

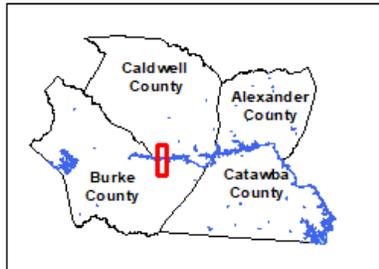
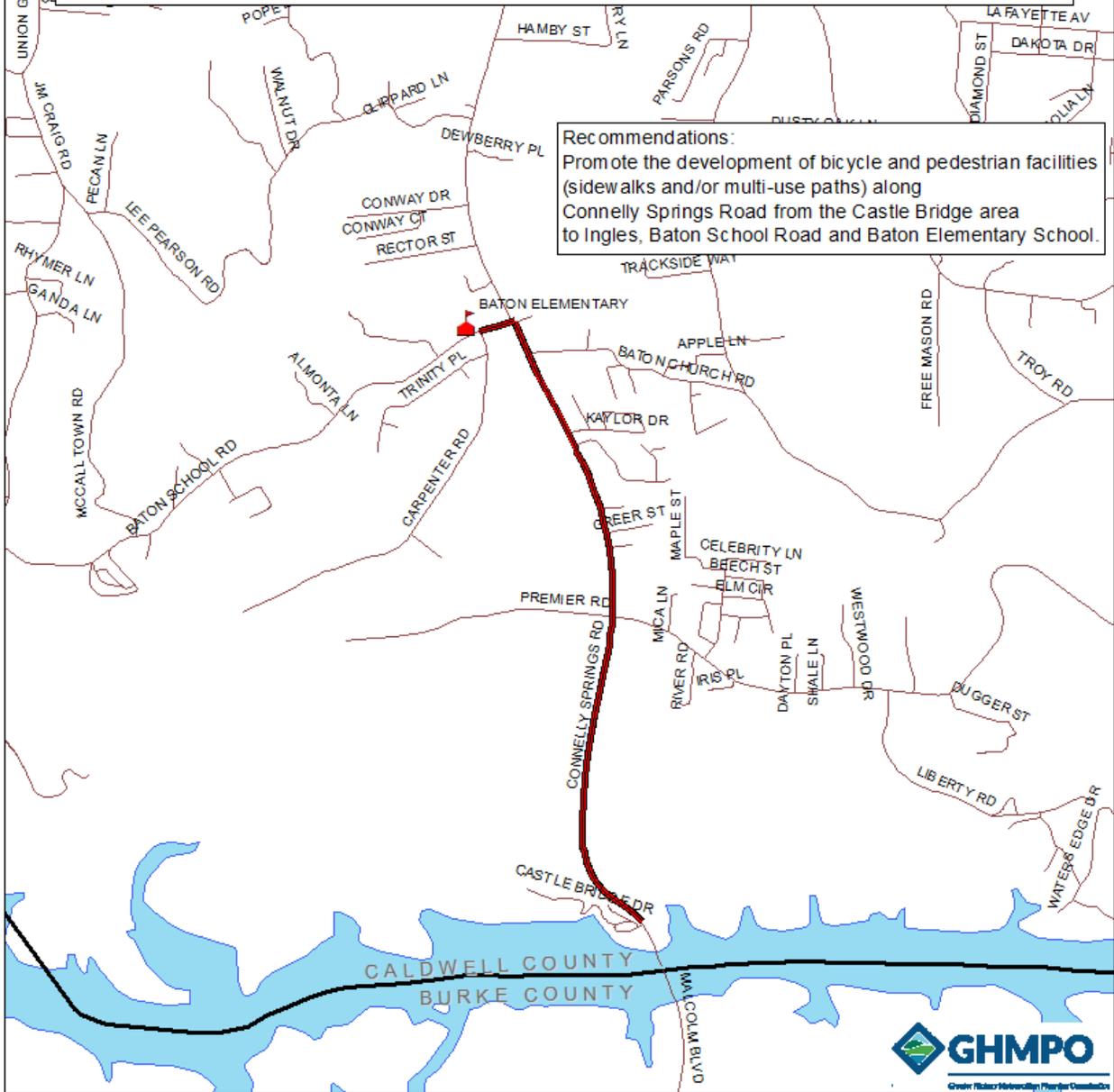
MTP 2045 Amendment Summary

Adopted by TAC in July 2018, the 2045 Metropolitan Transportation Plan (MTP) included widening project recommendations for Connelly Springs Rd / Malcolm Blvd (SR 1001). Since then, projected traffic volumes do not appear to support widening, however, corridor crash patterns do support modernization and safety improvements. Thus, the attachment amendment seeks to make the following changes (tracked as highlighted for new and strike-through text for deletions) to the following sections of the 2045 MTP:

- Highway Chapter section for Connelly Springs Rd in Horizon Year 2035
- Highway Chapter section for Malcolm Blvd in Horizon Year 2045
- Appendix Problem Statement for Connelly Springs Rd
- Appendix Problem Statement for Malcolm Blvd

In addition to the new safety focus, the proposed MTP amendments also update bicycle and pedestrian recommendations consistent with the Walk RCV and Caldwell County Comp Plans. Maps of each of these local plans' recommendations follow on the next two pages.

Caldwell County Comprehensive Plan Recommendations: Connelly Springs Road (SR 1001 - Baton Community)



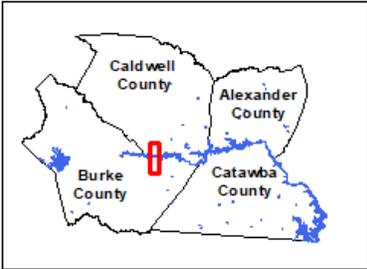
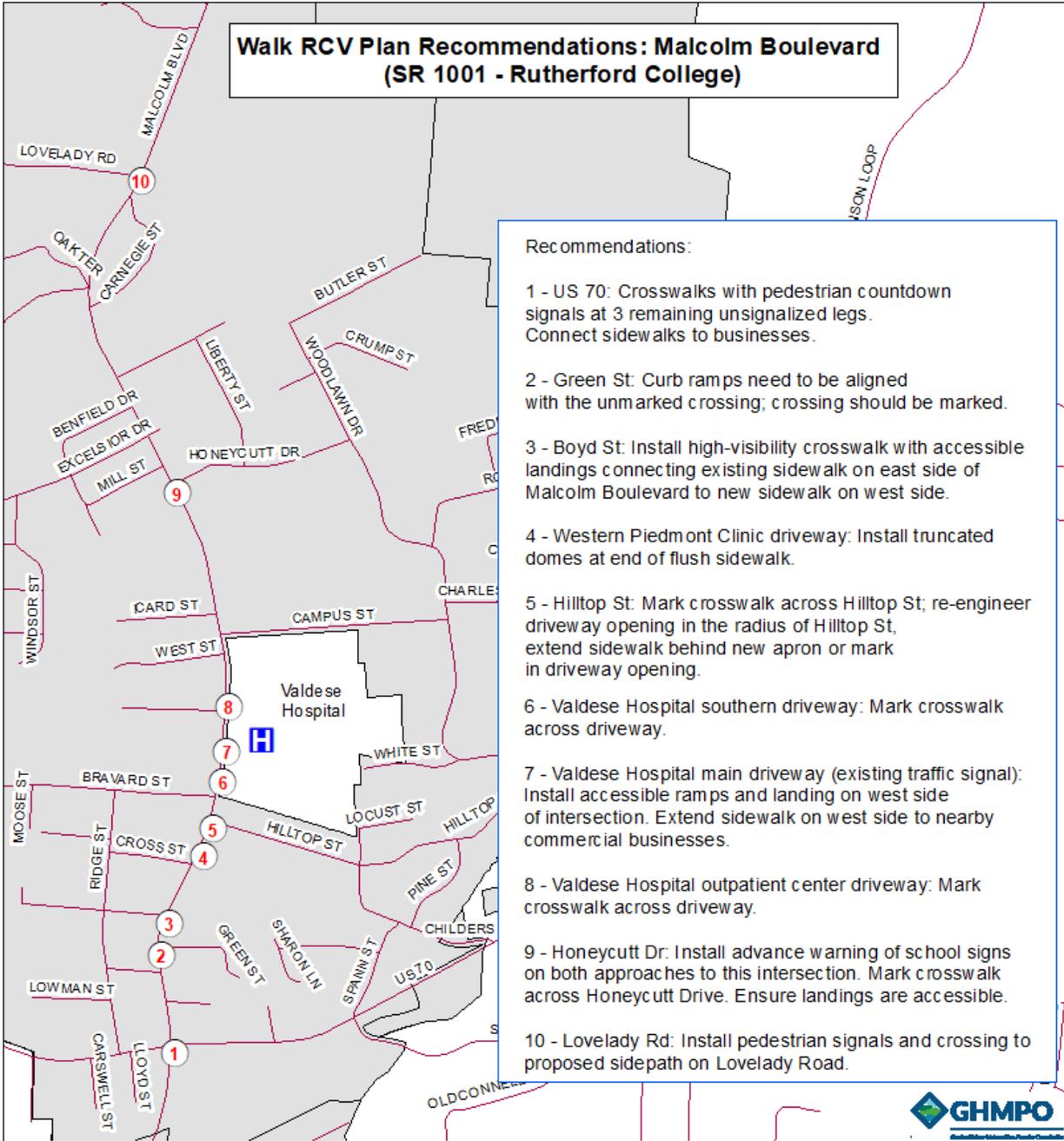
Legend

- Bicycle & Pedestrian Improvement Area
- SR 1001 Project Vicinity

0 0.25 0.5 1 Miles

N

Walk RCV Plan Recommendations: Malcolm Boulevard (SR 1001 - Rutherford College)



Legend

- # Proposed Project Location
- SR 1001 Project Vicinity
- Rutherford College Town Limits

0 0.125 0.25 0.5 Miles

Highway Chapter

Caldwell County 2035:

Connelly Springs Rd. (SR 1001) Modernize two-lane facility from just north of the Catawba River to Southwest Boulevard (SR 1933). Recommendations include upgrading the existing two lanes, adding paved shoulders, left turn lanes at select locations, crosswalks at select locations, and multiuse paths and sidewalks. This project is programmed for 2035. Study should be coordinated with Malcolm Boulevard (SR 1001) project, which this MTP recommends for Horizon Year 2025.

Multicounty Burke County 2045:

Malcolm Blvd (SR 1001) (Burke & Caldwell Counties County) Add capacity to roadway. Modernize two-lane facility from US 70 in Burke County to just across Castle Bridge at the Catawba River in Caldwell County. Malcolm Boulevard (SR 1001) is projected to be near or over capacity in 2045. The Feasibility Study recommended in this MTP by 2025 will develop project concepts for the Burke County portion of the longer, multi-county corridor, plus the bridge across the Catawba River between the two counties. Malcolm Boulevard (SR 1001) has a history of crashes, both vehicular and pedestrian, from US 70 to the Catawba River. Modernization of Malcolm Boulevard (SR 1001) is needed to improve corridor safety. The Caldwell County portion of the corridor, also known as Connelly Springs Road (SR 1001), is planned in this MTP by 2035 for widening between just north of the Catawba River to Southwest Boulevard in Lenoir.

MTP Appendix A Problem Statements:

Connelly Springs Road (SR 1001) (2035 Horizon Year)

Identified Problem

Connelly Springs Road (SR 1001) is projected to be near or over capacity in 2045 from Dry Pond Road (SR 1115) to Southwest Boulevard (SR 1933). The purpose of this project is to accommodate projected traffic volumes in order to maintain a Level of Service (LOS) of D on the facility.

Connelly Springs Road (SR 1001) has a history of crashes, both vehicular and pedestrian, from the Catawba River to Southwest Boulevard (SR 1933). Modernization of Connelly Springs Road (SR 1001) is needed to improve corridor safety.

Justification of Need

Existing Connelly Springs Road (SR 1001) from Dry Ponds Road (SR 1115) to Southwest Boulevard (SR 1933) has two 11 to 12 foot wide through lanes and a speed limit of 45-55 miles per hour (mph). The 2015 Average Annual Daily Traffic (AADT) volume ranges from 11,000 vehicles per day (vpd) to 14,000 vpd, compared to a LOS-D capacity of 12,700 vpd and 15,100 vpd respectively. Approximately 11,700 to 16,300 vpd are projected in 2045. Additionally, from 2007-2015 through 2011-2019, four five intersections along this corridor were identified as having 10 or more crashes, with the northern termini at Southwest Boulevard (SR 1933) having more than 30 50 crashes. There are intermittent sections along this corridor that experienced between 4 and 29 crashes during this time. From 2007 to 2018, there were 6 pedestrian crashes along this corridor. In 2018, a HSIP section was identified on SR 1001, in the vicinity of Castle Bridge. In 2019, a HSIP intersection was identified at SR 1001 and Dry Ponds Road (SR 1115).

Community Vision and Problem History

The 2005 Thoroughfare Plan Technical Report for the Caldwell County Urban Area identified Connelly Springs Road (SR 1001) as over capacity by 2025. The 2020 Caldwell County Comprehensive Plan states that streets should reflect and support a pedestrian-friendly environment that encourages walking, while also safely supporting other modes of transportation (cars, trucks, bicycles, etc.).

MTP Project Proposal Project Description and Overview

The MTP proposes improving/modernizing Connelly Springs Road (SR 1001) to a four-lane boulevard with including bicycle and pedestrian accommodations from Dry Ponds Road (SR 1115) to Lee Person Road (SR 1136) and from Orchard Drive (SR 1146) to Pleasant Hill Road (SR 1159). Modernization can include safety improvements like realigning sharp curves and turns, as well as adding turn lanes, shoulders, and rumble strips.

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the proposed project is in the vicinity (300 ft. from centerline) of water supply watersheds, natural heritage element occurrence, trout waters (WRC), 303D streams, boating access, hydrography areas, national wetland inventory, and target local watersheds – EEP.

Relationship to Land Use

Current land use along Connelly Springs Road (SR 1001) is low density residential. Additional residential developments are accessible by cross streets. There is also sporadic industrial and commercial development occurs.

Linkages to Other Plans and Proposed Project History

The 2020 Caldwell County Comprehensive Plan recommends the development of bicycle and pedestrian facilities (sidewalks and/or multi-use paths, crossings) along Connelly Springs Road from the Castle Bridge area to Ingles, Baton School Road and Baton Elementary School. The improvement proposed for Connelly Springs Road (SR 1001) is an important link for southern Caldwell County. Its position between US 321 and US 64 allows it to serve the town of Cahaj's Mountain and the unincorporated area of Baton. The 2005 Thoroughfare Plan Technical Report for the Caldwell County Urban Area recommended widening Connelly Springs Road (SR 1001) to four lanes from Burke County to Southwest Boulevard (SR 1933). R-3430 is fiscally constrained within the 2035 horizon year of the Greater Hickory Metropolitan Transportation Plan (MTP). The CTP also proposes improvements to Malcolm Boulevard (SR 1001) (BURK0021-H) in Burke County from Connelly Springs Road (SR 1001) to US 70. This is an effective continuation of R-3430 with an expected horizon year post 2045. See BURK0021-H for further details. R-3430 is currently funded within the 2018 – 2027 State Transportation Improvement Program (STIP) for right-of-way in fiscal year (FY) 2023 and construction to begin in FY 2025. However, it is important to note that there are differences in how the MTP and the TIP describe the southern terminus of R-3430. The TIP refers to the "Catawba River" which is the Burke-Caldwell County line, and the MTP describes the project limit at Dry Ponds Road (SR 1115).

Connelly Springs Road (SR 1001) is classified as a minor arterial on the Federal Functional Classification System. As part of the MTP both Dry Ponds Road (SR 1115), see BURK0014-H, and Pleasant Hill Road (SR 1159), see CALD0017-H, are proposed for realignment at the intersection with Connelly Springs Road (SR 1001).

Multi-modal Considerations

Bicycle accommodations are also recommended along two sections of this project. The first is from Dry Ponds Road (SR 1115) to Lee Person Road (SR 1136), which is partially encompassed by the recommendations in the 2020 Caldwell County Comprehensive Plan. and the second is The second is from Orchard Drive (SR 1146) to Pleasant Hill Road (SR 1159).

Public/ Stakeholder Involvement

Results from the survey conducted for the CTP identify that the intersections of Fairway Acres Road and Cahaj Mountain Road (SR 1130) with Connelly Springs Road (SR 1001) were in need of improvement. The desire to widen Connelly Springs Road (SR 1001) was also expressed by a survey respondent.

Malcolm Boulevard (SR 1001) (Burke County) (MTP Horizon Year 2045):

Identified Problem

Malcolm Boulevard (SR 1001) is projected to be near or over capacity in 2045 from US 70 in Rutherford College to Dry Ponds Road (SR 1115) in Caldwell County. The purpose of this project is to accommodate projected traffic volumes in order to maintain a Level of Service (LOS) of D on the facility.

Malcolm Boulevard (SR 1001) has a history of crashes, both vehicular and pedestrian, from US 70 to the Catawba River. Modernization of Malcolm Boulevard (SR 1001) is needed to improve corridor safety.

Justification of Need

The northern section of Malcolm Boulevard (SR 1001) from Dry Ponds Road (SR 1115) in Caldwell County to Lovelady Road (SR 1546) in Burke County has two 12 foot lanes and a speed limit of 35 mph. The 2015 Average Annual Daily Traffic (AADT) volume ranges from 9,200 vehicles per day (vpd) to 9,500 vpd, compared to a LOS D capacity of 10,800 vpd and 11,600 vpd respectively. Approximately 9,600 to 10,100 vpd are projected in 2045. The southern section of Malcolm Boulevard (SR 1001) from Lovelady Road (SR 1546) to US 70 has five 12 foot lanes and a speed limit of 35 mph. The 2015 AADT volume is 13,000 vpd to 14,000 vpd compared to a LOS D capacity of 11,600 vpd. Approximately 14,400 vpd to 15,400 vpd are projected in 2045. From 2015 to 2019, one intersection on this corridor was identified as having between 40 and 49 crashes. In 2018, a HSIP intersection was identified at US 70 and Malcolm Boulevard (SR 1001). One pedestrian crash occurred along the corridor in 2014.

Community Vision and Problem History

The Burke County Thoroughfare Plan (1996)¹⁶ projected Malcolm Boulevard (SR 1001) from Caldwell County to the Rutherford College urban planning boundary to be over capacity in 2025 and recommended widening to a five lane cross section. The Town of Rutherford College's Walk RCV Plan recommends a range of safety improvements at 10 locations along Malcolm Boulevard, extending from US 70 to Lovelady Road (SR 1546). These safety improvements include the installation of pedestrian signals and marking of crossings, pedestrian countdown signals, and ADA compliant curb ramps with truncated domes.

MTP Project Proposal Project Description and Overview

The MTP proposes improving/modernizing Malcolm Boulevard (SR 1001) to a four lane divided facility. This would be accomplished by widening to four lanes and adding a median. Modernization can include safety improvements like realigning sharp curves and turns, as well as adding turn lanes, shoulders, and rumble strips. Bicycle accommodations are recommended from Lovelady Road (SR 1546) to US 70, as are several pedestrian improvements. This project should be in coordination with STIP project R-3430, as well as the Malcolm Boulevard feasibility study in the above horizon year 2025.

Natural & Human Environmental Context

Based on a planning level environmental assessment using available GIS data, the proposed project is in the vicinity (300 ft. from centerline) of water supply watersheds, target local watersheds – EEP, and a hospital.

Relationship to Land Use

Current land use along Malcolm Boulevard (SR 1001) is low density residential. Additional residential developments are accessible by cross streets. The City of Rutherford College Zoning Map (2014)¹⁷ identified Malcolm Boulevard (SR 1001) from Caldwell County to Lovelady Road (SR 1546) as residential and from Lovelady Road (SR 1546) to US 70 as the Central Business District.

Linkages to Other Plans and Proposed Project History

The proposed project would improve access to I-40 for the communities in northern Burke and southern Caldwell counties. The Walk RCV Plan's recommended safety improvements along Malcolm Boulevard (SR 1001) include:

- 1 - US 70: Crosswalks with pedestrian countdown signals at 3 remaining un-signalized legs. Connect sidewalks to businesses.
- 2 - Green St: Curb ramps need to be aligned with the unmarked crossing; crossing should be marked.
- 3 - Boyd St: Install high-visibility crosswalk with accessible landings connecting existing sidewalk on east side of Malcolm Boulevard to new sidewalk on west side.
- 4 - Western Piedmont Clinic driveway: Install truncated domes at end of flush sidewalk.
- 5 - Hilltop St: Mark crosswalk across Hilltop St; re-engineer driveway opening in the radius of Hilltop St, extend sidewalk behind new apron or mark in driveway opening.
- 6 - Valdese Hospital southern driveway: Mark crosswalk across driveway.
- 7 - Valdese Hospital main driveway (existing traffic signal): Install accessible ramps and landing on west side of intersection. Extend sidewalk on west side to nearby commercial businesses.
- 8 - Valdese Hospital outpatient center driveway: Mark crosswalk across driveway.
- 9 - Honeycutt Dr: Install advance warning of school signs on both approaches to this intersection. Mark crosswalk across Honeycutt Drive. Ensure landings are accessible.
- 10 - Lovelady Rd: Install pedestrian signals and crossing to proposed sidepath on Lovelady Road.

The MTP also proposes improvements to Connelly Springs Road (SR 1001) in Caldwell County from Connelly Springs Road (SR 1001) to Southwest Boulevard (SR 1933). This is an effective continuation of R-3430 with an expected Horizon year of 2035. See R-3430 for further details.

Malcolm Boulevard (SR 1001) is classified as a minor arterial on the Federal Functional Classification System.

Multi-modal Considerations

~~Pedestrian~~ Sidewalk facilities currently exist along the eastern side of Malcolm Boulevard (SR 1001) from the northern Rutherford College city limits to US 70, ~~and no improvements are recommended~~. Bicycle accommodations are recommended from Lovelady Road (SR 1546) to US 70.