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RPC Transportation Advisory Committee  
September 27<sup>th</sup>, 2018  
9:00-11:00 AM  
**RPC Offices**  
**156 Water Street, Exeter**  
(Directions on reverse)

**Paper copies of the attachments will be available at the meeting**

1. Introductions
2. Minutes of 7/26/18 TAC meeting (**Attachment #1**) — *[motion to approve]*
3. Diesel Emissions Reduction Act (DERA) Grant – Liz Strachan, NHDES
4. COAST Comprehensive Operations Analysis – Rad Nichols, COAST
5. Transportation Alternatives Project Ranking – Scott Bogle (**Attachment #2**) — *[motion to approve]*
6. Pavement & Bridge (PM2) and Congestion (PM3) Performance Targets – Dave Walker (**Attachment #3**) — *[motion to approve]*
7. Ten Year Plan Project Prioritization and Selection Criteria (**Attachment #4**) – Dave Walker
8. Project Updates (handout to be distributed at meeting)

**TAC MEETING SCHEDULE For 2018 (Next meeting highlighted)**

January 25 <sup>th</sup>	May 24 <sup>th</sup>	September 27 <sup>th</sup>	<b>***Off Schedule***</b>
February 22 <sup>nd</sup>	June 28 <sup>th</sup>	<b>October 25<sup>th</sup></b>	
March 22 <sup>nd</sup> (cancelled)	July 26 <sup>th</sup>	December 6 <sup>th</sup>	
April 26 <sup>th</sup>	August 23 <sup>rd</sup>		

There is **two hour on-street parking** along Water Street and Center Street. There is also long term parking in the lot on Center Street, by the Citizens Bank Drive-thru (Non-numbered spaces), and in the municipal lot behind the Town Offices. Handicapped parking spaces are available on the bottom floor of the parking structure adjacent to the RPC office as well as on Water Street in front of the RPC office.



# ATTACHMENT 1

Transportation Advisory Committee  
Rockingham Planning Commission  
Minutes

July 26, 2018

RPC Conference Room, Exeter NH

Members Present: Richard McDermott, Chairman (Hampton Falls); Robert Clark (Atkinson); Tim Moore (Plaistow); Stephen Gerrato (Greenland); Juliet Walker (Portsmouth); Rad Nichols (COAST); Greg Mikolaities (Rye); Karri Makinen (Salem); Dave Sharples (Exeter); Liz Strachan (NHDES); Tracy McAllister (NHDOT); Mike Rabideau (Seabrook); Chris Jacobs (Hampton)

Staff: Dave Walker (Transportation Program Mgr); Scott Bogle (Sr. Transportation Planner); Tim Roache (Executive Director); Annette Pettengill (Business Manager)

1. Introductions: Chairman McDermott convened the meeting at 9 a.m. and attendees introduced themselves.

2. Minutes of May 24, 2018

No comments regarding the contents of the Minutes were made. Moore moved to approve the Minutes of May 24, 2018 as presented; Clark seconded. SO VOTED. Mikolaities abstained.

3. Stratham Safe Routes to School Project – Scott Bogle, RPC

Bogle gave a brief update on how the RPC assisted the Town of Stratham in applying for the Safe Routes to School Program funds for their elementary and middle schools. Bogle reviewed all aspects of the program and funding, timelines, public involvement and implementation. Discussion followed on **the specifics of Stratham's project.**

4. TIP Update/Air Quality Conformity – Dave Walker, RPC

Walker reviewed the steps left to develop the TIP that would normally end with adoption in December, but due to the air quality process having to be done and new staff unfamiliar with the modeling process, the process will more than likely be delayed plus/minus 6 months. That may mean an overlap with the Ten Year Plan process. Discussion followed on the air quality requirements.

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5. Transportation Alternatives Program; letters of interest – Scott Bogle, RPC

Bogle explained that there is a program called TAP that is a primary source of federal funding for bike safety/pedestrian improvements that provides up to 80% of the cost of eligible projects. Round 3 has \$5.2 million of federal funds available. Three letters of interest were submitted in our region: Portsmouth, New Castle, and Exeter. He noted the timeline and evaluation criteria. The RPC rankings are due to NHDOT November 9<sup>th</sup>. Discussion followed on the use of TAP funds for rail trail projects from Seabrook to Portsmouth. General consensus was that topic be added to a future agenda.

6. Exeter Parking Survey & publicinput.com service test – D. Walker, RPC

Walker stated that the RPC has been working with publicinput.com to enhance its public input capabilities. The RPC was given the use of the software service to test community engagement, so staff did an Exeter Parking & Traffic Survey for the Town. The service seems to provide multiple benefits regarding surveying, including the link to social media and target advertising, as well as targeting the usually under-represented groups, those not coming to meetings. Walker reviewed some of the perceptions and feedback that was received through the study. Discussion followed on how **the RPC and it's communities may benefit from purchasing the software and** how valuable it would be. Nichols stated that COAST is about to engage in a large project where this service would be very valuable. J. Walker stated Portsmouth would also be interested. Staff will evaluate the cost of the service and update the Committee in the future regarding purchase and opportunities for use.

7. Freight Planning workshop follow up – D. Walker, RPC

Walker reviewed the recommendations on projects in the freight planning corridor.

8. Project Updates (distributed) – No comments

9. Other: Nichols explained the Operations Analysis being performed for COAST. It will launch in September with public forums and stakeholder meetings in October. There will be multiple rounds of public input and hearings. He offered to give a presentation to the TAC in October.

Gerrato stated that Greenland would like the City of Portsmouth to declare a Development of Regional Impact for a Plan **that's before the City to increase** the Lonza staffing at Pease. He explained that Greenland is concerned this will cause traffic impacts to Route 33 which is already a severely congested. He also stated he would like the Rte 33 congestion added to the 10 Year Transportation Plan as well. J. Walker stated that Portsmouth does not see this as a Development of Regional Impact. She stated that Greenland has

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been notified as an abutter and is free to attend all the meetings and that traffic engineers are doing analysis so that Portsmouth may recommend to Pease any significant impacts and how best to address them. She also stated that Portsmouth would not be opposed to the current traffic issues on Route 33 being added to the 10 Year Plan.

Walker stated that in order to get something on the 10 year Plan the Town of Greenland would need to prepare a letter requesting that. He also stated that the current 10 year plan includes a corridor study on route 33, route 111 and route 125. Discussion followed on asking Senator Prescott to be a proponent of working on the traffic issues on Route 33 as well.

Meeting adjourned at 10:45 a.m.

Respectfully submitted,  
Annette Pettengill, Recording Secretary

## **ATTACHMENT #2**



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## MEMORANDUM

To: MPO Technical Advisory Committee  
From: Scott Bogle, Senior Transportation Planner  
Date: September 18, 2018  
RE: **Transportation Alternatives Program (TAP) Proposal Evaluation**

September 7<sup>th</sup> was the deadline for submittal of proposals for the third funding round of the Transportation Alternatives Program (TAP). Three full proposals were received from communities in the RPC region. In aggregate these proposals request \$1,874,400 in federal funding and have a total project cost of \$2,543,000.

Statewide 38 applications were submitted requesting \$22.6 million in federal funding. This compares to the approximately \$5.3 million pool available statewide for the two-year funding round. If divided equally among the nine planning regions, this would equate to approximately \$600,000 per region, though there is not an explicit criterion for geographic distribution in this funding round, and relatively little weight is placed on regional project rank.

RPC just received project proposals from NHDOT, and staff are in the process of reviewing them between now and the September 27<sup>th</sup> TAC meeting. We will bring staff rankings to the meeting. We are also calling for volunteers from the TAC to participate in the initial review with staff. The statewide ranking system is much the same as in the last round, summarized in the table below:

Category		Criterion	Weight
Potential for Success	37%	Project Readiness	13%
		Financial Readiness	17%
		Feasibility	7%
Safety	22%	Stress Analysis	13%
		Improve Safety Conditions	14%
Project Connectivity	18%	Project Connectivity	18%
Socioeconomic Benefits	12%	Low Income Communities	12%
RPC/MPO Rankings	6%	RPC/MPO Rankings	6%
			100%

As with prior rounds of TAP and CMAQ funding, staff have prepared individual summary/scoring sheets for each project, including staff comments, information on projects' consistency with or



listing in local and regional plans, and local support. A map for each project accompanies the summary sheet.

Because some of the proposals are very long (30+ pages) we are not making copies of full proposals for each TAC member. However, the original documents are available for review on the MPO website at: <http://www.rpc-nh.org/transportation/transportation-alternatives>. If you have questions in advance of the TAC meeting please contact me at 658-0515 or [sbogle@rpc-nh.org](mailto:sbogle@rpc-nh.org).

### **Requested Action**

Staff ask TAC members to review the project summary sheets and develop your own project rankings for discussion and adoption at the September 27<sup>th</sup> TAC meeting. TAC rankings will be brought to the October MPO meeting for adoption of final regional rankings, which in turn will be sent to NHDOT to incorporate in the Statewide ranking and project selection process.

## Statewide Project Evaluation Criteria Transportation Alternatives Program

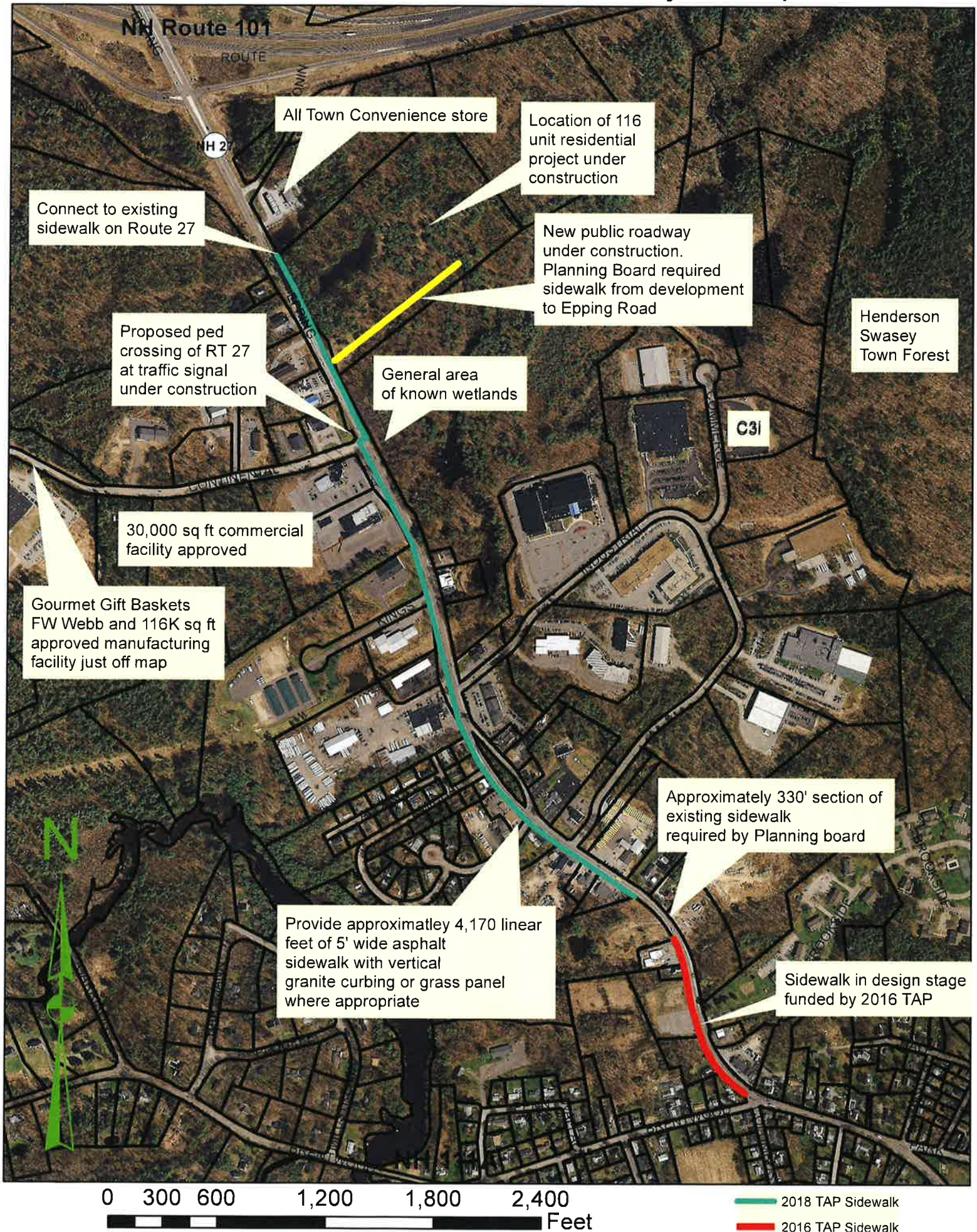
<b>POTENTIAL FOR SUCCESS</b>
<p>1. <u>Project Readiness &amp; Support (13%)</u> - Is the project part of a local and/or regional plan and effort, and has it been endorsed by local and regional bodies and advocacy groups? That is, did you build your case about the importance of this project to many constituents like conservation commission, planning board, other local group? Is it part of a regional plan such as a corridor study? Is it part of a local master plan or other planning document? Is it specifically identified in the RPC Long Range Transportation Plan? (Number of constituents and/or planning documents will be used for scoring)</p>
<p>2. <u>Financial Readiness (17%)</u> - Is there a written commitment to bring this project forward for approval of funds at town meeting, through capital reserve funds, through inclusion in the capital improvement plan, etc. or are there funds already raised/appropriated and dedicated to this project?</p>
<p>3. <u>Feasibility (7%)</u> - Address historic, cultural, environmental, maintenance, possible areas of contamination, and other related issues that may impact the project's ability to succeed. Applicant should discuss issue and how it will be addressed. Discuss impacts to project timeline and possible financial impacts</p>
<b>SAFETY</b>
<p>4. <u>Level of Traffic Stress Analysis (13%)</u> - Measure current stress level versus expected outcome for proposed project. Based on the scale below, describe the existing stress level of the project area and then describe the expected stress level for the proposed improvement. All applications make their own assessments of LTS before/after project.</p>
<p><i>A - Facility is reasonably safe for all children.</i></p>
<p><i>B - Facility can accommodate users with basic skills and knowledge of traffic.</i></p>
<p><i>C - Facility requires an intermediate level of skill and knowledge of traffic to use comfortably.</i></p>
<p><i>D - Facility requires an advanced level of skill and knowledge of traffic to use comfortably.</i></p>
<p><i>E - Facility is generally not suitable for pedestrians or bicyclists.</i></p>
<p>5. <u>Improve Safety Conditions (14%)</u> - Improvement over existing safety conditions - are there very specific actions that are being taken to improve safety. What specific safety improvements will be made? How many people will benefit from the proposed safety improvements? If there is information, (road safety audit, corridor study, etc.) to support it, please provide it in pdf format with your application.</p>
<b>PROJECT CONNECTIVITY</b>
<p>6. <u>Connectivity (18%)</u> - Does the project fill a vital gap in an existing transportation network or phased plan? Does it provide a standalone new facility that did not exist previously? What different destinations does it link together? Describe in detail all connections, and if part of a phased plan what will the proposed improvement accomplish?</p>

<b>SOCIOECONOMIC BENEFITS</b>	
7.	<u>Equity (12%)</u> - Is the project located in an area where improved mobility and access can be provided to underserved populations? Will the project contribute to improved public health? In 2016 NHDOT operationalized this using local participation in subsidized school lunch programs. RPC staff will get these data and circulate to the TAP project review committee and the full TAC.
<b>RPC/MPO RANKINGS</b>	
8.	<u>Regional Ranking (6%)</u> – Regional rankings will be incorporated in statewide project score

Rockingham Planning Commission				
2018 Transportation Alternatives Program Project Summary and Evaluation Sheet				
Evaluation (See Criteria Sheet)			Project Location: Exeter	
			Project ID: RPC-TA18-1	
Criterion	Staff Score	Your Score	Project Title: Sidewalk improvements on Epping Road	
1. (13pts) Project Support			Applicant: Town of Exeter	
2. (17pts) Financial Readiness			<b>Brief Project Description:</b>  As part of a town wide pedestrian improvement project, Exeter is seeking to build 4,170’ of 5’ wide asphalt sidewalk to connect existing segments of sidewalks on Epping Road (NH 27). The project builds on segments of sidewalk constructed by abutting developers and by the town with a 2016 TAP project.The general goal of this project is to eliminate gaps in existing sidewalks that will enhance and promote pedestrian use and safety.  The proposed sidewalk will connect several residential developments and commercial/industrial destinations along Epping Road to the town’s existing sidewalk network and ultimately to downtown. The sidewalk will also narrow the openings at several driveways with wide curb cuts to improve safety of turning movements.	
3. (7 pts) Feasibility				
4. (13 pts) Safety - Stress Analysis				
LTS Now	LTS After			
5. (14 pts) Improve Safety Conditions				
6. (18 pts) Project Connectivity				
7. (12 pts) Socio-Econ Benefits			Total Project Cost: \$940,000 [\$752,000 Federal]	
			Source of Match: \$188,000 (Selectmen commit to 2019 warrant article)	
8. (6 pts) RPC/MPO Rank			Federal Percentage: 80%	
			Non-Federal Percentage: 20%	
			Municipally Managed? Yes	
Total			Other Comments:	
Staff Ranking			<ul style="list-style-type: none"><li>• The project is specifically listed in the Town Master Plan, the 2019-2024 Capital Improvement Program and the Epping Road Access Management Study conducted by RPC in 2012.</li><li>• Letters of support from Planning Board and Select Board.</li><li>• Wetlands are present adjacent to the roadway. Extent of potential impact is not yet known without survey and design work.</li></ul>	
Your Ranking				



# Exeter TAP 2018 Sidewalk Project Map





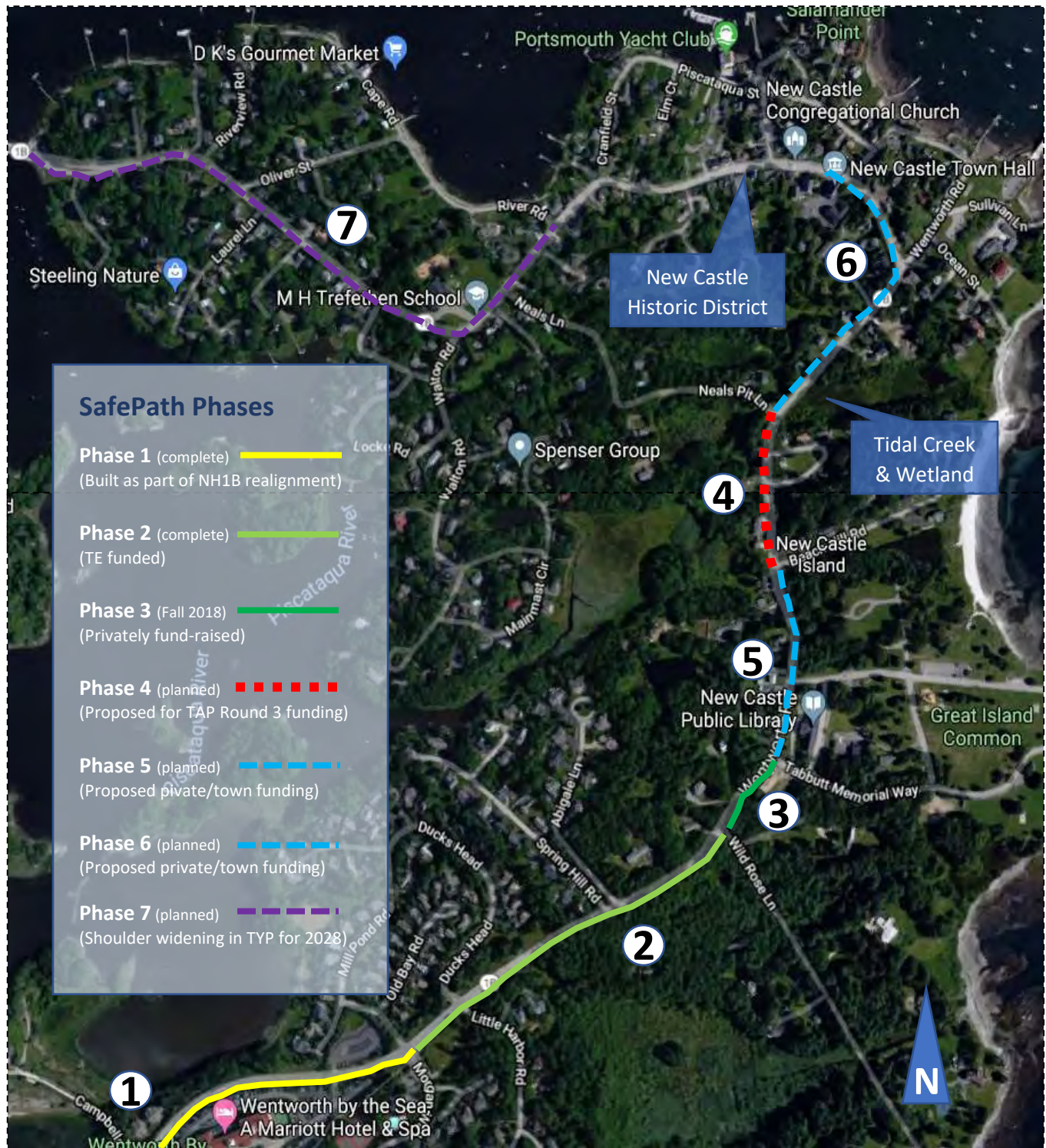
**Rockingham Planning Commission**  
**2018 Transportation Alternatives Program Project Summary and Evaluation Sheet**

Evaluation (See Criteria Sheet)			Project Location: New Castle	Project ID: RPC-TA18-2
Criterion	Staff Score	Your Score	Project Title: Route 1B SafePath Phase 4	
1. (13pts) Project Support			Applicant: Town of New Castle	
2. (17pts) Financial Readiness			<p><b>Brief Project Description:</b></p> <p>Project adds approx 3' feet of shoulder width to both sides of Wentworth Road/NH1B from Beach Hill Road to Neals Pit Lane to achieve a consistent 4' width; plus a 4' wide asphalt sidewalk with granite curbing on the west side of Wentworth Road along that same segments (approx. 670 feet). The proposed project builds on three prior segments of New Castle's SafePath – a combination of sidewalk and side path along NH1B from the Wentworth Hotel to Rogers Blvd at New Castle Common. A connecting segment between Rogers Blvd and Beach Hill Road will be constructed separately with municipal and private funding.</p> <p>The purpose of the project is to improve safety for all users of the state highway, and particularly vulnerable road users including the many people walking, running and riding bicycles along the corridor. In addition to adult walkers and riders, elementary school students attending Trefethen school will benefit, as the sidewalk will connect to Neals Pit Lane, a narrow stone-dust lane that cuts across the island and rejoins NH1B at Trefethen School. Pit Lane provides traffic separated access to school for students on the west side of the island.</p>	
3. (7 pts) Feasibility				
4. (13 pts) Stress Analysis				
LTS Now	LTS After			
5. (14 pts) Improve Safety Conditions				
6. (18 pts) Project Connectivity			<p>Total Project Cost: \$403,000 [\$322,400 Federal]</p> <p>Source of Match: \$80,600 (Selectmen will support warrant article)</p>	
7. (12 pts) Socio-Econ Benefits			<p>Federal Percentage: 80%</p> <p>Non-Federal Percentage: 20%</p> <p>Municipally Managed? Yes</p>	
8. (6 pts) RPC/MPO Rank				
Total				
Staff Ranking			<p><b>Other Comments:</b></p> <ul style="list-style-type: none"> <li>NH1B is a State Bicycle Route, U.S. Bicycle Route 1, the New Hampshire Coastal Byway, and the on-road route for the East Coast Greenway.</li> <li>Based on the StravaMetro data on bicycle and running/walking use purchased by NHDOT this is one of the most heavily traveled bicycle routes in New Hampshire, second only to adjoining segments of Route 1A in Rye.</li> <li>Identified in NH Coastal Byway CMP (2015), NHSG Conceptual Design (2009), RPC MPO LRTP (2017)</li> <li>Letters from Selectmen, Consv Comm, Heritage Comm, Police Dept., Health Dept, School, SABR, ECGA, NHSGA, Sen. Dan Innis, Rep. Kate Murray.</li> <li>Coordinate scheduling w/water main and resurfacing</li> </ul>	
Your Ranking				

## Transportation Alternatives Program Application

### New Castle SafePath Construction Phases

The goal of the New Castle SafePath Initiative is to complete safe facilities for walking and bicycling across heavily traveled New Castle Island for use by residents as well as users from surrounding towns and the broader region. Phases of the project already constructed as well as planned are shown on the map below. Phase 4, highlighted in red, is proposed for funding in this application.





## Transportation Alternatives Program Application

### New Castle SafePath Phase 4

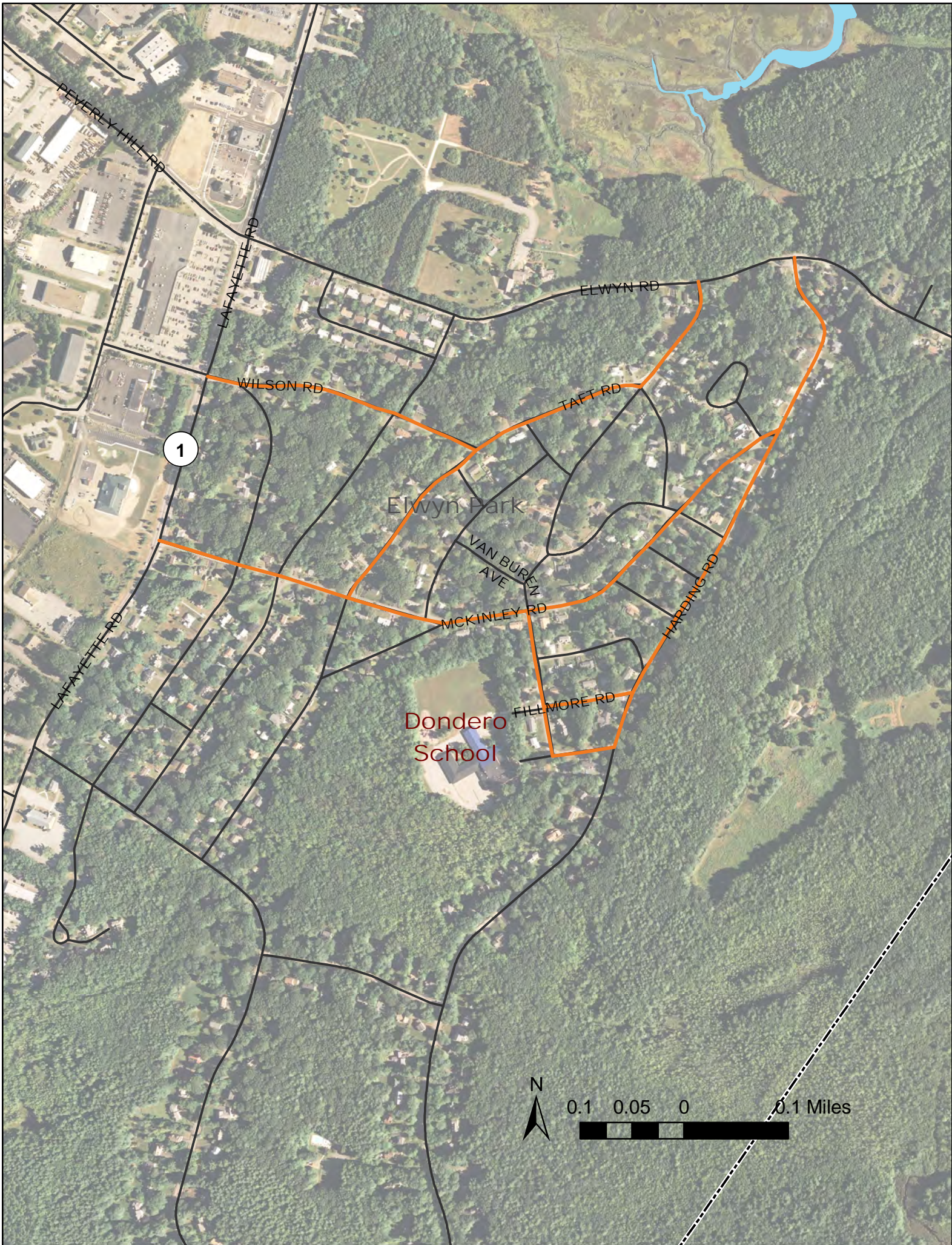
Phase 4 of the New Castle SafePath is proposed to extend approx. 670 feet from Beach Hill Road to Neals Pit Lane. It includes construction of four foot bicycle shoulders on both sides of Wentworth Road (Route 1B), and a four foot sidewalk on the west side of Wentworth Road. In addition to incrementally extending SafePath, Phase 4 will also connect to Neals Pit Lane, a minimally traveled single-lane stonedust road that cuts across the island rejoining Route 1B at Trefethen Elementary School. This will significantly improve safety for school children walking or bicycling from the west side of New Castle Island to the elementary school.





Rockingham Planning Commission				
2018 Transportation Alternatives Program Project Summary and Evaluation Sheet				
Evaluation (See Criteria Sheet)			Project Location: Portsmouth	
			Project ID: RPC-TA18-3	
Criterion		Staff Score	Your Score	
1. (13pts) Project Support				
2. (17pts) Financial Readiness				
3. (7 pts) Feasibility				
4. (13 pts) Stress Analysis				
LTS Now D	LTS After A			
5. (14 pts) Improve Safety Conditions				
6. (18 pts) Project Connectivity				
7. (12 pts) Socio-Econ Benefits				
8. (6 pts) RPC/MPO Rank				
Total				
Staff Ranking				
Your Ranking				
			Project Title: Elwyn Park Neighborhood Sidewalk Improvements	
			Applicant: City of Portsmouth	
			Brief Project Description:  The proposed project will construct approx.. 11,200' of sidewalk as well as traffic calming measures in Portsmouth's Elwyn Park Neighborhood surrounding Dondero Elementary School. This subdivision was built in the 1970s and largely lacks sidewalks. Specific streets proposed for sidewalk installation including McKinley Road, Harding Road, Van Buren Road, Wilson Road and Filmore Road. The proposed sidewalks will improve safe access for students walking to Dondero Elementary School, as well as to shopping destinations on Lafayette Road and recreation destinations such as the Urban Forestry Center.	
			Total Project Cost: \$1,200,000 [\$800,000 Federal]	
			Source of Match: \$400,000 in CIP and approved City Budget	
			Federal Percentage: 67%	
			Non-Federal Percentage: 33%	
			Municipally Managed? Yes	
			Other Comments: <ul style="list-style-type: none"><li>• Project is specifically identified in City Capital Improvement Plan FY2019-2024, City Bike/Ped Plan (2014), and Portsmouth Safe Routes to School Action Plan (2010)</li><li>• Will improve safe pedestrian access to Dondero Elementary School for Elwyn Park neighborhood residents, as well as improved access to nearby shopping and recreation.</li><li>• No known natural, cultural or archaeological resources or hazardous materials.</li></ul>	





PEVERLY HILL RD

LAFAYETTE RD

WILSON RD

ELWYN RD

TAFT RD

Elwyn Park

VAN BUREN  
AVE

MCKINLEY RD

HARDING RD

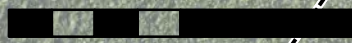
FILLMORE RD

Dondero  
School

1



0.1 0.05 0 0.1 Miles





## **ATTACHMENT #3**

**Rockingham Planning Commission  
Metropolitan Planning Organization  
Draft Pavement and Bridge Condition and Congestion Performance Targets**

*September 2018*

### Summary

Table 1 below identifies NHDOT adopted 2 and 4-year performance targets, and establishes comparable MPO targets for the nine performance metrics that measure pavement condition, bridge condition, and travel time reliability. *For establishing baseline conditions and the first performance period, the MPO is agreeing to support the State of New Hampshire Targets in the areas of pavement condition, bridge condition, and travel time reliability.* In doing so, the MPO is agreeing to plan and program projects so that they contribute toward the accomplishment of the relevant State DOT target for that performance measure.

**Table 1: Baseline Estimates and Targets**

Area	System & Measure	NHDOT			MPO		
		Baseline Estimate <sup>1</sup>	2-Year Target	4-Year Target	Baseline Estimate <sup>1</sup>	2-Year Target	4-Year Target
Pavement Condition	Interstate: Good Condition	96.7%	N/A	95.0%	96.5%	N/A	<b>95.0%</b>
	Interstate: Poor Condition	0.2%	N/A	0.8%	0.2%	N/A	<b>0.8%</b>
	Non-Interstate NHS: Good	70.1%	65.0%	65.0%	75.7%	N/A	<b>65%</b>
	Non-Interstate NHS: Poor	9.8%	12.0%	12.0%	7.2%	N/A	<b>12%</b>
Bridge Condition	NHS: Good Condition	57.0%	57.0%	57.0%	37.7%	N/A	<b>37.7</b>
	NHS: Poor Condition	7.0%	7.0%	7.0%	8.1%	N/A	<b>8.1</b>
Travel Time Reliability	Interstate: Person Miles	99.4%	95.0%	95.0%	100%	N/A	<b>95%</b>
	Non-Interstate NHS: Person Miles	87.8%	85.0%	85.0%	89.8%	N/A	<b>85%</b>
	Interstate: TTTR	1.35	1.50	1.50	1.41	N/A	<b>1.50</b>

<sup>1</sup>NHDOT utilizes 2016 as the base year for Pavement and Bridge Condition while RPC utilizes 2017 values for baseline estimates. Both RPC and NHDOT utilize 2017 values as the baseline for Travel Time Reliability measures.

### Background

On May 20<sup>th</sup>, 2017 the Federal Highway Administration (FHWA) final rules on “*National Performance Management Measures; Assessing Pavement Condition for the National Highway Performance Program and Bridge Condition for the National Highway Performance Program*” (referred to as “PM2”) and “*National Performance Management Measures; Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program*” (referred to as “PM3”) went into effect starting

the clock for States and MPOs to establish baseline conditions and performance targets for these programs. The rule requires State Departments of Transportation to set 2-year and 4-year targets for PM2 and PM3 measures by May 20, 2018, and Metropolitan Planning Organizations (MPOs) to set 4-year regional targets within 180 days after that. Targets are to be established for nine measures within the three performance areas:

#### **Pavement Condition (PM2)**

- ***Percentage of pavements of the Interstate System in Good condition:*** Initially this utilizes the International Roughness Index (IRI) and pavements with an IRI value of under 95 are considered in “Good” condition. Starting in 2020 this measure will also be incorporating “Full Distress” metrics and these are described further in the Target Development section of this document.
- ***Percentage of pavements of the Interstate System in Poor condition:*** Initially this utilizes IRI only and pavements with an IRI value of greater than 170 are considered in “Poor” condition. Starting in 2020 this measure will also be incorporating “Full Distress” metrics and these are described further in the Target Development section of this document.
- ***Percentage of pavements of the non-Interstate National Highway System (NHS) in Good condition:*** Initially this utilizes the International Roughness Index (IRI) and pavements with an IRI value of under 95 are considered in “Good” condition. Starting in 2020 this measure will also be incorporating “Full Distress” metrics and these are described further in the Target Development section of this document.
- ***Percentage of pavements of the non-Interstate NHS in Poor condition:*** Initially this utilizes IRI only and pavements with an IRI value of greater than 170 are considered in “Poor” condition. Starting in 2020 this measure will also be incorporating “Full Distress” metrics and these are described further in the Target Development section of this document.

#### **Bridge Condition (PM2)**

- ***Percentage of NHS bridges classified as in Good condition:*** Classification is based on National Bridge Inventory (NBI) condition ratings for bridge deck, superstructure, substructure, and culvert and the lowest rating of any of those components determines the overall rating of the bridge. Ratings greater than or equal to 7 are considered in “Good” condition.
- ***Percentage of NHS bridges classified as in Poor condition:*** Classification is based on National Bridge Inventory (NBI) condition ratings for bridge deck, superstructure, substructure, and culvert and the lowest rating of any of those components determines the overall rating of the bridge. Ratings less than or equal to 4 are considered in “Poor” condition.

#### **Travel Time Reliability (PM3)**

- ***Interstate Travel Time Reliability Measure:*** Percent of person-miles traveled on the Interstate that are reliable. This is defined as the ratio of 80<sup>th</sup> percentile travel times (longer) to a 50<sup>th</sup> percentile (normal) travel time for each segment and are collected into annual totals to determine the overall percentage of reliable travel.
- ***Non-Interstate National Highway System (NHS) Travel Time Reliability Measure:*** Percent of person-miles traveled on the non-interstate NHS that are reliable. This is defined as the ratio of 80<sup>th</sup> percentile travel times (longer) to a 50<sup>th</sup> percentile (normal) travel time for each segment and are collected into annual totals to determine the overall percentage of reliable travel.
- ***Freight Reliability Measure:*** Truck Travel Time Reliability (TTTR) Index. TTTR is derived by dividing the 95<sup>th</sup> percentile travel time by the 50<sup>th</sup> percentile (normal) travel time for each segment for five periods of the day and the largest ratio is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of Interstate in the state/region.

Data for the establishment of these measures is provided from three sources:

- **Highway Performance Monitoring System (HPMS):** A database compiled by the Federal Highway Administration that contains inventory information for the Nation's Federal-Aid eligible public roads including extent, condition, performance, use, and operating characteristics. HPMS data are used for assessing and reporting highway system performance related to safety and pavement condition. The roadway condition data submitted to HPMS is collected by NHDOT annually utilizing a specially equipped van.
- **National Bridge Inventory (NBI):** A database compiled by the Federal Highway Administration with information on all bridges and tunnels in the United States that have roads passing above or below. Information includes the design of the bridge, dimensions of the usable portion, as well as condition of the structure. This information is utilized in the calculation of the bridge condition measures. Bridge condition data is collected by NHDOT during annual (or more frequent) inspections and submitted to the NBI annually.
- **National Performance Management Research Data Set v2 (NPMRDS):** A national data set of average travel times on the National Highway system for use in performance measure and management activities. This information is used to calculate travel time reliability measures and is collected via cell phone location information, GPS systems, and location trackers in trucks.

### **Implementation**

FHWA has included in the final rule both "phase-in" requirements and "transition" provisions as states move towards collecting the information required to fully utilize the pavement conditions metrics and the general impact of these allowances are shown in Table 2 below. Because the first State DOT target reporting date is October 1, 2018, not all states may have completed their first "Full distress and IRI" data collection cycle for deriving baseline conditions. FHWA is allowing states and MPOs to "phase-in" this requirement by requiring only the IRI measurement to establish the baseline estimate and 4-year during the first reporting period. At the same time, due to the lack of data in some states, FHWA has allowed a "transition period" where the states are not required to set 2-Year targets for the pavement condition measures. This transition period ends at the mid-point target updates that will occur in 2020 and from that point on, the states will be required to establish 2 and 4-year targets and utilize the full spectrum of pavement condition metrics to establish overall conditions and anticipated targets. The bridge and congestion measures are not subject to the "phase-in" or "transition" provisions and must be fully implemented starting this year.

### **Target Development**

States are required to establish 2-year and 4-year targets for Pavement Condition, Bridge Condition, and Travel Time Reliability reporting progress on a biennial basis beginning in May 2018. MPOs are required to establish 4-year targets only for those same measures within 180 days of the State target setting.

**Table 2: PM2 & PM3 Implementation**

Measure	First Performance Period (Interim)	Final	Two-Year Target	Four Year Target
Interstate: Good Condition	IRI Only (2018)	IRI + Full Distress Metrics	DOT (Starting 2020)	DOT/MPO
Interstate: Poor Condition	IRI Only (2018)	IRI + Full Distress Metrics	DOT (Starting 2020)	DOT/MPO
Non-Interstate NHS: Good	IRI Only (2018)	IRI + Full Distress Metrics	DOT	DOT/MPO
Non-Interstate NHS: Poor	IRI Only (2018)	IRI + Full Distress Metrics	DOT	DOT/MPO
NHS: Good Condition	NBI Condition Ratings		DOT	DOT/MPO
NHS: Poor Condition	NBI Condition Ratings		DOT	DOT/MPO
Interstate: Person Miles	Travel Time Reliability		DOT	DOT/MPO
Non-Interstate NHS: Person Miles	Travel Time Reliability		DOT (Starting 2020)	DOT/MPO
Interstate: TTTR	Truck Travel Time Reliability		DOT	DOT/MPO

### Pavement Conditions

Pavement Condition data is collected by NHDOT annually through specialized equipment mounted to a vehicle. Data is collected in 0.1 mile increments for all segments of the National Highway System in New Hampshire. For the first 4-year targets, pavement condition will be measured based on only the International Roughness Index (IRI), however over the next two years a transition will be made to incorporate all four required components so that the 2020 update will include “full distress and IRI” measures:

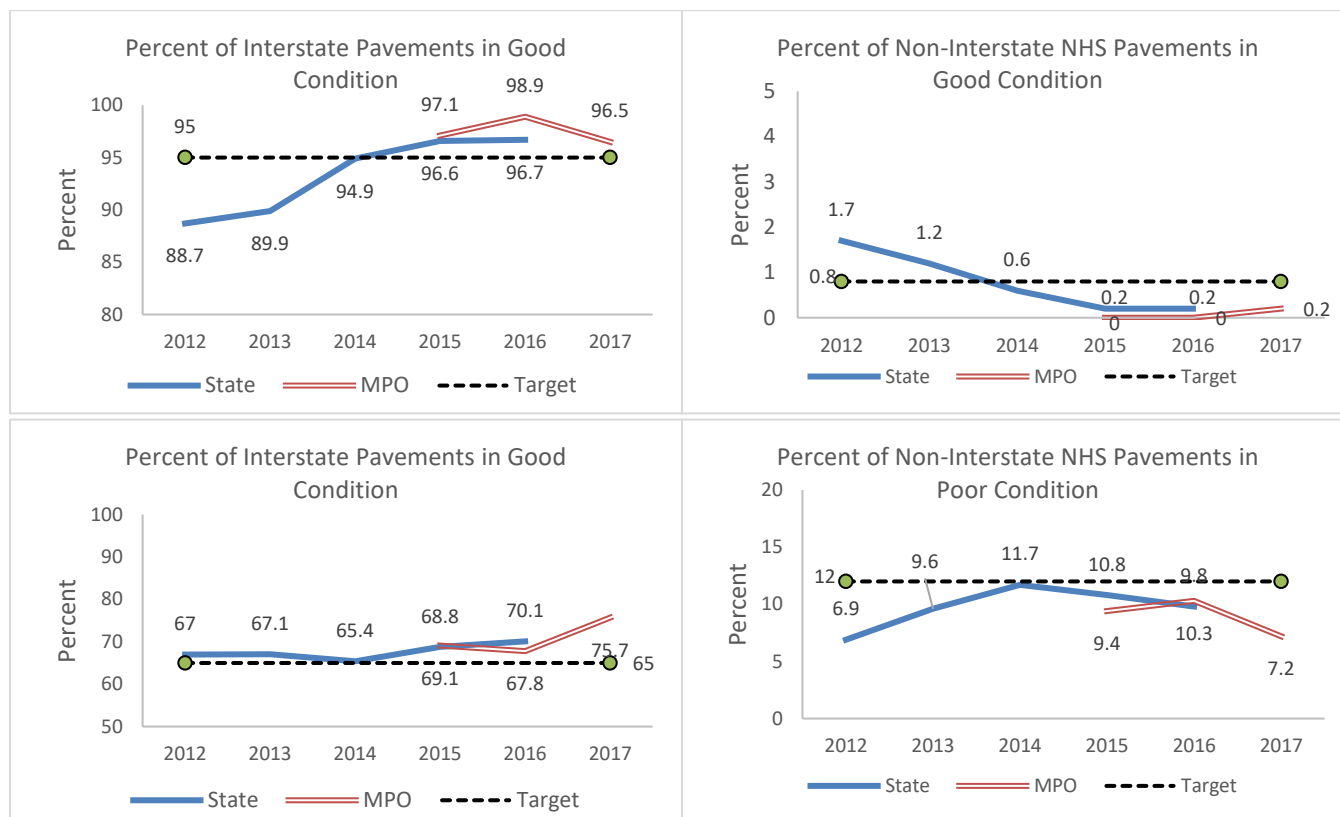
- **International Roughness Index (IRI):** A statistic used to estimate the amount of roughness in a measured longitudinal profile.
- **Rutting:** A measure of longitudinal surface depressions in the pavement
- **Cracking:** The percentage of the surface with unintentional breaks
- **Present Serviceability Rating (PSR):** An observation-based system used to rate pavements for roadways with speed limits that are less than 40MPH.

The result is that the initial 4-year targets set for pavement condition may be substantially different than those set for future 2 and 4-year periods. FHWA is allowing this transition and phase-in period as many states have not historically collected all of the information required to make the calculations for rutting, cracking, and PSR and therefor do not have the information available to establish baseline conditions and set targets.

**Table 3 –Interstate and Non-Interstate NHS Baseline Pavement Conditions (IRI Only)**

Year	Interstate – Good		Interstate – Poor		Non-Interstate NHS – Good		Non-Interstate NHS – Poor	
	State	MPO	State	MPO	State	MPO	State	MPO
2012	88.7%		1.7%		67.0%		6.9%	
2013	89.9%		1.2%		67.1%		9.6%	
2014	94.9%		0.6%		65.4%		11.7%	
2015	96.6%	97.1%	0.2%	0.0%	68.8%	69.1%	10.8%	9.4%
<b>2016</b>	<b>96.7%</b>	<b>98.9%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>70.1%</b>	<b>67.8%</b>	<b>9.8%</b>	<b>10.3%</b>
2017		96.5%		0.2%		75.7%		7.2%

The interim targets for the first performance reporting period are based on IRI data collected by NHDOT and the data that forms the basis for the performance targets is included in Table 3. The data from 2016 is utilized as the baseline year and the other values aid in establishing trends that can be used to guide future year targets.



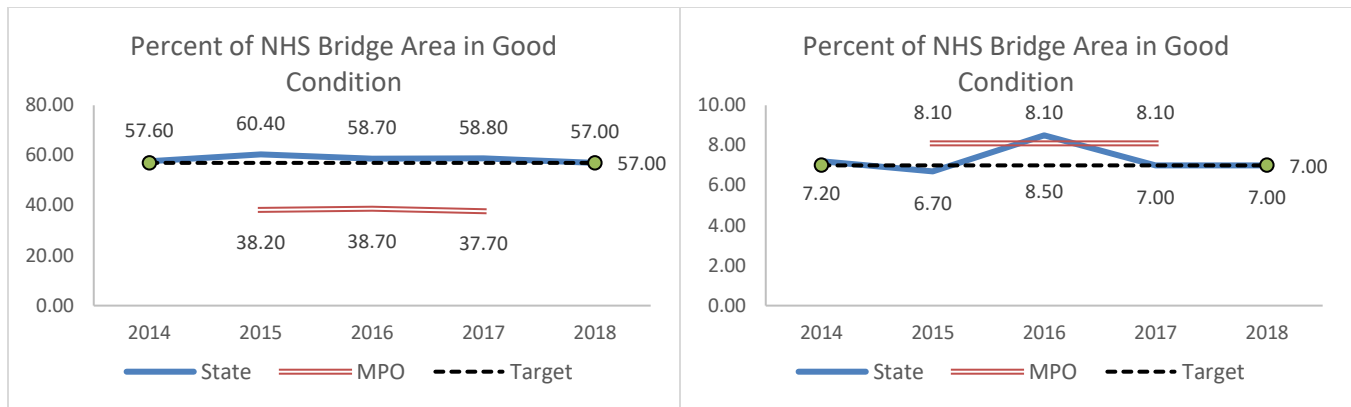
## Bridge Conditions

Bridge Condition data is collected by NHDOT through the regular inspection of bridges and includes all structures that meet the federal definition of a bridge. Conditions are reported in square feet of deck area and are based on the condition of the deck, superstructure, and substructure, or culvert. Each of those 3 bridge components is evaluated and the lowest rating determines the overall bridge rating. Overall ratings of 7 or better indicate that the bridge is in “Good” condition, while overall ratings of 4 or less indicate that the bridge is in “Poor” condition.

**Table 4 – NHS Baseline Bridge Conditions**

Year	Square Feet Good Condition		Percentage Good Condition		Square Feet Poor Condition		Percentage Poor Condition	
	State	MPO	State	MPO	State	MPO	State	MPO
2014	4,065,483		57.6%		507,047		7.2%	
2015	4,307,170	483,095	60.4%	38.2%	477,966	102,976	6.7%	8.1%
2016	4,193,582	489,372	58.7%	38.7%	609,634	102,976	8.5%	8.1%
2017	4,198,111	476,982	58.8%	37.7%	500,965	102,976	7.0%	8.1%
2018	4,090,340		57.0%		500,663		7.0%	





Based on currently available information, the NHS bridges in the MPO region are in overall worse condition than the state as a whole. The region currently has a smaller percentage of bridge area in good condition and a larger percentage in poor condition. There are currently a number of projects in the region that are addressing the condition of bridges on the National Highway System. The replacement of the Sarah Mildred Long Bridge between Portsmouth and Kittery and the I-95 Taylor River Bridge in Hampton Falls were both completed in 2018 and have not shown up in the data yet. In addition, the I-95 bridge over the Piscataqua River between Portsmouth and Kittery is slated for rehabilitation starting in 2019.

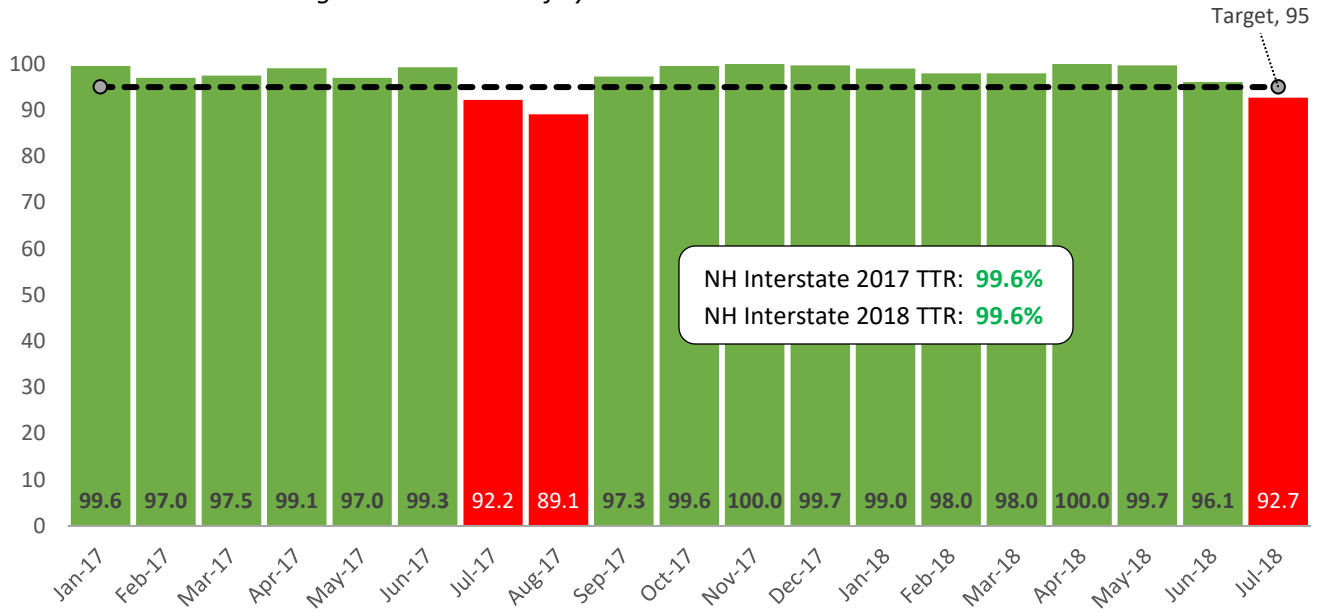
### Travel Time Reliability

Travel Time Reliability data is collected utilizing vehicle probe data in the National Performance Measure Research Data Set (NPMRDS). This data consists of average travel times for each segment of the National Highway System and is calculated at 5 minute intervals for each day of the year and aggregated to different levels for the purposes of calculating travel time reliability measures.

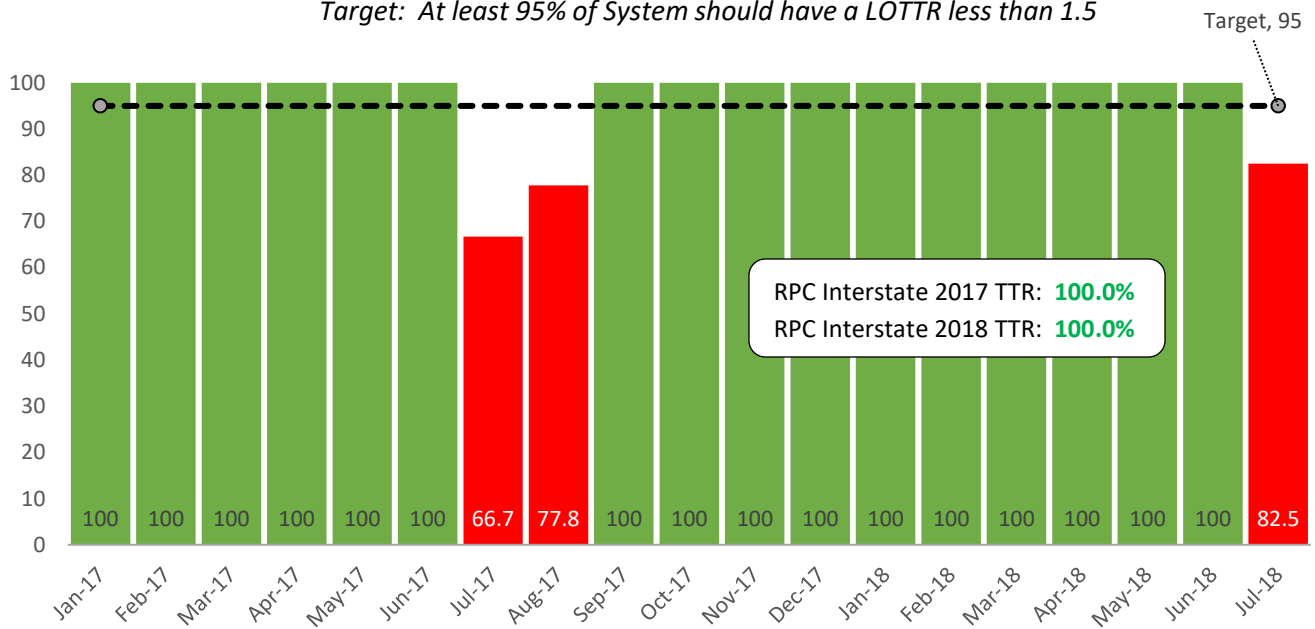
For Interstate Travel Time Reliability and Non-Interstate NHS Travel Time Reliability, data is collected in 15 minute segments between 6:00 AM and 8:00 PM daily. The 80<sup>th</sup> percentile travel times (longer) are then divided by the 50<sup>th</sup> percentile (normal) travel time and periods where this ratio is less than 1.5 are considered “reliable”. These are converted to person-miles, and collected into monthly and annual totals to determine the overall percentage of reliable travel. The goal is for all segments to be “reliable” at a rate that is greater than or equal to the target value over the course of the year. The figures on the following pages show New Hampshire and MPO region specific monthly Travel Time Reliability for the Interstate System (page 7), Non-interstate National Highway System (page 8), as well as overall values for 2017 and 2018 to date.

Truck Travel Time Reliability (TTTR), the Freight Reliability measure, is calculated somewhat differently. For TTTR, the 95<sup>th</sup> percentile travel time is divided by the 50<sup>th</sup> percentile (normal) travel time for each segment during each of 5 periods: weekday morning peak (6-10 AM), midday (10AM-4PM), and afternoon peak (4-8PM), weekends (6AM-8PM), and overnights for all days (8PM-6AM). The largest ratio for each day is multiplied by the length of the segment. The sum of all length-weighted segments is then divided by the total length of interstate in the state/region. The goal in this instance is that the interstate system has truck travel times that are less than 1.5 times the “normal” travel time over the course of the year. The figures on page 9 show Truck Travel Time Reliability for New Hampshire and the MPO region by month and annual totals for 2017 and 2018 to date.

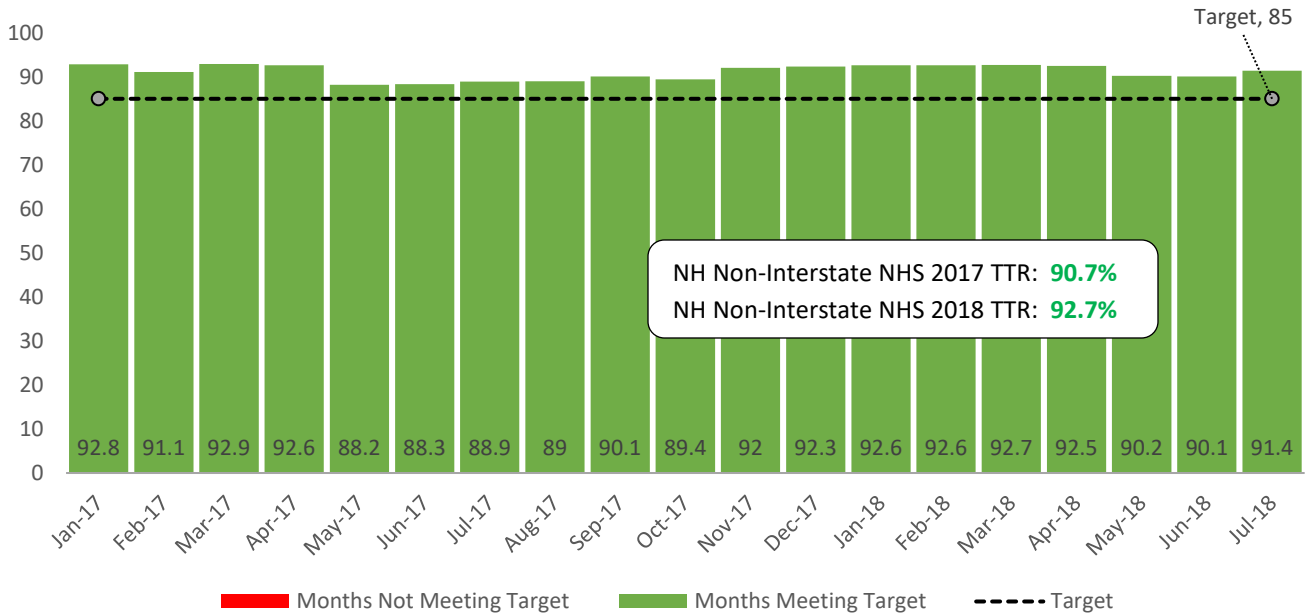
New Hampshire 2017-2018 Interstate Level of Travel Time Reliability Index (LOTTR)  
 Target: At least 95% of System should have a LOTTR less than 1.5



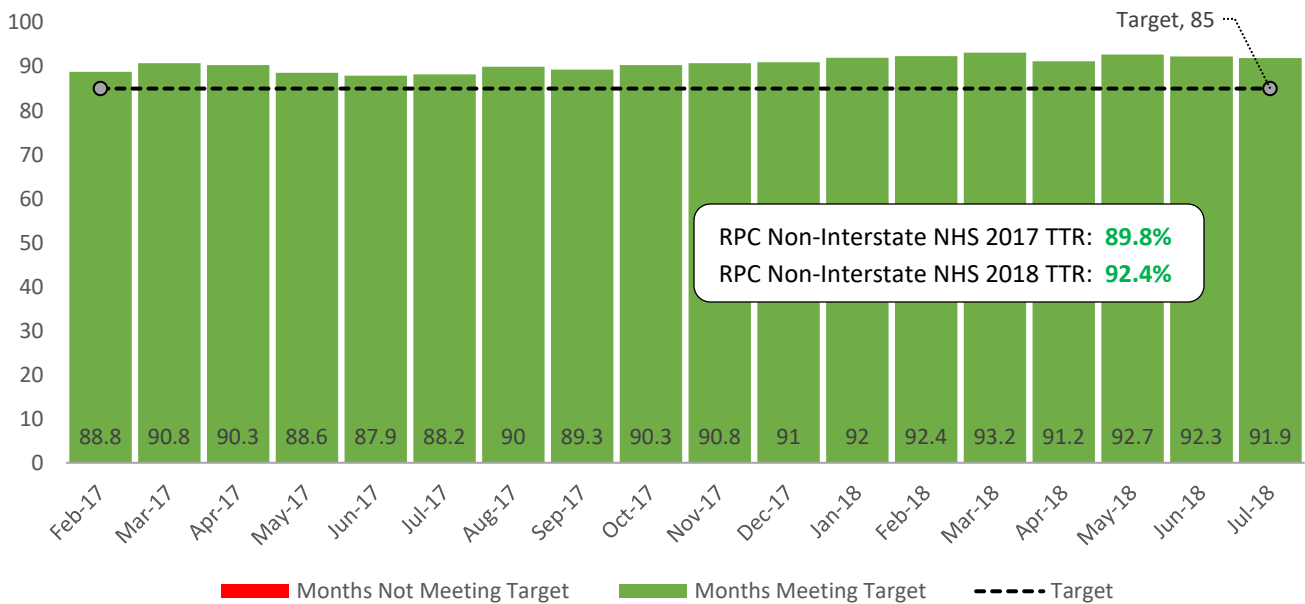
RPC 2017-2018 Interstate Level of Travel Time Reliability Index (LOTTR)  
 Target: At least 95% of System should have a LOTTR less than 1.5



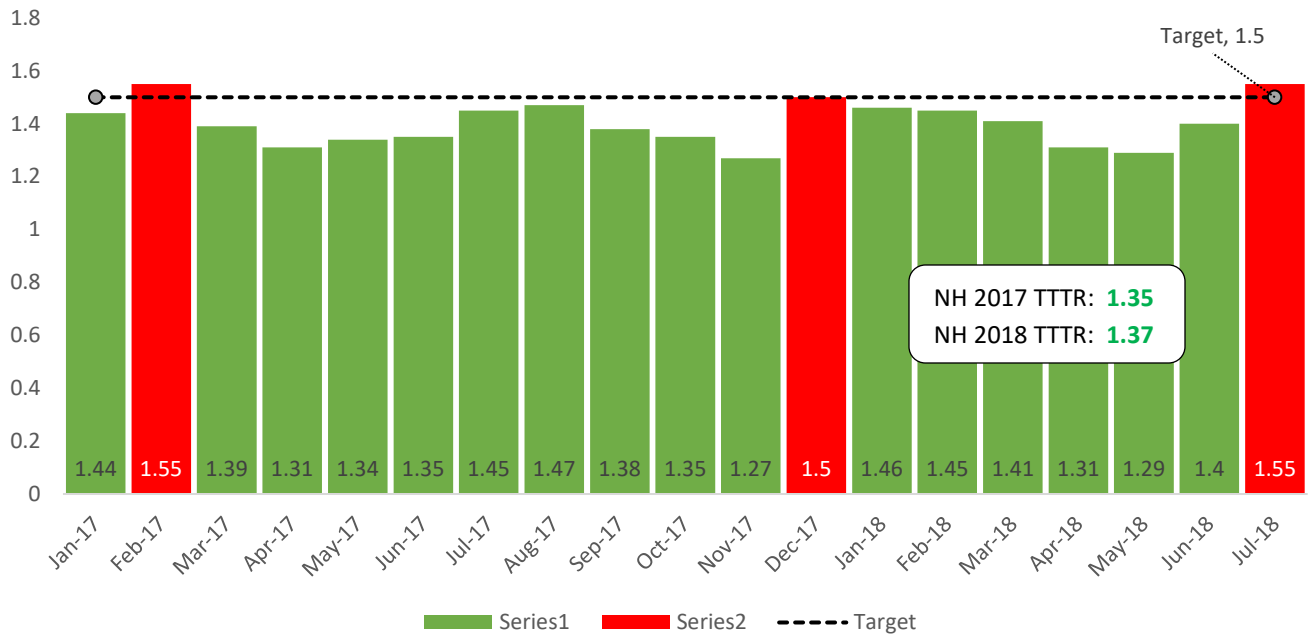
**New Hampshire Non-Interstate National Highway System (NHS)  
Level of Travel Time Reliability Index (LOTTR)  
Target: At least 85% of the system should have a LOTTR less than 1.5**



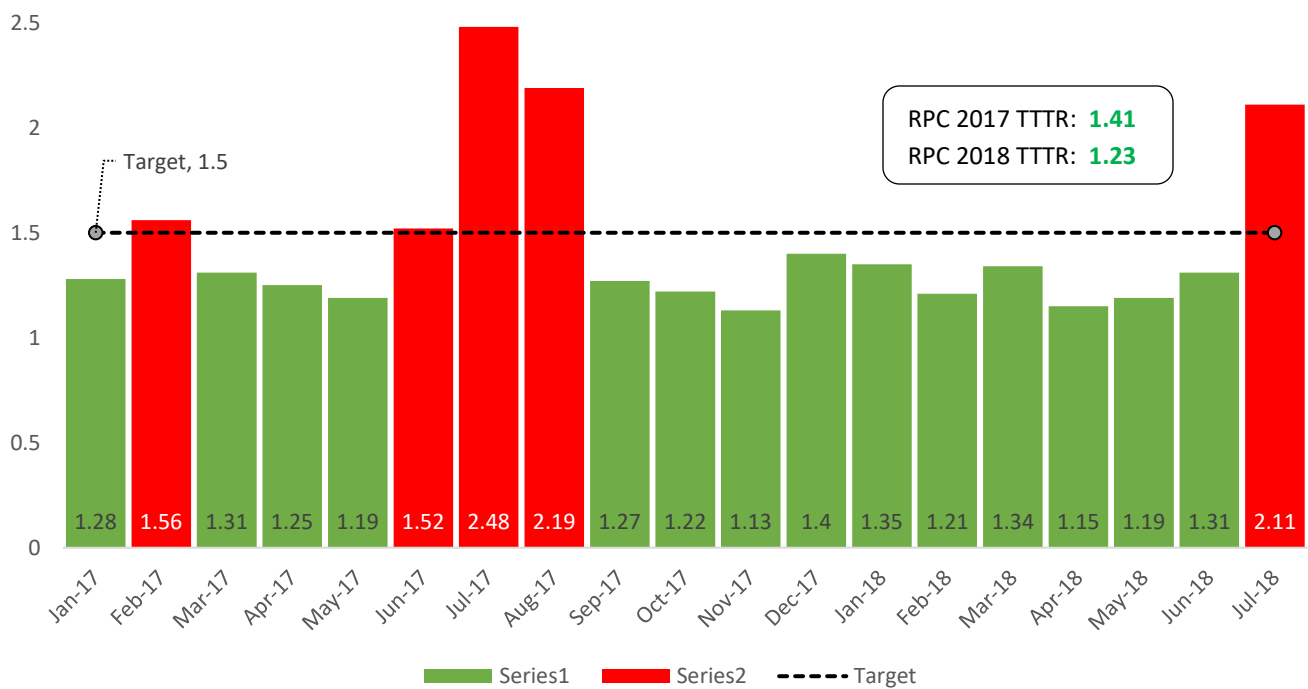
**RPC Non-Interstate National Highway System (NHS)  
Level of Travel Time Reliability Index (LOTTR)  
Target: At least 85% of the system should have a LOTTR less than 1.5**



New Hampshire 2017 Truck Travel Time Reliability Index (TTTR)  
Target: The System should have a TTTR of less than 1.5



RPC 2017 Truck Travel Time Reliability Index (TTTR)  
Target: The System should have a TTTR of less than 1.5



## **ATTACHMENT #4**

## MEMORANDUM

TO: RPC Transportation Advisory Committee  
FROM: David Walker  
RE: Project Selection Process  
DATE: September 21, 2018

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Following the project solicitation for the Long Range Plan that wraps up at the end of September, the MPO will need to prioritize projects and provide NHDOT a list of top priorities proposed to be added to the next iteration of the State Ten Year Plan (2021-2030). To facilitate that process, the MPO has coordinated with NHDOT and the other New Hampshire RPCs to establish a set of 10 selection criteria that are used statewide to prioritize project proposals for the Ten Year Plan. The basic definitions for those criteria are attached. In addition, NHDOT has developed a basic outline of the Project Selection process for the Ten Year Plan (attached). Staff is currently working on hashing out the details of this process, how it will function within the MPO, and what milestones need to be met. In general, the the TAC needs to accomplish the following tasks between now and the end of 2018:

1. Determine the details of the project selection process that will be used
2. Establish relative weights for each criterion towards the overall project score.
3. Score projects against the criteria
4. Approve a draft candidates list to be sent to NHDOT for engineering and estimate review.

Based on that need, the schedule is outlined below with full detail to be provided at the 9/27/2018 TAC meeting.

9/27/2018 Meeting	– Discuss and finalize overall project selection process
10/25/2018 Meeting	– Set project selection criteria weights
12/6/2018 Meeting	– Approve draft candidates list for NHDOT engineering/estimate review
2/28 or 3/28/2019 Meeting	– Approve priority projects list to send to Policy Committee

# **2021-2030 NH Ten Year Plan Regional Planning Commission Process**

*4 September 2018*

## **AUGUST-SEPTEMBER 2018:**

RPC review/questions/comments on 2021-2030 TYP criteria, process & schedule.

## **SEPTEMBER 2018 – DECEMBER 2018:**

RPCs work to confirm existing project listings in their respective regional TIPs – or make revisions. Prepare individual project information sheets for each project proposed for inclusion in the 2021-2030 NH Ten Year Plan.

To avoid multiple votes of the TAC/TTAC/Policy Committee, NHDOT recommends that the initial submittal be submitted as a draft candidate list and not the ‘final’ list of projects from the RPC to NHDOT for review and comment. Project list = initial list of projects estimated to be within the regional allocation + 2 additional priority projects.

**PLEASE NOTE:** All Ten Year Plan project candidates must have been vetted by licensed professional engineering staff prior to submittal to NHDOT for Ten Year Plan consideration. NHDOT will make professional engineering staff available to assist with engineering reviews, provided that submittals are made by the identified deadlines.

## **OPTION A – DECEMBER 3, 2018**

RPCs intending to use NHDOT’s professional engineering staff to review candidate projects will submit their initial list of candidates by December 3. NHDOT will provide reviews of the proposed TYP candidates via the Estimate Review Committee. NHDOT will follow-up with individual RPCs regarding proposed TYP candidate projects.

## **OPTION B – JANUARY 4, 2019**

RPCs submitting engineer reviewed candidate projects to NHDOT for scope/estimate review will submit them to NHDOT by January 4.

NHDOT project/estimate review committee reviews proposed projects for:

- Completeness of project scope
- Accuracy of proposed project cost estimate
- Other NHDOT comments on proposals for RPC consideration (potential programmatic, to be addressed by another NHDOT, identification of potential project overlaps, etc.)

**FEBRUARY - MARCH 2019:**

Individual RPC meetings with NHDOT scheduled to discuss:

- Results of NHDOT review of proposed projects
- NHDOT strategy re: development of the draft 2021-2030 NH TYP
- RPC questions regarding the 2021-2030 TYP efforts
- Proposed approach to the GACIT process for the 2021-2030 TYP

**APRIL 2019:**

RPCs finalize (TAC/TTAC/Policy Committee) their formal 2021-2030 TYP submittals to NHDOT.

**MAY 1, 2019:**

Final prioritized listing of projects due from RPCs. Meetings to discuss any outstanding issues/questions as necessary.

**JUNE 2019:**

NHDOT finalizes work on draft 2021-2030 NH Ten Year Transportation Plan

**JULY 2019:**

**GACIT Kick-off meeting – start of NH statewide transportation consultation process.**



2021-2030 NH Ten Year Plan Project Ranking Criteria		
Criteria Name	Description	Performance Targets
<b>Mobility</b>	<b>Definition:</b> Mobility is the potential to get from one place to another and is generally evaluated based on the numbers of trips, travel speeds, and total travel distance and time. Accessibility is the ability of people to reach desired employment, goods, services, and other destinations.	<b>Travel Time Reliability/ Peak Hour Travel Delay/Non-SOV travel(CMAQ)</b>
<b>Reduce Congestion</b>	<b>Definition:</b> The extent to which the project is intended to impact traveler delay upon completion.	
<b>Freight Mobility</b>	<b>Definition:</b> The degree to which the project impacts movement of goods.	
<b>Alternative Modes</b>	<b>Definition:</b> The extent to which the project impacts accommodations for alternative modes of travel including bicycle, pedestrian and transit, where so desired.	<b>Non-SOV travel(CMAQ)/Safety</b>
<b>Network Significance</b>	<b>Definition:</b> The extent to which the project is important to network connectivity based on current traffic volume, Tiers, functional system, and importance to the regional system, and availability of alternative routes.	<b>Safety</b>
<b>Traffic Volume</b>	<b>Definition:</b> A measure of motor vehicle volume based on the NHDOT traffic data management system (eg. Average Annual Daily Traffic AADT).	
<b>Facility Importance</b>	<b>Definition:</b> The extent to which the facility moves people and goods between major locations. Considerations, Tiers	
<b>Safety</b>	<b>Definition:</b> The degree to which a project impacts traveler safety in relation to safety performance and the project's safety measures.	<b>Safety</b>
<b>Safety Measures</b>	<b>Definition:</b> The degree to which the scope of the project focuses on measures that increase safety (proposed improvements). Examples of safety measures include:- Improved guardrail, barrier, rumble strips, signing, striping- Improved sight distance, signalization, roundabouts- Protective measures for bicyclists and pedestrian Natural hazard mitigation measures..	
<b>Safety Performance</b>	<b>Definition:</b> A composite measure of 5-year average safety performance (e.g., History of crash rate, crash severity, etc.)	
<b>State of Repair</b>	<b>Definition:</b> The extent to which the project impacts the service life of the asset and the extent to which the project is required based on current asset condition.	<b>Pavement &amp; Bridge Conditions</b>
<b>Roadway Surface Life</b>	<b>Definition:</b> This criterion has two components reflecting the different approach to the management of roadways and bridges based around the facility condition and tier: Roadway Service Life: The extent to which the project impacts asset condition/service life of the facility (generally measured in years). For existing roadway facilities the measure applies to service life or asset condition. For new roadway facilities it applies to the total expected service life. "Keep Good Roads Good".	
<b>Bridge Asset Condition</b>	<b>Definition:</b> This criterion has two components reflecting the different approach to the management of roadways and bridges based around the facility condition: Bridge Asset Condition: The degree to which the project's assets require work based on existing asset conditions, as determined by management system ratings including Pontus (bridges), etc. Fix the "Worst First"	
<b>Support</b>	<b>Definition:</b> The degree to which a project has support by the RPC or Local, and feasibility of construction.	
<b>Resiliency</b>	<b>Definition:</b> Will the proposed project help address natural hazard mitigation measures?	

**Projected Regional Allocations for New Projects in the 2021-2030 NH TYP**

<b>RPC</b>	<b>FAE Lane Miles</b>	<b>%</b>	<b>Population</b>	<b>%</b>	<b>50% By FAE Lane Miles</b>	<b>50% Population</b>	<b>Total available for 2030-2031 Projects</b>
NCC	1,536	18%	82,350	6%	\$ 4,530,229.37	\$ 1,575,857	\$ 6,106,086
UVLSRPC	721	9%	85,867	7%	\$ 2,127,026.04	\$ 1,643,159	\$ 3,770,185
LRPC	956	11%	119,725	9%	\$ 2,818,612.00	\$ 2,291,068	\$ 5,109,680
SWRPC	808	10%	99,566	8%	\$ 2,383,931.58	\$ 1,905,304	\$ 4,289,235
CNHRPC	764	9%	113,248	9%	\$ 2,252,871.89	\$ 2,167,124	\$ 4,419,996
SNHPC	1,173	14%	266,278	20%	\$ 3,458,115.57	\$ 5,095,520	\$ 8,553,635
NRPC	759	9%	205,765	16%	\$ 2,238,359.83	\$ 3,937,538	\$ 6,175,897
RPC	1,040	12%	188,521	14%	\$ 3,066,281.25	\$ 3,607,555	\$ 6,673,836
SRPC	720	8%	145,112	11%	\$ 2,124,572.47	\$ 2,776,876	\$ 4,901,449
<b>Totals</b>	<b>8,477</b>	<b>100%</b>	<b>1,306,432</b>	<b>100%</b>	<b>\$ 25,000,000</b>	<b>\$ 25,000,000</b>	<b>\$ 50,000,000</b>