

















DURHAM-CHAPEL-HILL-CARRBORO METROPOLITAN PLANNING ORGANIZATION

Metropolitan Transportation Improvement Program Fiscal Years 2020 - 2029

Adopted xx xx, xxxx

Durham-Chapel Hill-Carrboro Metropolitan Planning Organization 4th Floor Transportation, 101 City Hall Plaza, Durham, North Carolina, 27701 Website: www.dchcmpo.org

Funding for this document was provided by the U.S. Department of Transportation Federal Highway Administration and Federal Transit Administration, the North Carolina Department of Transportation, and local government members of the Durham-Chapel-Hill-Carrboro Metropolitan Planning Organization.

TITLE VI POLICY

It is the policy of the Durham-Chapel Hill-Carrboro Metropolitan Planning Organization to ensure that no person shall, on the ground of race, color, sex, age, national origin, or disability, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity as provided by Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, and any other related non-discrimination Civil Rights laws and authorities. It is also the policy of the DCHC MPO to ensure that no person shall, on the ground of sexual orientation or gender identity, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity.

A copy of the DCHC MPO's Civil Rights Title VI Compliance Report, Policy Statement and Assurances can be found at the DCHC MPO website, specifically at the following link: www.dchcmpo.org/TitleVI or call (919) 560-4366.





Table of Contents

CHAPTER 1: OVERVIEW

1. Introduction	1-1
1.1 The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization	1-1
1.2 Purpose of the Metropolitan Transportation Improvement Program Docu	ment 1-2
2. RELATIONSHIP BETWEEN DCHC MPO PLANS AND PROGRAMS	1-2
2.1 The Comprehensive Transportation Plan	1-2
2.2 The Metropolitan Transportation Plan	1-2
2.3 The Metropolitan Transportation Improvement Program	1-3
2.4 The Unified Planning Work Program	1-4
2.5 Other MPO Plans	1-4
3. RELATIONSHIP BETWEEN DCHC MPO MTIP AND THE STATE TRANS	
4. Organization of This Document	1-6
CHAPTER 2: PROGRAM DEVELOPMENT	
1. Program Development	2-1
1.1 Project Identification	2-1
1.2 Federal Planning Factors	2-1
1.3 Goals & Objectives of the DCHC MPO Presented in the 2045 MTP	2-2
2. STRATEGIC TRANSPORTATION INVESTMENT LAW	2-3
3. STRATEGIC PRIORTIZATION IN NORTH CAROLINA	2-4
3.1 Results of Prioritization 5.0	2-4
3.2 DCHC MPO Local Ranking methodology	2.5
3.3 DCHC MPO Local Input Points	



4. Performance Measures	2-6
CHAPTER 3: FINANCIAL PLAN	
1. Introduction	3-1
2. Revenue Information on State and Federal Funding	3-1
2.1 NCDOT Program Budgets - Transportation Revenue Forecast: State Budget	3-1
2.2 Federal Authorization and Funding	3-2
2.3 Federal Aid Program	3-2
2.4 Public Transportation Project Funding	3-3
3. Proposed Use of FFY 2020 & 2021 Obligation Authority	3-5
3.1 GARVEE Bonds	3-6
3.1.1 NC BUILD Bonds	3.7
3.2 State Highway Trust Fund	3-7
3.3 Anticipated Inflation Impact	3-7
3.3.1 State Highway Fund	3-10
3.4 Cash Model	3-10
3.5 The North Carolina Turnpike Authority (NCTA)	3-10
4. Revenue Information on Local Funding	. 3-12
4.1 STBGDA and TAP Funding Programs	3-12
4.2 Project Screening & Prioritization Process for TAP Funding	3-13
4.2.1 Screening Criteria	3-14
4.2.2 Scoring Methodology	3-14
4.3 CMAQ Funding Program	3-15
5.Highway Funding for MPO-Specific Projects	3-16
6. Non-Highway Funding for MPO-Specific Projects	. 3-17
7. SUMMARY OF FY2016-2025 TIP COSTS BY FUNDING SOURCE	3-18



APPENDIX A: 10-YEAR PROGRAM OF PROJECTS
APPENDIX B: SUPPLEMENTAL PROJECT LISTS
APPENDIX C: LOCAL INPUT POINTS
APPENDIX D: PUBLIC INVOLVEMENT
APPENDIX E: MTIP AMENDMENT & MODIFICATION PROCESS
APPENDIX F: GLOSSARY OF ACRONYMS & TERMS
1. DEFINITIONS OF COMMONLY USED ACRONYMS E-1
2. Overview & Guidance for Funding Sources E-4



Figures & Tables

CHAPTER 1: OVERVIEW
Figure 1. Relationship Between DCHC MPO Plans and Programs 1-3
CHAPTER 2: PROGRAM DEVELOPMENT
Figure 1. STI Eligibility Definitions
Figure 2. STI Funding2-4
Figure 3. Local Points distribution
CHAPTER 3: FINANCIAL PLAN
Table 1. Federal Aid Construction Program
Table 2. GARVEE Bond Program (\$ in Millions)
Table 3. BUILD NC Bond Program (\$ in Millions)
Table 4. Funds Available for Programming (\$ in Millions)
Table 5. Summary of Highway Project Funding
Table 6. Summary of Non- Highway Project Funding in the DCHC MPO Area 3-17
Figure 1. Proposed Use of FFY 2020 & 2021 Obligation Authority
Figure 2. Example of DCHC MPO STBGDA & TAP Distribution Policy 3-11
Figure 3. Summary of FY2020-2023 Project Costs by Funding Source

FY2020-2029

Metropolitan Transportation Improvement Program

CHAPTER 1: OVERVIEW



Chapter 1 Contents

1. Introduction	. 1-1
1.1 The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization	1-1
1.2 Purpose of the Metropolitan Transportation Improvement Program Document .	. 1-2
2. RELATIONSHIP BETWEEN DCHC MPO PLANS AND PROGRAMS	1-2
2.1 The Comprehensive Transportation Plan	1-2
2.2 The Metropolitan Transportation Plan	1-2
2.3 The Metropolitan Transportation Improvement Program	1-3
2.4 The Unified Planning Work Program	. 1-4
2.5 Other MPO Plans	. 1-4
3. RELATIONSHIP BETWEEN DCHC MPO MTIP AND THE STATE TRANSPORTATION IN PROFESSIONAL	
4. Organization of This Document	1-6
Chapter 1 Figures	
Figure 1. Relationship Between DCHC MPO Plans and Programs	1-3



1. Introduction

1.1 The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC MPO)

Established through federal legislation, Metropolitan Planning Organizations (MPOs) exist throughout the United States in all urbanized areas of more than 50,000 people. MPOs have the authority to plan, prioritize, and select transportation projects in urban/metropolitan areas for federal funding, as well as to coordinate any major transportation initiatives that have significance to the region.

The DCHC MPO is the organization responsible for transportation planning in the western part of the Research Triangle area in North Carolina. The DCHC MPO is an umbrella organization comprised of the MPO Board, the Technical Committee (TC), local governments, and the State of North Carolina. The MPO Board, designated by the Governor, is a policy body that coordinates and makes decisions on transportation planning issues.

The DCHC urbanized area includes:

- Durham County (in entirety)
- A portion of Orange County, including the Towns of Chapel Hill, Carrboro, and Hillsborough
- Northeast Chatham County

The DCHC MPO area is also one of the ten urban areas in North Carolina designated as a Transportation Management Area (TMA). TMA's are urban areas with a population of over 200,000 people, which have greater responsibilities for planning than non-TMA MPOs, as well as receive additional funding to implement transportation projects.

The major requirement of the DCHC MPO is to implement federal transportation legislation. Federal legislation requires MPOs to conduct a Continuing, Comprehensive, and Cooperative (3-C) transportation planning process. The 3-C planning includes the development of a long-range transportation plan, called the Metropolitan Transportation Plan (MTP).

As part of fulfilling its requirement to the 3-C planning process, DCHC MPO is responsible for:

- Monitoring the condition of the existing transportation network;
- Identifying existing and future capacity or safety problems;
- Developing candidate transportation projects;
- Forecasting future population and employment growth for the region;
- Evaluating the effects that future land use plans will have on transportation infrastructure;
- Estimating the impact that an expanding transportation system will have on air quality; and
- Developing a financial plan that identifies the costs and revenues associated with the continued



operation and maintenance, and future expansion of the region's transportation system.

1.2 Purpose of the Metropolitan Transportation Improvement Program (MTIP) Document

The purpose of this MTIP document is to provide information to the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the U.S. Environmental Protection Agency (EPA), North Carolina Department of Transportation (NCDOT), the public, DCHC MPO members, and other parties. The MTIP has also met the requirements of the Fixina America's Surface Transportation (FAST) Act. The DCHC MPO MTIP is consistent with the DCHC MPO's 2045 Metropolitan Transportation Plan (MTP) and local transportation plans, including those of transit operators. The MTIP also meets the requirements of subsection (h)(2) and (k)(5) of Section 134 of Title 23, United States Code (USC) and 23 Code of Federal Regulations (CFR) Part 450.334 (a). This document provides a MTIP that is financially feasible and constrained to available resources, and that depicts the MPO's regional priorities for the expenditure of federal funds for federal fiscal years 2018-2027.

2. RELATIONSHIP BETWEEN DCHC MPO PLANS AND PROGRAMS

2.1 Comprehensive Transportation Plan

A Comprehensive Transportation Plan (CTP) identifies desired roadway, transit, bicycle, and pedestrian improvements. While not required by federal statute, a CTP is required for all transportation planning organizations, including DCHC MPO, by the State of North Carolina. The CTP includes all forecasted transportation needs for thirty years, and is not fiscally restrained or restricted by expected funding levels (as is the 2045 MTP). The DCHC MPO's CTP was adopted in May 2017.

2.2 Metropolitan Transportation Plan

The Metropolitan Transportation Plan (MTP) is a long-range, 20+ year multimodal strategy and capital improvement program developed to guide the effective investment of public funds in transportation facilities to help manage congestion, increase regional mobility options, and conform to national air quality standards. The MTP is updated every four or five years and may be amended as a result of changes in anticipated federal, state, and local funding; major investment studies; congestion management systems plans; interstate interchange justification



studies; and environmental impact studies. The MPO's current plan is the 2045 MTP, which was adopted in March 2018 and extends through the year 2045. The 2045 MTP is a fiscally constrained subset of the CTP.

2.3 Metropolitan Transportation Improvement Program

The MTIP is a ten-year work program that lists all regionally significant and federally funded projects and transportation services in the MPO planning area. MTIP projects include highway, public transit, bicycle and pedestrian, and rail corridor improvement projects. Any project included in this MTIP must be consistent with the 2045 MTP; this ensures that the MTIP is fiscally constrained by estimated future revenues. The MTIP is also consistent with the first four years of the State Transportation Improvement Program (STIP), as required by federal law. The MTIP can be amended to account for changes in funding or need.

Figure 1. Relationship Between DCHC MPO Plans and Programs Comprehensive Transportation Plan (CTP (30+ Year Planning Horizon) Metropolitan Transportation Plan (MTP) (20+ Year Planning Horizon) Triang Collector Street Plan & Regions Congestion Management Model. Plan Transportation Improvement Program (TIP) Environmental Justice (10 Year Program) Report -Unified Planning Work Program (UPWP) (1 Year Program).



2.4 Unified Planning Work Program

The Unified Planning Work Program (UPWP) is a one-year plan developed to focus work efforts of MPO Lead Planning Agency (LPA) staff, MPO TC members, and consultants using planning funds in the upcoming fiscal year. All federally funded planning activities must conform to federal planning requirements and be listed in the UPWP.

2.5 Other MPO Plans

In addition to those described above, DCHC MPO also works on other plans that inform the development of the MTIP. These include, but are not limited to:

- Collector Street Plans, which inform where new roadways may be required;
- Corridor Plans, which identify potential projects to be considered for an upcoming MTP;
- Congestion Management Plan, which identifies future trouble spots for traffic congestion;
- The Triangle Regional Model (TRM), which is used in the development of the MTP; and
- The Environmental Justice Report, which identifies populations that have either been underserved or unduly negatively affected by past transportation efforts.

3. RELATIONSHIP BETWEEN DCHC MPO MTIP AND THE STATE TRANSPORTATION IMPROVEMENT PROGRAM

The DCHC MPO's MTIP works in coordination with the State of North Carolina's State Transportation Improvement Program (STIP), developed by the North Carolina Department of Transportation (NCDOT), which denotes the scheduling and funding of construction projects located across the state over a minimum four-year time period as required by state and federal laws.

Both the MTIP and the STIP cover a 10-year period, with the first six years (2020-2025 in this version) referred to as the delivery program and the latter four years (2020-202p in this version) as the developmental program. Per 23 CFR 450.216 & 23 U.S. Code § 135 the State of North Carolina's STIP's must also:

- Be submitted to FHWA and FTA for approval at least every four years;
- Be fiscally constrained by year;
- Include all capital and non-capital projects using Title 23 USC or Title 49 USC funds, other than certain safety, planning, and research funds;
- Include MTIPs from MPOs; and
- Provide opportunity for public comment.





The DCHC
MPO MTIP is
a subset of
the NCDOT's
STIP and is
incorporated
into the STIP

The NCDOT STIP must also include the following information:

- Project description and termini;
- Estimated total cost (NCDOT includes Utility, Right of Way, and Construction costs);
- Federal funds to be obligated; and
- Responsible agency (such as the state or a municipality).

Both the MTIP and the STIP are updated frequently and developed based on federal and state revenue forecasts, NCDOT's Strategic Prioritization process, and preconstruction and project development timetables. The MTIP and STIP

must adhere to federal and state laws. North Carolina state law requires MPO Board action to approve the MTIP and NCDOT Board of Transportation (BOT) action to approve the STIP.

The FY2020-2029 MTIP and STIP are both developed under and conform to the Strategic Transportation Investments (STI) law passed in June 2013. This legislation elevates the use of transportation criteria and the input of local communities to determine project priorities and directs the use of dollars from the state's Highway Trust Fund for construction.



4. Organization of This Document

This FY2018-27 MTIP contains the following required documents:

- Chapter 2 describes the development of the MTIP, and includes the local methodology for determining which projects to move forward in the prioritization process;
- Chapter 3 includes the financial plan and statements affirming the fiscal constraints of the MTIP;
- A list of appendices follows, including:
 - » Appendix A, which lists all projects included in the MTIP, organized by Division;
 - » Appendix B, which shows the adopted MTIP in STIP format.

- » Appendix C, which lists all projects submitted for prioritization in P5.0 and the local points assigned;
- » Appendix D, which describes the public involvement process for this MTIP;
- » Appendix E, which describes the amendment process for this MTIP;
- » Appendix F, a glossary of terms commonly used throughout the MTIP.