NCDOT Prioritization 3.0 Project Summary

SPOT ID: H090732 **Mode:** Highway **Status:** Submitted

US-421

From/Cross Street: US 421 Business

To: NC 16

Length: 2.62

Specific Improvement Type: 4 - Upgrade Arterial to Superstreet

Project Category: Statewide Mobility

TIP#: U-5312

Fully Funded in Draft STIP? No

Cost to NCDOT: $34,600,000

Description:

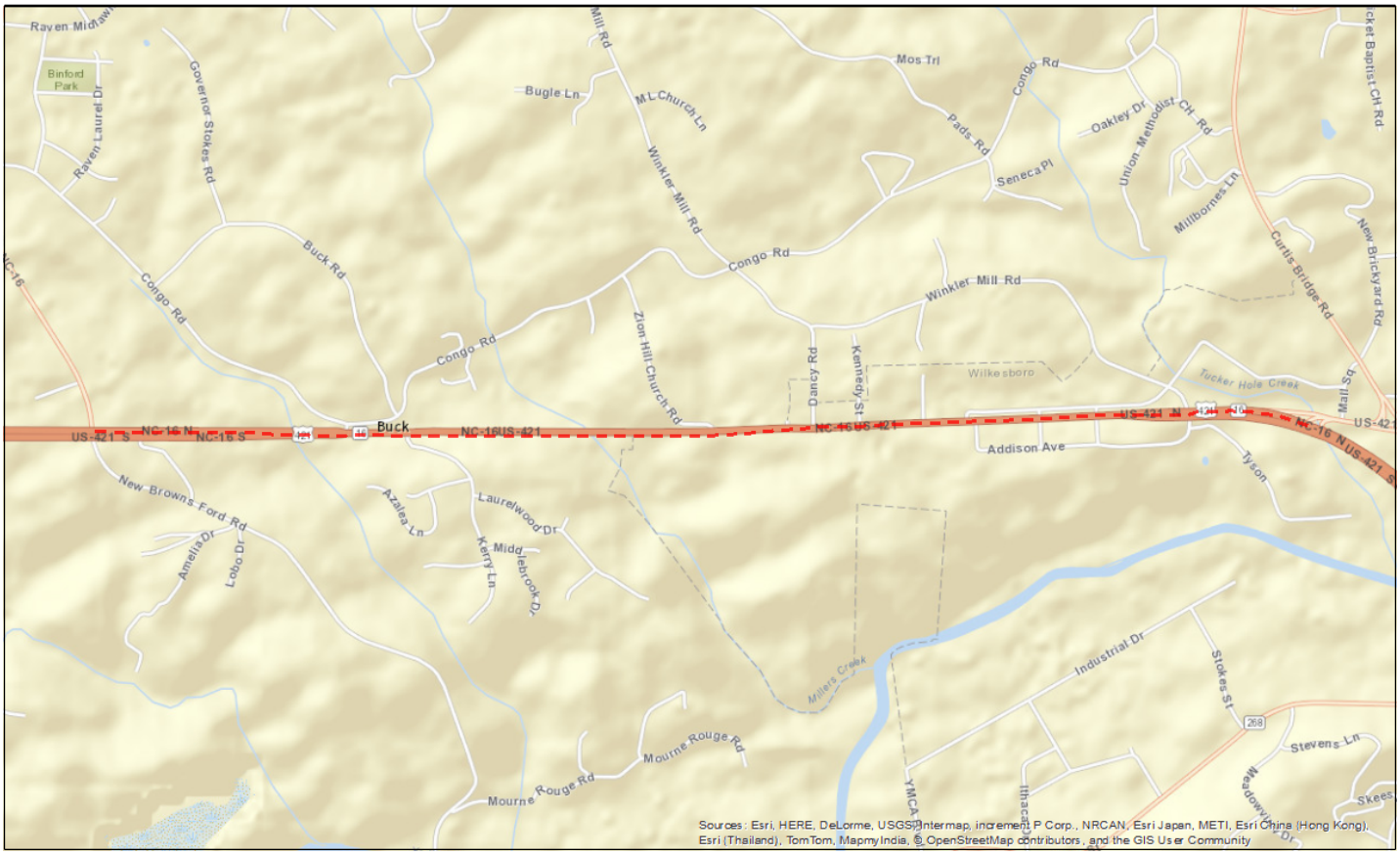
Convert Existing Roadway to Super Street and Add Service Roads

Division(s): Division 11

County(s): WILKES

MPOS(s)/RPO(s): High Country RPO

Project Location



Statewide Mobility Total Score: 28.22

Quantitative Score		Division Engineer Local Input Points	MPO/RPO Local Input Points
Multimodal + [Freight & Military] (20%)	7.94	N/A	N/A
[Travel Time] Benefit/Cost (30%)	6.43		
Congestion (V/C) (30%)	54.14		
Safety (10%)	45.16		
Economic Competitiveness (10%)	39.48		
Totals: Weight: 100% Weighted Score: 28.22			

Regional Impact Total Score: 58.36

Quantitative Score		Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (25%)	54.14	Percent: 15% Points: 100	Percent: 15% Points: 100
Safety (10%)	45.16		
[Travel Time] Benefit/Cost (25%)	6.43		
Accessibility / Connectivity (10%)	87.01		
Totals: Weight: 70% Weighted Score: 28.36			

Division Needs Total Score: 66.63

Quantitative Score		Division Engineer Local Input Points	MPO/RPO Local Input Points
Congestion (V/C) (20%)	54.14	Percent: 25% Points: 100	Percent: 25% Points: 100
Safety (10%)	45.16		
[Travel Time] Benefit/Cost (20%)	6.43		
Totals: Weight: 50% Weighted Score: 16.63			

Project Data *

Existing Conditions

Existing Cross-Section:	
Speed Limit:	45
Length (miles);	2.62
Facility Type:	Arterial
Access Control:	None
Functional Classification:	Other Principal Arterial
Terrain Type:	Rolling
Lane Width:	12
Paved Shoulder Width:	4
Roadway has Curb & Gutter?	No
Volume (AADT):	28335.52
Capacity:	39721.74
Volume/Capacity Ratio:	0.71
% Autos:	94%
% Trucks:	6%
Truck Volume:	1588.8
Crash Density:	41.63
Crash Severity:	58.09
Critical Crash Rate:	35.77
Crash Frequency:	0
Severity Index:	0
County Tier Designation:	1
Non-Interstate STRAHNET Route?	No
Average Commuting Time:	21
Existing Median Type (for Cost Estimation):	TWLTL
Pavement Condition Rating:	92
Actual Congested Speed:	40.4
Travel Time Index:	1.1

Project Benefits

Project Cross-Section:	6E - 6 Lane Divided (23' Raised Median) with Curb & Gutter, Wide Outside Lanes, and Sidewalks
Speed Limit:	45
Length (miles):	2.62
Facility Type:	Superstreet
Access Control:	Partial
Functional Classification:	Other Principal Arterial
TerrainType:	Rolling
DOT Design Lane Width:	12
DOT Design Paved Shoulder Width:	4
Travel Time Savings for 30 Years (Total):	9880187.54
Travel Time Savings for 30 Years (Autos):	9326195.03
Travel Time Savings for 30 Years (Trucks):	553992.51
Long-Term Employment:	162
% Change in Economy:	0.00062752
Provides Direct Connection to Transportation Terminal?	No
Does project upgrade how the roadway functions?	Yes
In CTP or LRTP?	No
CTP/LRTP Name:	
CTP/LRTP Completion Year:	
Submitted by:	Division 11

* Data reflects calculations which include weighted averages (where applicable) and represent raw output from the Department's SPOT On!ine tool and associated databases.

Project Ownership

Division

Division	Percent	Regional Impact	Division Needs
Division 11	100%	100	100
	0%	0	0
	0%	0	0
TOTAL Division Points		**100**	**100**

MPO/RPO

MPO/RPO	Percent	Regional Impact	Division Needs
High Country RPO	100%	100	100
	0%	0	0
	0%	0	0
TOTAL MPO/RPO Points		**100**	**100**

Project Cost and Source

Construction Cost:	$30,000,000	TIP Unit
Right-of-Way Cost:	$100,000	TIP Unit
Utilities Cost:	$4,500,000	TIP Unit
Total Project Cost:	$34,600,000	
Other Funding:	$0	None
Cost to NCDOT :	**$34,600,000**	