2035 LRTP and CTP
Alternatives -- Introduction

What is the 2035 LRTP?

The 2035 Long-Range Transportation Plan (LRTP) is the guide for major transportation investments in the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC-MPO) area. The DCHC-MPO area covers the entire Durham County and the urbanized portions of Orange and Chatham Counties. The 2035 LRTP recommends major transportation projects, policies and strategies designed to maintain existing transportation systems and serve the region's future travel needs. The 2035 LRTP is also designed to support land use and air quality goals for the urban area, and must be prepared in accordance with Federal transportation and environmental requirements. Projects must be in the 2035 LRTP in order to receive state and federal transportation funding through the North Carolina Transportation Improvement Program (TIP).

What is the CTP?

North Carolina General Statute 136-66.2 requires each municipality or Metropolitan Planning Organization (MPO), with the cooperation of the NCDOT, to develop a Comprehensive Transportation Plan (CTP) serving present and anticipated travel demand in and around the MPO. The CTP is a series of 5 sheets that include: Adoption Sheet, Highway Map, Public Transportation and Rail Map, Bicycle Map, and Pedestrian Map. These sheets show current and future transportation facilities. The principal differences between the LRTP and CTP include:

- LRTP lists only proposed highway improvements and transit services, whereas the CTP maps out both the current and proposed projects;
- LRTP must be fiscally-constrained, i.e., the anticipated revenues must cover the anticipated costs, but the CTP has no fiscal element.

The development process for these two documents, which includes the use of a travel demand model and extensive public involvement, are very similar. As a result, the DCHC MPO will complete the development process for both documents at the same time.

What are Alternatives?

The DCHC MPO plans to develop and evaluate several Alternatives in the process to create the 2035 Long Range Transportation Plan. Each Alternative will be a combination of a Transportation System, which includes a set of highway, transit and other transportation improvements, and a Land Use Scenario that distributes the forecasted

population and employment for the year 2035. These Alternatives will be run in the Triangle Regional Model (TRM) to produce a set of transportation performance measures that describe how the transportation system will handle the travel demand generated by a particular population and employment distribution in the year 2035. These performance measures, such as the level of roadway congestion, average travel time, and transit ridership, will be used to evaluate and compare the various Alternatives.

It should be noted that it is very unlikely that one of the Alternatives in its entirety would be advanced as the Preferred Option. These Alternatives have been designed to emphasize a particular mode in meeting the future travel demands so that the public and technical staff can understand how well the designated mode works.

How can Citizens Participate?

There are many opportunities for citizens to review and comment on the Alternatives and Preferred Option at a series of public workshops and public hearings that will take place from August through December 2009. The public involvement calendar for the Alternatives is displayed below. The DCHC MPO Website will continue to post a detailed list of these public involvement opportunities in the 2035 LRTP section of the Website – www.dchcmpo.org. For more information, citizens can also contact Andy Henry, (919) 560-4366, andrew.henry@durhamnc.gov.

Alternatives Analysis – Public Involvement Calendar

Jurisdiction	Elected Board	Planning Board	Transportation Board	Bicycle/ Pedestrian Board	Transit Board	Public Workshops
City of Durham	9/18/2008	9/9/2008	n/a	8/19/2008	9/3/2008	9/11 Main Library*, 4:30-7:30pm 9/2 Northern H.S., 6:30-8:30pm 9/4 Jordan H.S. ., 6:30-8:30pm
Durham County	9/1/2008 or 9/8/2008	9/9/2008	n/a	8/19/2008	n/a	
Chapel Hill	9/8 (Forum) and 9/22	8/19	8/28	9/11 (Active Living)	n/a	9/9 Chapel Hill Main Library, 4-7pm
Carrboro	9/2/2008	8/21/2008	8/21/2008			
Hillsborough	9/24 (workshop)	9/18	n/a	n/a	n/a	8/28 "The Barn", 4-7 pm
Orange County	9/16/2008	Can attend Transportation Bd. meeting	8/27/2008 (special mtg.)	n/a	n/a	
Chatham County	(to be determined)	(to be determined)	n/a	n/a	n/a	8/22 Ag Center in Pittsboro, 4-7pm

*One workshop will be focused for environmental justice organizations

Note: Check DCHC MPO Web site for any meeting date and time updates – www.dchcmpo.org

What is the Next Step in the 2035 LRTP Process?

In the next major step in the 2035 LRTP development process, the public, elected officials and technical staff will use the evaluation and comparison of the Alternatives to create a single Alternative that best meets the MPO's Goals and Objectives and the fiscal constraint requirements. These requirements demand that the project costs do not exceed the expected funding revenues. This final Alternative is called the Preferred Option, and it will also go through an extensive public review process similar to that of the Alternatives.

Development of Alternatives

The table on page 4 shows the combinations of Transportation Systems and Land Use Scenarios that will be modeled for the 2035 LRTP development process. Each of these Transportation Systems will be combined with one, or more, Land Use Scenarios to create an Alternative.

- The first two Transportation Systems (#1 and #2), the 2030 LRTP and Comprehensive Transportation Plan, will be used as benchmarks to compare with the 2035 LRTP Alternatives, and therefore will not form Alternatives.
- The next five Transportation Systems (#3 through #7), are Alternatives for the 2035 LRTP.

There is a unique set of Socioeconomic Data (SE Data) for each Land Use Scenario. The Baseline Land Use Scenario, for example, is the SE Data approved by the Transportation Advisory Committee (TAC) for use in developing the 2035 LRTP and is based on the current land use plans and policies of the local jurisdictions in the DCHC MPO's planning area. The other Land Use Scenarios assume certain changes to current land use policies.

Summary Description of Transportation Systems

Each Transportation System is composed of many highway, transit and other transportation projects. A review of the long list of projects is a difficult task. The table on page 5 provides a summary of the major projects in each of the Transportation Systems to highlight the level and type of investment in the three major modes – highway, bus transit and fixed-guideway.

Section 4 of this report, called *Alternatives – Detailed Description*, presents maps and project tables for each of the transportation systems used in the Alternatives.

Combinations of Transportation Systems and Land Use Scenarios (1)

No.	Transportation System	Land Use Scenarios				
		Baseline	**Constrained**	**Buildout**	**Corridor**	**Transit Nodes**
Benchmarks for comparison						
1	**2030 Adopted LRTP** Currently adopted plan	**1a**				
2	**Comprehensive Transportation Plan** Vision Plan to address population and employment buildout beyond the year 2035; no budget constraint	**2a**		**2b**		
2035 LRTP Alternatives						
3	**Intensive Highway** Emphasize highway investment to address transportation needs	**3a**	**3b**		**3c**	
4	**Intensive Fixed Guideway** Light rail and other grade separated transit	**4a**			**4b**	**4c**
5	**Intensive Bus Transit** Emphasize bus transit service to address transportation needs	**5a**			**5b**	**5c**
6	**Moderate Multimodal** Continue current investment trends with some shift to non-automobile modes	**6a**			**6b**	**6c**
7	**System Preservation** (2) Preserve effectiveness of existing transportation using ITS, TDM, and CMS-TSM projects and policies					

(1) Each combination of a Transportation System and Land Use Scenario creates an Alternative and will require a unique travel demand model run.

(2) The Triangle Regional Model (TRM) is not designed to be very sensitive to changes in ITS, TDM, and CMS-TSM projects and policies. Therefore, the System Preservation Alternative will not require additional model runs.

Summary of Transportation Systems (Alternatives)(1)

Transportation System	Highway	Bus Transit	Fixed Guideway
2030 LRTP	• **518** lane miles added • HOV/HOT on I-40 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **10-15 minutes** • Off-Peak headways **20-30 minutes**	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill
CTP	• **703** lane miles added • HOV/HOT on I-40, NC 147, East End Connector, US 70 and I-85 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **5-7 minutes** • Off-Peak headways **7-15 minutes** • BRT in Chapel Hill • Includes all **STAC** recommendations	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all **STAC** recommendations
Intensive Highway	• **665** lane miles added • HOV/HOT on I-40, I-85 and part of NC 147 • Triangle Parkway (toll) • US 15-501 freeway • 7 "loop" projects	• Minor regular, express and regional bus expansion • Peak headways **15-30 minutes** • Off-Peak headways **30-45 minutes**	• No fixed guideway service
Intensive Fixed Guideway	• **276** lane miles added • No HOV/HOT • Triangle Parkway (toll) • 6 "loop" projects	• Moderate regular, express and regional bus expansion • Peak headways **7-10 minutes** • Off-Peak headways **15-20 minutes** • BRT in Chapel Hill • Includes all **STAC** recommendations	• Light Rail -- Durham to Raleigh • Fixed guideway -- Durham to Chapel Hill • Includes all **STAC** recommendations
Intensive Bus Transit	• **324** lane miles added • HOV/HOT on I-40 • Triangle Parkway (toll) • 6 "loop" projects	• Major regular, express and regional bus expansion • Peak headways **5-7 minutes** • Off-Peak headways **10-15 minutes**	• No fixed guideway service
Moderate Multimodal	• **285** lane miles added • No HOV/HOT • Triangle Parkway (toll) • 7 "loop" projects	• Moderate regular, express and regional bus expansion • Peak headways **15 minutes** • Off-Peak headways **30 minutes**	• Commuter Rail – Burlington to Raleigh; and Selma to Durham

(1) Some helpful definitions: HOV/HOT = High Occupancy Vehicle/Toll; lanes that can only be used by vehicles that pay a toll or have at least a specified number of passengers. Headway = minutes to wait before next bus arrives. Peak = period of highest travel, generally 7am-9am and 4pm-6pm. BRT = Bus Rapid Transit, which are buses on a separate roadway. Fixed Guideway = transit vehicles on traveling on separate track or roadway. STAC = Special Transit Advisory Commission, which was a regional commission that recommended major transit investments.

[This page left blank intentionally]