Addendum #1 to the Regional Transportation Plan

Effective October 1, 2017
Funding for this document was provided by the U.S. Department of Transportation Federal Highway Administration and Federal Transit Administration, the Tennessee Department of Transportation, and local government members of the Nashville Area Metropolitan Planning Organization.

**Non-Discrimination Policy | Equal Employment Opportunity Employer**

The MPO program is administered by the Greater Nashville Regional Council (GNRC). GNRC does not discriminate on the basis of race, color, national origin, gender, gender identity, sexual orientation, age, religion, creed or disability in admission to, access to, or operations of its programs, services, or activities. Discrimination against any person in recruitment, examination, appointment, training, promotion, retention, discipline or any other employment practices because of non-merit factors shall be prohibited. Complaints should be directed to Hope Jackson, Title VI Coordinator, 501 Union Street, Floor 6, Nashville, TN 37219, phone number 615-862-8863. GNRC is an EEO employer.

*Inside Cover Photo: Tennessee Bicentennial Mall, Max Baker, Nashville Area MPO*
Addendum to the Regional Transportation Plan

About the Regional Transportation Plan

The Regional Transportation Plan (RTP) is a long-range, 25-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 RTP is updated every five years and may be amended periodically to reflect changes in anticipated federal, state, and local funding or project cost estimates, and to incorporate project recommendations from major transportation studies that are carried out as part of the plan’s implementation.

The 2040 Regional Transportation Plan was adopted by the MPO Executive Board on February 17, 2016 and identifies more than 8 billion dollars in federal, state, and local funding for transportation projects over the next two and a half decades. The plan includes the following information:

- Introduction to the metropolitan planning process and requirements,
- Overview of the metropolitan area and regional challenges and opportunities,
- Summary of public and stakeholder outreach and input,
- Overview of regional goals and objectives,
- Population and employment growth trends and forecasts,
- Land use and traffic trends and forecasts,
- Evaluation of existing transportation systems,
- Identification of future transportation system deficiencies and project needs,
- Recommendations for local and regional transit improvements,
- Recommendations for local and regional pedestrian and bicycle facility improvements,
- Recommendations for improvements to area roadway and bridges,
- A 5, 10, and 25-year financial plan that directs $6 billion into regional priorities,
- Evaluation of the impact of proposed projects on vulnerable populations and natural environments.

Members of the public and interested stakeholders are encouraged to review the adopted RTP document and its supporting material by visiting http://2040.NashvilleMPO.org.

Purpose of the Addendum

Effective October 1, 2017, the Greater Nashville Regional Council (GNRC) is responsible for carrying out the staffing and administrative functions of the Nashville Area MPO in accordance with the Transportation Planning and Policy Agreement adopted on September 20, 2017. The agreement designates the GNRC as the MPO’s sponsor agency, a responsibility previously held by the Metropolitan Planning Commission (MPC) of Nashville-Davidson County.

This change was made to account for the steady expansion of the MPO planning area outside Davidson County that has occurred over the last three decades, and to better position the region to respond to challenges resulting from rapid economic growth and development. The integration of the MPO program into GNRC seeks to streamline and improve regional coordination among local governments across Middle Tennessee, align infrastructure planning with economic development initiatives, and bring Middle Tennessee in line with the state of practice in peer regions across the nation. Nearly 70 percent of metro areas across the U.S. with a population of one million or more people have the federally-required MPO function integrated into their regional council or its GNRC equivalent.

The purpose of this addendum is to communicate to members of the public and interested parties how the integration of the MPO and GNRC will affect the Regional Transportation Plan.

Additional information about the integration of the MPO program into GNRC can be found online at http://COG.NashvilleMPO.org

About the GNRC

GNRC is one of nine regional economic development districts established by the Tennessee General Assembly under the Tennessee Development District Act of 1965. GNRC is a public body corporate and politic and operates as a council of
governments (COG). It is owned and operated by its municipal and county government members in order to delivery regional programs and services that are funded, in part, by state and federal grant programs.

GNRC’s mission is to assist local communities and state agencies in the development of plans and programs that guide growth and development in the most desirable, efficient, and cost-effective manner, while ensuring the continued long-term livability of the region. GNRC is governed by a regional council comprised of city mayors, county mayors/executives, state legislators, appointments representing business/industry, and appointments representing minority populations and employs nearly 80 full-time staff.

Summary of Changes
Changes resulting from the MPO and GNRC integration described in this addendum:

- New office location and staff contact information as provided in Attachment B.
- References to the MPO’s governing body in the adopted RTP will change, from “Executive Board” to “Transportation Policy Board,” per updated MPO Organizational Bylaws amended on August 16, 2017. The change in name is intended to prevent any confusion with the pre-existing and separately functioning GNRC Executive Committee. The new name is derived from terminology used in federal regulations and planning guidance for references to MPO governing bodies.

Items unaffected by the MPO and GNRC integration described in this addendum:

- MPO’s planning area or governing board membership,
- MPO governing board’s decision-making authority,
- MPO’s public participation process,
- MPO’s project selection process,
- MPO’s RTP development, adoption, and amendment process,
- RTP revenue levels, funding sources, or project awards, and
- Any other items included in the current RTP that are not specifically identified on the list of changes.

Next Scheduled Update
Under current federal law, the MPO’s Regional Transportation Plan must be updated at least once every five years. As such, the 2040 RTP will be replaced by the 2045 RTP early in the 2021 calendar year. Major revisions to the adopted RTP will be carried out, as needed, in the form of formal amendments. All amendments are publicly-noticed according to the procedures contained in the MPO’s Public Participation Plan prior their adoption.

Proposed amendments will be posted to the MPO’s website at the following link:

Attachment A. Map of the MPO Planning Area

Legend
- Nashville Metropolitan Planning Area
- Nashville Area MPO Federal Aid Urban Boundary
- Clarksville Urbanized Area MPO
- Greater Nashville Regional Council County
Attachment B. Office Locations and Key Contact Information

Office Location and Hours
GNRC offices for MPO and transportation planning program staff are located on the third floor of 138 Second Avenue North, Nashville, TN 37201. GNRC administrative offices are located on the sixth floor of 501 Union Street, TN 37219. Offices are open from 8:00 a.m. to 4:30 p.m., Monday through Friday, except on holidays.

Telephone/ Fax Numbers
- GNRC Main Number: 615-862-8828
- GNRC Fax Number: 615-862-8840
- MPO/ Transportation Planning Section: 615-862-7204

Websites
- Main GNRC Website: http://www.GNRC.org
- MPO/ Transportation Planning Website: http://www.NashvilleMPO.org
- Online Database for MPO’s Transportation Improvement Program: http://TIP.NashvilleMPO.org

Key Staff Contacts*
- MPO Coordinator, Michelle Lacewell, mlacewell@gnrc.org
- Transportation Improvement Programming, Anna Emerson, aemerson@gnrc.org
- Research and Data, Max Baker, mbaker@gnrc.org
- Policy and Legislation, Peter Westerholm, pwesterholm@gnrc.org
- GNRC Finance Director, Gayle Wilson, gwilson@gnrc.org
- GNRC Executive Director, Michael Skipper, mskipper@gnrc.org

*Emails sent to the old NashvilleMPO.org address will be automatically forwarded to GNRC.org addresses for all current GNRC staff who previously had a NashvilleMPO.org email address. In the meantime, please note the change in email addresses.
Funding for this document was provided by the U.S. Department of Transportation Federal Highway Administration and Federal Transit Administration, the Tennessee Department of Transportation, and local government members of the Nashville Area Metropolitan Planning Organization.

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Addendum to the Regional Transportation Plan

About the Regional Transportation Plan

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The 2040 Regional Transportation Plan was adopted by the MPO Executive Board on February 17, 2016 and identifies more than 8 billion dollars in federal, state, and local funding for transportation projects over the next two and a half decades. The plan includes the following information:

- Introduction to the metropolitan planning process and requirements,
- Overview of the metropolitan area and regional challenges and opportunities,
- Summary of public and stakeholder outreach and input,
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- Recommendations for improvements to area roadway and bridges,
- A 5, 10, and 25-year financial plan that directs $6 billion into regional priorities,
- Evaluation of the impact of proposed projects on vulnerable populations and natural environments.

Members of the public and interested stakeholders are encouraged to review the adopted RTP document and its supporting material by visiting http://2040.NashvilleMPO.org.

Purpose of the Addendum

In 2012, Congress passed and the President signed into law Moving Ahead for Progress in the 21st Century (MAP-21), which established performance-based planning and performance management requirements for States and MPOs. The FAST Act continues MAP-21’s overall performance approach, and ensures that State DOTs and MPOs invest in projects that collectively make progress toward seven National Goals established by Congress.

1. **Safety** - To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
2. **Infrastructure Condition** - To maintain the highway infrastructure asset system in a state of good repair.
3. **Congestion Reduction** - To achieve a significant reduction in congestion on the National Highway System (NHS).
4. **System Reliability** - To improve the efficiency of the surface transportation system.
5. **Freight Movement and Economic Vitality** - To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. **Environmental Sustainability** - To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

The Nashville Area MPO will be required to establish performance targets and track progress towards target achievement for a number of measures related to safety, pavement and bridge condition, travel time reliability, and traffic congestion.
These requirements were outlined in a series of rules published in the Federal Register.¹ This addendum fulfills the MPO’s requirement to report baseline condition/performance of the safety performance measures and the State’s HSIP targets in the long range regional transportation plan (RTP).

**Safety Performance Measures Target-Setting**

The final rule on safety performance measures target setting was the first of a series of rules related to target setting, effective April 14, 2016.² Safety performance measures regulations in support of the Highway Safety Improvement Program (HSIP) require State DOTs and MPOs assess the following on all public roads covered by HSIP:

- 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

MPOs may establish HSIP targets by either (1) agreeing to plan and program projects so they contribute toward the accomplishment of the state HSIP target or (2) committing to a quantifiable HSIP target for the metropolitan planning area.

On February 21, 2018, the Transportation Policy Board of the Nashville Area MPO voted to support the Tennessee Department of Transportation’s individual safety performance measure targets by planning and programming projects so they contribute to the accomplishment of these targets, thereby fulfilling the aforementioned requirements related to safety performance measure target setting established under MAP-21 and the FAST Act. These targets, along with baseline information, can be found in Figure 1.

By agreeing to plan and program projects so they contribute toward the accomplishment of the state HSIP target, the Nashville Area MPO agrees to:

- Work with the State and safety stakeholders to address areas of concern for fatalities or serious injuries within the metropolitan planning area
- Coordinate with the State and include the safety performance measures and the State’s HSIP targets for those measures in the long-range regional transportation plan (RTP)
- Integrate into the metropolitan transportation planning process the safety goals, objectives, performance measures and targets described in other State safety transportation plans and processes such as applicable portions of the HSIP, including the SHSP
- Include a description in the TIP (Transportation Improvement Program) of the anticipated effect of the TIP toward achieving HSIP targets in the RTP, linking investment priorities in the TIP to those safety targets


Figure 1 shows targets established by the state and supported through resolution by the Nashville Area MPO Transportation Policy Board. The Safety Performance Management Final Rule defines the aforementioned measures as the five-year rolling averages for:

- **Number of Fatalities**: The total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year.
- **Rate of Fatalities**: The ratio of total number of fatalities to the number of vehicle miles traveled (VMT, in 100 Million VMT) in a calendar year.
- **Number of Serious Injuries**: The total number of persons suffering at least one serious injury in a motor vehicle crash during a calendar year.

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² PM 1 – 23 CFR Part 490 Subparts A & B and Part 924
• **Rate of Serious Injuries:** The ratio of total number of serious injuries to the number of VMT (in 100 Million VMT) in a calendar year.

• **Number of Non-motorized Fatalities and Non-motorized Serious Injuries:** The combined total number of non-motorized fatalities and non-motorized serious injuries involving a motor vehicle during a calendar year.

The five-year rolling average is calculated by adding the number of fatalities or serious injuries for the consecutive five-year period, dividing by five, and rounding to the nearest tenth decimal place.

### Figure 1 Established Statewide Targets

<table>
<thead>
<tr>
<th>PERFORMANCE MEASURES</th>
<th>BASELINE 2012-2016</th>
<th>TARGET 2014-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Fatalities</td>
<td>995.6</td>
<td>1,021.4</td>
</tr>
<tr>
<td>Fatality Rate</td>
<td>1.358</td>
<td>1.337</td>
</tr>
<tr>
<td>Number of Serious Injuries</td>
<td>7,319.4</td>
<td>7,630.8</td>
</tr>
<tr>
<td>Serious Injury Rate</td>
<td>9.976</td>
<td>9.982</td>
</tr>
<tr>
<td>Number of Non-motorized Fatalities and Serious Injuries</td>
<td>434.6</td>
<td>493.2</td>
</tr>
</tbody>
</table>

While FHWA will determine whether a State DOT has met or made significant progress toward meeting these targets, it will not directly assess MPO progress toward meeting HSIP targets. The MPO will continue to review these performance measures and will be required to update these targets annually, with the next update required by February 27, 2019.

### Implementation Schedule for Establishing Targets

The establishment of safety performance measure targets represents the fulfillment of requirements related to the first rulemaking, effective April 14, 2016. In the near-term, the MPO will be required to establish targets for performance measures outlined in the following Federal rulemakings:

- **PM 2 – Pavement and Bridge Condition:** 23 CFR Part 490 Subparts A, C & D
- **PM 3 – System Performance/Freight/CMAQ:** 23 CFR Part 490 Subparts A, E, F, G & H
- **Transit Asset Management:** 49 CFR Parts 625 and 630

### Figure 2 Implementation Schedule

<table>
<thead>
<tr>
<th></th>
<th>Safety</th>
<th>Pavement and Bridge Condition</th>
<th>System Performance/Freight/CMAQ</th>
<th>Transit Asset Management</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective Date</strong></td>
<td>April 24, 2016</td>
<td>May 20, 2017</td>
<td>May 20, 2017(^3)</td>
<td>October 1, 2016</td>
</tr>
<tr>
<td><strong>State Deadline</strong></td>
<td>August 31, 2017</td>
<td>May 20, 2018</td>
<td>May 20, 2018(^4)</td>
<td>October 1, 2018 (for transit providers)</td>
</tr>
<tr>
<td><strong>MPO Deadline</strong></td>
<td>February 27, 2018</td>
<td>November 16, 2018</td>
<td>November 16, 2018(^5)</td>
<td>March 30, 2019</td>
</tr>
</tbody>
</table>

\(^3\) September 28, 2017 for greenhouse gas (GHG) measure

\(^4\) September 28, 2018 for GHG targets

\(^5\) March 27, 2019 for GHG targets
RTP Impacts

All projects utilizing federal funding are included in the region’s long-range regional transportation plan. These projects were subject to a thorough performance-based analysis, utilizing a variety of quantitative measures as well as staff analysis. Measures related to safety and included in project evaluation include: high crash corridor analysis and a determinant of multiple fatal crashes. Safety and Security is a primary evaluation category for projects evaluated by the MPO and included in both the RTP and TIP, accounting for 20% of a project’s possible score. More information on project evaluation and prioritization can be found in Appendix C of the TIP and Appendix E of the RTP. Additionally, addressing safety concerns of non-motorized travelers was a qualitative criteria of project evaluation. Based on this, the projects and investment priorities included in the RTP prioritize a reduction in serious and fatal crashes in the seven-county MPO planning area. The impacts of the RTP support achievement of the state’s safety performance measures targets, and can contribute to a further reduction of fatalities and serious injuries by prioritizing a reduction in these averages throughout the MPO region.

Next Scheduled Update

Under current federal law, the MPO’s Regional Transportation Plan must be updated at least once every five years. As such, the 2040 RTP will be replaced by the 2045 RTP early in the 2021 calendar year. Major revisions to the adopted RTP will be carried out, as needed, in the form of formal amendments. All amendments are publicly-noticed according to the procedures contained in the MPO’s Public Participation Plan prior their adoption. Proposed amendments will be posted to the MPO’s website at the following link:
Addendum #3 to the Regional Transportation Plan

Effective November 21, 2018
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7. **Reduced Project Delivery Delays** - To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.

The Nashville Area MPO is required to establish performance targets and track progress towards target achievement for a number of measures related to safety, pavement and bridge condition, travel time reliability, transit asset management.
These requirements were outlined in a series of rules published in the Federal Register.¹

This addendum fulfills the MPO’s requirement to report baseline condition/performance of pavement and bridge condition, travel time reliability, and transit asset management in the long range regional transportation plan (RTP).

**Infrastructure Condition Performance Measures Target-Setting**

The final rule on pavement and bridge condition performance measures target setting was the second of a series of rules related to target setting, effective May 20, 2017.² Pavement and bridge condition performance measures require State DOTs and MPOs assess the following on the designated National Highway System (NHS) to carry out the National Highway Performance Program (NHPP):

- **Percent of Interstate Pavement in Good Condition**: Pavement condition shall be calculated in accordance with the HPMS Field Manual and based on three condition ratings of Good, Fair, and Poor calculated for each pavement section. Good condition suggests no major investment is needed.

- **Percent of Interstate Pavement in Poor Condition**: Pavement condition shall be calculated in accordance with the HPMS Field Manual and based on three condition ratings of Good, Fair, and Poor calculated for each pavement section. Poor condition suggests major reconstruction investment is needed.

- **Percent of Non-Interstate NHS Pavement in Good Condition**: Pavement condition shall be calculated in accordance with the HPMS Field Manual and based on three condition ratings of Good, Fair, and Poor calculated for each pavement section. Good condition suggests no major investment is needed.

- **Percent of Non-Interstate NHS Pavement in Poor Condition**: Pavement condition shall be calculated in accordance with the HPMS Field Manual and based on three condition ratings of Good, Fair, and Poor calculated for each pavement section. Poor condition suggests major reconstruction investment is needed.

- **Percent of NHS Bridge by Deck Area in Good Condition**: Measures are based on deck area. Deck area is computed using National Bridge Inventory (NBI) data. Classification is based on NBI condition ratings for deck, superstructure, substructure, and culvert. Condition is determined by lowest rating of these. If the lowest rating is greater than or equal to 7, the bridge is classified as good.

- **Percent of NHS Bridges by Deck Area in Poor Condition**: Measures are based on deck area. Deck area is computed using National Bridge Inventory (NBI) data. Classification is based on NBI condition ratings for deck, superstructure, substructure, and culvert. Condition is determined by lowest rating of these. If the lowest rating is less than or equal to 4, the bridge is classified as poor.

MPOs may establish targets by either: (1) agreeing to plan and program projects so they contribute toward the accomplishment of the statewide targets or (2) committing to quantifiable targets specific to the metropolitan planning area.

On October 17, 2018, the Transportation Policy Board of the Nashville Area MPO voted to support the Tennessee Department of Transportation’s four-year infrastructure condition performance measure targets by planning and programming projects so they contribute to the accomplishment of the statewide targets, thereby fulfilling the aforementioned requirements related to infrastructure condition performance measure target setting established under MAP-21 and the FAST Act. These targets, along with historical information, are in Figure 1.

While FHWA will determine whether a State DOT has made significant progress toward meeting their adopted targets, it will not directly assess progress toward meeting targets at the regional level. The MPO will continue to review the performance measures as part of the transportation planning process and either create targets specific to the Nashville region or update the targets to continue supporting the statewide targets.


² PM 2 – 23 CFR Part 490 Subparts A, C, & D
**Figure 1 Established Statewide Infrastructure Condition Targets**

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Percent of NHS Bridges by Deck Area in Good Condition</td>
<td>39.5%</td>
<td>36.0%</td>
<td>36.0%</td>
</tr>
<tr>
<td>Percent of NHS Bridges by Deck Area in Poor Condition</td>
<td>3.52%</td>
<td>6.0%</td>
<td>6.0%</td>
</tr>
<tr>
<td>Percent Interstate Pavement in Good Condition</td>
<td>73 - 84%</td>
<td>N/A</td>
<td>60.0%</td>
</tr>
<tr>
<td>Percent Interstate Pavement in Poor Condition</td>
<td>0.07 - 0.26%</td>
<td>N/A</td>
<td>1.0%</td>
</tr>
<tr>
<td>Percent of Non-Interstate NHS Pavement in Good Condition</td>
<td>41.6 - 46.1%</td>
<td>42.0%</td>
<td>40.0%</td>
</tr>
<tr>
<td>Percent of Non-Interstate Pavement in Poor Condition</td>
<td>2.5 - 3.6%</td>
<td>4.0%</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

**System Performance - Performance Measures Target-Setting**

The final rule on system performance target setting was the third of a series of rules related to target setting, effective May 20, 2017. System Performance performance measures require State DOTs assess the following on the NHS to carry out the National Highway Performance Program (NHPP):

- Interstate Travel Time Reliability
- Non-Interstate NHS travel Time Reliability
- Interstate Truck Travel Time Reliability
- Total Emissions Reductions
- Annual Hours of Peak Hour Excessive Delay Per Capita
- Percent of Non-Single Occupancy Vehicle Travel

The Nashville Area MPO is only subject to travel time reliability measures. MPOs may establish targets by either: (1) agreeing to plan and program projects so they contribute toward the accomplishment of the state targets or (2) committing to quantifiable targets for the metropolitan planning area.

On October 17, 2018, the Transportation Policy Board of the Nashville Area MPO voted to support the Tennessee Department of Transportation’s individual four-year system performance targets by planning and programming projects so they contribute to the accomplishment of the overall statewide targets, thereby fulfilling the aforementioned requirements related to system performance measure target setting established under MAP-21 and the FAST Act. These statewide targets, along with baseline information, are in Figure 2.

**Figure 2 Established Statewide System Performance Targets**

<table>
<thead>
<tr>
<th>PERFORMANCE MEASURES</th>
<th>BASELINE 2017</th>
<th>TDOT TARGETS 2-Year</th>
<th>TDOT TARGETS 4-Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstate Reliability</td>
<td>87.7%</td>
<td>85.3%</td>
<td>83.0%</td>
</tr>
<tr>
<td>Non-Interstate NHS Reliability</td>
<td>89.7%</td>
<td>N/A</td>
<td>87.75%</td>
</tr>
<tr>
<td>Freight Reliability</td>
<td>1.35</td>
<td>1.35</td>
<td>1.33</td>
</tr>
</tbody>
</table>

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3 PM 2 – 23 CFR Part 490 Subparts A, C, & D

NASHVILLE AREA MPO TRANSPORTATION IMPROVEMENT PROGRAM – ADDENDUM #3 • NOVEMBER 2018 • 5
The System Performance Measures Final Rule defines the aforementioned measures as:

- **Interstate Travel Time Reliability** – This is not level of congestion. This is a single number describing the predictability of travel times combined for all of the Interstates. In cities that are congested people can plan for ‘normal’ delays, so 100% is the desired number. Lower numbers show higher unpredictability. Travel time reliability measures the extent of unexpected delay. A formal definition for travel time reliability is: the percentage of people (not vehicles) who have travel that has consistent travel times. It can be used to compare across days and across different times of day: Monday through Friday (morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.) and afternoon peak (4-8 p.m.). This measure also looks at weekends (6 a.m.-8 p.m.). Data are collected in 15-minute periods between 6 a.m. and 8 p.m. local time. Using person-miles and not vehicle miles of travel takes into account the travelers on buses, and carpooling in automobiles, and trucks.

- **Non-Interstate NHS Travel Time Reliability** - This is the same measure as above, except for highways designated as part of the National Highway System that are not Interstates. Again, it is not level of congestion, is the predictability of travel time using person-miles and not vehicle miles of travel. Using person-miles instead of vehicle miles helps account for the number of people on buses, and carpooling in automobiles, and trucks.

- **Interstate Truck Travel Time Reliability (TTTR)** - Freight movement is assessed using the TTTR Index. Reporting is divided into the same periods described above, with the addition of an overnight time period. The five periods used for Truck Travel Time are Mondays through Fridays: morning peak (6-10 a.m.), midday (10 a.m.-4 p.m.); afternoon peak (4-8 p.m.); and overnights (8 p.m.-6 a.m.). Weekends (6 a.m.-8 p.m.) are measured as above. The TTTR ratio is determined by dividing the time it takes 95 percent of trucks to travel a given segment by the ‘average’ time (50 percent of trucks) for each segment. Specifically, the Level of Travel Time Reliability (LTTR) is the ratio of unexpectedly delayed travel (95% of the trucks travelling on a given stretch of road take less time to travel that segment) divided by the average (half the trucks travelling on that segment take less time), using approved data from FHWA’s National Performance Management Research Data Set (NPMRDS) or equivalent. The TTTR Index requires multiplying each segment’s largest ratio of the five periods by its length, then dividing the sum of all length-weighted segments by the total length of Interstate. The desire is a number as close to 1.0 as possible.

**Transit Asset Management Performance Measures Target-Setting**

The final rule on Transit Asset Management, effective October 1, 2016 requires transit providers and MPOs set state of good repair (SOGR) targets by class for the following assets:

- **Rolling Stock** – percent of revenue vehicles exceeding the useful life benchmark (ULB)
- **Equipment** – percent of nonrevenue service vehicles exceeding the useful life benchmark (ULB)
- **Facilities** – percent of facilities rates under 3.0 on the TERM scale
- **Infrastructure** – percent of track segments under performance restriction

MPOs must establish regional targets and demonstrate how it plans and programs projects so they contribute toward the accomplishment of the regional targets.

On October 17, 2018, the Transportation Policy Board of the Nashville Area MPO voted to adopt regionally-calculate transit asset management, thereby fulfilling the aforementioned requirements related to transit asset management performance measure target setting established under MAP-21 and the FAST Act. These targets are in Figure 3.

**Figure 3 Regionally Calculated Transit Asset Management Performance Measures Targets**

<table>
<thead>
<tr>
<th>ASSET</th>
<th>Proposed Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rolling Stock</td>
<td>25%</td>
</tr>
<tr>
<td>Equipment</td>
<td>50%</td>
</tr>
<tr>
<td>Facilities</td>
<td>25%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>13.5%</td>
</tr>
</tbody>
</table>
RTP Impacts

All projects utilizing federal funding are included in the region’s long-range regional transportation plan. These projects were subject to a thorough performance-based analysis, utilizing a variety of quantitative measures as well as staff analyses. Criteria related to infrastructure condition and included in project evaluation include: identification of improvements focused on reconstruction, repair, and operations, and average daily traffic volumes above or below the average for similar roadways. System preservation is a primary evaluation category for projects evaluated by the MPO and included in both the RTP and TIP, accounting for 10% of a project’s possible score. Additionally, addressing system preservation was a qualitative criteria of project evaluation. Based on this, the projects and investment priorities included in the RTP prioritize a state of good repair for the NHS system in the seven-county MPO region.

Criteria related to system performance and included in project evaluation include: congestion as defined by volume over capacity and speed, and inclusion of improvements related to Intelligent Transportation Systems (ITS) and traffic operations strategies. Congestion management is a primary evaluation category for projects evaluated by the MPO and included in both the RTP and TIP, accounting for 15% of a project’s possible score. Freight and goods movement is an additional evaluation category, accounting 5% of a project’s possible score. Additionally, addressing congestion management, multimodal improvement, and quality growth were qualitative criteria of project evaluation. Based on this, the projects and investment priorities included in the RTP prioritize significant reduction in congestion on the National Highway System (NHS) in the seven-county MPO planning area. The impacts of the RTP support achievement of the state’s system performance performance measures targets, and can contribute to a further mitigation of congestion and improvement in travel time reliability by prioritizing a reduction in these averages throughout the MPO region.

Criteria related to transit asset management and included in project evaluation include: identification of projects focused on transit and non-motorized modes, calculated demand for walking, bicycling, and transit uses, and roadway improvements that provide upgrades for transit, walking, and bicycling. Multimodal consideration is a primary evaluation category for projects evaluated by the MPO and included in both the RTP and TIP, accounting for 15% of a project’s possible score. Based on this, the projects and investment priorities included in the RTP prioritize maintaining a state of good repair for transit assets the seven-county MPO planning area. The impacts of the RTP further support achievement of the regional transit asset management targets, through the creation of a MPO Technology and Transit Program in the current TIP. This program includes 4-years of program funds to be awarded through a competitive call-for-projects for projects that improve ITS/Technology deployment or expand infrastructure to accommodate existing or future transit service or promote implement various other transportation demand management strategies such as ridesharing or telecommuting.

More information on project evaluation and prioritization can be found in Appendix C of the TIP and Appendix E of the RTP.

Next Scheduled Update

Under current federal law, the MPO’s Regional Transportation Plan must be updated at least once every five years. As such, the 2040 RTP will be replaced by the 2045 RTP early in the 2021 calendar year. Major revisions to the adopted RTP will be carried out, as needed, in the form of formal amendments. All amendments are publicly-noticed according to the procedures contained in the MPO’s Public Participation Plan prior their adoption.

Proposed amendments will be posted to the MPO’s website at the following link: http://www.nashvillempo.org/public_notices/public_comment.aspx