

PROJECT DATA SHEET

Date: 3/15/16
Rev.:

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|------------------|--------|-----------------------|---------------|
| TIP No.: | U-5603 | County: | Watauga |
| Federal Aid No.: | N/A | WBS No.: | 45831.1.2 |
| NCDOT Division: | 11 | Scoping Meeting Date: | July 20, 2016 |

Project Description

- Length: Approximately 2 miles
- Termini (US Hwy / SR): US 321 (Blowing Rock Road) to NC 105 Bypass
- MPO / RPO: High Country Rural Planning Organization
- NEPA / 404 Merger Candidate? Yes No Unknown
- General Description of Project:

Improvements proposed to NC 105 from US 321 (Blowing Rock Road) to NC 105 Bypass (SR 1107). Near its intersection with US 321 and NC 105 Bypass, NC 105 is lined with businesses and lacks access management. Utility conflicts along NC 105 within the project study area are heavy. NC 105 provides multi-lane access into Boone and carries traffic to the south and west of Boone.

Design Data (Existing Conditions)

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| • Functional Classification: | NC 105 is classified as an Other Principal Arterial. |
| • Strategic Transportation Corridor: | NC 105 is not identified as a Strategic Transportation Corridor in the North Carolina Transportation Network. |
| • CTP Designation (Facility Type): | Boulevard |
| • Type of Access Control: | No access control exists along NC 105 in the project study area. |
| • Typical Section: | NC 105: - Four 12-foot lanes, curb and gutter and sidewalks - Center turn-lane exists between Dogwood Road and NC 105 Bypass |
| • Right of Way: | 100 feet |
| • Posted Speed: | 35 mph |

- Structure Inventory:

| Structure Number | Location |
|-------------------|---|
| Culvert 26 (C-26) | Along NC 105, south of US 221/US 321 |
| C-10 | Along Winklers Creek Road, south of US 221/US 321 |
| C-335 | Along Wilson Drive, east of NC 105 |
| C-21 | Along NC 105, south of Wilson Drive |
| C-337 | Along NC 105, south of NC 105 Bypass |

Source: NCDOT Bridges – Map Image Layer by NCDOT.GOV; Last Modified: March 17, 2015

- Other TIP Projects in the Area:

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| U-5705: | Upgrade of the US 221/US 321 and NC 105 intersection. |
| U-5715: | Improvement of the US 321/US 421, NC 194 (King Street) and College Street intersection. |
| U-5810: | Widen SR 1514 (Bamboo Road) / SR 1523 (Wilson Ridge Road) from US 421/US 221 to SR 1522 (Deerfield Road) to 12-foot lanes with 4-foot paved shoulders. |
| U-5867: | Widen NC 194 from US 421 (King Street) to SR 1306 (Howards Creek Road) to multi-lanes. |
| R-2566B: | Widen NC 105 from US 221 to SR 1107 (NC 105 Bypass) in Boone to multi-lanes. |
| R-2615: | Widen US 421/US 321 from its junction near Vilas to SR 1107 (NC 105 Bypass) - Termini of Proposed Boone Bypass (U-2703). |
| B-5829: | Replace Bridge No. 5 on NC 105 over Watauga River. |

- Railroad Involvement:

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| None |
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Long Range Plan History

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| <p>The Watauga County Comprehensive Transportation Plan (CTP) was mutually adopted by the NCDOT on September 5, 2013 and published that same month.</p> <p>The CTP includes recommendations to improve NC 105 from the NC 105 Bypass (SR 1107) to US 221-US 421, stating that this route is currently over capacity and improvements are needed to relieve existing congestion and to accommodate projected traffic volumes. The CTP proposes improving this section of NC 105 to a boulevard by removing the center turn lane, providing a median and bicycle accommodations. The 1991 Boone Thoroughfare Plan recommended improving NC 105 to a five-lane cross section. The Boone 2030 Land Use Plan (2009) identified the NC 105 and US 321 intersection (northern termini) as one of the areas with the “worst” traffic congestion in Boone.</p> <p>Based on the CTP, from 2006 through 2008, fourteen intersections along this corridor (NC 105 Bypass to US 221-421) were identified as having ten or more crashes or had a severity index above the state’s average.</p> <p>Bus stops exist along both sides of NC 105 in the project study area. According to the CTP, the fixed route bus service operated by AppalCART along NC 105 was identified as needing improvement.</p> |
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Pedestrian facilities currently exist along both sides of NC 105 from US 321 (Blowing Rock Road) to High School Drive at which point the sidewalk continues westward along the northbound lane for another one-quarter mile. There is also a short section of sidewalk along the southbound lane between Poplar Grove Road and Ambling Way. The CTP identifies the existing pedestrian facilities along NC 105 from US 321 to High School Drive as needing improvement, with the remainder of NC 105 recommended for pedestrian facilities. The Town of Boone Pedestrian and Bicycle Plan (2014) recommends existing sidewalk along NC 105 be widened to provide a shared use path in its longer-term network recommendations.

The CTP identifies NC 105 bicycle accommodations as needing improvement. The High Country Regional Bike Plan recommends four-foot bike lanes along NC 105 in the project study area. The Town of Boone Pedestrian and Bicycle Plan (2014) recommends shared lane markings (sharrows) along NC 105 from US 321 to Poplar Hill Drive and bicycle lanes from Poplar Hill Drive to NC 105 Bypass in its short-term network recommendations. The longer-term improvements recommend a 10-foot multi-use trail from US 321 to Poplar Grove Road North in areas along the corridor with no sidewalk.

Traffic Data (AADT)

| Location | 2015 (vpd) | 2040 (vpd) |
|-----------------------------------|------------|------------|
| NC 105 (North of US 321) | 20,000 | 23,300 |
| NC 105 (South of US 321) | 26,400 | 32,700 |
| US 321 (East of NC 105) | 36,500 | 48,500 |
| US 321 (West of NC 105) | 22,900 | 27,900 |
| NC 105 (South of Highland Avenue) | 35,700 | 45,000 |
| NC 105 (North of NC 105 Bypass) | 29,000 | 40,600 |
| NC 105 (South of NC 105 Bypass) | 17,000 | 25,800 |
| NC 105 Bypass | 14,200 | 17,200 |

Note: vpd – vehicles per day

Source: NCDOT Transportation Planning Branch Traffic Forecast – October 21, 2015

Cost Estimate

| | Construction | Right-of-Way | Total |
|--------------|--------------|--------------|-------------|
| TIP Estimate | \$5,400,000 | \$1,100,000 | \$6,500,000 |

Source: NCDOT 2016-2025 STIP, 2015

Project Schedule

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| Environmental Document | EA | February 2017 |
| | FONSI | August 2018 |
| Right-of-Way | June 2020 | |
| Let | June 2022 | |

Initial Scoping Comments

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