



[WWW.DCHCMPO.ORG](http://WWW.DCHCMPO.ORG)

**DRAFT**

# ANNUAL REPORT FY2015

Durham Chapel Hill Carrboro  
Metropolitan Planning Organization

**DCHC**  
Metropolitan Planning Organization  
Planning Tomorrow Today



Welcome Message	1
Report Summary	2
MPO Vision	3
Our Region Today	4
Our Region Tomorrow	8
Trends Affecting Transportation	9
Preparing for the Future	10
Financial Report	14
MPO Accomplishments	16
Outlook for 2016	22
Acknowledgements	23





# Welcome Message

These are exciting times for our region. Transportation access is the foundation of our economy and high quality of life, and the ways in which we provide that access are changing like never before. As you will see throughout this Annual Report, transportation choices are expanding in exciting new ways, providing residents more options on how best to live, work, and play in our great region.

The Durham Chapel Hill Carrboro Metropolitan Planning Organization (DCHC) is leading the region's transportation system forward. The DCHC region includes all of Durham County and portions of Orange and Chatham Counties, including Chapel Hill, Carrboro, and Hillsborough. DCHC brings together the region's local governments, transit operators, the North Carolina Department of Transportation, and the general public to create a clear transportation vision for our region and set priorities for federal transportation funding to help achieve that vision.

This Annual Report lays out many of the key transportation trends, opportunities, and challenges that shape the region now and in the future and how DCHC is responding through its investments in planning and projects. These investments benefit each of the region's communities and help them achieve their own visions for growth, development, mobility, and access.

I hope you enjoy the report and use the information to become more involved in regional transportation planning. DCHC relies on public participation to create plans that reflect our collective desires. We encourage you to be involved and contribute your ideas as we shape the future of transportation.

Felix Nwoko, Ph.D  
MPO Manager, DCHC MPO



# Report Summary

This report is a snapshot of what the MPO is doing now to make our region's transportation system better. The MPO's actions are guided by key trends, established goals, and policy requirements, with the aim of creating a more inclusive, efficient transportation system that improves quality of life and economic outcomes.

Five key messages of this Annual Report are:

## 1. The Future of Transportation is About Choices

Providing choices is important because the MPO cannot build its way out of congestion through new highways, and the environmental and social costs of this course of action are high. Transportation choices are also important in light of the region's demographics, which are trending towards populations like seniors and millennials who want alternatives to driving. Automobiles will continue to be an important part of the mix, but the MPO is also investing in transit, bicycle, and pedestrian infrastructure. **To learn more, check out the MPO Accomplishments and Trends Affecting Transportation sections.**

## 2. Transportation Investments Must Achieve Bang for the Buck

A transportation vision cannot be separated from fiscal realities. While new local funding sources in Orange and Durham Counties have given transit funding a boost, the large traditional sources of revenue from the federal and state governments are not expected to grow. **To learn more about how the MPO is pursuing effective and efficient investments that are consistent with its goals, check out the Financial Report, MPO Accomplishments, and Outlook for 2016 sections.**

## 3. The Region Needs a Clear Vision for Managing Change

The region needs to be proactive in addressing transportation needs, or these needs will threaten the region's economy and high quality of life. The MPO is leading the way by developing a vision for transportation that is described in the 2040 Metropolitan Transportation Plan. **To learn more, check out the MPO Vision, Preparing for the Future, and MPO Accomplishments sections.**

## 4. The MPO Helps Leverage Local and State Resources

The MPO's vision for transportation has helped attract state investment in major regional projects and secured a new local funding source that will support a major expansion of transit service in the region, including the first fixed route rail transit in the Triangle. **To learn more, check out the MPO Accomplishments section.**

## 5. The MPO Must Closely Coordinate with Partners Within and Outside of its Jurisdiction

The DCHC region is a key part of the larger Triangle and part of the North Carolina Piedmont. The MPO works closely with the Raleigh-based Capital Area Metropolitan Planning Organization (CAMPO), the Triangle Area Rural Planning Organization (TARPO), Triangle Transit, the Triangle J Council of Governments (TJCOG), and the North Carolina Department of Transportation (NC DOT) to develop truly regional transportation solutions that are not limited by boundaries. **To learn more, check out the MPO Accomplishments and Outlook for 2016 sections.**



Trends

Vision

Action

Success



# MPO Vision

“ A seamless integration of transportation services that offer a range of travel choices and are compatible with the character and development of our communities, sensitive to the environment, improve quality of life, and are safe and accessible for all. ”



Photo courtesy of Town of Hillsborough



# Our Region Today

The Triangle region is composed of a diverse range of communities, from small to large. Collectively, it has one of the strongest and fastest growing economies in the United States. Growth has improved quality of life for many people and brought new customers to the region's businesses. However, it has also created transportation challenges. The region's unique communities all require context-appropriate transportation infrastructure to address these challenges. This section covers some key trends that influence our changing region and how the MPO is responding to these trends.

## PEOPLE



The MPO region is home to 400,000 people and 260,000 jobs, representing about a quarter of the Triangle Region's 1.6 million people and a third of its 850,000 jobs.

Migration has been the driving force behind the Triangle's growth for more than a generation. The region's dynamic economy, top notch educational institutions, and reputation for offering a high quality of life are factors that attract people from near and far. In recent years, about 6,000 more people have arrived in the Durham-Chapel Hill metropolitan area each year than have left. This number, called net migration, accounted for 60 percent of the area's population growth between 2010 and 2012. The newcomers are split almost evenly between people arriving from other states and those coming from other countries. They are also a driving force behind the region's increasing racial, ethnic, and social diversity.

**The MPO's  
unique  
communities  
all deserve  
context-appropriate  
transportation  
choices**

Many of the new arrivals are college-age students or retirees, which keeps the average household size relatively small. As of 2010, about 60 percent of households in the region included only one or two people<sup>1</sup>. The MPO recognizes that the region's growth, and its changing demographics, call for more transportation choices. Simply building more and more highways will not be sufficient to meet the future needs of a growing and changing population.

## PLACES

### Communities



The MPO area includes Durham, Chapel Hill, the small but growing towns of Hillsborough and Carrboro, and rural portions of Durham, Chatham, and Orange Counties. More than three quarters of the MPO area's population is concentrated in Durham, Chapel Hill, and along the roads that connect them. The MPO is focused on improving multimodal access between Durham and Chapel Hill, and mobility along the major routes throughout the region, US 15/501, NC 54, and NC 751.

<sup>1</sup> 2010 and 2012 figures from: United States Census Bureau. Population Estimates. "Cumulative Estimates of the Components of Population Change for Metropolitan and Micropolitan Statistical Areas: April 1, 2010 to July 1, 2012." <http://www.census.gov/popest/data/metro/totals/2012/>.



# Our Region Today

## Relationship to the Triangle and the Piedmont

The MPO's proximity and access to other cities in the Piedmont also contribute to its growth. Of the state's 29 fastest-growing municipalities, 24 are within the Piedmont Crescent, a band of urban counties stretching from Charlotte to Raleigh. People and businesses in the MPO area can reach nearly any city in the Crescent within two hours. The MPO recognizes the importance of maintaining mobility between the state's major cities and is investing in projects that will keep the highways moving, while also making passenger rail and bus service more attractive options for intercity travel.

## Jobs & Economy

The MPO region is home to about 260,000 jobs in a wide array of manufacturing, educational, scientific, and health care professions. The MPO region is also home to Research Triangle Park, the largest research park in the United States, housing more than 170 companies employing about 40,000 people<sup>2</sup>. However, until recently, the Park has had no options for residential dwelling. The Park now has a new plan that calls for adding more housing and services. The MPO encourages this type of development, because it allows more people to live near their jobs, which eases demand on the region's highways, supports the environment, and improves public health.

## Land Use & Development

The region's local governments have permitted thousands of new houses, apartments, townhomes, and condominiums in recent years to keep pace with the demand for housing. The MPO region added nearly 8,700 housing units between 2010 and 2013. The entire Triangle region added nearly 38,000. This is remarkable growth during a period in which much of the United States saw slow residential development.



<sup>2</sup> The Research Triangle Park. 2014 Company Directory. <http://www.rtp.org/directory>.



# Our Region Today

## SURVEILLANCE OF CHANGE

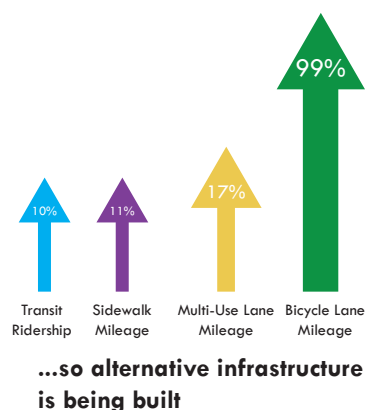


The MPO relies on timely and reliable data to inform decisions about where to invest limited transportation dollars. The MPO monitors the condition and use of highways, streets, sidewalks, bike lanes and paths, and transit. In addition to these standard transportation indicators, the MPO tracks development and demographic trends to get a sense of where the region is heading and to build and apply better tools that allow planners to spot future needs and evaluate projects. Some of the key recent trends are highlighted in this section.

The MPO relies on timely and reliable data to inform decisions about where to invest limited transportation dollars. The MPO monitors the condition and use of



**Congestion is increasing...**



### Travel & Infrastructure

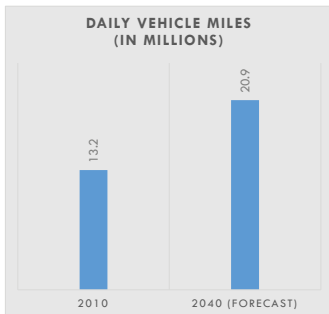
While most of the area's roadways are free-flowing, congestion on the region's highways has been growing for decades. Nearly 9 in 10 roadways monitored by the MPO had a level of service (LOS) C or better, which is generally considered acceptable. However, the region's most traveled highways – Interstate 40, US 70, US 15/501, and NC 54 – are the most congested, and traffic is growing. Portions of US 15/501, NC 54, and US 70 operate at LOS F during peak hours, meaning volume exceeds capacity and traffic slows severely. In 1982, only about 12 percent of peak period travel was in congested conditions. **Today that amount has risen to 50 percent.**

Unlike other parts of the country, the 2007-09 economic recession did little to slow traffic growth. Traffic volume was up about 4 percent from 2005 to 2011, as compared to a national traffic volume decrease. Major highways and arterials that connect the Triangle's three points are especially congested. The region's congestion growth comes despite more than \$2.3 billion in new highways or highway expansions in the Triangle during the last 15 years. The message is clear – the region cannot build its way out of congestion. The future is about providing better choices for mobility and access.

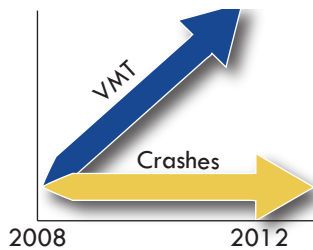
The MPO and local governments are heeding this message. As reported in the MPO's Mobility Report Card, the MPO region's sidewalk mileage increased more than 11 percent from 2005-2011, bicycle lane mileage increased 99 percent, and shared-use path mileage increased 17 percent. Meanwhile, the region's four transit providers carried about 17.5 million rides in 2012. Ridership was up more than 10 percent on Durham Area Transit Authority and Triangle Transit Authority services between 2011 and 2012, and more service is on the way. Ridership is expected to continue to increase rapidly as new services are introduced with the recently approved ½-cent sales tax for transit in Orange and Durham Counties.

These changes are leading to more roadways with a mix of travel modes. Among the area's most multi-modal corridors are East Main Street and Erwin Road in Durham, South Columbia Street and Manning Drive in Chapel Hill, and Main Street in Carrboro.

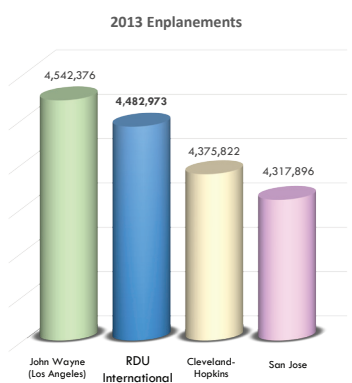
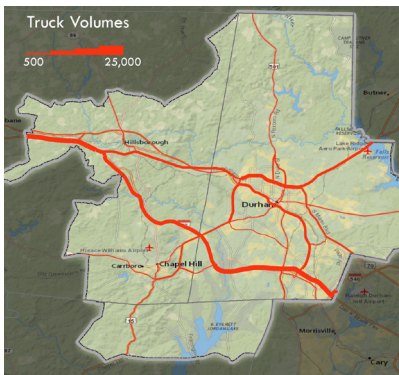
# Our Region Today



**Travel is increasing**



**Crashes are not increasing**



## Air Quality

While the MPO and local governments are investing in more transportation choices, automobiles are still the main way people get from place to place. DCHC's Metropolitan Transportation Plan predicts that daily vehicle travel will grow from about 13.2 million miles in 2010 to 20.9 million miles by 2040<sup>3</sup>. The region's heavy dependence on automobiles has negative consequences for air quality. In 2010, vehicle travel accounted for about 3.8 million tons of greenhouse gas emissions<sup>4</sup>. However, modeling for the 2040 Metropolitan Transportation Plan showed that the emissions are expected to remain below the National Ambient Air Quality Standards set by EPA<sup>5</sup>. This is good because failure to aGoTriangle (TTA) in the standards can threaten federal transportation funding.

## Safety

About 70,000 vehicles were involved in crashes in the MPO area between 2008 and 2012, resulting in about 2,750 injuries and 102 fatalities. Pedestrians and bicyclists are especially vulnerable. During the five year period, they were involved in 513 crashes that resulted in 23 fatalities. The MPO works closely with the North Carolina Department of Transportation to design infrastructure that will improve safety for all users. These efforts are working; despite the steady rise in vehicle travel and congestion, **crashes, fatalities, and injuries have remained flat**.

## Freight

Transportation is about more than the movement of people. The highways and rail corridors of our region are also vital to the efficient movement of freight, which create jobs and keep costs low for consumers. The vast majority of freight in North Carolina and the nation is carried by trucks on the national highway system. Commercial vehicles make about 137,000 trips each day in the MPO area. These trucks experience about 1,000 hours of delay each day, which can harm businesses that rely on just-in-time delivery of supplies. Rail also plays an important role moving freight. CSX and Norfolk Southern both serve customers in the region.

## Aviation

Raleigh-Durham International Airport (RDU) serves the entire Triangle's air travel needs. About 9 million passengers travel through RDU each year, and passenger volume has remained steady since 2009. The volume is split evenly between people arriving and people departing. The airport, like the region's highways and rails, also carries freight. About 85,000 tons of cargo move through RDU each year. Unlike passengers, more cargo arrives than departs. Fifty-six percent of cargo was an arrival in 2013.

<sup>3</sup> DCHC. 2040 Metropolitan Transportation Plan, Chapter 6. 2014. [http://www.dchcmo.org/index.php?option=com\\_content&task=view&id=97&Itemid=35](http://www.dchcmo.org/index.php?option=com_content&task=view&id=97&Itemid=35).

<sup>4</sup> DCHC. Greenhouse Gas Emissions (Appendix 9). [http://www.dchcmo.org/index.php?option=com\\_content&task=view&id=97&Itemid=35](http://www.dchcmo.org/index.php?option=com_content&task=view&id=97&Itemid=35).

<sup>5</sup> DCHC. 2040 MTP and FY 12-18 TIP Air Quality Conformity Report. [http://www.dchcmo.org/index.php?option=com\\_content&task=view&id=97&Itemid=35](http://www.dchcmo.org/index.php?option=com_content&task=view&id=97&Itemid=35).



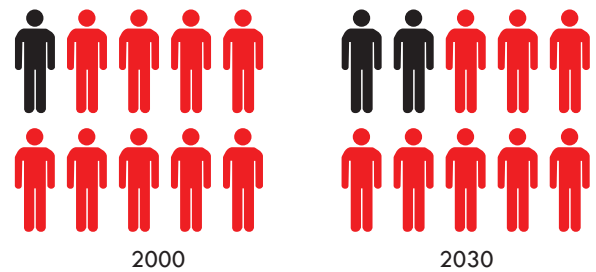
# Our Region Tomorrow

## PEOPLE

The MPO area and broader Triangle region are among the fastest-growing parts of the United States, and the rapid growth is expected to continue. The MPO area is expected to add another 231,000 people by 2040. The population is also rapidly aging. Twenty percent of Triangle residents will be 65 or older in 2030, up from 10 percent in 2000.<sup>6</sup>

Lifelong learning opportunities and great health care options make the region an attractive place for retirement. The aging trend is also related to declining household size. The rapid growth and graying of the population has transportation implications. More transportation choices will be necessary to avoid gridlock and serve people who can no longer drive.

Triangle Population Age 65 and Older



## PLACES

The MPO expects that recent growth patterns will continue through 2040. This means that the region can expect to see growth in already developed areas through infill development, but substantial growth will also occur on the periphery of the region's municipalities, especially along the corridors that connect them, and connect the MPO area to Wake County.



<sup>6</sup> DCHC. Draft 2040 Socioeconomic Data. [http://www.dchcmo.org/index.php?option=com\\_content&task=view&id=88&Itemid=35](http://www.dchcmo.org/index.php?option=com_content&task=view&id=88&Itemid=35).

# Trends Affecting Transportation

## HISTORY OF AUTO-ORIENTED DEVELOPMENT PATTERNS

The MPO area has dense urban cores surrounded by extensive low density, and often single use, development patterns known as urban sprawl. In fact, the region is among the most sprawling in the nation. Smart Growth America's 2014 study of urban sprawl ranked the Durham-Chapel Hill metropolitan area 191st out of 221 metropolitan areas nationwide in compact development patterns<sup>7</sup>. This has implications for transportation because residents of sprawling areas are more dependent on automobiles. Fortunately, the region has seen an increase in infill development, which can bring housing in closer proximity to jobs and services, placing less stress on the highway system. The MPO supports infill development by investing in transit, bicycle, and pedestrian infrastructure.

## POPULATION & EMPLOYMENT GROWTH MEANS TRAFFIC GROWTH

The MPO expects travel, which is commonly measured by vehicle miles traveled (VMT), to nearly double between 2010 and 2040. The region simply cannot afford to build enough highways, roads, and transit lines to keep up with the growth, which means that congestion is likely to worsen. One response, which the MPO encourages, is to build more mixed use development where people can meet more of their daily needs without driving.

**The region cannot afford to build enough infrastructure to keep up with population growth**

## GROWING DEMAND FOR WALKABLE, URBAN PLACES

While suburban, outward growth continues in the region, there has also been major revitalization of the region's downtown areas. For example, employment has more than tripled in downtown Durham since 1993, growing from 3,800 jobs to about 16,000 in 2013<sup>8</sup>. Meanwhile, major new infill mixed use projects have been built throughout the region. The Meadowmont and Southern Village developments in Chapel Hill mix retail, office, and housing within the same development. Surveys indicate that between a quarter and a third of the Triangle's population would prefer to live in compact, walkable neighborhoods with a mix of uses. This suggests a market in 2040 of between 600,000 and 900,000 Triangle residents looking to live in these kinds of neighborhoods. Part of the MPO's job is facilitating new transportation connections and services that will enable this kind of growth.



## FUNDING NOT KEEPING UP WITH DEMAND & CONSTRUCTION COSTS

The Triangle region has invested about \$2.8 billion in major highway projects during the last 15 years, yet congestion continues to rise<sup>9</sup>. No region has built its way out of congestion, and neither will the Triangle. While highways will continue to be an important part of the mix, the region must offer its residents more choices. To that end, Orange and Durham Counties have 1/2-cent sales taxes in place to expand the region's bus system and add a light rail link between Durham and Chapel Hill.

<sup>7</sup> Smart Growth America. Measuring Sprawl 2014. April 2014. <http://www.smartgrowthamerica.org/measuring-sprawl>.

<sup>8</sup> Ohnesorge, Lauren K. "Durham by the numbers: Downtown work force quadrupled since 1993." June 3, 2014. <http://www.bizjournals.com/triangle/blog/2014/06/durham-by-the-numbers-downtown-work-force.html>.

<sup>9</sup> DCHC. 2040 Metropolitan Transportation Plan, Chapter 3. 2014. [http://www.dchcmpo.org/index.php?option=com\\_content&task=view&id=97&Itemid=35](http://www.dchcmpo.org/index.php?option=com_content&task=view&id=97&Itemid=35).



# Preparing for the Future



Photo courtesy of Town of Hillsborough

## ROLES, RESPONSIBILITIES & WORK PRODUCTS OF THE MPO

As the preceding sections have illustrated, the MPO has a lot to consider as it plans for the future of transportation in our region. This section describes the key responsibilities of the MPO, none of which are more important than developing the three key transportation plans and processes, required of all large urban MPOs in the country:

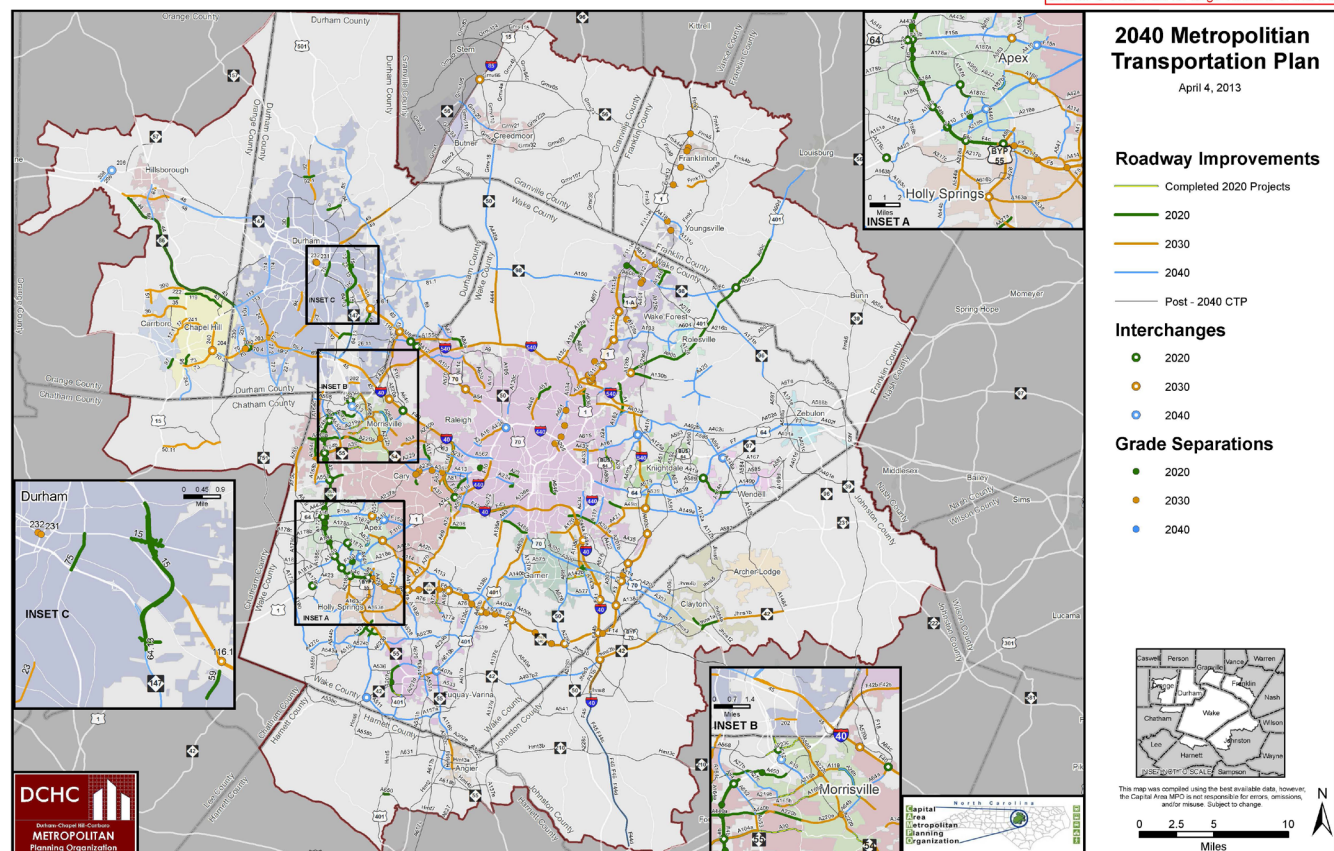
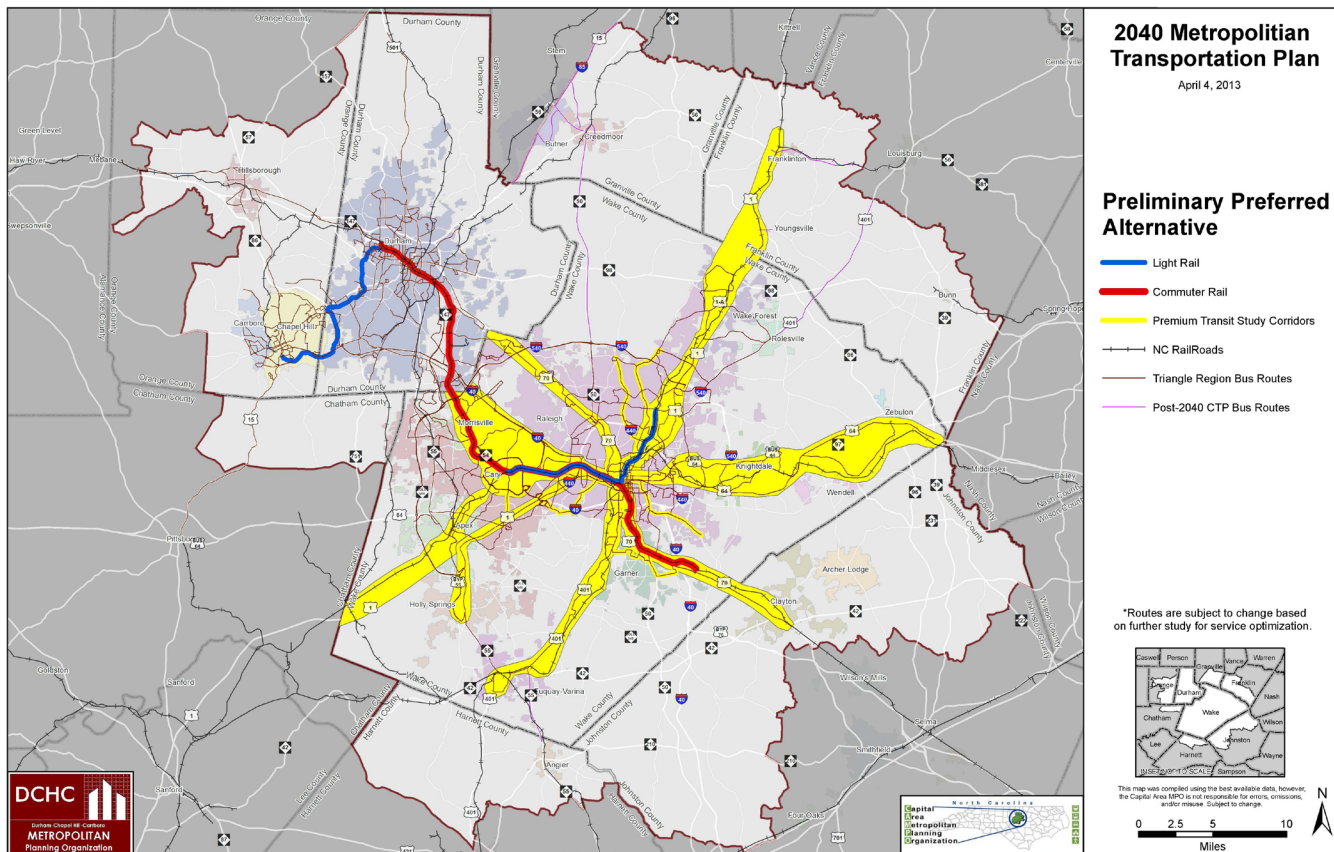
- The **Metropolitan Transportation Plan (MTP)** establishes policies to guide transportation decision-making over the next 25 years and identifies major improvement projects. The MPO collaborated with its counterpart agency for the Raleigh area to develop a 2040 Metropolitan Transportation Plan that covers the entire Triangle region.
- The **Transportation Improvement Program (TIP)** is a short-term plan covering 7 years that implements the priorities established from the Metropolitan Transportation Plan. Only projects that are listed in the TIP are eligible for federal funding.
- The **Unified Planning Work Program (UPWP)** lays out the work activities MPO staff will conduct each year.

**The region  
needs a clear  
vision for  
managing  
change**

## MPO VISION MAP

The MPO's three key transportation plans are guiding the region towards a future in which people will have more choices. Cars, trucks, buses, trains, bikes, and our own feet will move us forward in the future. The MPO's vision for major highway and transit infrastructure is depicted in the figures on the opposite page.

# Preparing for the Future





# Preparing for the Future

## MPO GOALS

The MPO selected these projects for funding because they advance its goals, which the MPO expressed through the 2040 Metropolitan Transportation Plan. The goals are summarized below:

- 1. Overall Transportation System:** A safe, sustainable, efficient, attractive, multi-modal transportation system that: supports local land use; accommodates trip-making choices; maintains mobility and access; protects the environment and neighborhoods; and improves the quality of life for urban area residents.
- 2. Multi-Modal Street and Highway System:** An attractive multi-modal street and highway system that allows people and goods to be moved safely, conveniently, and efficiently.
- 3. Public Transportation System:** A convenient, accessible, and affordable public transportation system, provided by public and private operators, that enhances mobility and economic development.
- 4. Pedestrian and Bicycle System:** A system that provides a safe alternative means of transportation; allows greater access to public transit; supports recreational opportunities; and includes off-road trails.
- 5. Integration of Land Use and Transportation:** A Transportation Plan that is integrated with local land use plans and development policies.
- 6. Protection of Natural Environment and Social Systems:** A multi-modal transportation system which provides access and mobility to all residents, while protecting the public health, natural environment, cultural resources, and social systems.
- 7. Public Involvement:** An ongoing program to inform and involve citizens throughout all stages of the development, update, and implementation of the Transportation Plan.
- 8. Safety and Security:** Continue to improve transportation safety and ensure the security of the transportation system.
- 9. Freight Transportation and Urban Goods Movement:** Improve mobility and accessibility of freight and urban goods movement.

# Preparing for the Future

## INVOLVING THE PUBLIC

Transportation solutions are not “one size fits all.” The MPO area includes many distinct communities and places that citizens cherish. The MPO must work closely with local governments and involve citizens to develop transportation plans and projects that respect their local desires and context.

DCHC promotes public involvement in its decisions by holding public meetings, providing access to MPO decision-making, and holding MPO meetings in locations that are accessible to people with disabilities and via public transportation. When developing plans for the MPO area or a particular corridor, DCHC uses a wide variety of techniques to enable residents and businesses to have meaningful input into the plan and its outcomes. Additionally, citizens are encouraged to follow the MPO online ([www.dchcmo.org](http://www.dchcmo.org)) and through Twitter (@DCHCMPO).





# Financial Report

The Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) will invest nearly \$4 million in transportation planning in the DCHC region in 2015. The MPO and the region's transit operators will each receive about \$1.5 million, while local governments will receive more than \$750,000. DCHC uses a large portion of its federal funds to support core MPO requirements, which are discussed in the next section of this Annual Report. DCHC spends its remaining funding on special projects. In 2015, this includes a regional freight plan, a survey of transit riders, updates to the region's travel model, development of the MPO Environmental Justice Plan, a household travel behavior survey, a parking study, management and administration of additional FTA transit funds, and others.

The MPO also provides federal planning funds to local governments and transit agencies. The local governments use these funds to meet some of their special needs and to participate in regional transportation planning. For example, the Town of Carrboro is using its allotment of federal funds to conduct a parking plan, while Orange County is using its funds to participate in the MPO's planning work and to conduct local transportation planning.

In 2015, the region's transit agencies receives nearly 40 percent of the region's allocation of federal planning funds. Chapel Hill Transit, GoDurham (GoDurham (DATA)), and GoTriangle (GoTriangle (TTA)) will use the funds for a variety of projects and tasks. For example, GoDurham (GoDurham (DATA)) is using the money to collect GoDurham (GoDurham (DATA)) that will support service planning, while GoTriangle (GoTriangle (TTA)) is using its allocation to study the feasibility of transit improvements in corridors that show promise for a higher level or type of service.

Each of the federal programs requires a match from state and local sources. Typically, the match is 20 percent. In 2015, the total federal, state, and local investment in transportation planning amounts to \$5,146,465. The next four tables provide a breakdown of funding allocation and expenditures.

## 2015 FEDERAL FUNDING ALLOCATION

Organization Type	Federal Planning Funds in Fiscal Year 2015
Durham Chapel Hill Carrboro MPO	\$1,547,124
Local Governments	\$766,578
Triangle J Council of Governments (TJCOG)	\$55,000
Transit Agencies	\$1,576,259
<b>Total</b>	<b>\$3,944,961</b>

## FY15 LPA BUDGET -UNIFIED PLANNING WORK PROGRAM (UPWP) EXPENDITURE REPORT

Approved LPA budget for FY15 UPWP	\$ 1,933,905
LPA Budget for FY15 UPWP after Amendments	\$ 1,726,803
LPA Expenditures of STP-DA and PL in FY15	\$ 1,367,487
LPA Balance in FY15	\$ 359,315

# Financial Report

## DCHC BUDGET & EXPENDITURE SUMMARY

Sub Recipient	Fiscal Year 2015 Fundings			Top Expenditures
	Local/State	Federal	Total	
Surveillance of Change	\$101,876	\$407,497	\$509,373	Collection and monitoring of travel volume, safety, demographic, and other critical planning data.
Long-Range Transportation Planning	\$160,415	\$641,662	\$802,076	Travel surveys, travel model updates, public involvement, financial planning, and more.
Planning Work Program	\$12,436	\$49,744	\$62,180	Develop the annual work program.
Transportation Improvement Program	\$6,308	\$25,234	\$31,542	Develop and manage the region's short-range Transportation Improvement Program (TIP).
Civil Rights & Regulatory Requirements	\$23,889	\$95,556	\$119,446	Comply with Title VI and Environmental Justice regulations and conduct public involvement.
Incidental Planning , Project Development	\$40,168	\$160,672	\$200,841	Environmental analysis, special studies, and regional or statewide planning.
Management & Operations	\$41,690	\$166,759	\$208,449	Administration of DCHC.
<b>Total</b>	<b>\$386,781</b>	<b>\$1,547,124</b>	<b>\$1,933,905</b>	

## SUMMARY & EXPENDITURE FOR THE MPO SUB-RECIPIENTS

Sub Recipient	Fiscal Year 2015 Fundings			Top Expenditures
	Local/State	Federal	Total	
Durham	\$47,720	\$190,880	\$238,600	Bicycle and pedestrian planning for the Metropolitan Transportation Plan.
Durham County	\$12,029	\$48,115	\$60,143	Transit planning for the Metropolitan Transportation Plan, demographic forecasting.
Orange County	\$11,062	\$44,248	\$55,310	Data collection and forecasting, general transportation and transit planning.
Chapel Hill	\$84,033	\$336,129	\$420,162	Bicycle and pedestrian planning for the Metropolitan Transportation Plan, data forecasting, and mapping, and general transportation planning.
Carrboro	\$36,802	\$147,206	\$184,008	Town parking plan.
TJCOG	\$13,750	\$55,000	\$68,750	Coordinate transportation planning among MPOs and other agencies.
Chapel Hill Transit	\$123,667	\$493,621	\$617,288	Prepare a finance plan for the Metropolitan Transportation Plan, prepare an alternatives analysis for proposed transit improvements.
GoDurham (DATA)	\$99,660	\$398,638	\$498,298	Collect transit system data, conduct short-range transit planning.
GoTriangle (TTA)	\$386,000	\$684,000	\$1,070,000	Special studies of promising future transit corridors, including alternatives analysis, cost estimation, service plans, and alignment studies.
<b>Total</b>	<b>\$814,723</b>	<b>\$2,397,837</b>	<b>\$3,212,560</b>	



# MPO Accomplishments

The MPO has a long list of accomplishments every year. Some of those accomplishments are annual projects designed to advance our organization's core missions. Others are special projects that create cost-effective solutions, expanded transportation options, and regional improvements whose impacts extend beyond our borders.

The MPO reached a major milestone in 2013 when it adopted the 2040 Metropolitan Transportation Plan. DCHC worked together with the Raleigh-based Capital Area MPO (CAMPO) to develop a truly regional plan that covers the entire Triangle. The 2040 MTP will shape the MPO's planning and project priorities in the coming years. The MPO also continued its ongoing work to collect and provide high-quality data on the state of the region's transportation system. These efforts produced data for more than 1,000 intersections, highway segments, transit routes, and bicycles and pedestrian facilities in the last year.

This section highlights several of the MPO's current work efforts.

## ADVANCING CORE MISSIONS

DCHC continues working on and improving upon the analysis, documentation, and services that inform their core missions. Listed below are examples of some of the ways the MPO achieves this.

### **MPO Congestion Management Process (CMP)**

The MPO completed analyses and mapping associated with the development of the federally required CMP. Tasks accomplished include summarization and analysis of data, measurement of multi-modal transportation system performance, identification of causes of congestion, evaluation of strategies and preparation of draft report.

### **Safety Analysis and Draft Report**

The MPO completed analyses related to bike and pedestrian safety, transit safety and vehicular safety. Other safety related accomplishments include participating in the North Carolina Safety education initiatives and regional bike and pedestrian safety programs.

### **Environmental Justice/Limited English Proficiency (LEP)**

The MPO Lead Planning Agency (LPA) updated the Title VI report and LEP plan as required by federal and State regulation. The LPA continued to engage and coordinate with Latino organizations and neighborhood groups.

### **Climate Change Adaption**

The MPO continued to participate with federal, State and regional climate change initiatives, including the participation on the Energy Team and providing technical and modeling support for the regional Climate Leadership Initiative.

### **Metropolitan Transportation Improvement Program (MTIP)**

The MPO continued to work on TIP related activities such as prioritization and project ranking for SPOT.

### **Amendments and Administrative Modifications to the MTIP**

The MPO processed several amendments and administrative modifications to the 2012-18 MTIP and forwarded to NCDOT to be included in the Statewide TIP for board approval.

# MPO Accomplishments

## **Revision and enhancement of the MTIP Project Prioritization and Ranking Methodology for the 2016-2022 MTIP**

The LPA continued work on the refinements and revision of the Strategic Transportation Investments (STI) MTIP project prioritization and points allocation methodology. Draft methodology was made available to the public and local MPO agencies for review and comments.

## **Development of the State Prioritization (SPOT3) and STI**

The MPO continued work associated with the update of SPOT3, including working with NCDOT on the development of input data for SPOT3.

## **Triangle Regional Model (TRM) Update and Enhancement**

The MPO continued to participate in the update and enhancement of the TRM at NC State's Institute for Transportation Research and Education (ITRE.) The MPO is one of the funding partners of the modeling service bureau and continued to provide a half-time equivalent employee to the ITRE Model Service Bureau.

## **Special and Major Emphasis Projects**

The MPO continued work on several special and major emphasis projects, including the MPO land-use model, MPO Non-Motorized Trip model, MPO Twitter account, CMAQ applications updates, and MPO Collector Street Plan update.

## **Bicycle Lane Restriping**

The MPO worked with NCDOT Division 5 and Division 7 regarding priorities and plans for restriping roadways scheduled for resurfacing by NCDOT.

## **Other Project Development Planning and National Environmental Policy Act (NEPA)**

The LPA continued to participate in several on-going NCDOT project planning, feasibility studies and NEPA.

## **ITS Strategic Deployment Plan (SDP)**

Work continued on the implementation of the Triangle Regional ITS SDP. This included linkages of ITS Deployment Analysis Software (IDAS) to the travel model.

## **Oversight, Monitoring and Administration of Transit Grants**

The MPO continued to process invoices for sub-recipients' reimbursements as well continued to administer and monitor transit grants.

## **Service Requests**

Staff performed numerous service requests from the public and member agencies.





# MPO Accomplishments

**In a time of  
fiscal austerity,  
efficiency and  
effectiveness  
have never  
been more  
important**

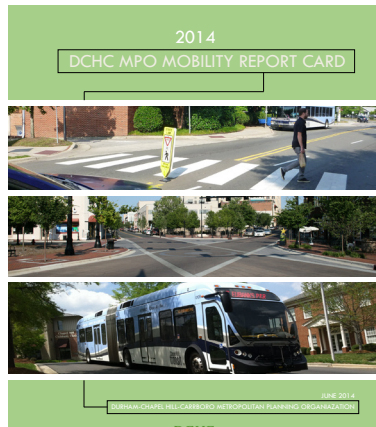
## INVESTING IN COST-EFFECTIVE SOLUTIONS

In a time of fiscal austerity for transportation, efficiency and effectiveness have never been more important. DCHC is committed to investing in cost-effective solutions to transportation problems, so that our dynamic region continues to thrive, economically and environmentally, continuing the area's high quality of life.

### Plans and Studies Throughout the Region

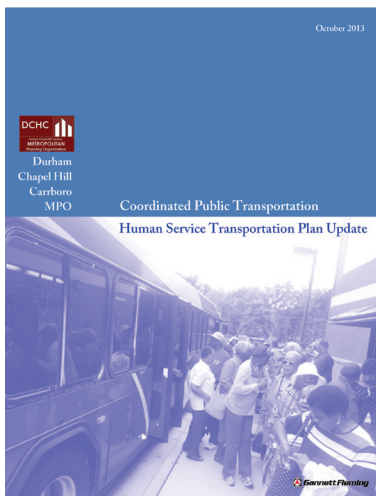
#### Mobility Report Card

DCHC prepared its first-ever Mobility Report Card in 2014 to assess progress toward meeting long-term goals and objectives. This is a multi-modal transportation evaluation, examining in equal measure vehicular, transit, bicyclist, and pedestrian travel. The report looks at the state of the region in 2012 and compares it to previous years. The findings point to increased travel activity throughout the region and changes in travel patterns that suggest an increasingly multi-modal region. The report also stresses the need to continue planning for better multi-modal connections throughout the region.



#### Coordinated Transportation Plan – Human Services Transportation Plan Update

This 2014 update to a 2007 plan helps improve transportation services for persons with disabilities, older adults, and individuals with lower incomes in the MPO area through a more coordinated transportation system. The update provides a framework for the development of projects that will address the transportation needs of these target populations by ensuring that this three-county area and its public transportation and human service agencies coordinate transportation resources offered through multiple FTA programs. Recommendations focus on education, access to services, interagency coordination, alternative funding sources, and rural-urban connections.



#### Employment Analyst

Planners from throughout the Triangle are using an online application called Employment Analyst to set the location and employment levels of the region's employers. This data is a key input into the Triangle Regional Transportation Model (TRM), and will aid the MPO in creating more accurate long-range forecasts. These forecasts allow planners to target resources where they are most needed.

#### Transit Workshop and Grant Application

The Human Services Transportation Plan allows the region's transit agencies to access FTA grants for projects that benefit seniors and disabled citizens. In June

# MPO Accomplishments

2014, DCHC conducted a workshop to train transit providers in developing and submitting grant applications. The MPO's work in this area makes it more likely that providers will expand transportation choices for the region.

## US 15-501 Corridor Study

The NC DOT is conducting a corridor study of US 15/501 from NC 54 in Chapel Hill to US 64 in Pittsboro. The intent of the study is to anticipate travel demand along US 15/501 in 2040 for the purposes of analyzing corridor design alternatives. The objective of the study is to identify policies and facilities that will keep the roadway properly functioning as a major arterial. The MPO is participating in this study, which is critical to meeting the transportation demands from a major development proposal coming to Pittsboro.

## TIP Projects

The MPO also looks to invest in cost-effective solutions wherever possible. The projects described below demonstrate some ways in which the MPO has invested in technology before turning to more costly solutions, such as capacity expansion.

- **The Chapel Hill-Carrboro Computerized Traffic Signal System** provides dynamic response to current conditions in order to move traffic more efficiently and reduce congestion at a fraction of the cost of roadway expansion. (U-4704)
- Develop a **flexible work schedule program for employers** in the Triangle Region. The region's Council of Governments will use MPO funds to encourage flexible commuting schedules that also help manage congestion at a fraction of the cost of capacity expansion. (C-4924)
- **New electric hybrid buses** for Chapel Hill Transit and GoDurham (DATA). These buses are more fuel efficient, saving the agencies on operating costs over their life-span. (C-5104)

## INVESTING IN EXPANDED TRANSPORTATION OPTIONS

Investing in projects that will provide people with more choices is a major emphasis of DCHC. Some examples of the studies, plans, and projects that will provide more choices and maintain our region's high quality of life are described below.

## Plans and Studies Throughout the Region

### Martin Luther King Jr. Blvd Bus Rapid Transit Study

In January 2014, Chapel Hill Transit initiated the North-South Corridor Alternatives Analysis - "North-South Corridor Study" for short - to evaluate the best methods for moving more residents and commuters along the MLK, Jr. Boulevard and US 15/501 South corridor. The goals of the study are to improve travel capacity and mobility, provide rapid and reliable transit throughout the corridor, create positive opportunities for economic development around stations, and produce a locally preferred alternative as a step to securing federal funding to support transit improvements in this corridor. The study is scheduled for completion in Spring 2016.

### Durham-Orange Rail Project

The proposed Durham-Orange Light Rail Transit Project is a 17.1-mile light rail transit

**DCHC  
works  
with  
regional  
partners  
to  
leverage  
state and  
national  
resources**



# MPO Accomplishments

line which extends from UNC (UNC Hospitals Station) to east Durham (Alston Avenue/NCCU Station). The Durham-Orange Light Rail alignment connects a range of educational, medical, employment, and other important activity centers, park-and-ride lots, transfer centers, the Durham Amtrak Station, and the Durham Station. In February 2014, the FTA approved the project's entrance into the Project Development Stage. During this stage, a locally preferred alternative will be selected and adopted into the MPO's Metropolitan Transportation Plan. Work activities include environmental reviews and engineering and design activities.

## TIP Projects

Transportation improvements under consideration that will expand choices include:

- Widen NC 54 between Interstate 40 and NC 55 in Durham. The 5.2-mile long project will add general travel lanes, transit accommodations, sidewalks, and bike lanes. (U-5324)
- Bicycle Improvements on Old Durham-Old Chapel Hill Road between Garrett Road and US 15/501. The 2.7-mile project will improve the key connector between Chapel Hill and Durham for bicyclists. (EB-4707)
- Bicycle and pedestrian improvements on University Drive between Garrett Road and Cornwallis Road. The project will build on the previous project to create a continuous multi-modal corridor between Chapel Hill and Durham. (EB-5514)
- Hillsborough Riverwalk Trail, Phase III will provide a paved trail along the Eno River that enhances the town's livability by providing a new recreation and transportation option. (C-5184)



## INVESTING IN REGIONAL SOLUTIONS

The two sides of the Triangle are growing together. As the boundaries between the regions blur, DCHC, CAMPO, and NC DOT must work together on solutions that benefit the entire Triangle. To that end, DCHC is collaborating on a range of regional solutions.

### Scenario planning (Community Viz 2.0)

In conjunction with CAMPO and the Triangle J Council of Governments, a version of CommunityViz (Triangle CommunityViz 1.0) was used to develop the adopted growth forecast for the 2040 Metropolitan Transportation Plan. An updated version (Triangle CommunityViz2) is being used to develop the growth forecast for the 2045 Metropolitan Transportation Plan.

### Imagine 2040

Imagine 2040 was an initiative started in 2010 by DCHC MPO and CAMPO to promote community-based regionalism, aimed at guiding growth and coordinating decision-making processes for a more sustainable transportation system.

# MPO Accomplishments

It brought together cities, towns, and counties in the region for the opportunity to explore and debate competing growth visions, their trade-offs, and alternative futures for creating a more efficient regional transportation system.

The MPOs used CommunityViz software throughout the planning process to measure and evaluate the impacts of competing development scenarios and major investments in the regional transportation system. Data, tools, and recommendations from Imagine 2040 are now being used throughout the region.

## Joint TAC Meetings

Joint DCHC and CAMPO Transportation Advisory Committee meetings are held every year to discuss regional matters. In FY 2014, discussions focused on Prioritization 3.0, the Triangle Regional Transportation Demand Management Plan, the Triangle Regional Travel Demand Model Survey, and other pending regional plans and studies.

## Prioritization 3.0

Prioritization 3.0 is NC DOT's third iteration of using a quantitative prioritization process for development of the State Transportation Improvement Program (STIP). In 2013, the General Assembly codified the prioritization process and set many parameters on the use and distribution of transportation funding in legislation titled Strategic Transportation Investments (H817). In May 2014, the MPO received quantitative scores on regional projects from NC DOT, and subsequently provided a local ranking methodology for public comment, which was scheduled to last into fiscal year 2015.

## TIP Projects

The following examples highlight ways in which DCHC is addressing regional transportation needs. A couple examples of transportation improvements funded by DCHC that address regional-scale needs are described here.

- Grade separation of Hopson Road and NC Railroad in Durham County. This project will help speed intercity passenger rail traffic between the Triangle and Charlotte regions. (U-4716)
- East End Connector between the Durham Freeway and US 70. This 3.2-mile project will close a key gap in the Triangle's highway system. (U-0071)





# Outlook for FY 2016










## HIGHLIGHTS FROM THE FY 2015-16 UNIFIED PLANNING WORK PROGRAM

The major work effort in FY 2016 include the development of the 2045 Metropolitan Transportation Plan (MTP), project prioritization and raking for 2018-2027 MTIP, update and enhancement of the MPO website and the update of the Mobility Report Card. The annual Unified Planning Work Program identified seven new projects that will be the emphasis of the staff's work efforts. These projects are listed in the table below. The table also matches each project with the MPO's transportation goals. This demonstrates that the Emphasis Projects cover each of the goal areas.

Emphasis Areas and Special Projects for 2015	Goal Area Addressed
1. Triangle Regional Model, Major Model Enhancement – Improve the region's travel modeling capabilities.	<ul style="list-style-type: none"> <li>• Multimodal streets and highways.</li> <li>• Convenient, accessible, and affordable public transportation.</li> <li>• Pedestrian and bicycle alternatives.</li> </ul>
2. Travel Behavior Survey – A survey of households in the region used to calibrate the region's travel model.	<ul style="list-style-type: none"> <li>• Multimodal streets and highways.</li> <li>• Convenient, accessible, and affordable public transportation.</li> <li>• Pedestrian and bicycle alternatives.</li> <li>• Inform and involve citizens.</li> </ul>
3. Transit Onboard Survey – A survey of the region's transit users.	<ul style="list-style-type: none"> <li>• Convenient, accessible, and affordable public transportation system.</li> <li>• Inform and involve citizens.</li> </ul>
4. CommunityViz 2.0 – Develop a scenario planning tool that can examine the pros and cons of different transportation and land use scenarios.	<ul style="list-style-type: none"> <li>• Land use and transportation integration.</li> <li>• Protect natural environment and social systems.</li> </ul>
5. Data Collection and Data Management – Traffic volume and turning movement counts, travel time and speed surveys, and pedestrian and bike counts.	<ul style="list-style-type: none"> <li>• Multimodal streets and highways.</li> <li>• Pedestrian and bicycle alternatives.</li> </ul>
6. Regional Freight Plan – A plan to improve goods movement in the Triangle region.	<ul style="list-style-type: none"> <li>• Freight transportation and urban goods movement to support economic opportunity</li> </ul>
7. Americans with Disabilities Act (ADA) Transition Plan – Identify system needs for people with disabilities.	<ul style="list-style-type: none"> <li>• Multimodal streets and highways.</li> <li>• Convenient, accessible, and affordable public transportation.</li> <li>• Pedestrian and bicycle alternatives.</li> <li>• Inform and involve citizens.</li> </ul>

# Acknowledgements

## MPO MEMBERS

 <b>DURHAM</b> 1869 CITY OF MEDICINE	 <b>County of Durham</b>	 <b>Town of Hillsborough</b>
 <b>Town of Chapel Hill</b>	 <b>County of Orange</b>	 <b>NC Department of Transportation</b>
 <b>Town of Carrboro</b>	 <b>County of Chatham</b>	 <b>GoTriangle</b>

## MPO BOARD



**Mayor Mark Kleinschmidt,**  
**Chair**  
Town of Chapel Hill



**Dianne Catotti, Vice-Chair**  
City of Durham, Council Member

## COMMITTEE MEMBERS

**Alderman Damon Seils**  
Town of Carrboro

**Commissioner Ellen Reckhow**  
Durham County

**Commissioner Jim Crawford**  
NC Board of Transportation

**Commissioner Barry Jacobs**  
Orange County

**Commissioner James G. Crawford,** Chatham County

**Commissioner John Sullivan,**  
Federal Highway Administration

**Commissioner Bernadette Pelissier,** GoDurham

**Council Member Eric Hallman,**  
Town of Hillsborough

**Commissioner Steve Schewel**  
City of Durham

## MPO STAFF

**Felix Nwoko, PhD**  
MPO Administrator/Manager

**KoSok Chae, PhD**  
Congestion Management Engineer

**Andrew Henry**  
Senior Transportation Planner

**Dale McKeel**  
Bicycle Pedestrian Coordinator

**Lindsay Smart**  
Senior Transportation Planner  
(MPO Process)

**Yanping Zhang**  
Head of Technical/Modeling Unit

**Brian Rhodes**  
Senior Transportation Technician

**Meg Scully**  
Grants & Financial Administrator

**Durmus Cesus, PhD**  
Applications Support Manager

**Priya Nimbole**  
Transportation Modeler



# ANNUAL REPORT FY2015

Durham Chapel Hill Carrboro  
Metropolitan Planning Organization

[WWW.DCHCMPO.ORG](http://WWW.DCHCMPO.ORG)