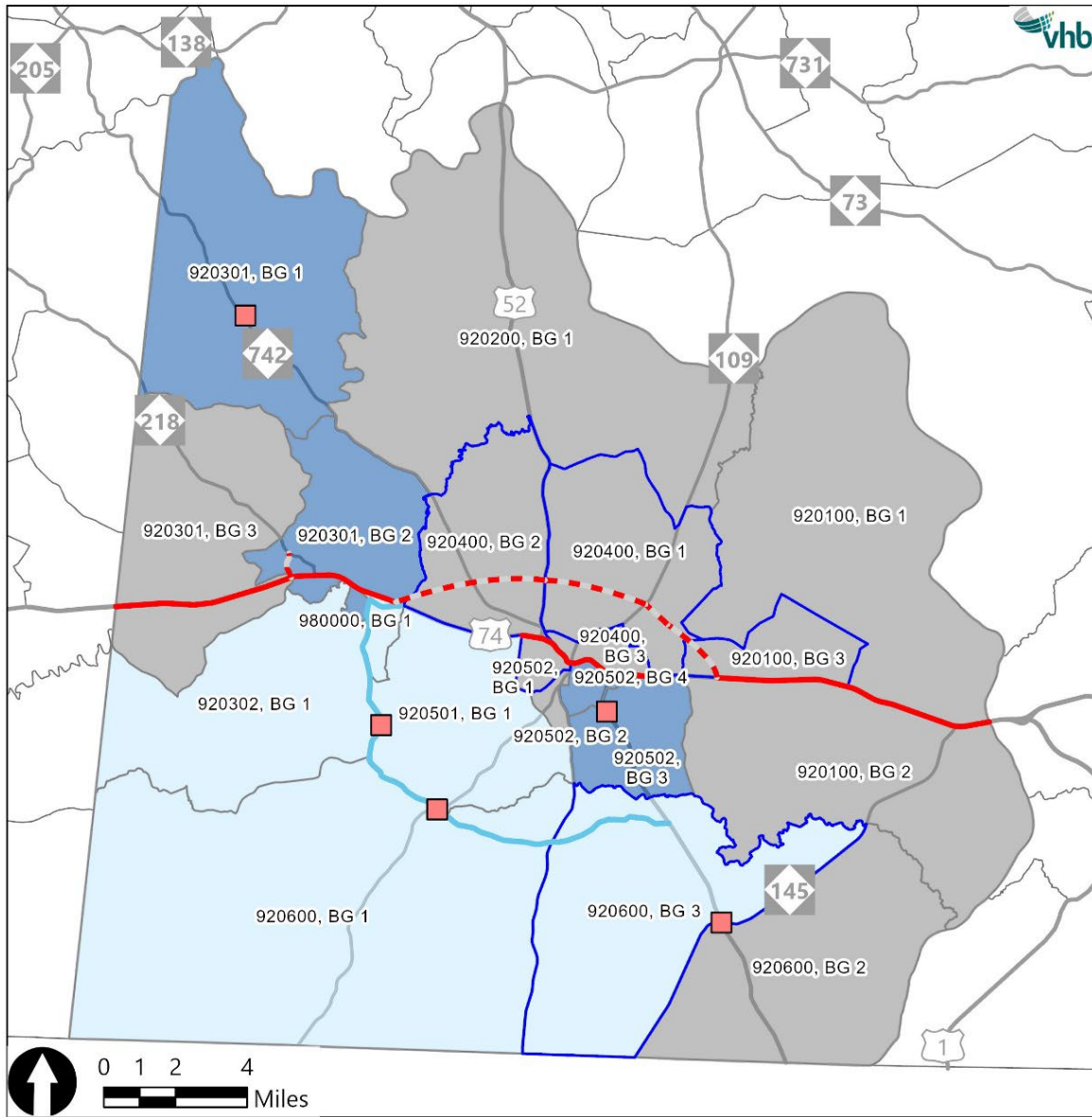
Table 1 below illustrates the result of summarizing the number of CTP projects by type by block group, with a flag added for block groups overlapping with a high TDI score. Out of the block groups in the county, seven were flagged with a high TDI score and five of those had a higher than County average

number of roadway new location or roadway widening projects present (the County average was 0.7 projects per block group, so even one widening or new location project was considered above the County average). Six of the block groups did not have any bicycle or pedestrian projects recommended; none of those overlapped with a high TDI score area. Figures 2 through 4 below illustrate the location of CTP projects by type, overlaid with high TDI score block groups.

Table 1 - CTP Projects Summary by Census Block Group

Census Tract ID	Block Group	Urban / Rural	High TDI Score	CTP Project Count	Modernization Plus Intersection Improvements	New Road Plus Widening	Bike and Pedestrian Projects
920100	Block Group 3	Rural	YES	3	0	1	2
920200	Block Group 1	Rural	NO	4	0	0	4
920400	Block Group 1	Rural	YES	2	0	1	1
920400	Block Group 2	Rural	YES	2	0	1	1
920400	Block Group 3	Urban	YES	4	0	1	3
920501	Block Group 1	Rural	NO	6	4	0	2
920502	Block Group 1	Urban	YES	3	0	1	2
920502	Block Group 2	Urban	YES	4	0	0	4
920502	Block Group 3	Rural	NO	2	1	0	1
920502	Block Group 4	Urban	NO	9	1	1	7
920301	Block Group 2	Rural	NO	4	1	2	1
920301	Block Group 3	Rural	NO	7	0	2	5
920600	Block Group 2	Rural	NO	5	0	0	5
920600	Block Group 3	Rural	YES	4	2	0	2
920100	Block Group 1	Rural	NO	1	0	1	0
920100	Block Group 2	Rural	NO	1	0	1	0
920301	Block Group 1	Rural	NO	1	1	0	0
920302	Block Group 1	Rural	NO	3	2	1	0
920600	Block Group 1	Rural	NO	2	2	0	0
980000	Block Group 1	Rural	NO	2	1	1	0
Averages for each Category				3.4	0.8	0.7	2.0
Block groups highlighted in pink are those with a high TDI score that have at least one roadway widening or new location roadway project; cells in blue indicate a high TDI score flag							

Figure 2 CTP Modernization and Intersection Projects Overlaid with TDI Score



- | CTP Highway Projects | Modernization plus Intersection | TDI Score (Relative to NC) |
|--------------------------------------|---------------------------------|----------------------------|
| New Road | Below Average | High - Very High |
| Widening | Above Average | |
| Modernization | No Projects | |
| Highway Intersection Recommendations | | |

Figure 3 CTP New Roadway and Widening Projects Overlaid with TDI Score

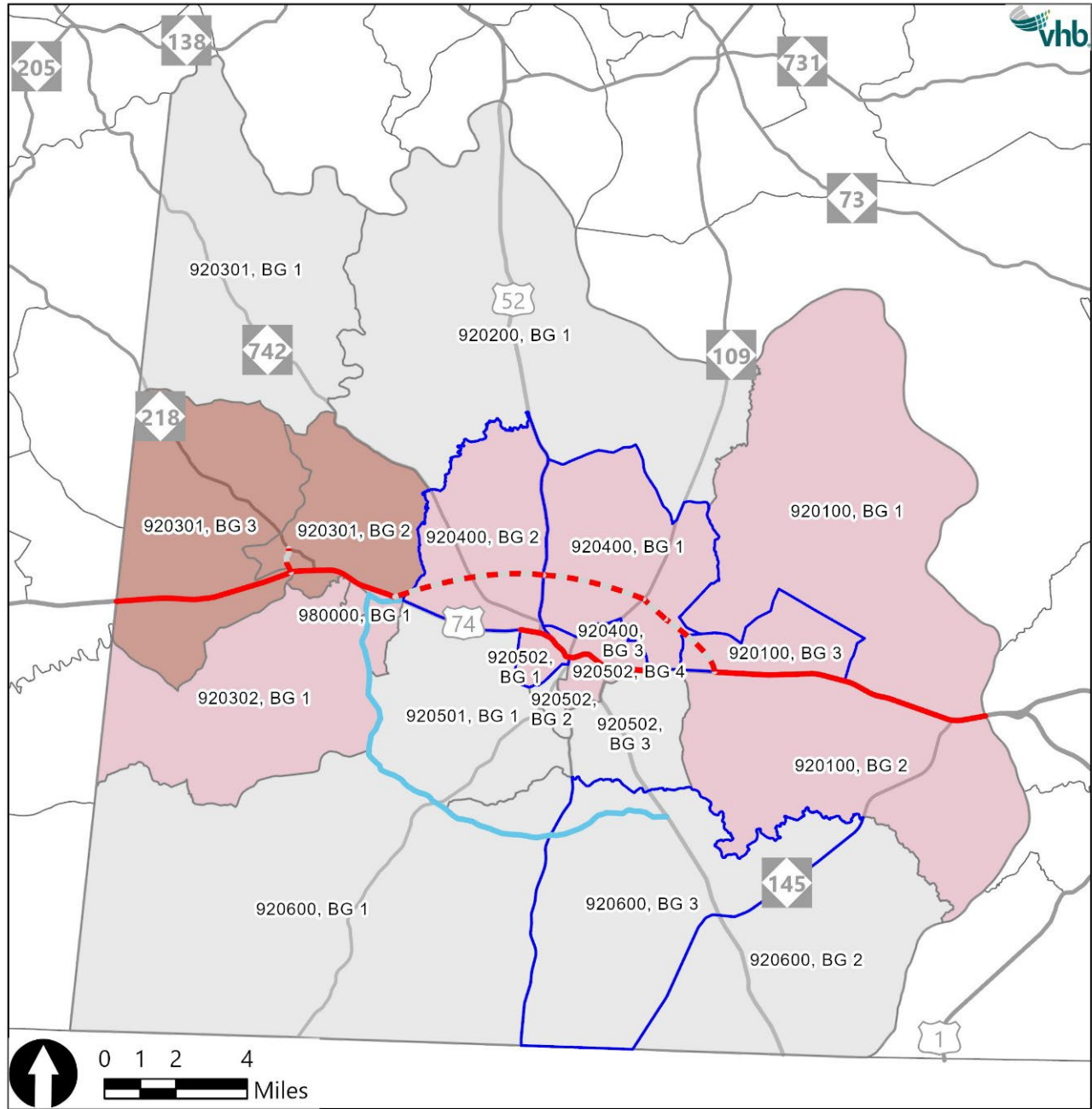
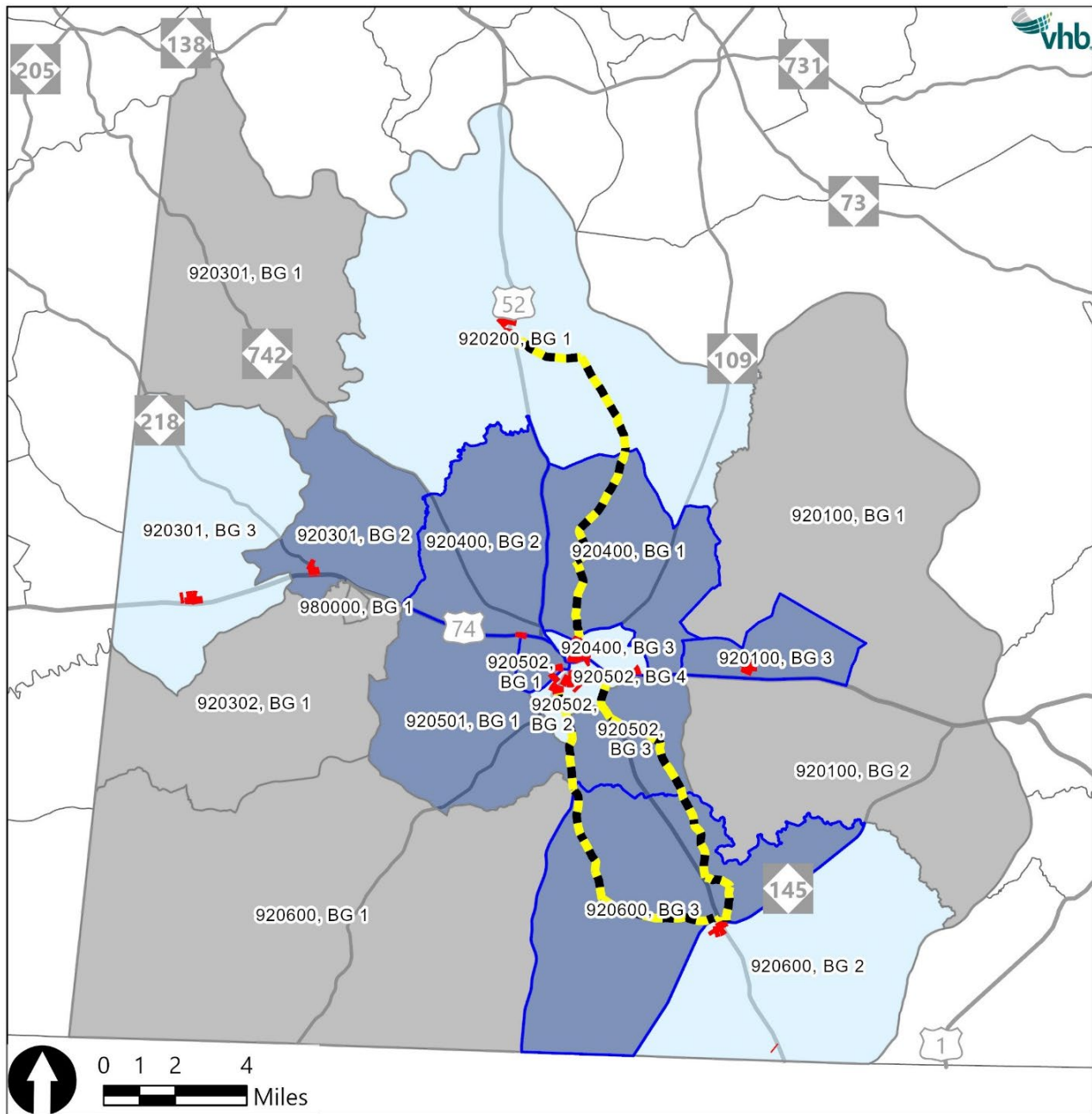


Figure 4 Bicycle and Pedestrian Projects Overlaid with TDI Score



CTP Bike and Pedestrian Projects	Bike and Pedestrian Projects	TDI Score (Relative to NC)
Multi-use Paths	Below Average	High - Very High
Sidewalk	Above Average	
	No Projects	

A further level of review and analysis of draft CTP recommendations was performed to consider poor Health Risk Score areas in the County. The Table 2 below summarizes the results of this review. Block

Groups highlighted in dark pink indicate a worse than County average Health Risk Score, a higher than County average TDI score, and a higher than County average presence of roadway widening or new location projects (at least one roadway capacity project). Block groups highlighted in orange have either a worse than County average Health Risk Score or a higher than County average TDI score, paired with the presence of at least one roadway capacity project. Figures 4 and 5 further illustrate the location of draft CTP recommendation projects, by type, when overlaid with Health Risk scores and TDI scores. In reviewing the results, the following five block groups stand out as likely facing additional transportation burdens while also having a substantial presence of transportation-disadvantaged population groups and with a higher likelihood of poor health outcomes for its residents:

- Census Tract 9204.00 Block Group 1
- Census Tract 9204.00 Block Group 2
- Census Tract 9204.00 Block Group 3
- Census Tract 9205.02 Block Group 1
- Census Tract 9201.00 Block Group 3

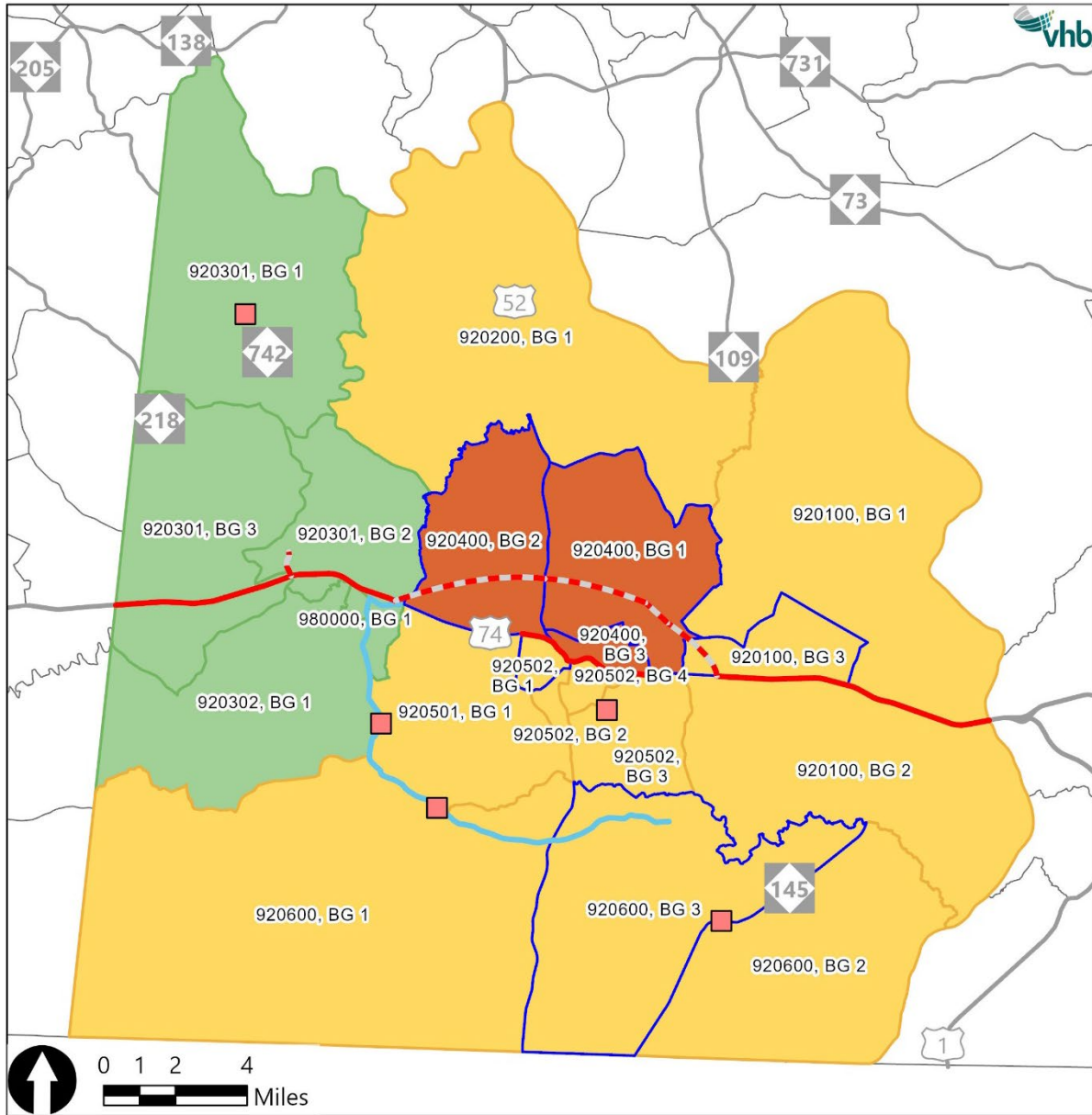
Project development process for roadway capacity projects in those areas would need to apply an additional level of scrutiny to involve the communities of concern in the public engagement efforts, and to ensure that roadway improvements are not creating substantial barriers to key community destinations and resources for residents.

Table 2 - Analysis of Project Numbers by Type by Block Group, with Accompanying Health Risk Score and TDI Score (TDI Score and Health Risk Score Compared with North Carolina Statewide Averages)

Census Tract / Block Group	Urban	TDI Score	High TDI Score	Total CTP projects count	# of New Location Roadway and Widening Projects	# of Bicycle and Pedestrian Projects	Health Risk Score	Health Risk Score Relative to NC Average
9201.00 BG1	Rural	12	NO	1	1	0	0.275	Average
9201.00 BG2	Rural	10.5	NO	1	1	0	0.275	Average
9201.00 BG3	Rural	14.5	YES	5	1	4	0.275	Average
9202.00 BG1	Rural	12.5	NO	4	0	4	0.279	Average
9203.01 BG1	Rural	10.5	NO	1	0	0	0.074	Above Average
9203.01 BG2	Rural	13.5	NO	6	1	5	0.074	Above Average
9203.01 BG3	Rural	11	NO	9	2	7	0.074	Above Average
9203.02 BG1	Rural	10.5	NO	3	1	0	0.074	Above Average
9204.00 BG1	Rural	15	YES	1	1	0	0.460	Concern
9204.00 BG2	Rural	14.5	YES	2	1	0	0.460	Concern
9204.00 BG3	Urban	15.5	YES	4	1	3	0.460	Concern
9205.01 BG1	Rural	10.5	NO	3	0	0	0.219	Average
9205.02 BG1	Urban	14.5	YES	2	1	1	0.219	Average
9205.02 BG2	Urban	6.5	NO	3	0	3	0.219	Average
9205.02 BG3	Rural	13.5	NO	1	0	0	0.219	Average
9205.02 BG4	Urban	12.5	NO	4	1	4	0.219	Average
9206.00 BG1	Rural	14	NO	2	0	0	0.237	Average
9206.00 BG2	Rural	9.5	NO	5	0	4	0.237	Average
9206.00 BG3	Rural	14.5	YES	1	0	0	0.237	Average
9800.02 BG1	Rural	7	NO	1	1	0	0.074	Above Average

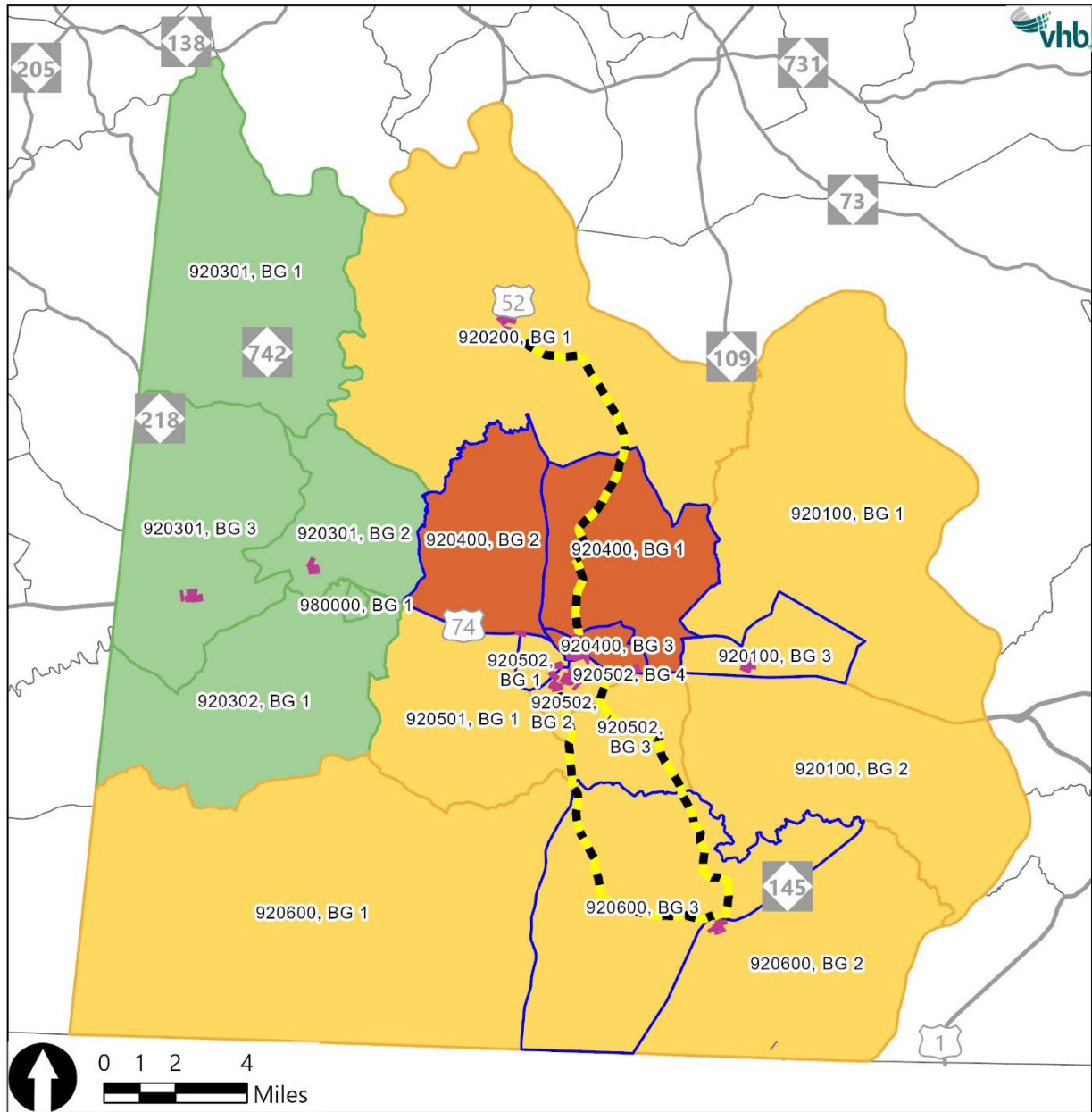
Block Groups highlighted in dark pink: those areas have both a worse than average Health Risk Score and a higher than average TDI index score, and overlap with at least one roadway widening or new location project; block groups highlighted in orange: those areas have either a worse than average Health Risk Score or a higher than average TDI index score, and overlap with at least one roadway widening or new location project

Figure 5 CTP Highway and Intersection Projects Overlaid with Health Risk Score and TDI Score



Source: CDC Places Data

Figure 6 CTP Bicycle and Pedestrian Projects Overlaid with Health Risk Score and TDI Score



CTP Bike and Pedestrian Projects Multi-use Paths Sidewalk	Health Risk Score Good Above Average Average Below Average Concern Poor	TDI Score (Relative to NC) High - Very High
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Source: CDC Places Data

Polkton Railroad Siding Project

In addition to typical roadway widening, new location roadway projects, and modernization and intersection improvement projects, the draft CTP list of recommendations for Anson County includes a less typical railroad project, Polkton Railroad Siding project, P-5750. The full project consists of two phases:

- P-5750A: Ross Wright Road rail crossing closure and Polkton rail siding extension
- P-5750B: Freedom Road rail crossing closure and new bridge/road over the railroad.

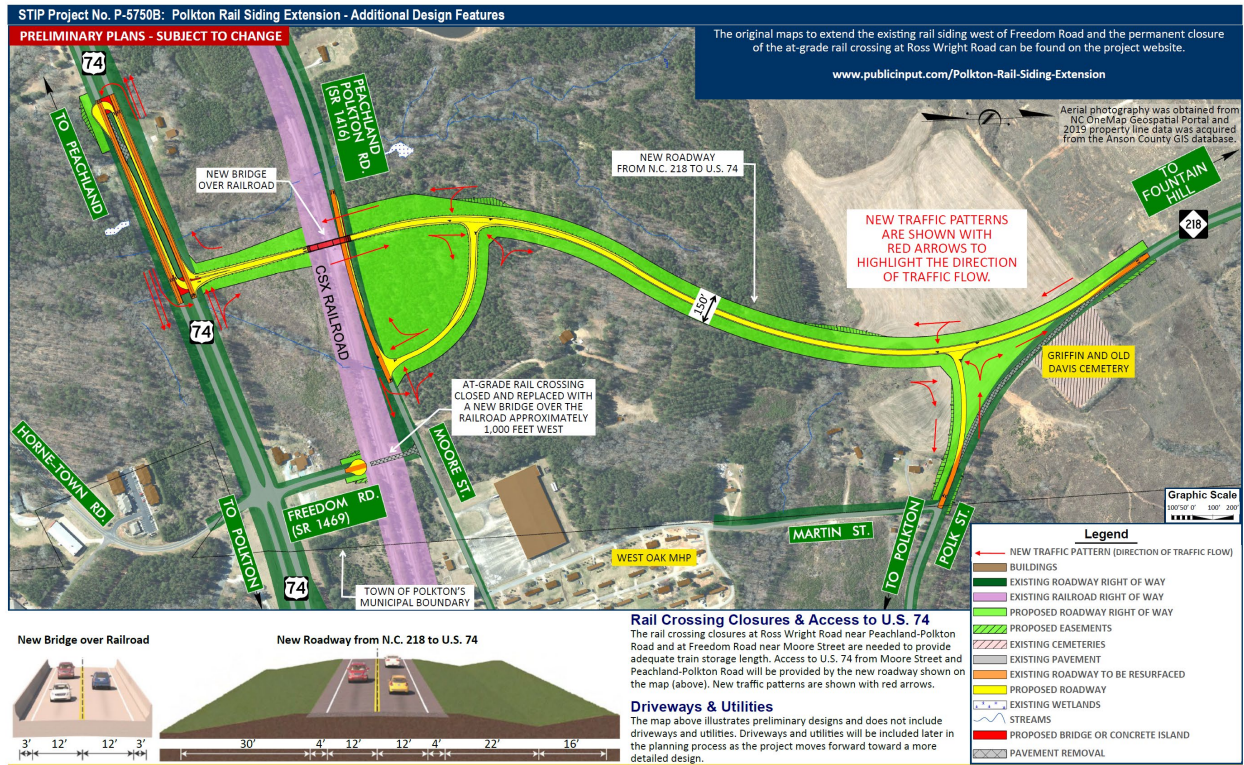
As noted in the April 2023 project newsletter¹, the project includes the following elements:

- Extension of the rail siding
- Permanent closure of the Ross Wright Road at-grade crossing
- Closure of the Freedom Road at-grade rail crossing
- Construction of a new bridge over the railroad to provide access to U.S. 74, Peachland-Polkton Road, Moore Street, and N.C. 218, and
- Minor improvements to N.C. 218 and U.S. 74

Figure 7 below illustrates the preliminary plans for Polkton Railroad Siding project, with a new overpass planned across the CSX Railroad to coincide with the at-grade railroad crossing closure. While the new location roadway project was evaluated along with other roadway widening and new capacity projects for health equity impacts, the specific example of Polkton Railroad Siding project in combination with US 74 future conversion to a freeway through Peachland and Polkton presents a unique set of challenges. The new railroad overpass/closure of at-grade railroad crossings will limit the options for north-south travel across Polkton by car, on foot, and by bicycle. The railroad overpass bridge is not currently expected to include bicycle and pedestrian accommodation, which will create a barrier to bicycle and pedestrian access to some of the local community destinations, including the South Piedmont Community College and the Dollar General store (both located south of US 74 corridor). The future conversion of US 74 to a freeway/limited-access facility will create additional challenges and barriers to local roadway network connectivity and bicycle and pedestrian access across town.

¹ NCDOT. Project Update-Polkton Rail Siding Extension, Anson County. April 2023.

Figure 7 Polkton Railroad Siding Project Preliminary Plans. Source: NCDOT²



Recommendations for Anson County CTP Based on Health Equity Review

In reviewing the draft CTP recommendations for Anson County from a health equity lens, the study team working on health equity technical assistance noted the following recommendations to help address and mitigate the health equity concerns associated with transportation improvements and the expected future impacts to the multimodal transportation network:

- North Wadesboro Bypass:
 - Ensure bicycle and pedestrian facilities are added for every overpass/underpass across the new facility, not just at the newly recommended shared use path
 - Consider local roadway network connectivity and evaluate for additional roadway links, modernization, and safety improvements that might be needed to support roadway network connectivity and enable shorter/local driving trips to key destinations that could be disrupted as part of the Bypass construction
 - Include a more detailed review of potential community impacts as part of project development and design due to the presence of high Health Risk areas and high TDI scores (higher presence of transportation-disadvantaged populations)

² NCDOT. Project Update-Polkton Rail Siding Extension, Anson County. April 2023.

- US 74 Upgrade to Freeway west of Wadesboro
 - Review potential interchanges and their overlap with planned pedestrian improvements
 - Consider additional interchanges/overpasses and bicycle and pedestrian facilities on every overpass/interchange to ensure bicycle, pedestrian and driving connectivity across the highway
- Polkton Railroad Siding Project
 - Ensure bicycle and pedestrian facilities are added on the new railroad overpass bridge that is expected to connect to US 74 corridor, including along the on-ramps and off-ramps
 - Take the new railroad overpass bridge into account as part of future US 74 freeway interchange locations, to allow as much north-south connectivity across US 74 corridor as possible
- North Wadesboro Area-Census Tract 9204.00 (Block Groups 1, 2 and 3)
 - North Wadesboro Census Tract 9204.00 (Block Groups 1, 2 and 3) is an area that is of particular concern due to the poor health risk scores and an overlap with a high TDI score, indicating a high presence of transportation-disadvantaged populations and a poor expected health outcomes for community residents
 - This part of Anson County has a high presence of communities of concern, individuals and households who might face additional barriers when trying to reach educational opportunities, jobs, healthy food options, healthcare resources and other key community resources
 - Based on the U.S. Census data, Census Tract 9204.00 has a median age of 28.3 and a median household income of 26,887 (which is about two-thirds of Anson County median income at \$39,862), with 44 percent of persons living below the poverty line and 88 percent of children under the age of 18 living below the poverty line³
 - While a shared use path project recommendation is identified that would connect across two of the block groups in the Census Tract, there is generally a lack of shorter/local bicycle and pedestrian improvements recommended in the area
 - The health equity review team would recommend considering additional bicycle and pedestrian improvements in the area in proximity to grocery stores and key community resources, to be able to support multi-modal access to a variety of resources
 - A review of local roadway network is recommended to consider additional small roadway links and modernization/safety improvements that might be needed to support the roadway network connectivity and shorter local driving trips as the community navigates future changes associated with North Wadesboro Bypass

³ Censusreporter.org, <https://censusreporter.org/profiles/14000US37007920400-census-tract-9204-anson-nc/>

- General Anson County Recommendations
 - Considering the low presence of active outdoor recreation opportunities in many parts of the community, especially walking-distance park options, a collaboration between the County Board of Education and other County departments and agencies is recommended to implement intergovernmental agreements to allow school playground space use by the community after hours (to increase the number of potential outdoor recreation spaces available in proximity to residential communities)
 - Consider partnerships with non-profit organizations and the County Health Department to implement a mobile pantry program to deliver healthy foods to underserved areas