



NCDOT Prioritization 4.0 Project Summary

SPOT ID: H110997

Mode: Highway

Status: Draft

NC-147 (Durham Freeway)

From/Cross Street: I-40

Specific Improvement Type: 1 - Widen Existing Roadway

To: East End Connector

Project Category: Statewide Mobility

Length: 3.94

TIP#: HoldTank

Fully Funded in Draft STIP? No

Cost to NCDOT: \$117,291,000

Description:

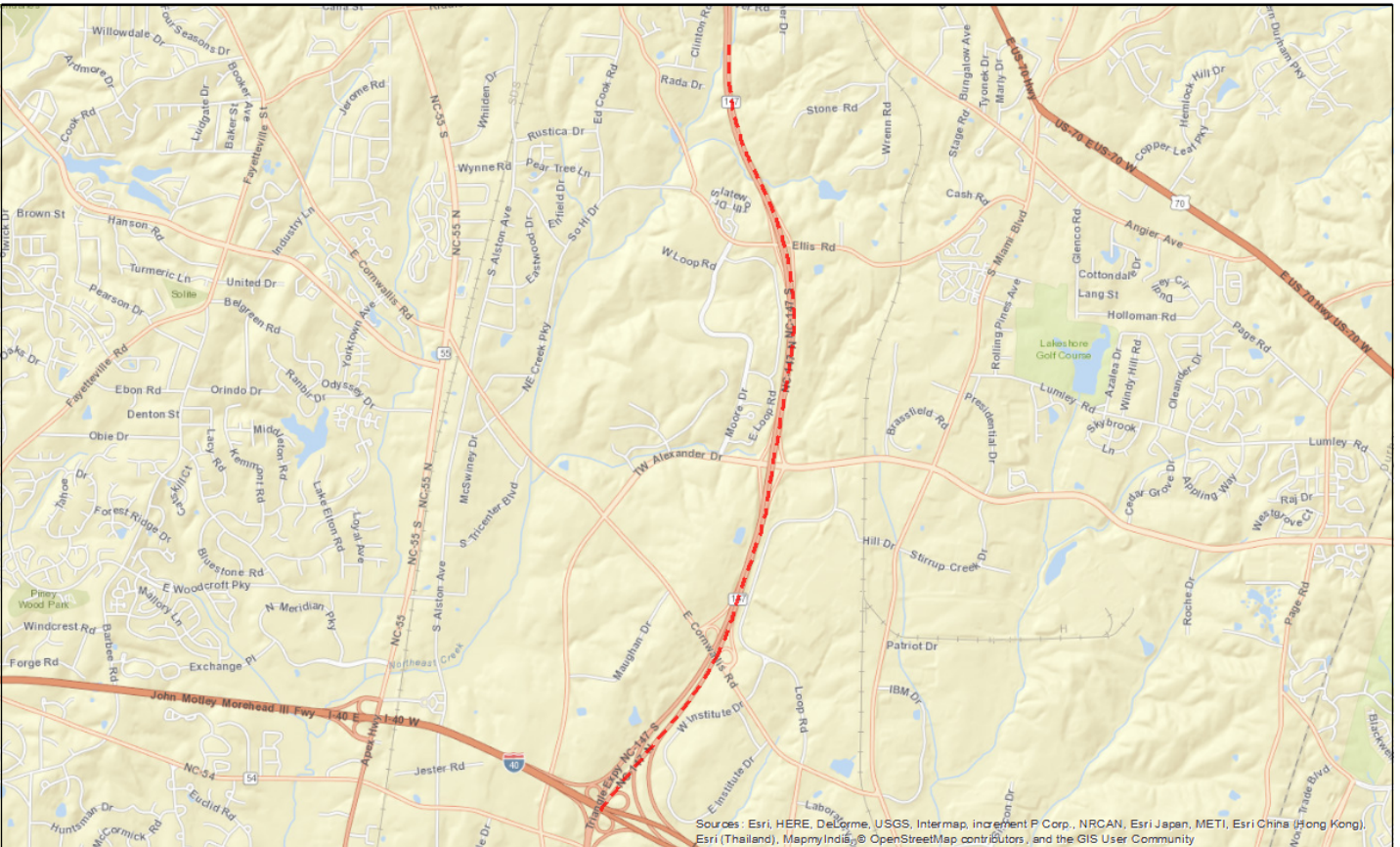
Widen Roadway to 6 Lanes and Rehabilitate Pavement.

Division(s): Division 5

County(s): DURHAM

MPOS(s)/RPO(s): Durham Chapel Hill Carrboro MPO

Project Location



Statewide Mobility Total Score: 0

Quantitative Score	Division Engineer Points	MPO/RPO Points
Congestion SW (30%) In Progress Safety (15%) In Progress Economic Competitiveness (10%) In Progress Multimodal (5%) In Progress Freight (15%) In Progress Benefit-Cost SW & REG (25%) In Progress	N/A	N/A
Totals: Weight: 100% Weighted Score: 0		

Regional Impact Total Score: 0

Quantitative Score	Division Engineer Points	MPO/RPO Points
Safety (10%) In Progress Accessibility / Connectivity (10%) In Progress Congestion REG (20%) In Progress Freight (10%) In Progress Benefit-Cost SW & REG (20%) In Progress	Percent: 15% Points:	Percent: 15% Points:
Totals: Weight: 70% Weighted Score: 0		

Division Needs Total Score: 0

Quantitative Score	Division Engineer Points	MPO/RPO Points
Safety (10%) In Progress Accessibility / Connectivity (5%) In Progress Congestion DIV (15%) In Progress Freight (5%) In Progress Benefit-Cost DIV (15%) In Progress	Percent: 25% Points:	Percent: 25% Points:
Totals: Weight: 50% Weighted Score: 0		

Criteria measures

Criteria	Measure	Raw Value	Scaled value	Criteria	Measure	Raw Value	Scaled value
Congestion	Volume/Capacity (SW 60%, REG 80%, DIV 100%)	0.98		Accessibility / Connectivity	County Economic Indicator (50%)	337	
	Volume (SW 40%, REG 20%, DIV 0%)	69606.22			Upgrade Roadway Travel Time Savings (50%)		
Benefit-Cost (SW/REG)	Benefit/Cost SW/REG (100%)			Freight	Truck Volume (50%)	2001.49	
Benefit-Cost (DIV)	Benefit/Cost DIV (100%)				Volume/Capacity on Non-Interstate STRAHNET or Future Interstate (30%)		
Safety (Segments)	Crash Density (33%)	66.66		Multimodal	Distance to Freight Terminal (20%)	4.61	
	Crash Severity (33%)	53.53			Distance to Multimodal Terminal (60%)	2.73	
	Critical Crash Rate (33%)	88.48		Volume/Capacity on Route near Multimodal Terminal (40%)			
Safety (Intersections)	Crash Frequency (50%)			Lane Width	Lane Width Difference (100%)	1	
	Severity Index (50%)			Shoulder Width	Paved Shoulder Width Difference (100%)	0	
Economic Competitiveness	%Change in Economy (50%)			Pavement Condition	Pavement Condition Rating (100%)	82	
	Long-term Jobs (50%)						

Project Data***Existing Conditions**

Existing Cross-Section:	4 Lane with Median - Full Control
Speed Limit (mph):	65
Length (miles):	3.94
Facility Type:	Freeway
Access Control:	Full
Functional Classification:	Other Principal Arterial-Other Freeway
Terrain Type:	Rolling
Lane Width (ft):	11
Paved Shoulder Width (ft):	10
Roadway has Curb & Gutter?	No
Volume (AADT):	65838.55
Volume (PADT):	69606.22
Peak ADT (PADT) Factor:	1.06
Capacity (vpd):	70793.03
Volume (PADT)/Capacity Ratio:	0.98
% Autos:	97%
% Trucks:	3%
Truck Volume (AADTT):	2001.49
Crash Density (seg):	66.66
Crash Severity (seg):	53.53
Critical Crash Rate (seg):	88.48
Crash Frequency (int):	
Severity Index (int):	
Adjusted Property Tax Base Per Capita Rank:	
Population Growth Rank:	
Median Household Income Rank:	
12 Month Average Unemployment Rate Rank:	
Sum County Rank:	337
Non-Interstate STRAHNET Route?	No
Future Interstate Route?	Yes
Pavement Condition Rating:	82

Project Benefits

Project Cross-Section:	6A - 6 Lane Divided (46' Depressed Median) with Paved Shoulders
Speed Limit (mph):	65
Length (miles):	3.94
Facility Type:	Freeway
Access Control:	Full
Functional Classification:	Other Principal Arterial-Other Freeway
Terrain Type:	Rolling
DOT Design Lane Width (ft):	12
DOT Design Paved Shoulder Width (ft):	10
Travel Time Savings for 10 Years (NCSTM) - SW/REG:	13088670.37
Travel Time Savings in \$ (NCSTM) - SW/REG:	
Travel Time Savings for 10 Years (CALC) - DIV:	
Travel Time Savings in \$ (CALC) - DIV:	
Safety Benefits in \$:	
Long-Term Employment:	
% Change in Economy:	
Nearest Freight Terminal:	Raleigh-Durham International Airport
Distance to Freight Terminal (miles):	4.61
Nearest Multimodal Passenger Terminal :	Triangle Transit Regional Transit Center
Distance to Multimodal Terminal (miles):	2.73
Does project upgrade how the roadway functions?	No
Travel Time Savings/User:	
In CTP or LRTP?	Yes
CTP/LRTP Name:	DCHC MPO 2040 MTP
CTP/LRTP Completion Year:	2013
Submitted by:	Durham Chapel Hill Carrboro MPO

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

Project Ownership

Division

Division	Percent	Regional Impact Points	Division Needs Points
Division 5	100%	0	0
	0%	0	0
	0%	0	0
TOTAL Division Points		0	0

MPO/RPO

MPO/RPO	Percent	Regional Impact Points	Division Needs Points
Durham Chapel Hill Carrboro MPO	100%	0	0
	0%	0	0
	0%	0	0
TOTAL MPO/RPO Points		0	0

Project Cost and Source

Construction Cost:	\$103,869,000	Cost Estimation Tool
Right-of-Way Cost:	\$11,984,000	Cost Estimation Tool
Utilities Cost:	\$1,438,000	Cost Estimation Tool
Total Project Cost:	\$117,291,000	
Other Funding:	\$0	None
Cost to NCDOT :	\$117,291,000	