

## 2035 LRTP Highways Projects

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### Introduction

This section presents:

- a table and map of the highway projects;
- the corresponding attribute information, such as project cost and implementation year; and,
- a brief discussion on the criteria used for selecting these projects from the larger set of highway projects in the Alternatives and Transportation Options.

### Project Selection for Transportation Projects

The 2035 LRTP process started with a large set of highway projects to be considered for inclusion in the Plan and methodically selected the most important projects through a series of evaluation steps. The Highway Intensive Alternative had 150 highway projects and these were narrowed down to 93 projects in the Transportation Options before concluding with this draft project set. Several factors were considered throughout this process in selecting these 74 projects, including:

1. Congestion (V/C) – The Triangle Regional Model (TRM) produces maps that show the level of congestion on the road segments – these maps are often called “volume over capacity” maps. Highway projects in corridors in which the forecast indicated high levels of congestion, and highway projects that were shown to help relieve that congestion, were given preference.
2. Fiscal Constraint – The revenues must cover the costs in the 2035 LRTP. The cost of the 93 projects in the Transportation Options exceeded the revenues by over \$1 billion. Thus, many highway projects were removed from that set of highway projects to produce the set of highway projects in the draft 2035 LRTP.
3. Environmental Impacts – Some proposed road widenings cross wetlands and other environmentally sensitive areas. It is difficult to increase the right-of-way of these existing roadways or add to negative impacts such as storm water runoff. The MPO proposes to implement capacity improvement that have less overall environmental impact, such as intersection capacity and design improvements, to meet these capacity improvements.
4. Local Support – In some cases, the board of local elected officials, a community organization or citizen has provided a clear indication during the Alternatives

Analysis and Transportation Options steps that they support or oppose a project or type of project (e.g., rail transit).

Highway projects that are expected to be completely constructed or funded (as stated in the current TIP – Transportation Improvement Program) before January 1, 2008 are not included. It is assumed that these projects will be completed and their fiscal impact occurs before the beginning of the 2035 LRTP planning horizon, which is January 1, 2009.

## **Projects in the Comprehensive Transportation Plan (CTP)**

The DCHC MPO plans to start development of a Comprehensive Transportation Plan (CTP) by June 2009 and adopt the CTP by December 2009. Indeed, much of the analysis work required for the CTP is being completed in the 2035 LRTP process. Given that the CTP has a time horizon that extends beyond that of the 2035 LRTP, many of the projects from the Highway Intensive Alternative and Transportation Options that are not included in the 2035 LRTP will be part of the adopted CTP. Many of these projects are included in the 2035 LRTP highway table with a “2040” AQ Year designation.

## **Map and Tables**

The map of the highway projects in the 2035 LRTP and many post year projects (i.e., air quality year, or implementation horizon, is 2040) is on page 4 of this section. A table that lists these projects and their attributes follows the map and a key to the attribute information is below.

## **Key Information in Project Table**

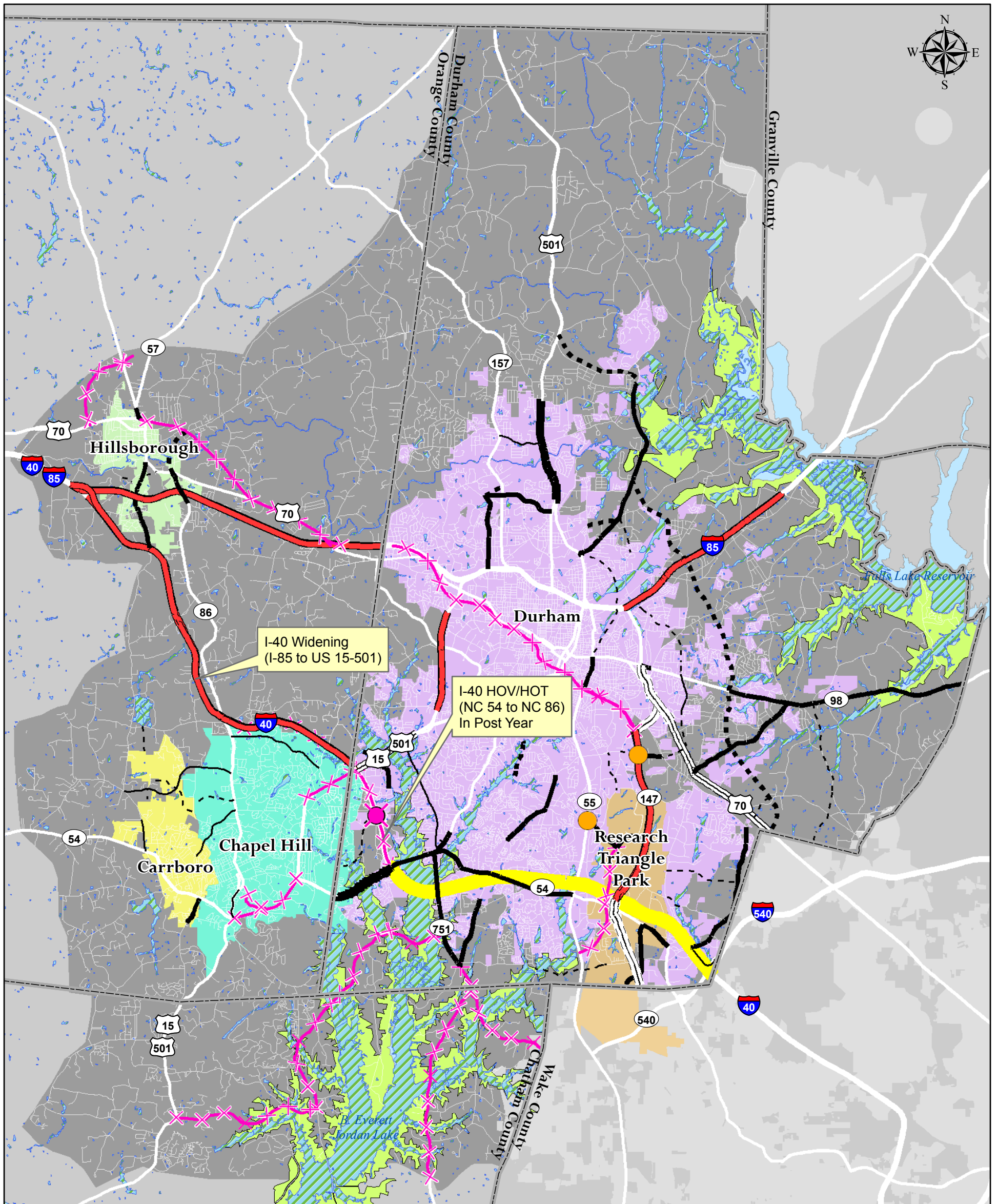
Each row in the table is a separate highway project. The attribute information for each project is presented by columns, and includes the following:

- New ID – This number facilitates the identification of projects in the long-range plan.
- Project – The project name is the name of the road.
- Project Limits – This usually identifies the name of the two road intersections between which the project is to be constructed.
- Existing Cross-Section – This identifies the number of current lanes. “0” indicates a new road alignment – in other words, there is no existing road.
- Proposed Cross-Section – This identifies the number of lanes proposed in the plan.
- County – This identifies the county location of the project.
- Length – This shows the length, in miles, of the project roadway.

- Total Cost – The total costs includes those estimated costs to be incurred between January 1, 2009 and December 31, 2035. Cost information from the current Transportation Improvement Program (TIP) and any related studies (e.g., I-40 HOV) was used to calculate costs for projects, when available, and a modified version of the current highway cost template from the NCDOT (North Carolina Department of Transportation) was used for the majority of projects. Projects with a “2040” AQ Year are post year projects that are not included in the 2035 LRTP and therefore the project cost is not in the Plan, as well.
- AQ Year – There are five Air Quality analyses thresholds – there are three periods, 2009 to 2015, 2016 to 2025, and 2026 to 2035, and two stand alone years, 2011 and 2017. The AQ Year indicates in which analysis period the particular project will be completed and in service. Projects designated as “2040” are not included in the 2035 LRTP but will be part of the upcoming Comprehensive Transportation Plan (CTP).
- Reg. Significant? – Regionally Significant projects provide access to and from the region, or to major destinations in the region. They are usually classified by the FHWA as interstate, freeway/expressway, urban principal arterial, rural interstate, or rural principal arterials. Note that the FHWA functional classifications serve a different purpose than the local functional classification used by the MPO, and as a result, the two classification systems are significantly different. Generally, the regionally significant designation includes interstate highways, U.S. highways, freeways, and North Carolina signed roads that are the primary road in a corridor. Rail transit facilities, which are described in a separate section, are considered regionally significant. The Regionally Significant designation is important – if a Regionally Significant project is changed (e.g., completion year, travel capacity) after the Air Quality Conformity Determination for the 2035 LRTP has been approved, then the Conformity Determination process might have to be done again.
- Exempt? – Some transportation projects are exempt from air quality conformity determination according to Title 40, Code of Federal Regulations (CFR), PART 93.126 and PART 93.127. The most important implication of this exemption is that the projects may proceed toward implementation in the absence of an approved and conforming Long Range Transportation Plan. These exempt projects tend to be transit services, and highway project that do not add overall roadway capacity but reduce travel delays, thereby reducing vehicle emissions.
- TIP No. – The TIP identification number is shown for those projects that are in the current Transportation Improvement Plan (TIP). Most of these projects are completely or partially funded in the TIP.
- Funding Source – The proposed funding sources for most projects are federal and/or state programs. In some cases, the local government or a private source is identified.

# DURHAM CHAPEL HILL CARRBORO METROPOLITAN PLANNING ORGANIZATION

## Roadway Improvements in Draft 2035 LRTP



Interstates	6-Lane Divided Improvement	Carrboro	Wetlands
US and NC Highways	Upgrade to Freeway	Chapel Hill	Corps of Engineering
<b>Highway Projects</b>	New Freeway/Expressway	Durham	MPO Boundary
2-3 Lane New Location	Upgrade Existing Freeway	Hillsborough	County Boundaries
2-3 Lane Improvement	Intersection Improvements	Other Municipalities	
4-5 Lane Divided New Location	HOV Projects	Research Triangle Park	
4-5 Lane Divided Improvement	Post Year	Post Year	

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2035 LRTP -- Highway Projects -- Transportation Options

Shaded Cells = This information different from previous Transportation Options highway table.

ID	Project	Project Limits	Existing Cross-Section	Proposed Cross-Section	County	Length (miles)	Total Cost (2008 dollars)	AQ Year	Reg. Significant?	Exempt?	TIP No.	Funding Source
1	Alexander Dr (T.W. Alexander)	Cornwallis Rd to NC 147	2	4	Durham	0.50	\$8,900,000	2017	No	No	U-3309	State/Fed
3	Alexander Dr (T.W. Alexander)	NC 54 to NC 55	2	4	Durham	1.64	\$25,083,066	2040	No	No		State/Fed/Private
4	Alexander Dr (T.W. Alexander)	NC 54 to Cornwallis Rd	2	4	Durham	1.58	\$24,204,905	2040	No	No		State/Fed/Private
5	Alston Ave Ext	Holloway St to Old Oxford/Roxboro	0	2	Durham	3.49	\$40,379,218	2035	No	No		State/Fed/Private
8.11	Briggs Ave Ext	So-Hi Dr to Riddle Rd	0	2	Durham	1.08	\$11,492,938	2035	No	No	U-2831B	State/Fed
9	Carver Street Ext	Armfield St to Old Oxford Rd	0	4	Durham	0.73	\$7,660,000	2017	No	No	CIP	Local
10.11	Chin Page Ext	Page Rd to Wake County Line	0	2	Durham	0.20	\$2,128,322	2025	No	No		State/Fed/Private
12	Cornwallis Rd	MLK to Alexander Dr	2	4	Durham	0.79	\$8,210,476	2025	No	No		State/Fed
13.11	Cornwallis Rd Ext	Miami Blvd to Chin Page Rd	0	2	Durham	0.55	\$5,852,885	2035	No	No		State/Fed
15	East End Connector (EEC)	NC 147 to US 70 E; US 70:EEC to NC 98	0	4	Durham	2.50	\$155,401,000	2017	Yes	No	U-0071	State/Fed/Hwy Trust Fund
16	Elizabeth Brady Rd Ext	US 70 Business to St Mary's Rd	0	4	Orange	1.30	\$33,594,000	2017	No	No	U-3808	State/Fed
16.1	Eno Mountain Rd/Mayo Rd	Orange Grove Rd intersection realignment	2	2	Orange	0.00	\$5,000,000	2017	No	Yes	U-3436	State/Fed
17	Estes Dr	Greensboro Rd to NC 86	2	3	Orange	1.70	\$6,600,000	2025	No	No	U-2909	State/Fed
19	Farrington Point/Old Farrington/Farrington Mill Rd	Lystra Rd to Durham Co. line	2	4	Chatham	3.66	\$38,038,409	2040	No	No		State/Fed
20	Farrington Mill Rd	Barbee Chapel Rd to Chatham Co. line	2	4	Durham	2.04	\$21,201,736	2040	No	No		State/Fed
21	Farrington Rd	Barbee Chapel Rd to Stagecoach Rd	2	4	Durham	0.40	\$4,157,203	2040	No	No		State/Fed
22.1	Fayetteville Rd	Renaissance Pkwy to NC 751	2	4	Durham	1.90	\$20,826,715	2025	No	No		State/Fed
23	Fayetteville Rd	Woodcroft Pkwy to Cornwallis Rd	2	4	Durham	2.31	\$23,134,000	2017	No	No	CIP	Local
24.11	Garrett Rd	NC 751 to US 15-501	2	3	Durham	3.09	\$16,753,108	2025	No	No		State/Fed
26.11	Globe Rd Ext (Brier Creek Pkwy)	Miami Blvd. To Wake County Line	0	2	Durham	2.18	\$23,198,709	2035	No	No		State/Fed/Private
27	Glover Rd	Glover Rd/NC 147 interchange; 147 to Angier	2	4	Durham	0.64	\$33,231,525	2025	No	No		State/Fed/Private
28.11	Glover Rd	Angier to US 70	0	2	Durham	0.59	\$6,278,550	2025	No	No		State/Fed/Private
30	Hillandale Rd	I-85 to Carver St	2	4	Durham	0.62	\$10,943,000	2011	No	No	U-3804	State/Fed
31	Hillandale Rd	Carver to Horton Rd	2	4	Durham	1.38	\$14,342,351	2025	No	No		State/Fed
32	Hillandale Rd Ext	Horton Rd to Guess Rd	0	4	Durham	0.55	\$9,094,040	2035	No	No		State/Fed/Private
33	Old Fayetteville Rd.	Strowd Ln to Old Fayetteville/NC 54 (bike, ped. & transit accommodations)	2	2	Orange	0.85	\$1,800,000	2025	No	Yes	U-3100	State/Fed
35	Homestead Rd	High School Rd to NC 86	2	3	Orange	1.58	\$10,300,000	2025	No	No	U-2805	State/Fed
36	Homestead Rd	Old NC 86 to High School Rd	2	3	Orange	1.74	\$8,825,634	2025	No	No		State/Fed
39	Horton Rd	Duke St to Hillandale Rd	2	4	Durham	1.94	\$22,322,436	2035	No	No		State/Fed

2035 LRTP -- Highway Projects -- Transportation Options

Shaded Cells = This information different from previous Transportation Options highway table.

ID	Project	Project Limits	Existing Cross-Section	Proposed Cross-Section	County	Length (miles)	Total Cost (2008 dollars)	AQ Year	Reg. Significant?	Exempt?	TIP No.	Funding Source
40	(Horace Williams Network) Carolina North	Carolina North Campus (this is not an extension of Weaver Dairy Rd)	0	2	Orange	1.14	\$12,131,435	2020	No	No		Private
41	I-40/Farrington Rd interchange	I-40/Farrington Rd interchange	0	1	Durham	0.20	\$26,610,000	2040	No	No		State/Fed
43	I-40 (general purpose widening)	US 15-501 to NC 86	4	6	Orange	4.08	\$43,790,031	2035	Yes	No	I-3306	State/Fed
44	I-40 (general purpose widening)	NC 86 to I-85	4	6	Orange	7.32	\$77,277,997	2035	Yes	No	I-3306	State/Fed
45	I-40 HOV	Wake County Line to NC 54	0	2	Durham	10.63	\$561,000,000	2035	Yes	No		State/Fed
46	I-540	Ramp improvement: I-540 W to I-40 W	1	2	Durham	0.86	\$4,930,000	2011	Yes	No	R-2000	State/Fed
48	I-85	I-40 to the Durham Co line	4	6	Orange	8.35	\$210,782,000	2025	Yes	No	I-0305	State/Fed
49	I-85	US 70 to Redwood Rd	4	6	Durham	5.25	\$132,527,605	2025	Yes	No	I-4743	Hwy Trust Fund
50.1	Jack Bennett Rd/Lystra Rd	US 15/501 South to Farrington Pt. Rd	3	4	Chatham	4.10	\$13,837,500	2040	No	No		State/Fed/Private
51	Lake Hogan Farms Rd Ext	Lake Hogan Farms Rd to Eubanks Road	0	2	Orange	0.96	\$10,419,610	2020	No	No		Private
52	Latta Rd	Guess Rd to Roxboro Rd	2	3	Durham	1.20	\$5,409,315	2035	No	No		State/Fed
54.11	Leesville Rd Ext	Leesville Rd to US 70/Page Rd	0	2	Durham	0.81	\$9,587,110	2035	No	No		State/Fed/Private
57	Lynn Rd Ext	NC 98/Glover Rd Ext to Existing Lynn Rd	0	2	Durham	0.86	\$9,346,199	2035	No	No		State/Fed/Private
60	Midland Terrace	NC 98 to Geer St	0	2	Durham	2.44	\$17,207,959	2035	No	No		State/Fed
61	Midland Terrace	Dearborn to Old Oxford Rd/Hamlin Junction	0	2	Durham	0.98	\$17,862,527	2035	No	No		State/Fed/Private
63	MLK Pkwy (NC 55 interchange)	NC 55 to Cornwallis Rd connector	0	4	Durham	0.28	\$29,850,000	2035	Yes	No	U-2405	State/Fed
64.11	NC 147 General purpose widening	Alston Ave to East End Connector	4	6	Durham	1.84	\$25,497,857	2040	Yes	No		State/Fed
64.12	NC 147 General purpose widening	Alston Ave to I-85	4	6	Durham	6.73	\$120,515,944	2040	Yes	No		State/Fed
64.13	NC 147 General purpose widening	East End Conn to I-40	4	6	Durham	4.78	\$52,645,086	2035	Yes	No		State/Fed
66	NC 147 South Ext (Triangle Pkwy -toll)	I-40 to Wake County Line	0	6	Durham	2.40	\$156,700,000	2017	Yes	No	U-4763B	State/Fed/Tolls
69	NC 54	I-40 Interchange to NC 55	2	4	Durham	5.24	\$36,357,032	2025	No	No		State/Fed
70	NC 54	I-40 to Barbee Chapel Rd	4	6	Durham	1.65	\$34,540,862	2025	Yes	No		State/Fed
73	NC 54/US 15-501 Bypass	NC 54 to US 15-501	4	6	Orange	2.12	\$22,372,618	2040	Yes	No		State/Fed
75	NC 55 (Alston Ave.)	NC 147 to NC 98	2	4	Durham	0.90	\$23,320,000	2017	No	No	U-3308	State/Fed
76	NC 751	US 64 to O'Kelly Chapel Rd	2	4	Chatham	7.00	\$44,130,000	2040	No	No		State/Fed
77.1	NC 751	S Roxboro St to NC 54	2	4	Durham	0.70	\$10,245,211	2025	No	No		State/Fed
77.2	NC 751	NC 54 to Renaissance Pkwy	2	4	Durham	1.23	\$12,783,400	2025	No	No		State/Fed
77.3	NC 751	Renaissance Pkwy to Fayetteville/Scott King Rd	2	4	Durham	1.94	\$20,162,436	2025	No	No		State/Fed

2035 LRTP -- Highway Projects -- Transportation Options

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ID	Project	Project Limits	Existing Cross-Section	Proposed Cross-Section	County	Length (miles)	Total Cost (2008 dollars)	AQ Year	Reg. Significant?	Exempt?	TIP No.	Funding Source
78	NC 751	O'Kelly Chapel Rd to Fayetteville/Scott King Rd	2	4	Durham	0.74	\$7,690,826	2040	No	No		State/Fed
80	NC 86	Old NC 10 to US 70 Business	2	4	Orange	0.90	\$11,513,707	2025	No	No		State/Fed
81	NC 86	US 70 Bypass to NC 57	2	4	Orange	0.34	\$3,533,623	2025	No	No		State/Fed
81.1	NC 98 (Holloway St)	Wake County Line to Mineral Springs	2	4	Durham	6.46	\$68,218,832	2035	No	No		State/Fed
83	Northern Durham Pkwy	US 70 E to I-85 North	0	4	Durham	8.07	\$133,434,364	2025	Yes	No	U-4721	Hwy Trust Fund
84	Northern Durham Pkwy	I-85 North to Old Oxford Hwy	0	4	Durham	3.80	\$64,991,547	2025	Yes	No	U-4721	Hwy Trust Fund
85	Northern Durham Pkwy	Old Oxford Hwy to Roxboro Rd	0	2	Durham	2.64	\$28,093,849	2025	No	No	U-4721	Hwy Trust Fund
85.2	O'Kelly Chapel Rd	NC 751 to Wake County Line	2	4	Chatham	2.90	\$30,139,723	2040	No	No		State/Fed/Private
86	Old NC 86	I-40 to Lafayette Dr.	2	4	Orange	0.80	\$6,176,000	2035	No	No	R-2825	State/Fed
87	Old NC 86	Lafayette Dr to US 70 Business	2	4	Orange	1.63	\$13,124,000	2035	No	No	R-2825	State/Fed
88	Old Oxford Rd	Roxboro Rd to Snow Hill Rd	2	4	Durham	2.57	\$27,790,031	2025	No	No		State/Fed
89	Olive Branch Rd Ext	NC 98 to Wake County Line	0	2	Durham	1.48	\$16,869,085	2035	No	No		Private
89.3	Orange Grove Connector	Orange Grove Rd to US 70	0	2	Orange	0.40	\$5,336,644	2017	No	No		State/Fed/Private
90	Page Rd	I-40 to Page Rd Ext	2	4	Durham	3.88	\$40,324,871	2035	No	No		State/Fed
91	Riddle Rd Extension	Ellis Rd to NC 147	0	2	Durham	0.49	\$5,214,389	2025	No	No		State/Fed/Private
92	Roxboro Road (501N)	Duke Street to Goodwin Rd	4	6	Durham	2.65	\$40,962,074	2035	Yes	No	U-4722	Hwy Trust Fund
94	Roxboro St	Cornwallis Rd to MLK Pkwy	0	4	Durham	1.29	\$4,240,000	2025	No	No	CIP	State/Fed
95.11	Scott King Rd	Grandale Dr to Hopson Rd	0	2	Durham	1.15	\$13,317,851	2035	No	No		State/Fed
96	Seawell School Connector	Lake Hogan Farms Rd to Seawell School Rd	0	2	Orange	1.61	\$17,132,991	2035	No	No	Private	Private
96.1	Sherron Rd	US 70 to NC 98	2	4	Durham	3.25	\$33,777,276	2035	No	No		State/Fed
97	Smith Level Rd	Rock Haven Rd to NC 54 bypass	2	3	Orange	0.75	\$5,400,000	2017	No	No	U-2803	State/Fed
98	South Columbia St	NC 54 to Manning Dr.	0	2	Orange	0.86	\$3,650,000	2017	Yes	Yes	U-624	State/Fed
101	Stagecoach Rd	Farrington Mill Rd to NC 751	2	4	Durham	1.96	\$20,370,296	2040	No	No		State/Fed
102	SW Durham Dr	Meadowmont Dr to I-40	0	2	Durham	1.79	\$21,208,481	2025	No	No		State/Fed/Private
104	SW Durham Dr.	Watkins Rd (Old Chapel Hill Rd to US 15-501)	2	4	Durham	0.70	\$10,245,211	2017	No	No		Private
106	SW Durham Dr.	US 15-501 to Mt. Moriah Rd	0	4	Durham	0.35	\$9,054,232	2025	No	No		Private
108	UNC Access to the Bypass	Manning Dr to 54/15-501 Bypass	0	4	Durham	0.54	\$13,904,714	2040	No	No		State/Fed
111	US 15-501	I-40 to Franklin St	4	6	Orange	1.40	\$24,270,422	2040	Yes	No	U-2807	State/Fed

Shaded Cells = This information different from previous  
 Transportation Options highway table.

**2035 LRTP -- Highway Projects -- Transportation Options**

ID	Project	Project Limits	Existing Cross-Section	Proposed Cross-Section	County	Length (miles)	Total Cost (2008 dollars)	AQ Year	Reg. Significant?	Exempt?	TIP No.	Funding Source
113	US 15-501 (freeway conversion)	Bypass to I-40	4	6	Durham	1.88	\$106,381,000	2035	Yes	No	U-2807	State/Fed
114	US 15-501 Bypass	Pickett Rd to Morreene Rd	4	6	Durham	2.64	\$35,386,491	2035	Yes	No		State/Fed
116	US 70 (freeway conversion)	Lynn Rd to Wake Co line	4	6	Durham	4.08	\$128,210,945	2025	Yes	No	U-4720	Hwy Trust Fund
117	US 70 Bypass	NC 86 to I-85 (exit 170)	2	4	Orange	6.90	\$102,068,510	2040	No	No		State/Fed
119	Weaver Dairy Rd	NC 86 to Erwin Rd	2	3	Orange	2.65	\$11,070,000	2017	No	No	U3306	State/Fed
120	Western Bypass	US 70 to NC 86	0	2	Orange	2.23	\$23,730,789	2040	No	No	R-3438	State/Fed
121	Western Bypass	NC 86 to Stroud Creek Rd	0	2	Orange	0.30	\$3,192,483	2040	No	No	R-3438	State/Fed
123.11	Woodcroft Pkwy Ext	Garrett Rd to Hope Valley Rd	0	2	Durham	0.25	\$2,660,402	2025	No	No		State/Fed/Private
<b>Highway Trust Fund Projects =</b>							<b>\$683,621,384</b>					
<b>Toll highway project =</b>							<b>\$156,700,000</b>					
<b>Other highway projects =</b>							<b>\$2,002,141,232</b>					
<b>Total Highway Costs in 2035 LRTP =</b>							<b>\$2,842,462,617</b>					
<b>Post Year Projects (AQ Year = 2040)</b>							<b>\$591,017,002</b>					