



**GREATER
NASHVILLE
REGIONAL
COUNCIL**

Transportation Coordinating Committee

10:30 A.M., Wednesday, September 2, 2020
Online Meeting Details at GNRC.org/Calendar

RTP WORKSHOP AGENDA

- 1. Welcome and Introductions**
- 2. Regional Transportation Plan Development**
 - a. Project Database and Evaluation Tool**
 - b. Weighting Goals for the Policy Framework to Guide Project Prioritization (A)**
 - c. Scenarios for Establishing Roadway Safety Performance Targets (A)**
- 3. Updates on Other Transportation Planning Activities**
 - a. Proposed TIP Amendments are available online at www.GNRC.org/PublicNotices**
 - b. Ongoing Studies**

GNRC will be using the Microsoft Teams platform for the online workshop. The software works in Google Chrome and on the Internet Edge browser. You also can download the free Teams desktop client at the following link. Other browsers might be supported, but you might be required to call in for audio.

Workshop Link and Call-In Details available at www.GNRC.org/Calendar
Roll Call will be taken at www.GNRC.org/TCCRollCall

The Microsoft Teams desktop client can be downloaded for free at:
<https://teams.microsoft.com/downloads>

(A) Indicates an attachment is available in the packet

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Agenda Item 2b.

Prioritizing Goals of the Policy Framework for the Regional Transportation Plan

Background

Staff will present results from a survey being conducted among members to help develop priority weights for each of the goals identified in the RTP Policy Framework. The weights will be used to prioritize projects for funding as the plan is developed.

This Policy Framework presents six regional goals and establishes the need to identify specific, measurable objectives to help ensure that the desired outcomes of the plan are being achieved through the implementation of its recommendations.

Call-for-Projects and General Framework for the Development of the Regional Transportation Plan

Call-for-Projects

The current transportation plan, adopted in 2016, allocates more than \$8 billion in anticipated federal grants and matching funds to transportation projects through 2040. A major update is scheduled for release in mid-2020 with adoption in early 2021. A call-for-projects is one of the first major acts by the Transportation Policy Board to engage TDOT and other participating jurisdictions in finding specific solutions to solve Middle Tennessee's transportation challenges. [Interested parties may respond at Apply.NashvilleMPO.org](https://www.applynashvillempo.org) by December 31, 2019.

Decision-making Authority of the Transportation Policy Board

The Transportation Policy Board (TPB) is empowered by federal law to serve as the primary forum for collaboration among local elected officials, public transit operators, TDOT, and other state and federal agencies in order to negotiate a mutually beneficial plan to invest in roadways, bridges, public transit, and other transportation facilities across the greater Nashville area.

Purpose of the Regional Plan

Direct the investment of public funds to provide for a safe and reliable transportation system that helps local communities thrive and contributes to the economic productivity of the region and state.

Shared Responsibilities of Participating Jurisdictions

- Work cooperatively across political boundaries, levels of government, socioeconomic groups, and economic sectors to identify a shared vision for the region.
- Be willing to prioritize transportation needs according to the known constraints, fiscal or otherwise.
- Identify strategies and resources to overcome anticipated obstacles to success.
- Consider future generations and long-term trends while determining short-range priorities.
- Think comprehensively about the relationship between transportation decisions and those related to housing, the economy and jobs, land use and community design, conservation and preservation, social services, among others.
- Measure performance to monitor progress and improve the effectiveness of future decisions.

Guiding Principles (Proposed)

A philosophy that encompasses a set of values that guide the decisions of the TPB to ensure that its plans and programs contribute to a broad array of community benefits.

- **Livability** - Enhance quality of life by prioritizing initiatives that increase opportunities for housing, learning, employment, recreation, and civic involvement while maintaining affordability.
- **Prosperity** - Contribute to the region's economic productivity by prioritizing solutions that connect workforce with jobs, improve access to markets, and leverage additional investment.
- **Sustainability** - Encourage growth and prosperity without sacrificing the health, natural or historical assets, or financial stability of this or future generations.
- **Diversity** - Find solutions that balance the variety of perspectives across Middle Tennessee and ensure local context, community character, and cultural identity are respected in the process.

Emerging Issues and Related Concerns

- Rapid pace of change
- Worsening traffic congestion
- Affordability of housing
- Inequitable prosperity

- Lack of transit options and recent cuts
- Poor walkability/ pedestrian safety
- Increasingly complex environment (scooters, construction, etc.)
- Outdated traffic control technology
- Confusion among general public about plans
- Slow project delivery
- Right-of-way costs
- Lack of funding for transportation need

Goals & Objectives

Desired outcomes that are transportation-related, expressed either in broad terms (goal) or as a measurable accomplishment (objective). Objectives will be developed throughout the planning process.

- Maintain **State of Good Repair** for Roadways, Bridges, and Transit Systems
- Improve **Safety** for the Traveling Public and Freight Haulers
- Mitigate **Congestion** to Keep the Region Moving
- Increase Access to **Economic Opportunity** for all Middle Tennesseans
- Minimize **Disruptive Impacts** of Transportation Systems and Improvements
- Align with Other Local, Regional, and Statewide **Policies and Plans**

Strategies

A general approach or method, or a broadly defined action that can be deployed to help achieve a desired outcome; A means to an end. The following is an illustrative list of potential strategies.

- Take a “Fix-it-first” approach
- Reinvest in existing infrastructure
- Corridor preservation and access management
- Promote the implementation of “complete streets”
- Increase choice through expanded multimodal options
- Empower travelers with data and information
- Adopt emerging technologies
- Leverage other public funds or private investment

Actions or Tactics

A specific action or step that can be implemented to achieve a desired outcome or to advance a strategy.

- Physical improvements or upgrades
- Legislation, policies, rules, regulations
- Incentives and rewards
- Studies, research, data analysis
- Educational or promotional programming

Evaluation & Prioritization Factors

Metrics, indicators, and qualitative analysis used to assess the merit of proposed strategies or actions in helping to achieve the desired goals and objectives.

- Policy environment – regulations, policies, zoning and development regulations, etc.
- Physical environment - Building footprints, infrastructure, land, environmental assets, etc.
- Socioeconomics - households, population, jobs, race, ethnicity, income, auto ownership, etc.
- Transportation performance - traffic incidents, travel times, level of service, service frequency, etc.
- Project delivery - costs, impacts, capability of agency, right-of-way needs, local support, etc.

Regional Priorities

The strategies or actions that are determined to be the most important for resource allocation or focused effort over the near-term.

Endorsed by the Transportation Policy Board on October 16, 2019, Updated December 11, 2019

Glossary of Terms for the RTP Policy Framework

Guiding Principle – A philosophy that encompasses a set of values that guide the decisions of the TPB to ensure that its plans and programs contribute to a broad array of community benefits.

Goal – Desired outcome expressed in broad terms and achieved over the long-term.

Objective – Desired outcome that helps achieve a stated goal and which can be measured over a defined period of time using performance measures or metrics.

Performance Measure – A direct observation or prediction of a particular condition or behavior associated with at least one objective (i.e., vehicle miles traveled - in relation to the objective to reduce travel distance).

Indicator – A data point not associated with any specific or particular goal or objective (i.e., 5% increase in residential population).

Metric – A performance measure combined with additional information for the purposes of establishing a relative value (i.e., Daily VMT per capita).

Target – A desired value or outcome related to a performance measure or metric (i.e., Reduce average VMT per capita to less than 30 miles per day).

Strategy – A general approach or method, or a broadly defined action that can be deployed to help achieve a desired outcome; A means to an end.

Tactic – A specific action or step that can be implemented to achieve a desired outcome or to advance a strategy.

Priority – A strategy or action that is determined to be important for resource allocation or implementation.

Common Acronyms

CO – Carbon Monoxide

CO₂/GHG – Carbon Dioxide/ Greenhouse Gas

FF – Free Flow (speed)

FHWA – Federal Highway Administration

FTA – Federal Transit Administration

LM – Lane Miles

LOS – Level of Service

MPO – Metropolitan Planning Organization

NO_x – Oxides of Nitrogen

PM – Performance Measure

RTP – Regional Transportation Plan

TCC – Transportation Coordinating Committee

TDOT – Tennessee Department of
Transportation

TPB – Transportation Policy Board

VHT – Vehicle Hours Traveled

VMT – Vehicle Miles Traveled

VOC – Volatile Organic Compounds

2045 Regional Transportation Plan Policy Framework

Initial Set of Goals and Objectives

Goal 1. Maintain **State of Good Repair** for Roadways, Bridges, and Transit Systems

- 1 Maintain roadway pavement conditions
- 2 Maintain bridge deck conditions
- 3 Repair or replace deficient bridges
- 4 Maintain transit assets

Goal 2. **Improve Safety** for the Traveling Public and Freight Haulers

- 5 Reduce crashes (traffic incidents)
- 6 Reduce traffic fatalities
- 7 Reduce serious injuries from crashes
- 8 Improve safety for pedestrians and cyclists

Goal 3. **Mitigate Congestion** to Keep the Region Moving

- 9 Minimize travel delays
- 10 Improve corridor-level travel time reliability
- 11 Increase access to non-SOV options
- 12 Reduce travel distances

Goal 4. Increase Access to **Economic Opportunity** for all Middle Tennesseans

- 13 Increase system-level capacity to support economic growth
- 14 Improve connectivity between jobs and workforce
- 15 Ensure affordable transportation options
- 16 Increase efficiency of freight movement

Goal 5. Minimize **Disruptive Impacts** of Transportation Systems and Improvements

- 17 Build resiliency into the transportation system
- 18 Minimize pollution from vehicle emissions
- 19 Minimize conflict with conservation priorities
- 20 Minimize disproportionate impacts on vulnerable neighborhoods

Goal 6. Align with Other Local, Regional, and Statewide **Policies and Plans**

Under development

2045 Regional Transportation Plan Policy Framework Initial Set of Performance Measures

ID	Type	Performance Measure	Goals	Objectives	CMP	FED	Modal Element
1	Condition	Percent of Federal-Aid routes in good or poor condition	1	1			Roadway
2	Condition	Percent of Interstate pavement in good or poor condition	1	1		X	Roadway
3	Condition	Percent of Non-Interstate NHS in good or poor condition	1	1		X	Roadway
4	Condition	Percent of NHS bridge decking in good or poor condition	1	2		X	Roadway
5	Condition	Number of bridges that are functionally obsolete	1	3			Roadway
6	Condition	Number of bridges that are structurally deficient	1	3			Roadway
7	Condition	Percent of transit facilities rated < 3 on the Transit Economic Requirements Model Scale	1	4		X	Roadway
8	Condition	Percent of public transit non-revenue vehicles exceeding useful life benchmark	1	4		X	Transit
9	Condition	Percent of public transit revenue vehicles exceeding useful life benchmark	1	4		X	Transit
10	Condition	Percent of track segments that have performance restrictions	1	4		X	Transit
11	Capacity	Roadway vehicle lane miles	1,4	1,2,9,10			Roadway
12	Capacity	Miles of Federal-Aid routes with bicycle facility	1,3,4	11,15	X		Non-Motorized
13	Capacity	Miles of Federal-Aid routes with sidewalks	1,3,4	11,15	X		Non-Motorized
14	Capacity	Number of transit revenue hours	1,3,4	11,13,14,15	X		Transit
15	Capacity	Frequency of transit service (headway)	3,4	11,13,14,15	X		Transit
16	Capacity	Percent of park-n-ride lots with transit service	3,4	11,13,14,15	X		Transit
17	Utilization	Vehicle miles traveled (VMT)	1,3	1,2,12	X		MultiModal
18	Utilization	Roadway volumes	1,3	1,2,12	X		MultiModal
19	Utilization	Percent of roadway volume classified as freight	1,3,4	1,2,12,16	X		Freight
20	Utilization	Number of transit boardings and alightings at stops	3	11	X		Transit
21	Utilization	Number of transit trips (ridership)	3	11	X		Transit
22	Utilization	Number of transit passenger miles	3	11	X		Transit
23	Utilization	Percent of commute destinations within county of residence	3,4	12,14,15	X		MultiModal
24	Utilization	Percent of trips made by non-single occupant vehicles	3,4	11	X		MultiModal
25	Utilization	Number of employers participating in transit pass programs	3,4	11,15	X		Transit
26	Utilization	Number of employers participating in other formal TDM programs	3,4	11,15	X		MultiModal
27	Outcome	Number of crashes (traffic incidents)	2,3	5,9	X		MultiModal
28	Outcome	Fatality rate resulting from crashes	2	6		X	MultiModal
29	Outcome	Number of fatalities resulting from crashes	2	6		X	MultiModal
30	Outcome	Serious injury rate resulting from crashes	2	7		X	MultiModal
31	Outcome	Number of serious injuries resulting from crashes	2	7		X	MultiModal
32	Outcome	Number of traffic crashes involving non-motorized traveler	2	5,8			Non-Motorized
33	Outcome	Number of pedestrian fatalities	2	8		X	Non-Motorized
34	Outcome	Number of seriously injured pedestrians	2	8		X	Non-Motorized
35	Outcome	Number of cycling fatalities	2	8		X	Non-Motorized
36	Outcome	Number of seriously injured cyclists	2	8		X	Non-Motorized
37	Outcome	Number of crashes involving public transit	2	5			Transit

2045 Regional Transportation Plan Policy Framework Initial Set of Performance Measures

ID	Type	Performance Measure	Goals	Objectives	CMP	FED	Modal Element
38	Outcome	Number of crashes involving freight	2,3,4	5,16	X		Freight
39	Outcome	Roadway volume to capacity ratio	3,4	9,13	X		Roadway
40	Outcome	Travel speed as a percentage of expected free flow	3	9	X		MultiModal
41	Outcome	Peak hour excessive delay	3,4	9,13	X		MultiModal
42	Outcome	Percent of VMT on congested routes	3,4	9,10	X		Roadway
43	Outcome	Percent of Freight VMT on congested routes	3,4	9,10,16			Freight
44	Outcome	Vehicle hours traveled (VHT)	3,4	9,14,15	X		MultiModal
45	Outcome	Interstate reliability	3,4	10	X	X	MultiModal
46	Outcome	Non-Interstate NHS reliability	3,4	10	X	X	MultiModal
47	Outcome	Public transit service reliability (on-time)	3,4	10,15	X		Transit
48	Outcome	Freight reliability on NHS	3,4	10,16	X	X	Freight
49	Outcome	Average commute travel distance	3,4	12,14	X		MultiModal
50	Outcome	Average commute travel time	3,4	9,14	X		MultiModal
51	Outcome	Pedestrian level of service	1,3	1,8,11,15	X		Non-Motorized
52	Outcome	Bicycle level of service	1,3	1,8,11,15	X		Non-Motorized
53	Outcome	Carbon Monoxide (CO) from vehicle emissions	5	18			MultiModal
54	Outcome	Oxides of Nitrogen (NOx) from vehicle emissions	5	18			MultiModal
55	Outcome	Particulate Matter (PM 2.5) from vehicle emissions	5	18			MultiModal
56	Outcome	Volatile Organic Compound (VOC) from vehicle emissions	5	18			MultiModal
57	Outcome	Carbon Dioxide (CO2) levels vehicle emissions	5	18,19			MultiModal
58	Proximity	Percent of households within 1/4 miles of frequent transit service	3,4	11,12,14,15,17	X		Transit
59	Proximity	Percent of households within 2 miles of park-n-ride lot	3,4	11,12,14,15,17	X		Transit
60	Proximity	Percent of jobs within 1/4 miles of frequent transit service	3,4	11,12,14,15,17	X		Transit
61	Proximity	Number of jobs within 30 minute transit commute	4	9,11,12,14,15			Transit
62	Proximity	Percent of jobs within 30 minute commute	4	9,12,14			MultiModal
63	Proximity	Acres of impervious surface within environmentally sensitive areas*	5	19			MultiModal
64	Proximity	Miles of right-of-way within environmentally sensitive areas*	5	19			MultiModal

KEY:							
Condition	Measure of the physical condition of infrastructure including a facility or equipment						
Capacity	Measure of the capacity of the transportation system including roadways and transit service						
Utilization	Measure of the demand or usage of the transportation system						
Outcome	Measure related to the resulting effects of the use of the transportation system						
Proximity	Measure of value within a distance of the transportation facility or related feature						

Agenda Item 2c.

Scenarios for Setting Regional Roadway Safety Performance Targets as part of the Regional Transportation Plan

Background

Staff will present options for setting regional targets for roadway safety performance in conjunction with the update to the Regional Transportation plan.

Visit www.GNRC.org/safety-survey to share your perspective.



Scenarios for Setting Roadway Safety Performance Targets

Background/Requirements

Federal legislation (*MAP-21* and *FAST Act*) has set a national goal **to achieve a significant reduction in traffic fatalities and serious injuries** on all public roads.

That law put into place federal requirements for safety performance targets to be set by states and regions (MPOs).

Tennessee and GNRC Response

- Targets are set annually (most recent action was in Feb 2020).
- TPB has elected to support state targets for its own (regional) targets until a new regional transportation plan is adopted.
- The 2045 RTP will establish the basis for regional targets for the subsequent years.

What Happens if Targets are Not Met?

FHWA does not directly assess progress towards regional targets set by the TPB, but

If state targets for safety are not met, TDOT will not be permitted to use (flex) federal safety funds on other types of projects.

- TDOT would be required to obligate Highway Safety Improvement Program (HSIP) funds to safety projects only.
- TDOT must develop an Implementation Plan to improve safety outcomes.

Associated Efforts to Improve Safety

There are several efforts underway by TDOT, transit agencies, GNRC, and local governments that establish strategies or allocate resources to improve safety.

- **Regional Transportation Plan**
- **State Strategic Highway Safety Plan (SHSP)**
- **Public Transit Agency Safety Plan (PTASP)**
- **Annual Adoption of Safety Performance Targets**
 - Number of fatalities
 - Rate of fatalities per 100 million VMT
 - Number of serious injuries
 - Rate of serious injuries per 100 million VMT
 - Number of non-motorized fatalities and non-motorized serious injuries
- **Highway Safety Improvement Grant Program (HSIP) and other funds made available through the Transportation Improvement Program**

Regional Target Setting Scenarios

The federal law requires State DOTs and MPOs to set performance targets for the following measures. GNRC will set the MPO target as part of the 2045 RTP Process.

- **Number of fatalities**
- Fatality rate (per 100 million VMT)
- Number of serious injuries
- Serious injury rate (per 100 million VMT)
- Number of non-motorized fatalities and serious injuries

For the 2045 RTP, staff proposes the following options for consideration:

1. **“Support State”** - Annual MPO adoption of state targets
2. **“Cap Fatalities”** - Do not exceed baseline of 197 traffic fatalities annually
3. **“1% Annual Reduction”** - 1% annual decrease (compounding) out to 2045
4. **“50% Overall Reduction”** - 50% overall decrease by 2045
5. **“Vision Zero (Greatest Reduction)”** - 16% annual decrease (compounding) out to 2045

Target Setting Scenarios (TPB Options)

Option	Baseline	Proposed Target	Average Annual	Average Annual	Additional Lives Saved
	2015-2019	2045	Number	Percent	Number
Support State	1022.0 (MPO: 197)	N/A (2016-2020 target: 1,043.4)	N/A	N/A	N/A
Cap Fatalities	197	197	197	0%	0
1% Annual Reduction	197	152	181	-1%	638
50% Overall Reduction	197	99	141	-2.6%	1,463
Vision Zero (Greatest Reduction)	197	2	39	-16%	4,099

Target Setting Scenarios - Fatalities

