



Functional Classification

Lia Prince: TDOT Team Lead

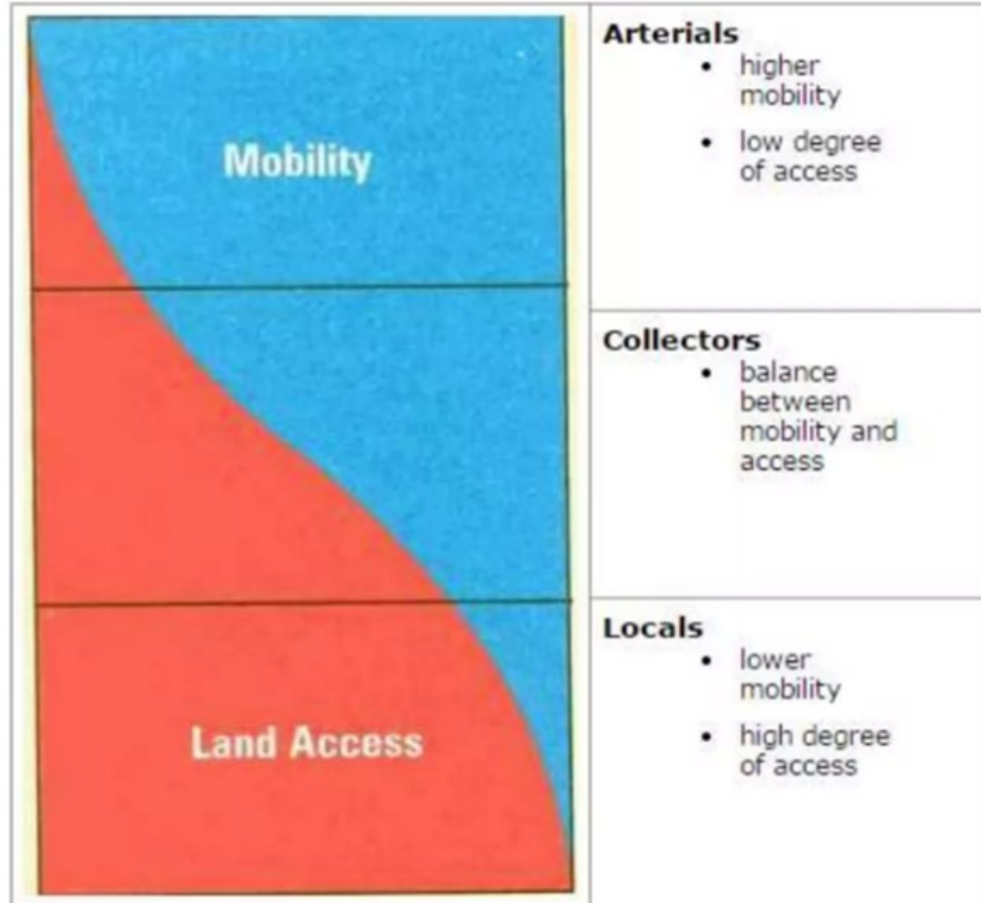
Joe Roach: Transportation Specialist

Functional Classification Of

- Purpose:
 - Classifying roadways eligible for Federal funding assistance.
 - Specifies design standards for future improvements.



Functional Classification



Source: Highway functional | PPT (slideshare.net)

Federal Funding Assistance – Local Projects

- **Functional Classification** determines, among other things, if a road is eligible for Federal aid.
- **List of typical funding sources for eligible functional classes**
 - **Federal - National Highway System - [NHS]**
 - **State - Surface Transportation Program – [STP]**
 - **Local Source - Surface Transportation Block Grant – [STBG]**
 - **Rural Major Collectors or above in rural areas.**



Federal Aid Highway System

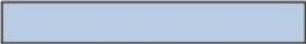


Rural



Urban

Principal Arterial		
Interstate	N H S	Interstate
Other Freeway & Expressway		Other Freeway & Expressway
Other Principal Arterial		Other Principal Arterial
Minor Arterial		
Minor Arterial		Minor Arterial
Collector		
Major Collector		Major Collector
Minor Collector		Minor Collector
Local		Local

 = Federal-Aid Eligible

- Highway Functional Classification System & Federal-Aid Eligibility

Source: State of Rhode Island Division of Statewide Planning (planningri.gov)

Functional Classification -Overview

Table 2-1: Relationship between Functional Classification and Travel Characteristics

Functional Classification	Distance Served (and Length of Route)	Access Points	Speed Limit	Distance between Routes	Usage (AADT and DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer



VMT & Mileage by Functional Classification

• ARTERIALS

Table 3-5: VMT and Mileage Guidelines by Functional Classifications - Arterials

Arterials:	Interstate	Other Freeways & Expressway	Other Principal Arterial	Minor Arterial
Typical Characteristics				
Lane Width	12 feet	11 - 12 feet	11 - 12 feet	10 feet - 12 feet
Inside Shoulder Width	4 feet - 12 feet	0 feet - 6 feet	0 feet	0 feet
Outside Shoulder Width	10 feet - 12 feet	8 feet - 12 feet	8 feet - 12 feet	4 feet - 8 feet
AADT ¹ (Rural)	12,000 - 34,000	4,000 - 18,500 ²	2,000 - 8,500 ²	1,500 - 6,000
AADT ¹ (Urban)	35,000 - 129,000	13,000 - 55,000 ²	7,000 - 27,000 ²	3,000 - 14,000
Divided/Undivided	Divided	Undivided/Divided	Undivided/Divided	Undivided
Access	Fully Controlled	Partially/Fully Controlled	Partially/Uncontrolled	Uncontrolled
Mileage/VMT Extent (Percentage Ranges)¹				
Rural System				
Mileage Extent for Rural States ²	1% - 3%	0% - 2%	2% - 6%	2% - 6%
Mileage Extent for Urban States	1% - 2%	0% - 2%	2% - 5%	3% - 7%
Mileage Extent for All States	1% - 2%	0% - 2%	2% - 6%	3% - 7%
VMT Extent for Rural States ²	18% - 38%	0% - 7%	15% - 31%	9% - 20%
VMT Extent for Urban States	18% - 34%	0% - 8%	12% - 29%	12% - 19%
VMT Extent for All States	20% - 38%	0% - 8%	14% - 30%	11% - 20%
Urban System				
Mileage Extent for Rural States ²	1% - 3%	0% - 2%	4% - 9%	7% - 14%
Mileage Extent for Urban States	1% - 2%	0% - 2%	4% - 5%	7% - 12%
Mileage Extent for All States	1% - 3%	0% - 2%	4% - 5%	7% - 114%
VMT Extent for Rural States ²	17% - 31%	0% - 12%	16% - 33%	14% - 27%
VMT Extent for Urban States	17% - 30%	3% - 18%	17% - 29%	15% - 22%
VMT Extent for All States	17% - 31%	0% - 17%	16% - 31%	14% - 25%
Qualitative Description (Urban): - Serve major activity centers, highest traffic volume corridors, and longest trip demands - Carry high proportion of total urban travel on minimum of mileage - Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area - Serve demand for intra-area travel between the central business district and outlying residential areas - Interconnect with and augment the principal arterials - Serve trips of moderate length at a somewhat lower level of travel mobility than principal arterials - Distribute traffic to smaller geographic areas than those served by principal arterials - Provide more land access than principal arterials without penetrating identifiable neighborhoods - Provide urban connections for rural collectors				
Qualitative Description (Rural): - Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel - Serve all or nearly all urbanized areas and a large majority of urban areas with 25,000 and over population - Provide an integrated network of continuous routes without stub connections (dead ends) - Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service - Spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an arterial roadway - Provide service to corridors with trip lengths and travel density greater than those served by rural collectors and local roads and with relatively high travel speeds and minimum interference to through movement				

1- Ranges in this table are derived from 2011 HPMS data.

2- For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban areas.

VMT & Mileage by Functional Classification

- Collectors and Locals

Table 3-6: VMT and Mileage Guidelines by Functional Classifications – Collectors and Locals

Collectors:	Major Collector ²	Minor Collector ²	Local
Typical Characteristics			
Lane Width	10 feet - 12 feet	10 - 11 feet	8 feet - 10 feet
Inside Shoulder Width	0 feet	0 feet	0 feet
Outside Shoulder Width	1 foot - 6 feet	1 foot - 4 feet	0 feet - 2 feet
AADT ¹ (Rural)	300 - 2,600	150 - 1,110	15 - 400
AADT ¹ (Urban)	1,100 - 6,300 ²	1,100 - 6,300 ²	80 - 700
Divided/Undivided	Undivided	Undivided	Undivided
Access	Uncontrolled	Uncontrolled	Uncontrolled
Mileage/VMT Extent (Percentage Ranges) ¹			
Rural System			
Mileage Extent for Rural States ³	8% - 19%	3% - 15%	62% - 74%
Mileage Extent for Urban States	10% - 17%	5% - 13%	66% - 74%
Mileage Extent for All States	9% - 19%	4% - 15%	64% - 75%
VMT Extent for Rural States ³	10% - 23%	1% - 8%	8% - 23%
VMT Extent for Urban States	12% - 24%	3% - 10%	7% - 20%
VMT Extent for All States	12% - 23%	2% - 9%	8% - 23%
Urban System			
Mileage Extent for Rural States ³	3% - 16%	3% - 16% ²	62% - 74%
Mileage Extent for Urban States	7% - 13%	7% - 13% ²	67% - 76%
Mileage Extent for All States	7% - 15%	7% - 15% ²	63% - 75%
VMT Extent for Rural States ³	2% - 13%	2% - 12% ²	9% - 25%
VMT Extent for Urban States	7% - 13%	7% - 13% ²	6% - 24%
VMT Extent for All States	5% - 13%	5% - 13% ²	6% - 25%
Qualitative Description (Urban)	- Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas - Penetrate residential neighborhoods, often for significant distances - Distribute and channel trips between local streets and arterials, usually over a distance of greater than three-quarters of a mile	- Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas - Penetrate residential neighborhoods, often only for a short distance - Distribute and channel trips between local streets and arterials, usually over a distance of less than three-quarters of a mile	- Provide direct access to adjacent land - Provide access to higher systems - Carry no through traffic movement
Qualitative Description (Rural)	- Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks, important mining and agricultural areas - Link these places with nearby larger towns and cities or with arterial routes - Serve the most important intra-county travel corridors	- Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within reasonable distance of a minor collector - Provide service to smaller communities not served by a higher-class facility - Link locally important traffic generators with their rural hinterlands	- Serve primarily to provide access to adjacent land - Provide service to travel over short distances as compared to higher classification categories - Constitute the mileage not classified as part of the arterial and collectors systems

1- Ranges in this table are derived from 2011 HPMS data.

2- Information for Urban Major and Minor Collectors is approximate, based on a small number of States reporting.

3- For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban areas.

FC Change Workflow (Network Resets & Ad-Hoc Requests)

STEP # 1

MPO or Local Jurisdiction Submits
the following information to TDOT
at
TDOT.FUNCTIONALCLASS@TN.GOV

Completed FC Change
Request Form on TDOT
website

FC Map/GIS web map –
Proposed Changes

Request Letter from MPO or
local jurisdiction

MPO or City/County
Resolution

FC Change Workflow (Network Resets & Ad-Hoc Requests)

STEP # 2

TDOT Roadway Data Analytics (RDA) in coordination with OCT:

Reviews submitted information

TDOT creates FC Map (Proposed Changes)

Compiles TDOT Concurrence Letter

Submits FC map package to Federal Highway Administration (FHWA)

FC Change Workflow (Network Resets & Ad-Hoc Requests)

STEP # 3

Federal Highway Administration
(FHWA):

Reviews proposed FC Changes

Approves proposed FC Changes

Sends email notification to TDOT
of FC Change Approval

FC Change Workflow (Network Resets & Ad-Hoc Requests)

STEP # 4

TDOT Roadway Data Analytics (RDA)

Post updated FC Map to TDOT
Planning Div. website (TBD)

Update R&H/
E-TRIMS RH Database

Send email to TDOT OCT, MPOs,
local officials stating updated maps
have been posted to TDOT Planning
website and R&H/E-TRIMS RH
Database has been updated

Functional Classification Process

Functional Classification Change Request Form

The Federal Highway Administration (FHWA) requires that revisions to the Federal Highway System be made through the state's highway agency and the appropriate local officials or Metropolitan Planning Organization (MPO) acting in cooperation with each other. Therefore, the MPO must review and act on the requested revisions.

Jurisdiction Name:	
Contact Person:	
Contact Information:	
Date of Request: (By Applicant, to TCC, To Executive Board)	

Route Information

Jurisdiction	TRIMS Route ID	Route Name/SR	Beginning Log Mile	Ending Log Mile	Current FC	Proposed FC

Reason for Change in Classification: (Please include map and AADT Counts)

Attach MPO Resolution:



Example of Submittal Packet to TDOT

Functional Classification System of Streets Revision (TN)

Staff Lead and Contact Information:

Aleeta Zeller
423.643.5900
zeller_a@chattanooga.gov

The Federal Highway Administration (FHWA) requires that revisions to the Federal Highway System be made through the state's highway agency and the appropriate local officials or Metropolitan Planning Organization (MPO) acting in cooperation with each other. Therefore, the MPO must review and act on the requested revisions. The City of Soddy-Daisy is requesting the addition of Old Dayton Pike to the Functional Classification of Streets System (maps attached). Adjoining street, Lee Pike, has higher AADT, and should also be considered for classification.

Proposed revisions were reviewed and recommended by the TCC on January 20, 2025.

Functional Class Change Request Form

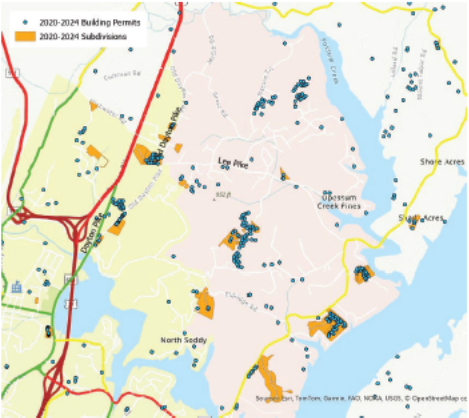
Jurisdiction Name:	City of Soddy-Daisy / Unincorporated Hamilton County
Jurisdiction Address:	9835 Dayton Pike, Soddy-Daisy, TN 37379
Contact Person:	Burton Johnson, Soddy-Daisy City Manager
Contact information phone / email:	(423)332-5323 Burt.Johnson@soddy-daisy.org
Date of Request:	By Applicant: April 25, 2024 To TCC: January 14, 2025 To Executive Board: February 26, 2025

Route Information

Jurisdiction	TRIMS Route ID*	Route Name / SR#	BLM	ELM	Current FFC	Requested FFC
Soddy-Daisy / Hamilton County	0C031	Old Dayton Pike (from 11920 to Hwy 27)	0	2.552	Local	Minor Collector (Urban)
Hamilton County	0D535	Lee Pike (from Old Dayton Pike to Armstrong Road)	0	2.468	Local	Minor Collector (Urban)

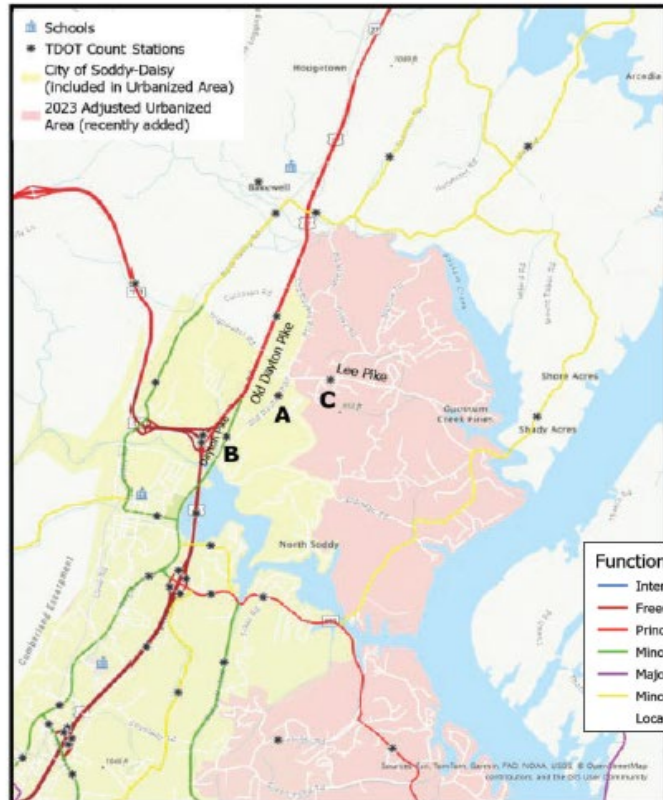
Reason for Change in Classification:

Due to the new residential development in this area (see building permits and subdivisions map), street usage has shifted. Dayton Pike was the main thoroughfare to Hwy 27 but now more people travel Old Dayton Pike and Lee Pike to and from home. Old Dayton Pike needs repair, and travel will increase on an already worn-down street.



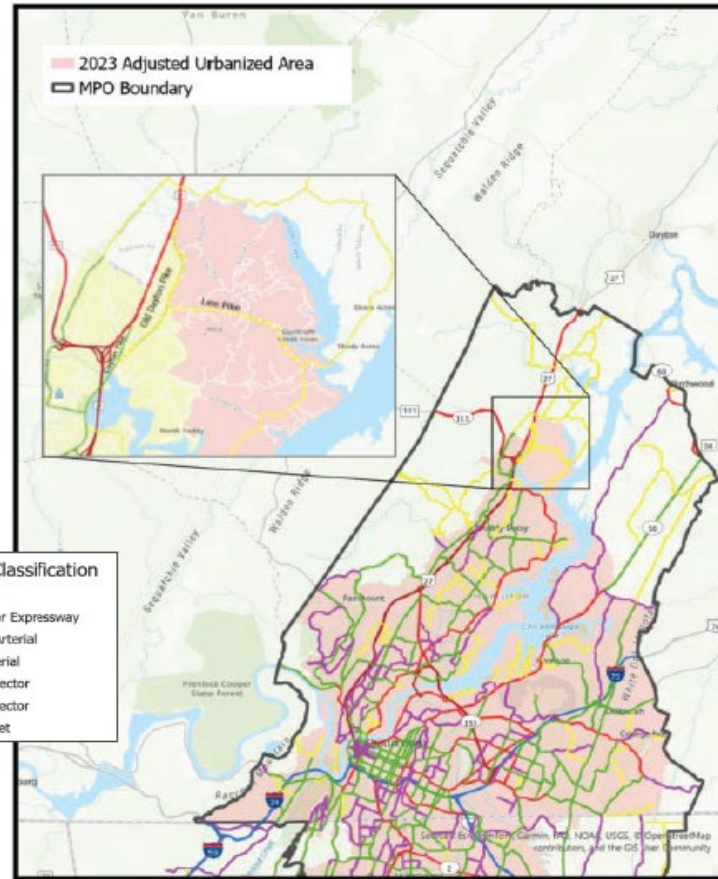
FC Maps – Proposed Changes

Current Functional Classification and AADTs :



	2023	2022	2021	2020	2019	2018	2017	2016	2015
A Old Dayton Pike	2,303	1,893	1,982	1,560	2,031	1,819	1,720	1,814	1,685
B Dayton Pike	1,664	1,405	1,684	1,300	1,371	1,287	1,324	1,313	1,700
C Lee Pike	4,366	3,899	3,798	3,782	4,798	4,238	3,547	3,903	3,557

Proposed Functional Classification:



VMT and Mileage Guidelines by Functional Classifications

Typical Characteristics	Minor Arterial	Major Collector	Dayton Pike	Old Dayton Pike	Lee Pike	Minor Collector	Local
Lane Width	10 feet - 12 feet	10 feet - 12 feet				10 - 11 feet	8 feet - 10 feet
Inside Shoulder Width	0 feet	0 feet				0 feet	0 feet
Outside Shoulder Width	4 feet - 8 feet	1 feet - 6 feet				1 feet - 4 feet	0 feet - 2 feet
AADT (Rural)	1,500 - 6,000	300-2600				150-1,110	14-400
AADT (Urban)	3,000 - 14,000	1,100 - 6,300	1664	2303	4366	1,100 - 6,300	80-700
Divided/Undivided	Undivided	Undivided	Undivided	Undivided	Undivided	Undivided	Undivided
Access	Uncontrolled	Uncontrolled	Uncontrolled	Uncontrolled	Uncontrolled	Uncontrolled	Uncontrolled
Qualitative Description (Urban)	• Interconnect and augment the higher-level Arterials • Serve trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials • Distribute traffic to smaller geographic areas than those served by higher-level Arterials • Provide more land access than Principal Arterials without penetrating identifiable neighborhoods • Provide urban connections for Rural Collectors	• Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas • Penetrate residential neighborhoods, often for significant distances • Distribute and channel trips between local streets and arterials, usually over a distance of greater than three-quarters of a mile • Operating characteristics include higher speeds and more signalized intersections				• Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas • Penetrate residential neighborhoods, often only for a short distance • Distribute and channel trips between local streets and arterials, usually over a distance of less than three-quarters of a mile • Operating characteristics include lower speeds and fewer signalized intersections	• Provide direct access to adjacent land • Provide access to higher systems • Carry no through traffic movement • Constitute the mileage not classified as part of the Arterial and Collector systems
Qualitative Description (Rural)	• Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service • Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway • Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement	• Provide service to any county seat not on an Arterial route, to the larger towns not directly served by the higher systems and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks and important mining and agricultural areas • Link these places with nearby larger towns and cities or with Arterial routes • Serve the most important intra-county travel corridors				• Be spaced at intervals, consistent with population density, to collect traffic from Local Roads and bring all developed areas within reasonable distance of a Collector • Provide service to smaller communities not served by a higher class facility • Link locally important traffic generators with their rural hinterlands	• Serve primarily to provide access to adjacent land • Provide service to travel over short distances as compared to higher classification categories • Constitute the mileage not classified as part of the Arterial and Collector systems

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3- For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban centers.

US Department of Transportation

Federal Highway Administration

Highway Functional Classification: Concepts, Criteria and Procedures

MPO Request Letter



August 1, 2025

Planning Division
Tennessee Department of Transportation
James K. Polk Building, Suite 900
505 Deaderick St.
Nashville, TN 37243-0334

Subject: Request Amendments to the Tennessee Federal Functional Classification System

The Chattanooga–Hamilton County/North Georgia Metropolitan Planning Organization (CHCNGA MPO) formally requests that the Tennessee Department of Transportation (TDOT) consider amending the State of Tennessee's Federal Functional Classification System map to incorporate the changes outlined in the attached resolution, maps, and supporting documentation.

These changes were requested by the City of Soddy-Daisy, a partner jurisdiction of the MPO. They reflect collaborative efforts by local and regional agencies to address recent growth in the Soddy-Daisy area and its impact on the transportation network. Specifically, the proposed amendment includes the addition of portions of Old Dayton Pike and Lee Pike to the Functional Classification System as a Minor Collectors, as detailed and justified in the attached form.

The proposed revisions were reviewed and recommended for approval by the Technical Coordinating Committee (TCC) on January 20, 2025, and subsequently approved by the Executive Board on February 26, 2025. The signed resolution is enclosed. Please feel free to contact me with any questions.

Sincerely,

A handwritten signature in black ink that reads 'Aleeta Zeller'.

Aleeta Zeller, GISP
Transportation Analyst

E: azeller@chattanooga.gov
P: 423-643-5900
M: 423-503-6181

MPO Resolution



A RESOLUTION OF THE CHATTANOOGA-HAMILTON COUNTY / NORTH GEORGIA
METROPOLITAN PLANNING ORGANIZATION
TO REQUEST CHANGES TO THE TENNESSEE DEPARTMENT OF TRANSPORTATION FUNCTIONAL
CLASSIFICATION SYSTEM OF STREETS

WHEREAS, the Tennessee Department of Transportation (TDOT) maintains State Functional Classification Systems that group roadways based on the character of service they are intended to provide; and

WHEREAS, the City of Soddy-Daisy and Hamilton County are requesting changes to the Functional Classification of Streets as reflected in the attached map and spreadsheet; and

WHEREAS, the requested changes have been reviewed by the Technical Coordinating Committee on January 20, 2025; and

WHEREAS, the Executive Board has reviewed and agrees that these additions should be made to Tennessee's Functional Classification System in order to properly display usage of

- Old Dayton Pike as Minor Collector and
- Lee Pike as a Minor Collector

NOW, THEREFORE, BE IT RESOLVED, by the Chattanooga-Hamilton County / North Georgia Metropolitan Planning Organization (MPO) Executive Board that TDOT's Functional Classification System of Streets be modified to show the attached changes.

RESOLUTION APPROVED:

A handwritten signature in black ink, appearing to read 'Todd E. Leamon'.

Todd E. Leamon
Chair, MPO Executive Board

DATE:

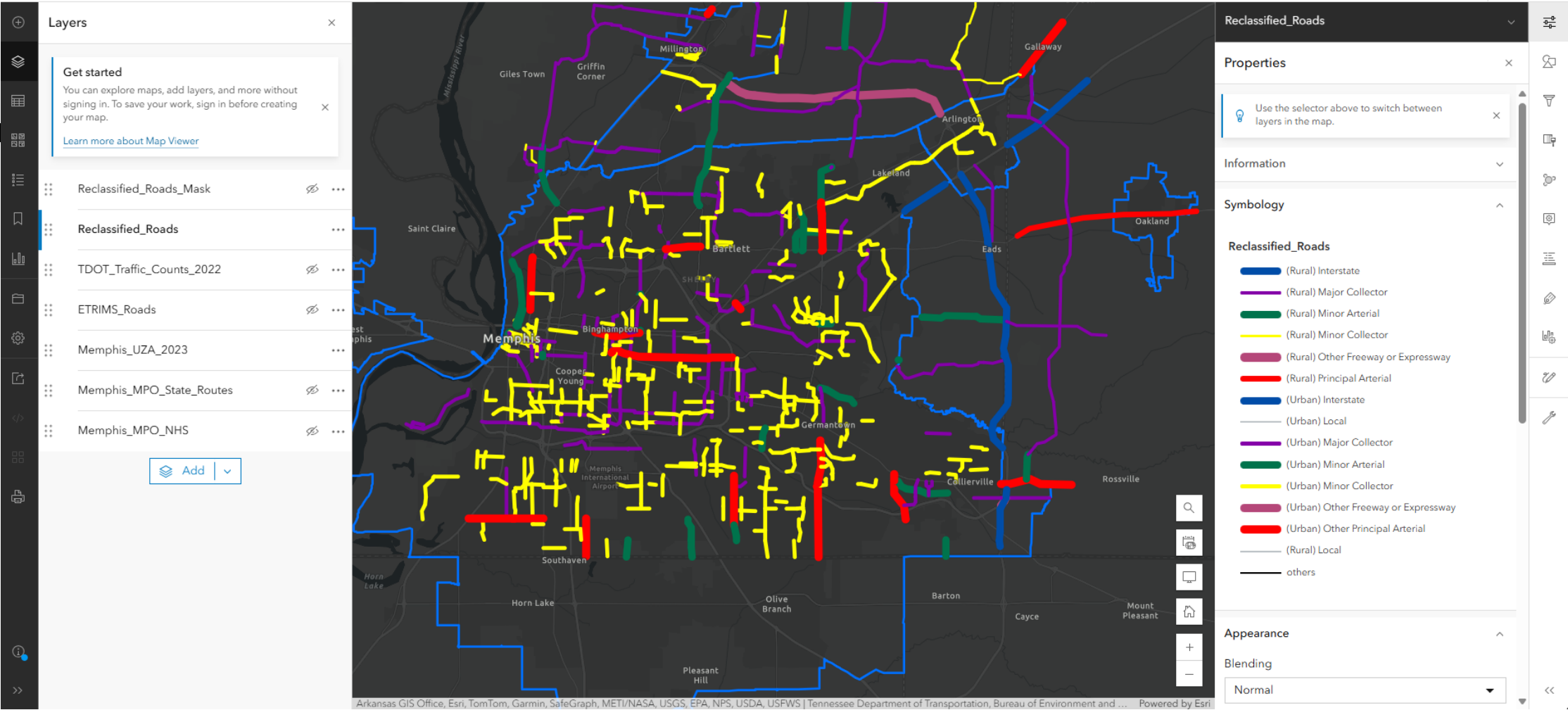
A handwritten signature in black ink, appearing to read 'Dan Reuter'.

2/26/2025
Dan Reuter, Executive Director
Secretary, MPO Executive Board

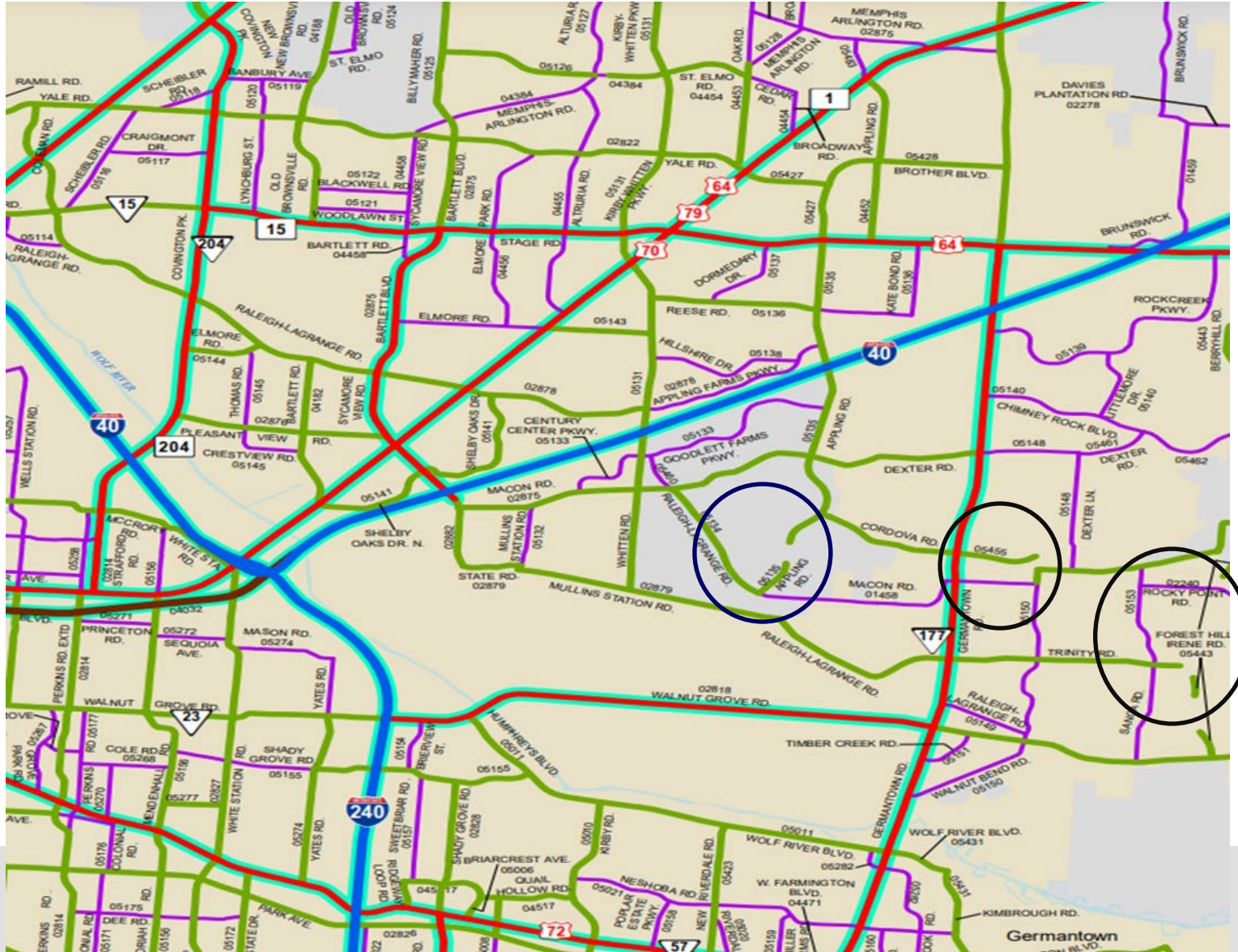
Webmap – Network Reset Example

MPO TDOT FC

Sign In



PROBLEMS TO AVOID – STUBS AND NUBS



Feedback

- Questions/Comments?



Thank You

