

## The Future of Transportation

**Wednesday, October 29<sup>th</sup>, 2014, 7:00 – 9:00 PM – The ArtsCenter**

- **Welcome and Introduction**, *Sammy Slade, Carrboro Alderman*
  - **Climate Protection Planning in Carrboro**, *Randy Dodd, Town of Carrboro Environmental Planner*
  - **Alternatives to the Single-Occupant Vehicle**, *Sarah Bruce, Certified Planner and Certified Floodplain Manager, Triangle J Council of Governments*
  - **Chapel Hill Transit – Serving Chapel Hill, Carrboro and the University of North Carolina at Chapel Hill**, *Brian M Litchfield, Director, Chapel Hill Transit*
  - **Transit, Land Use, and GHS emissions**, *Patrick McDonough, Manager of Planning and Transit Oriented Development & Jennifer Green, Transit Service Planner, Triangle Transit*
  - **Interactive Group Brainstorming Session**
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## Carrboro Transportation Forum on Climate Change Protection: Summary and Recommendations for Action

### Executive Summary

The Carrboro Climate Change Forum on October 29, 2014 began with a presentation from Town of Carrboro Environmental Planner Randy Dodd, who identified the transportation sector as the second largest source of carbon dioxide emissions. Mr. Dodd noted Carrboro's high level of engagement in efforts to encourage alternative transportation, and summarized the Town's Draft Energy & Climate Protection plan targeting a 5-10% reduction in municipal use and emissions. Sarah Bruce presented on the topic of the environmental, security, infrastructure, and social costs of driving alone. Supporting the more than 2 trillion annual miles traveled by passenger cars disturbs habitat, degrades water quality, creates heat islands, and maintains our reliance on foreign oil. Alternative fuels, though needed, are only part of the solution, which must include climate friendly modes of transportation as well.

Brian Litchfield of Chapel Hill Transit gave an overview of CHT's organizational structure, fleet, ridership, and performance standards. He outlined the programs and plans for sustainability, both environmental and financial, and presented the goals of the North-South Corridor Study. Jenny Green and Patrick McDonough from Triangle Transit presented transit options, TTA's new and expanded bus service, and 15-501 coordination, as well as plans for improving the pedestrian experience of TTA users and their information access. Advocating for green, transit-oriented development, McDonough illustrated the sensitivity to levels of car travel to changes in land use; household vehicle miles are significantly reduced in compact communities such as Southern Village.

After the presentations and a Q&A period, 4 breakout groups convened to discuss topics suggested by participants. Methods to reduce parking demand were discussed in a group moderated by Tom Roche; ideas included encouraging more transit-oriented development, use of shared parking infrastructure,

charging for parking and incentivizing reduced use, and establishing maximum parking standards. A group moderated by Heidi Perry and Seth LaJeunesse proposed ways to connect biking to transit, such as bike parking at bus and future light rail stops, optimizing stop locations for walkers and cyclists, and developing innovations in ridesharing and carpooling. The Active Transportation to School group, moderated by Loren Hintz, suggested a *Car Free Fridays* initiative, incentives, action on idling, redesign of lanes and drop-off locations, and dedicated routes to improve connectivity for walkers and riders. Tait Chandler moderated a group which identified stakeholders and community members missing from the conversation, and how to encourage broader participation from groups ranging from rural dwellers, blue-collar workers and minorities to developers, the real estate community, and the Chamber of Commerce.

## **Presentation: “Whatever You Do, Don’t Drive Alone!”**

*Sarah Bruce, AICP, CFM*

There are a number of reasons not to drive alone, including costs to the environment, security, infrastructure, and social structures. The transportation sector is responsible for over one-quarter (27%) of greenhouse gas (GHG) emissions; of this quantity, passenger cars are responsible for nearly half (43%). Additionally, the infrastructure required for private motor vehicles—parking lots, roads, bridges, etc.—causes large swaths of land to be rendered impermeable to runoff from storms, causing erosion, poor water quality, and flooding. Finally, the “heat island” effect caused by cities can have a significant impact on climate.

Reliance on oil has severe implications beyond the environment. The reliance of the US on oil from foreign sources can have significant geopolitical impacts, including our relationship with Russia and the Middle East. \$83 billion USD is spent annually on the military protection of petroleum.

Construction of infrastructure can cost millions of dollars per mile, and must be maintained. The cost of owning a private vehicle can have a severe impact on finances at the family level, as well, with annual total costs nearing \$10,000 per vehicle.

Alternative fuels such as nuclear and natural gas are not without their risks, and do nothing to solve the issues of parking and congestion. Instead, a climate-friendly traveler should endeavor to use alternative modes: walking, biking, transit, or shared vehicle use. *The Share the Ride* website ([ShareTheRideNC.org](http://ShareTheRideNC.org)) is a resource for car/van pools and emergency rides. Local transit information can be found on [www.GoTriangle.org](http://www.GoTriangle.org).

## **Presentation: “Chapel Hill Transit Serving Chapel Hill, Carrboro and the University of North Carolina at Chapel Hill”**

*Brian Litchfield, Director, Chapel Hill Transit*

Chapel Hill Transit (CHT) operates the second-largest transit system in North Carolina, and serves Chapel Hill, Carrboro, and the University of North Carolina. It delivers nearly 7 million rides annually, with a fleet of 120 revenue vehicles. It is a fare-free system, with approximate costs per scheduled ride of \$2.53, paid through taxes and fees. Riders rate the system highly, with 91% reporting excellent or good service. Riders include a mix of students, professionals, and others.

The system has made a strong effort to maintain a sustainable fleet, with the use of hybrid vehicles, restrictions on idling, recycling programs for motor oil and brake drums all contributing to the long-term minimization of impact. Fleet wide MPG has consistently increased over time, as newer and more efficient buses are added to the fleet.

Future projects include studying the key north-south corridor (Eubanks Park-and-Ride to Southern Village) through use of Bus Rapid Transit (BRT) infrastructure. The system also has a strong focus on long-term financial stability.

## **Presentation: “Transit, Land Use, and GHG Emissions”**

*Jenny Green and Patrick McDonough, Triangle Transit*

Triangle Transit presented information on a number of aspects of public transit in the Raleigh-Durham-Chapel Hill region. A number of service expansions were described, including decreased wait times, extended operating hours and expansion of service to Hillsborough, Efland and Mebane. Transit access on the 15-501 corridor from Carrboro to Durham is to be streamlined and made more frequent and convenient.

Because every transit user is also a pedestrian, Triangle Transit has made an effort to improve the pedestrian experience in and around bus stops. Improvements to resources will be prioritized and implemented according to established design standards, and funded in part through the new half-cent sales taxes.

Triangle transit serves a region with a variety of needs, and has taken steps to ensure that everyone can access information regarding the services available. Unified call centers and fare boxes are being implemented, and all services can be tracked using the *TransLoc* application online. In the future, the agency is attempting to unify the different local transit agencies (Chapel Hill Transit, DATA, Capital Area Transit) under a unified identity, with matching liveries and titles.

However, in conjunction with increased transit services, a community with compact green development—higher density with more walkable and transit-accessible goods and services—is the key to creating a sustainable transportation network. The difference between communities designed around motor vehicles and those designed around true multimodal transportation networks is considerable.

Residents of the latter drive over 4,000 fewer miles per year; moving 55 million households to neighborhoods designed in this way would reduce US gasoline demand by almost 15%. With a regional population expected to nearly double over the next 25 years, a well-designed transit system is critical in order to keep people moving—not keep them stuck in traffic. The Chapel Hill—Durham light rail system should help to meet the needs of the rapidly densifying region.

## **Parking Group:**

*Moderated by Tom Roche*

Discussed methods of reducing parking demand, such as installation of parking meters; promoting parking lot sharing among businesses; promoting Transit Oriented Development ; providing density bonuses for developers; rewarding developers and businesses that voluntarily reduce parking supply; and re-examining existing parking standards, especially the minimum presumptive standards.

## Connecting Transit with Bicycles Group:

*Moderated by Heidi Perry/Seth LaJeunesse*

Discussed means of connecting bicycling to the transit network, via: provision of bike parking at bus stops; promotion of employers providing showers and bike lockers for commuters; surveying residents to identify stops where demand and need exist for bicycle storage; promoting transit use among residents living within 15-minute walk/5-minute bike ride of existing bus stop locations; encouraging community carpooling through resources like [sharetheridenc.org](http://sharetheridenc.org); and ensuring sufficient bike parking is supplied at future light rail stations.

## Active Transportation to School Group:

*Moderated by Loren Hintz*

Discusses various ways to increase walking and cycling to school and decrease chauffeuring, including: supporting a *Safe Routes to School Action Committee*; advancing a “Car Free Fridays” program; encouraging parents to use [sharetheridenc.org](http://sharetheridenc.org) to organize carpools after kids are at school; instituting a Town ordinance banning idling during pick-up and drop-off; providing students and families incentives to bike or walk to school; connecting Southern Village to Carrboro HS via a dedicated bike route; installing a greenway that connects Hillsborough RD with the rear entry to McDougle MS; implementing a “remote drop-off” or “park and stroll” program; converting a car travel lane and converting to a two-way bicycle lane; and conducting a study of *traffic stress* on Carrboro’s roadways, similar to Chapel Hills *Level of Traffic Stress* study (LTS).

## Who is Here and Who is Not Group

*Moderated by Tait Chandler*

Discussed which stakeholders/community members did not attend and identified ways to encourage greater participation/input from a broader segment of the population. It appears that blue collar workers, regular transit riders, people who drive alone, an NCDOT representative, an Orange County Transit representative, an RDU airport authority, the real estate community, developers, chamber of commerce, rural communities, people of color, residents across the income spectrum, etc. were either not present or were under-represented. The latter groups are often left out of making transit-related decisions, and therefore might not enjoy the benefits of expanded transit service. Spoke to a “disconnect between planners and users” wherein upper income people drive decision-making and lower income passengers are most affected by such decisions. Discussed how forums like these might be marketed to draw in and engage those not represented, such as targeting non-riders or to those on the fence about using transit in marketing strategies, and holding future meetings at such community centers as *El Centro Hispano*, and the *Weaver Street Market*.

## Constraints, Opportunities and Recommendations

As is evident, those who participated in October 29, 2014 transportation-oriented community forum on transportation-related responses to addressing climate change in Carrboro offered thoughtful perspectives on the current state of affairs, and recommendations for mitigating and adapting to climate change. Some comments focused on existing constraints, concerns or barriers that discouraged residents and business patrons from using alternative modes of transportation within the downtown

area. The bulk of these comments majority comments can be described as part of one of the following three topic areas.

**1. Parking meters versus Free Parking in Downtown Carrboro**

Charging for parking in downtown Carrboro has been suggested as a way to discourage car use or to minimize car trips since theoretically individuals would not make as many individual trips to downtown Carrboro if they had to pay for parking. However this step could prove counterproductive since the population density and square mile area of Carrboro and its surroundings does not require consumers to come to Carrboro to shop, eat, or find entertainment since they have many nearby alternatives that do not charge for parking.

Installing parking meters in Carrboro or taking away the free surface and deck parking would particularly harm those businesses that do not have onsite parking. It would give greater advantage to the larger commercial developments over the small shops and restaurants.

**2. Barriers to using Chapel Hill Transit**

When Chapel Hill Transit went fare free the success in getting students, UNC employees, and others to use CHT was remarkable. Studies at the time showed that the fare box was a major barrier to use of public transit. The UNC students voted a fee for themselves that more than compensated for the loss of student revenue from the fare box. UNC Park and Ride lots were also made permit free which was a further incentive not to bring a car to campus. However UNC has started charging for a parking permit at their park and ride lots so now employees weigh the cost of a park and ride permit against paying more to get a permit on campus. While the cost of operating CHT has increased due to the increased popularity of the system and the loss of some federal opportunities, adding back in costs to individuals to use the system could reverse some of its success.

**3. Land Use Patterns and Development proposals**

It has been shown that residents in compact mixed use developments drive their cars fewer miles than residents of traditional large lot subdivisions. However attempts to site compact mixed use development in undeveloped areas of Carrboro’s planning jurisdiction have drawn opposition from existing residents. The outcome of these considerations in land use planning and the development process often ends with an unviable mixed use plan or reversion to large lot subdivisions.

Presenter- and committee-produced recommendations can be synthesized into five broad strategies: (A) ***providing/improving walking and bicycling facilities***; (B) ***promoting walking, bicycling, and transit use***; (C) ***providing, improving, extending transit services***; (D) ***developing facilitative land use policies***; and (E) ***engaging a more representative segment of the community***. Strategies A, C, and D are further divided into “within two years” and “within 5 – 10 years” sub-categories, as these strategies are more complex and involve greater coordination with local, regional, state, and federal partner agencies. Strategies (B) ***promoting walking, bicycling, and transit use***; and (E) ***engaging a more representative segment of the community***, on the other hand, can be implemented within a relatively short time frame of two years. The “Potential Strategies, Tactics, Partners and Time-Frame for Implementation” table on the following page, provides a recommended approach to addressing many of the issues brought up on the community forum.

**Potential Strategies, Tactics, Partners and Time-Frame for Implementation.**

Strategy	Tactics	Partner(s)	Time-Frame
<p><b>Providing/improving walking and bicycling facilities</b></p>	<ul style="list-style-type: none"> <li>• Provide bike parking at high-demand bus stops;</li> <li>• Provide showers and bike lockers for commuters</li> <li>• Improve the pedestrian experience in and around bus stops</li> <li>• Promote transit use among residents living within 15-minute walk/5-minute bike ride of existing bus stop locations</li> </ul>	<p>UNC; Chapel Hill Transit (CHT); NCDOT; local business community</p>	<p>Within 2 years</p>
	<ul style="list-style-type: none"> <li>• Ensure sufficient bike parking is supplied at future Light Rail stations</li> <li>• Connect Southern Village to Carrboro HS by dedicated bike route</li> <li>• Build a greenway to formalize the rear entry to McDougle MS from Hillsborough Rd</li> <li>• Enhance transit access points along the 15-501 corridor from Carrboro to Durham and provide more frequent, reliable bus service</li> </ul>	<p>CHT; Triangle Transit; Durham-Chapel Hill-Carrboro MPO (DCHC MPO); NCDOT; Chapel Hill-Carrboro City Schools (CHCCS)</p>	<p>Within 5 – 10 years</p>
<p><b>Promoting walking, bicycling, and transit use</b></p>	<ul style="list-style-type: none"> <li>• Promote walking, bicycling, transit use, carpooling</li> <li>• Support the activity of a <i>Safe Routes to School Action Committee</i></li> <li>• Encourage developers to promote multi-modal transportation options</li> <li>• Encourage developers to promote multi-modal transportation options</li> <li>• Promote “park and stroll” programs at schools, whereby students are dropped off at a remote location and walk or bike the rest of the way to school</li> </ul>	<p>CHCCS; development community; Carrboro Bicycle Coalition (CBC)</p>	<p>Within 2 years</p>
<p><b>Providing, improving, and extending transit services</b></p>	<ul style="list-style-type: none"> <li>• Provide bike parking at high-demand and need bus stops</li> </ul>	<p>CHT; Triangle Transit; local business community; development community</p>	<p>Within 2 years</p>

Strategy	Tactics	Partner(s)	Time-Frame
	<ul style="list-style-type: none"> <li>• Provide showers and bike lockers for pedestrian and bicycle commuters</li> <li>• Extend transit service operating hours</li> </ul>		
<b>Developing facilitative land use policies</b>	<ul style="list-style-type: none"> <li>• Expand bus service to Hillsborough, Efland and Mebane</li> <li>• Increase frequency of transit service along 15-501 corridor connecting Carrboro to Durham</li> </ul>	CHT; Triangle Transit	Within 5 – 10 years
	<ul style="list-style-type: none"> <li>• Identify locations to implement Transit Oriented Development</li> <li>• Institute new Town ordinance banning idling while waiting at school to decrease air pollution</li> <li>• Install and operate parking meters</li> <li>• Promote sharing of parking supply among downtown businesses</li> <li>• Reward developers who voluntarily reduce parking supply -</li> <li>• Re-examine existing parking standards, especially the “minimum presumptive standards” that involve commercial, office, and residential land uses</li> </ul>	CHT; local business community; development community	Within 2 years
<b>Engaging more representative segment of the Carrboro community</b>	<ul style="list-style-type: none"> <li>• Increase the residential, office, and commercial density within transit-rich nodes and corridors</li> <li>• Provide a high degree of walking and bicycling connectivity within Transit Oriented Developments (TODs) and between TODs and the larger transportation system</li> </ul>	CHT; housing community; Triangle Transit; development community	Within 5 - 10 years
	<ul style="list-style-type: none"> <li>• Encourage transit agencies to focus messaging on non-riders or to those on the fence about riding transit</li> <li>• Hold future meeting at more inclusive community centers like El Centro Hispano or the Weaver Street Market</li> </ul>	Community centers; CBC; El Centro Hispano; Inter-Faith Council for Social Services; Justice United	Within 2 years

