

PROJECT SOLICITATION AND PRIORITIZATION

MPO Long Range Transportation Plan and State Ten Year Plan



PROJECT SELECTION PROCESS

1. Project is feasible

- Project addresses a **clearly defined transportation need**, is **reasonable in approach**, and is **likely to receive required Resource Agency permits and approvals**.

2. Project is supported

- Project has **demonstrated local support** and matching funds (if necessary) and **conforms to regulations and plans** for affected areas.
- Required fields on project application form are complete for new projects.

3. Project is **eligible for federal funding** programs

4. Apply Project Selection Criteria

GROUPING PROJECTS BY SCALE

	Local	Regional	Inter-Regional
Focus	Safety, access, and multimodal connections <u>within</u> communities	Multimodal connections <u>between</u> communities and regional activity centers	Mobility & intermodal improvements to ensure that the region is well connected <u>to the rest of</u> New England and beyond.
Project Types	<ul style="list-style-type: none"> • Smaller scale bike/ped and transit projects • Highway projects on “main street” state highways and some local roads • Multimodal access to services for all users • Complete Streets and context sensitive design 	<ul style="list-style-type: none"> • Projects primarily on State Highways • Regional Transit • Regional scale bike/ped • Improve access to regional activity centers • Improve mobility • Address safety issues 	<ul style="list-style-type: none"> • Project Related to National Highway System • Reduce congestion on critical roadways • Freight mobility and travel time • Inter-regional Bus and Rail transit service • Address safety problems
Important Criterion	<ul style="list-style-type: none"> • Safety • Equity and Accessibility • Natural Hazards Resiliency 	<ul style="list-style-type: none"> • Safety • Economic Development • Mobility • Equity and Accessibility 	<ul style="list-style-type: none"> • Safety • Mobility • State of repair • Network Significance

LOCAL SCALE

	Local
Focus	Safety, access, and multimodal connections <u>within</u> communities
Project Types	<ul style="list-style-type: none"> • Smaller scale bike/ped and transit projects • Highway projects on “main street” state highways and some local roads • Multimodal access to services for all users • Complete Streets and context sensitive design
Important Criterion	<ul style="list-style-type: none"> • Safety • Equity and Accessibility • Natural Hazards Resiliency

NUMBER	ROUTE	PROJECT NAME	Funding
40436	NH 111	Widen shoulders to 5' on Kingston Road (NH 111) for approximately 1.1 Miles	\$1,128,470
40641	Main Street	Main Street Traffic Calming and Safety Improvements Plaistow	\$1,398,585

REGIONAL SCALE

	Regional
Focus	Multimodal connections <u>between</u> communities and regional activity centers
Project Types	<ul style="list-style-type: none"> • Projects primarily on State Highways • Regional Transit • Regional scale bike/ped • Improve access to regional activity centers • Improve mobility • Address safety issues
Important Criterion	<ul style="list-style-type: none"> • Safety • Economic Development • Mobility • Equity and Accessibility

NUMBER	ROUTE	PROJECT NAME	Funding
41717	NH 121	NH 121 Depot Road Intersection Capacity Expansion	\$2,400,000
40797	Ocean Blvd	Ocean Blvd Reconstruction (Hampton)	\$9,939,209
26485	East Coast Greenway	Acquire 9.7 miles RR Corridor Hampton-Portsmouth & improve existing corridor surface for bike/ped	\$8,234,104

INTER-REGIONAL SCALE

	Inter-Regional
Focus	Mobility & intermodal improvements to ensure that the region is well connected <u>to the rest of</u> New England and beyond.
Project Types	<ul style="list-style-type: none"> • Project Related to National Highway System • Reduce congestion on critical roadways • Freight mobility and travel time • Inter-regional Bus and Rail transit service • Address safety problems
Important Criterion	<ul style="list-style-type: none"> • Safety • Mobility • State of repair • Network Significance

NUMBER	ROUTE	PROJECT NAME	Funding
29608	NH 125	Capacity and traffic management improvements from Brickyard Plaza to NH 87 (Epping)	\$14,566,191
41584	NH 101/ US 1	NH 101/US 1 Interchange reconfiguration	\$7,408,518
29640	US 1	US 1 Improvements from Constitution Ave to Wilson Rd and from Ocean Rd to White Cedar Blvd (Portsmouth)	\$17,131,767

PROJECT SELECTION CRITERIA FOR 2022-2023

- No New selection criteria
- Working on additional implementation guidance with NHDOT
- Ten Year Plan is focused broadly on roadway/bike/ped type improvements
- Multiple programs to address Red List Bridges and have their own prioritization processes.

NEW HAMPSHIRE'S "TEN YEAR PLAN"

The *New Hampshire 10-Year Transportation Improvement Plan* ("Ten Year Plan") is a fiscally-constrained program of state- and federal-funded transportation projects. The *Ten Year Plan* is updated biennially, pursuant to the requirements of New Hampshire RSA 240. The *Ten Year Plan* includes projects related to roadway improvements, bicycle and pedestrian travel, public transportation, aviation, and natural hazard resiliency.



REGIONAL PROJECT REVIEW PROCESS

As part of the biennial update of the *Ten Year Plan*, each of the nine New Hampshire Regional Planning Commissions (RPCs) leads a process to identify and prioritize transportation projects in their respective regions for inclusion in the *Plan*.

Projects eligible for consideration through the regional review process:

- ⇒ **Asset management projects** (e.g., bridge rehabilitation, bridge replacement, pavement/base/subbase repair/replacement);
- ⇒ **Bicycle and pedestrian improvements** (e.g., sidewalks, bike trails, multi-use paths; traffic calming improvements);
- ⇒ **Infrastructure-related travel demand management projects** (e.g., park and ride lots, transit or HOV lanes, priority signalization, bus shelters, intermodal transportation centers);
- ⇒ **Planning studies** assessing the need for future projects;
- ⇒ **Roadway improvements** (e.g., operational improvements, access management, intelligent transportation systems, widening, technology operation improvements).

FEDERAL HIGHWAY SYSTEM PERFORMANCE MEASURES

Under the *Fixing America's Surface Transportation Act* (FAST Act), state DOTs and Metropolitan Planning Organizations (MPOs) are required to use **performance measures** to work toward specific targets in support of **national goals for transportation management** in all federally-funded projects and programs.

The Ten-Year Plan Criteria detailed in this packet reflect these federal performance measures. Relevant federal performance measures are noted with each criterion.

PROJECT REVIEW CRITERIA

The criteria included in this packet are intended to help RPC's prioritize projects in their respective regions. A list of criteria is provided in the table to the right.

Each RPC may assign weights to different criteria to reflect regional priorities. Weights should be assigned to criteria prior to scoring projects.

For each project, a score should be assigned for each criterion in order to develop an overall project score. **Detailed scoring procedures are provided on page 2 of this packet.**

Each RPC should clearly define the specific scoring process that will be used prior to scoring projects.

CRITERION	SUB-CRITERIA
Economic Development	Local & Regional; Freight Movement
Equity, Environmental Justice, & Accessibility	Equity & Environmental Justice; Accessibility
Mobility	Mobility Need & Performance; Mobility Intervention
Natural Hazard Resiliency	Hazard Risk; Hazard Mitigation
Network Significance	Traffic Volume; Facility Importance
Safety	Safety Performance; Safety Measures
State of Repair	State of Repair; Maintenance
Support	n/a

For each criterion, the following reference table is provided in order to standardize & guide project reviews:

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
This column includes the factors that should be considered in order to evaluate and rank proposed Ten Year Plan projects. Depending on data availability, some considerations may not be evaluated for all projects.	This column includes data and established resources for best practices that can be used to justify project rankings. Not all sources of data will be available for each project. It is left to the discretion of each RPC as to which sources to consult.

Note: project review criteria and associated scores are intended to inform the regional project prioritization process. RPCs may consider other factors, such as project costs and timelines, when deciding final regional priorities.

Economic Development

The degree to which a project supports economic development needs and opportunities at the 1) local and 2) regional level; and 3) the degree to which the project impacts the movement of goods

Economic Development
NH TEN YEAR PLAN
Regional Project Review

Definition: the degree to which a project supports economic development needs and opportunities at the 1) local and 2) regional level; and 3) the degree to which the project impacts the movement of goods (freight).

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Local & Regional Economic Development IMPACT</p> <ul style="list-style-type: none"> Does the project directly relate to a documented community revitalization or economic development effort? Does the project improve mobility and/or accessibility to and from a regional employment hub? Does the project improve mobility and/or accessibility to and from a regional tourism destination? Does the project support the implementation of a regional economic development plan? 	<p>Resources:</p> <ul style="list-style-type: none"> Local, regional and statewide economic development plans and documents Transit system maps Bicycle network/route maps Sidewalk network maps Online isochrone tools Regional <i>Comprehensive Economic Development Strategies</i> Economic-related chapters and goals of <i>Regional Plans</i>
<p>Freight Movement IMPACT</p> <ul style="list-style-type: none"> Does the project implement a high priority freight improvement project as identified in the NH State Freight Plan or an adopted Regional Transportation Plan? Does the project improve a freight bottleneck location as identified in the NH State Freight Plan or an adopted Regional Transportation Plan? Would the project improve freight transportation on a Critical Urban Freight Corridor (CUFC) or Critical Rural Freight Corridor (CRFC) candidate location as identified in the NH State Freight Plan (or as previously recommended by a MPO/RPC for future inclusion in the NH State Freight Plan)? Would the project improve Truck Travel Time Reliability on the Interstate system or other National Highway Freight Network Route? 	<p>Resources:</p> <ul style="list-style-type: none"> State Freight Plan Regional Long-Range Transportation Plans Critical Urban Freight Corridor (CUFC) Candidate Location List Critical Rural Freight Corridor (CRFC) Candidate Location List Truck Travel Time Reliability (TTTR) Index Data from the National Performance Management Research Data Set (NPMRDS)

Federal Performance Measures Addressed

Federal Highway Administration System Performance Measures: 1) truck time travel reliability on the Interstate System.

Criterion	Evaluation Focus
Economic Development	Will the project improve accessibility to a regional activity center (employment hubs, tourism destination, etc.)?
Freight Movement	Will the project address a freight bottleneck?

- Accessibility:** The ability to reach desired goods, services, activities, and destinations. This type of benefit is best provided by projects that expand access via alternative modes.

Relative Importance for Each Project Scale

Local	Regional	Inter-Regional
Moderate	High	High

Equity, Environmental Justice, and Accessibility

The degree to which a project provides a transportation option for someone who may not drive, or otherwise supports fair distribution of the benefits and burdens of the transportation system.

Equity, Environmental Justice, & Accessibility

NH TEN YEAR PLAN
Regional Project Review

Definition: the degree to which 1) a project benefits traditionally-underserved populations (equity & environmental justice); and 2) ensures accessibility by all potential users.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Equity & Environmental Justice IMPACT</p> <ul style="list-style-type: none"> Would the project provide transportation infrastructure benefits to an identified concentration area for minority population, low-income population, limited English proficiency population, disabled population, or other traditionally-underserved population group as identified in a local, regional, or statewide Title VI or Environmental Justice Program? Would the project expand transportation choices or enhance alternative modes of transportation in an identified concentration area for minority population, low-income population, limited English proficiency population, disabled population, or other traditionally-underserved population group? Does the project implement transportation-related recommendations resulting from a local, regional, or statewide Community Health Improvement Plan (CHIP) or other comprehensive public health analysis? What is the impact of the project on air quality? Are air quality impacts disproportionately affecting traditionally underserved populations? 	<p>Resources:</p> <ul style="list-style-type: none"> Regional and Statewide Title VI and Environmental Justice Programs Community Health Improvement Programs Region-specific Demographic Analyses US 13 CFR Part 301.3 Economic Distress Criteria (https://www.govinfo.gov/content/pkg/CFR-2018-title13-vol11/xml/CFR-2018-title13-vol11-part301.xml#seqnum301.3) Northern Border Regional Commission annual distress criteria reports CMAQ air quality analysis tools MPO regional emissions analyses RPC review of project scope
<p>Accessibility IMPACT</p> <ul style="list-style-type: none"> Does the project incorporate Universal Design considerations to ensure that all users, including those with mobility impairments, visual impairments, hearing impairments or other disabilities can fully access and utilize the facility? Does the project incorporate accessibility upgrades or remove barriers to access? Does the project improve coordination between transportation service providers or between modes of transportation to improve access to essential services, particularly for elderly and disabled populations? 	<p>Resources:</p> <ul style="list-style-type: none"> Conceptual Designs for Proposed Projects Local, Regional, or Statewide ADA Transition Plans Public Transit-Human Service Transportation Coordination Plans

Federal Performance Measures Addressed

Federal Highway Administration System Performance Measures: 1) on-road mobile source emissions reduction.

Criterion	Evaluation Focus
Impact on underserved population	Will the project expand transportation choices or enhance alternative modes, particularly for traditionally underserved populations?
Impact on Access & Accessibility	Will the project remove barriers to access?

- Barriers to Access:** Refers to implementing accessible design or universal design standards to accommodate people with disabilities and other special needs.

Relative Importance for Each Project Scale

Local	Regional	Inter-Regional
<i>High</i>	<i>Moderate</i>	<i>Low</i>

Mobility

The degree to which a project reduces the time needed to get from one place to another.

Mobility | NH TEN YEAR PLAN
Regional Project Review

Definition: 1) an historical analysis of the mobility need and performance of a location for all modes, and 2) a forward-looking analysis of how interventions proposed as part of a project would improve the mobility performance for all modes.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Mobility Need & Performance NEED</p> <p>Facility Purpose</p> <ul style="list-style-type: none"> What is the federal functional classification of the project area (i.e., is high mobility an underlying function of the facility)? Is the facility a local, regional, or statewide connection? <p>Planning</p> <ul style="list-style-type: none"> Are the mobility needs in the project area defined in a local, regional, or state plan? <p>Motor Vehicles</p> <ul style="list-style-type: none"> For projects addressing mobility need for vehicle travel, what is the project area's performance relative to congestion or delay, and if available, what is person throughput for a defined time period? <p>Rail and Transit</p> <ul style="list-style-type: none"> For projects addressing mobility need for rail and transit, what is transit's performance relative to congestion or delay, and if available, what is ridership for a defined time period (throughput)? <p>Bicycle and Pedestrian</p> <ul style="list-style-type: none"> For projects addressing mobility need for bicycle and pedestrian travel, what is project area's performance relative to delay and if available, what is traffic for defined time period (throughput)? 	<p>Resources:</p> <p>Functional Classification</p> <ul style="list-style-type: none"> Federal Functional Classification (NHDOT GIS Roads Layer) FHWA Highway Functional Classification Guidance: https://www.fhwa.dot.gov/planning/processes/statewide/related/highway_functional_classification/section03.cfm <p>Planning</p> <ul style="list-style-type: none"> Master Plans, Transportation Management <p>Motor Vehicles</p> <ul style="list-style-type: none"> Level of FHWA's Research Level of volume to average field observations based on Through vehicle occupancy vehicle defined time period Regional <p>Rail and Transit</p> <ul style="list-style-type: none"> For project or transit performance <p>Bicycle and Pedestrian</p> <ul style="list-style-type: none"> For project mobility; pedestrian activity time periods; b

Federal Performance Measures Addressed
Federal Highway Administration (FHWA) System Performance Measure: the Interstate System; 2) reliable person-miles traveled on the non-

Mobility (continued) | NH TEN YEAR PLAN
Regional Project Review

Definition: 1) an historical analysis of the mobility need and performance of a location for all modes, and 2) a forward-looking analysis of how interventions proposed as part of a project would improve the mobility performance for all modes.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Mobility Intervention IMPACT</p> <p>Motor Vehicles</p> <ul style="list-style-type: none"> For projects addressing motor vehicle mobility, to what extent will the project provide congestion relief or mobility benefits? <p>Rail and Transit</p> <ul style="list-style-type: none"> For projects addressing transit mobility, to what extent will the project impact a transit service's on time performance and/or improve transit user throughput (i.e. the number of transit users moving through the project area in a given time period)? <p>Bicycle and Pedestrian</p> <ul style="list-style-type: none"> For projects addressing bicycle or pedestrian mobility, to what extent will the project reduce bicyclist/pedestrian delay and/or improve bicyclist/pedestrian throughput (i.e. the number of bicyclists/pedestrians moving through the project area in a given time period)? 	<p>Resources:</p> <p>RPC/MPO, NHDOT or independent evaluation of mobility interventions expressed in scope of work and project purpose. Including but not limited to the interventions listed below.</p> <p>Motor Vehicles, including but not limited to:</p> <ul style="list-style-type: none"> Intersection improvements: signal optimization, roundabouts, addition of turning lanes, etc. Road improvements: HOV lanes, addition of breakdown lanes or shoulder widening, add lanes in merge areas, widen ramps, add exit lanes, ITS speed harmonization, ramp metering, etc. Mode shift measures: transit, park and ride lots, bike lanes, etc. Capacity improvements: adding lanes, access management measures (curb cut consolidation, left turn lanes, two way left turn lanes, medians, etc.) <p>Rail & Transit, including but not limited to:</p> <ul style="list-style-type: none"> Transit signal priority, dedicated transit lanes; improvement to sidewalk or bicycle connectivity to transit stops; transit stop improvements. <p>Bicycle and Pedestrian, including but not limited to:</p> <ul style="list-style-type: none"> Bicycling interventions: <ul style="list-style-type: none"> New/improved bike lane Widening of outside lane/shoulder New off-street or parallel facility Access management improvements (medians, elimination/consolidation of curb cuts) Sight distance improvements Intersection improvements for bicyclist Improvements to speed differential between on street bicyclists and vehicles Signage and road markings Pedestrian interventions: <ul style="list-style-type: none"> New/improved sidewalk New/improved off-street or parallel facility Intersection improvements for pedestrians (new or improved crosswalks, medians/pedestrian refuges, new or improved pedestrian signals) Access management (medians, limitation of curb cuts) Removal of pedestrian conflicts (utility poles, etc.) New or improved buffer between road and pedestrian facility (green buffer, on-street parking, trees, etc.)

Federal Performance Measures Addressed
Federal Highway Administration (FHWA) System Performance Measures: 1) reliable person-miles traveled on the Interstate System; 2) reliable person-miles traveled on the non-Interstate National Highway System.

Criterion	Evaluation Focus
Facility Purpose	Assessed based on the Functional Classification of the roadway and status as a local, regional, or statewide connection
Mobility Intervention	Will the project result in mobility benefits (reduced congestion/improved travel times)?

Facility Purpose overlaps with Network Significance

Mobility Almost always refers to reducing travel time for cars

Relative Importance for Each Project Scale

Local	Regional	Inter-Regional
Low	Moderate	High

Natural Hazards Resiliency

The exposure of a location to risk of damage from natural hazards and the project approach to mitigating that risk.

Natural Hazard Resiliency | NH TEN YEAR PLAN Regional Project Review

Definition: 1) an analysis of the natural hazard risks (i.e. flood history) to a transportation facility, and; 2) a forward-looking analysis of how the natural hazard mitigation measures proposed as part of a project would reduce hazard risks.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Natural Hazard Risk NEED</p> <p><u>Hazard Risk</u></p> <ul style="list-style-type: none"> Are natural hazards in the project area documented in a plan, study, or database? Have natural hazards previously impacted transportation infrastructure and/or mobility in the project area? How frequently? Are natural hazard risks anticipated to increase in severity/impact (for example, due to anticipated impacts of climate change)? 	<p>Resources:</p> <p><u>Hazard Risk</u></p> <ul style="list-style-type: none"> Local plans: Hazard Mitigation Plans, Master Plans, Capital Improvement Plans, Emergency Operations Plans, etc. Regional plans: Regional Transportation Plan, Corridor Studies, River Corridor Management Plans, Watershed-Based Plans, Regional Plan, Comprehensive Economic Development Strategy, etc. Local and Regional Vulnerability Assessments Results of studies or assessments, such as geotechnical studies, fluvial geomorphology studies, SADES-based assessments, etc Hydraulic capacity modeling results/reports FEMA Flood Hazard Maps Regional studies on anticipated impacts of climate change on natural hazard risk
<p>Natural Hazard Mitigation IMPACT</p> <p><u>Hazard Mitigation - All Projects</u></p> <p>To what extent does the project mitigate or adapt to known natural hazards in the project area? Does the project propose in-kind replacement of hazard-prone infrastructure?</p> <ul style="list-style-type: none"> Mitigate (highest score): project eliminates or substantially reduces risk from known natural hazard (e.g., relocates infrastructure away from flood hazard area). Adapt (moderate score): project addresses known natural hazard but does not entirely mitigate risk (e.g., reinforces infrastructure in place). In-kind (lower score): project simply replaces hazard-prone with same/similar infrastructure (e.g., replace stream culvert with culvert of same dimensions). <p><u>Hazard Mitigation - Additional Stream Culvert & Bridge Project Considerations</u></p> <ul style="list-style-type: none"> Is the project responsive to stream characteristics, such as flood propensity, slope, bankfull width, and orientation to roadway? 	<p>Resources:</p> <p><u>Hazard Mitigation - All Projects</u></p> <ul style="list-style-type: none"> RPC review of project scope Section 6.4 of FHWA's HEC 17: Highways in the River Environment - Floodplains, Extreme Events, Risk, and Resilience, 2nd Edition https://www.fhwa.dot.gov/engineering/hydraulics/pubs/hif16018.pdf Section 3.4 FHWA's HEC 25: Highways in the Coastal Environment: Assessing Extreme Events: Volume 2 - 1st Edition https://www.fhwa.dot.gov/engineering/hydraulics/pubs/nhi14006/nhi14006.pdf <p><u>Hazard Mitigation - Stream Culvert & Bridge Projects</u></p> <ul style="list-style-type: none"> NH SADES stream crossing assessment data Hydraulic capacity modeling results/reports North Country Council Stream Crossings for Flood Resiliency & Ecological Health: http://www.nccouncil.org/wp-content/uploads/2019/08/NCC-Stream-Crossing-Guide_FINAL.pdf

Criterion	Evaluation Focus
Natural Hazard Risk	Is the project in a location with identified natural hazard risks?
Natural Hazard Mitigation	Will the project mitigate or eliminate the likelihood of damage from natural hazards?

Amount of mitigation/adaptation is sometimes a challenge to estimate given lack of design details in most projects

Relative Importance for Each Project Scale

Local
High

Regional
High

Inter-Regional
Moderate

Network Significance

The importance of the service or facility to the communities, region, and larger transportation system of the state.

Network Significance

NH TEN YEAR PLAN
Regional Project Review

Definition: the extent to which the project area is regionally-significant based on 1) **traffic volume**; and 2) the **importance of the facility** to the local and the regional transportation system.

REGIONAL EVALUATION CONSIDERATIONS

Traffic Volume

NEED

Vehicular volume

- What is the present-day traffic volume in or near the project area?
- How does the traffic volume in the project area compare to other traffic volumes in the region?
- Have traffic volumes increased, decreased, or stayed about the same over time?

Bicycle & pedestrian volume

- What is the measured or estimated present-day bicycle and pedestrian volume on or near the impacted facility?
- What is the relative demand for pedestrian and bicycle trips based on development density, presence/lack of current ped-bike facilities, etc.?

Facility Importance

NEED

Origins and Destinations

- Does the facility move people or goods between major locations/destinations?
- Is the project area proximate to key transportation facilities, such as airports or transit/intermodal facilities?

Network Centrality

- To what degree is the project area "central" to the local and regional transportation network?
- Would traffic increase on other areas of the transportation network if the project is not implemented (e.g., would more drivers use alternate routes)?

Alternate Routes

- What would be the increase in travel time if travelers were detoured around the project area?
- Is the proposed project located on a defined or obvious evacuation route?

POTENTIAL RESOURCES & DATA SOURCES

Resources:

Vehicular volume

- NHDOT Transportation Data Management System <https://nhdot.ms2soft.com/tcds/tsearch.asp?loc=nhdot>
- Regional Planning Commission traffic count databases

Bicycle & pedestrian volume

- Regional Planning Commission bicycle & pedestrian count databases
- Pedestrian & Bicycle Information Center; Counting & Estimating Volumes <http://www.pedbikeinfo.org/topics/countingestimating.cfm>
- Congestion Mitigation & Air Quality (CMAQ) analysis tools
- Strava data

Resources:

Origins and Destinations

- Local, regional and statewide transportation planning documents
- Priority pedestrian and bicycle transportation corridors identified in the *Statewide Pedestrian and Bicycle Transportation Plan*
- Transit system maps
- Bicycle network/route maps
- Sidewalk network maps
- Online isochrone tools

Network Centrality

- Regional Planning Commission transportation model (if available)
- RPC review of road networks
- GIS database with "Network Analyst" license/module

Alternate Routes

- Google Maps Travel Time calculator
- RPC travel time analysis (if available)
- Documentation of evacuation route designation or other connectivity-related metric in statewide, local or municipal plans

Criterion

Evaluation Focus

Traffic Volume

Based on the volume of traffic (vehicular/bike/pedestrian) at the location

Facility Importance

How critical is the location to the transportation network?

Facility Importance is nearly identical to Facility Purpose (Mobility)

Traffic Volume is usually higher on more important, and higher functional class, roadways

Relative Importance for Each Project Scale

Local

Regional

Inter-Regional

Low

Moderate

High

Safety

The degree to which the project impacts traveler safety in relation to safety performance and the project's expected safety benefits.

Safety

NH TEN YEAR PLAN
Regional Project Review

Definition: 1) a historical analysis of the **safety performance** (i.e. crash history) of a location over the past five (5) year period for all modes, and; 2) a forward-looking analysis of how the **countermeasures** proposed as part of a project would improve safety performance for all modes.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Safety Performance NEED</p> <p>Crash data considerations (past 5 years):</p> <ul style="list-style-type: none"> What is the number of passenger vehicle crashes at the location? What is the severity of passenger vehicle crashes at the location? What is the crash rate at the location? What is the number of non-motorized (pedestrian and bicycle) crashes at the location? What is the severity of non-motorized (pedestrian and bicycle) crashes at the location? What is the number of transit vehicle crashes at the location? What is the severity of transit vehicle crashes at the location? <p>Additional safety performance considerations:</p> <ul style="list-style-type: none"> Was the location identified through local, regional, or statewide network screening? Was the location the subject of a previous Road Safety Audit due to crash history? Was the project referred to the TYP from the HSIP program due to scope/cost? Were improvements implemented over the past five-year period that have changed (or could change) the safety performance of the location? <p>Federal Performance Measure: Federal Highway Administration (FHWA) Safety Performance Measures: 1) number of fatalities; 2) number of serious injuries; 3) number of non-motorized fatalities & serious injuries.</p> <p>Federal Transit Administration (FTA) Performance Measures: 1) fatalities and public transportation fatality rate per total vehicle reportable public transportation injuries and public transport miles by mode; 2) number of reportable public transportation injuries and public transportation injury rate per total vehicle revenue miles by mode; 3) number of reportable public transportation events and public transportation event rate per total vehicle revenue miles by mode; 4) mean distance between major public transportation mechanical failures by mode.</p>	<p>Resources:</p> <ul style="list-style-type: none"> Crash data State (NHDOS) Crash Database Fatality Analysis Reporting System (FARS) Database Crash Reports from Local Police Departments Crash Data from Local Transit Agencies <p>Additional safety considerations:</p> <ul style="list-style-type: none"> Network Screening Bureau of Highway Safety Crash Reports HSIP

Safety (continued)

NH TEN YEAR PLAN
Regional Project Review

Definition: 1) a historical analysis of the **safety performance** (i.e. crash history) of a location over the past five (5) year period for all modes, and; 2) a forward-looking analysis of how the **countermeasures** proposed as part of a project would improve safety performance for all modes.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Safety Measures IMPACT</p> <p>Highway and Bridge Safety Measures:</p> <ul style="list-style-type: none"> How significant/effective are the Crash Modification Factors (CMFs) for key project design elements? Has a Benefit-Cost analysis been developed as part of a Road Safety Audit or other special study? If so, how compelling is the Benefit-Cost ratio? Are Proven Safety Countermeasures (as sanctioned by the FHWA Office of Safety) included in the project's design? <p>Rail & Transit Safety Measures:</p> <ul style="list-style-type: none"> Does the project involve safety improvements to an existing at-grade Railway-Highway crossing? Does the project eliminate an existing at-grade Railway-Highway crossing? Does the project implement improvements identified in a local or statewide Public Transit Agency Safety Plan (PTASP)? <p>Pedestrian Safety Measures:</p> <ul style="list-style-type: none"> Are Safe Transportation for Every Pedestrian (STEP) countermeasures (as sanctioned by the FHWA Office of Safety) included in the project's design? How significant/effective are the pedestrian-related Crash Modification Factors (CMFs) for key project design elements? <p>Bicycle Safety Measures:</p> <ul style="list-style-type: none"> Would the project improve Bicycle Level of Traffic Stress (LTS) from a Level 3 or 4 to at least Level 2? How significant/effective are the bicycle-related Crash Modification Factors (CMFs) for key project design elements? <p>Federal Performance Measures Addressed</p> <p>Federal Highway Administration Safety Measures: 1) number of fatalities; 2) rate of fatalities; 3) number of serious injuries; 4) rate of serious injuries; 5) number of non-motorized fatalities & serious injuries.</p> <p>Federal Transit Administration Safety Measures: 1) number of reportable public transportation fatalities and public transportation fatality rate per total vehicle revenue miles by mode; 2) number of reportable public transportation injuries and public transportation injury rate per total vehicle revenue miles by mode; 3) number of reportable public transportation events and public transportation event rate per total vehicle revenue miles by mode; 4) mean distance between major public transportation mechanical failures by mode.</p>	<p>Resources:</p> <p>Highway and Bridge Safety Measures:</p> <ul style="list-style-type: none"> Crash Modification Factor Clearinghouse (www.cmfclearinghouse.org/) AASHTO Highway Safety Manual (www.highwaysafetymanual.org/) Completed or pending Road Safety Audits FHWA Proven Safety Countermeasures (www.safety.fhwa.dot.gov/provencountermeasures/) <p>Rail & Transit Safety Measures:</p> <ul style="list-style-type: none"> NHDOT Bureau of Highway Design Railway-Highway Crossing Improvement Priorities Local or Statewide Public Transit Agency Safety Plans (PTASPs) <p>Pedestrian Safety Measures:</p> <ul style="list-style-type: none"> FHWA Safe Transportation for Every Pedestrian (STEP) Countermeasures (https://safety.fhwa.dot.gov/ped_bike/step/resources/) Crash Modification Factor Clearinghouse (www.cmfclearinghouse.org/) <p>Bicycle Safety Measures:</p> <ul style="list-style-type: none"> Bicycle LTS Model Data (as developed by MPOs or as developed for rural areas in the NH Statewide Pedestrian and Bicycle Transportation Plan). Crash Modification Factor Clearinghouse (www.cmfclearinghouse.org/)

Criterion	Evaluation Focus
Safety Performance	What is the crash history at the location for the last 5 years?
Safety Measures	What are the expected safety improvements from the project?

Available state safety data is poor – getting data from local PD would be helpful

Expected safety benefits are challenging to estimate

Relative Importance for Each Project Scale

Local	Regional	Inter-Regional
High	High	High

State of Repair

The extent to which the project improves infrastructure condition in the project area and the degree to which the project impacts NHDOT and/or municipal maintenance requirements.

State of Repair

NH TEN YEAR PLAN
Regional Project Review

Definition: 1) the degree to which the project improves infrastructure condition in the project area (**state of repair**); and 2) the degree to which the project impacts NHDOT and/or municipal **maintenance**.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>State of Repair NEED</p> <ul style="list-style-type: none"> What is the condition of the infrastructure that is being addressed? For roadways, this includes pavement, sub-base, and base materials. Does the project address the underlying causes of current infrastructure conditions? 	<p>Resources:</p> <ul style="list-style-type: none"> NHDOT Pavement Condition Index (if current) SADES assessment data Geotechnical studies/reports Information requests from NHDOT offices: District Engineers, Bridge Maintenance Bureau, etc NHDOT Transportation Asset Management Plan
<p>Maintenance Considerations IMPACT</p> <ul style="list-style-type: none"> Does the project address an infrastructure issue that currently requires increased maintenance activity/costs due to poor or dangerous infrastructure conditions? Does the project propose significant new/expanded transportation assets that will add significant new/additional maintenance liabilities for NHDOT (e.g., new roadway/bridge construction)? Are there buried utilities (water, sewer, drainage) in the project area? If so, are any needed upgrades/maintenance incorporated into the overall project scope? <i>Note: buried utility improvements are typically not Ten Year Plan-eligible (funded locally).</i> 	<p>Resources:</p> <ul style="list-style-type: none"> NHDOT Pavement Condition Index (if current) SADES assessment data Geotechnical studies/reports Information requests from NHDOT offices: District Engineers, Bridge Maintenance Bureau, etc. Narrative from applicant Utility capacity/condition studies Capital Improvements Plans

Federal Performance Measures Addressed

Federal Highway Administration State of Repair Measures: 1) percentage of pavement on the Interstate System in good condition; 2) percentage of pavement on the Interstate System in poor condition; 3) percentage of pavement on the non-Interstate National Highway System (NHS) in good condition; 4) percentage of pavement on the non-Interstate National Highway System (NHS) in poor condition; 5) percentage of bridges on the National Highway System (NHS) in good condition; 6) percentage of bridges on the National Highway System (NHS) in poor condition.

Federal Transit Administration Transit Asset Management Measures: 1) percentage of rolling stock revenue vehicles meeting or exceeding their useful life benchmark; 2) percentage of non-revenue service vehicles meeting or exceeding their useful life benchmark; 3) percentage of facilities rated below 3.0 on the Transit Economic Requirements Model (TERM) scale; 4) percentage of track segments with performance restrictions.

Criterion	Evaluation Focus
Infrastructure Condition	Based on the current condition of the infrastructure being addressed (pavement/bridge condition)
Maintenance Needs	Will the project address a maintenance issue that currently requires increased resources or will it add significant new maintenance liabilities?

Relative Importance for Each Project Scale

Local	Regional	Inter-Regional
<i>Low</i>	<i>Moderate</i>	<i>High</i>

Project Support

The degree to which a project is supported by the MPO, locality, and feasibility of construction

Support
NH TEN YEAR PLAN
Regional Project Review

Definition: the degree of support for the project at the local, regional, and statewide level.

REGIONAL EVALUATION CONSIDERATIONS	POTENTIAL RESOURCES & DATA SOURCES
<p>Support NEED</p> <p><u>Local Support</u></p> <ul style="list-style-type: none"> Does the project support goal(s) of locally-adopted plan? Higher scores given to projects that are specifically defined in plans, and/or address specific plan goals/needs/issues. <p><u>Regional Support</u></p> <ul style="list-style-type: none"> Does the project support goal(s) of a regional plan? Higher scores given to projects that are specifically defined in plans, or address specific plan goals/needs/issues. <p><u>Statewide Support</u></p> <ul style="list-style-type: none"> Does the project support goal(s) of a statewide plan? Higher scores given to projects that are specifically defined in plans, or address specific plan goals/needs/issues. <p><u>Emergent Needs</u></p> <ul style="list-style-type: none"> Does the project address an emergent need(s) (<i>identified after the previous TYP project solicitation</i>) that could have significant regional impacts if not addressed? <p><u>Public Involvement</u></p> <ul style="list-style-type: none"> Has there been recent public discussion or input opportunities regarding this project? Do recent public input/discussions show support for the project? 	<p>Resources:</p> <p><u>Local Support</u></p> <ul style="list-style-type: none"> Master Plan Capital Improvements Plan Hazard Mitigation Plan Other local plan (Bike-Ped Plan, Sub-Area Plan, etc) NHDOT Road Safety Audit reports <p><u>Regional Support</u></p> <ul style="list-style-type: none"> Long Range Transportation Plan/Regional Transportation Plan Corridor Study Coordinated Public Transit and Human Services Transportation Plan Regional Plan Scenic Byway Corridor Management Plan Transit Operations Plan River Corridor Management Plan MPO Congestion Management Process Plans <p><u>Statewide Support</u></p> <ul style="list-style-type: none"> Statewide Long-Range Transportation Plan Statewide Strategic Transit Assessment Statewide Pedestrian and Bicycle Transportation Plan Strategic Highway Safety Plan Statewide Freight Plan Statewide Rail Trail Plan NHDOT Transportation Asset Management Plan <p><u>Emergent Needs</u></p> <p>Emergent issue/need is documented by one or more of the following:</p> <ul style="list-style-type: none"> Letter from NHDOT District Engineer Letters from municipal boards or committees Letters from subject-area experts Results of studies and assessments <p><u>Public Involvement</u></p> <ul style="list-style-type: none"> Minutes and meeting summaries from local board meetings and/or community outreach events Other documentation of public involvement

Criterion	Evaluation Focus
Local, Regional, and State Support	What support is there for the project at the local, state, and regional level

Last iteration considered Local Priority, Support for the Project in the LRTP, and whether the need was a “Newly Identified” priority

CRITERIA WEIGHTING PROCESS

Category	Local	Regional	Inter-Regional
Economic Development	10%	13%	12%
Equity & Accessibility	17%	16%	18%
Mobility	11%	12%	11%
Natural Hazard Resiliency	10%	8%	8%
Network Significance	14%	15%	14%
Safety	17%	16%	17%
State of Repair	13%	13%	10%
Support	8%	7%	10%
	100%	100%	100%

Category	Criterion	Proposed Weight
Economic Development	Access to Activity Centers	58%
	Freight and Goods Movement	42%
Equity & Accessibility	Expanding Transportation Choices	67%
	Removing Barriers to Access	33%
Mobility	Project Location Congestion	53%
	Effectiveness of Approach	47%
Natural Hazards Resiliency	Exposure to Risk	44%
	Risk Mitigation Strategy	56%

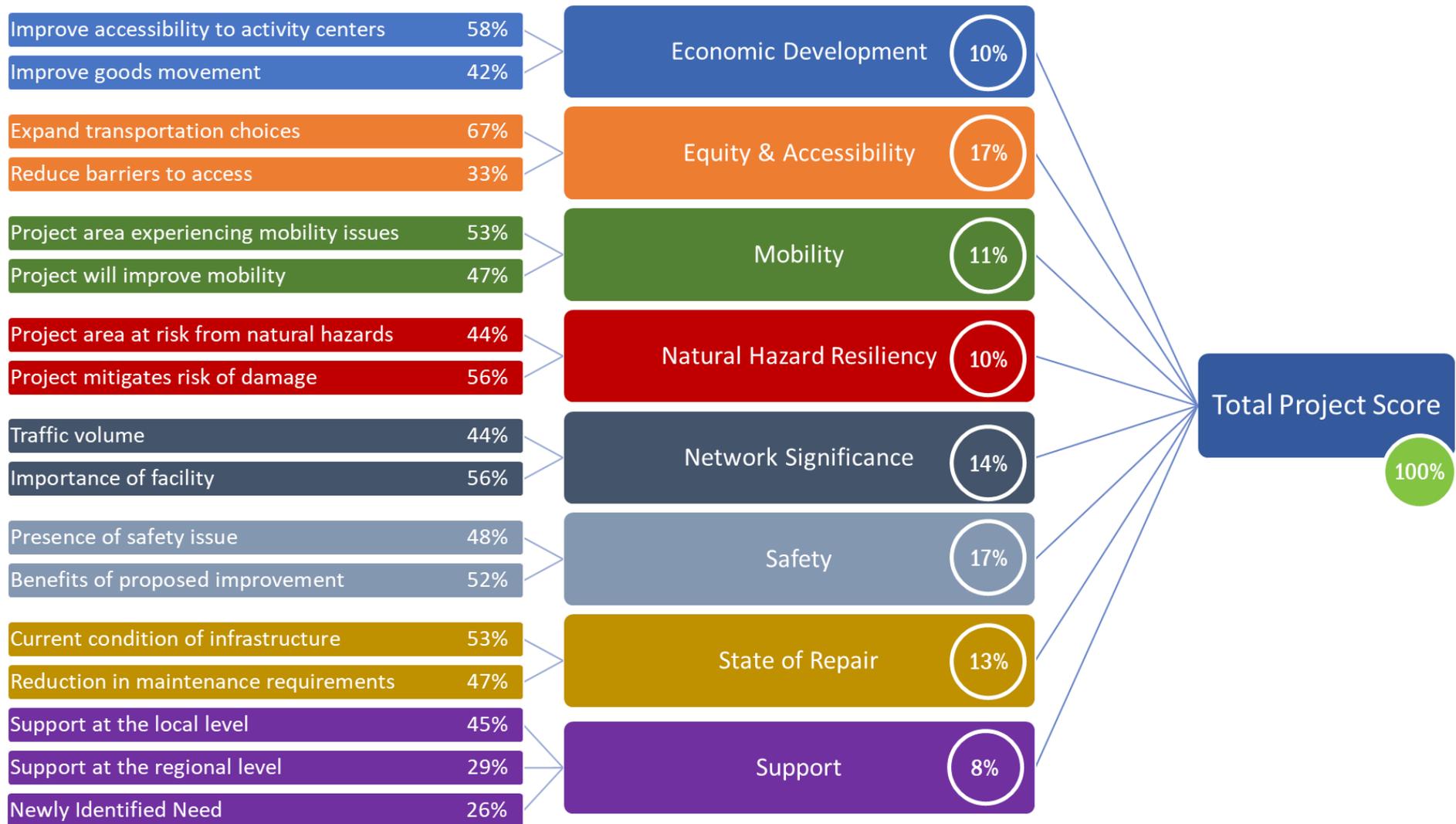
- Set Category Weights:

- Total of all Categories (Safety, Mobility, etc.) = 100%
- Criterion weights should vary by scale (local, regional, inter-regional) as different aspects are important for each
- Round numbers to whole percentages

- Set Criterion Weights

- Total within each category = 100%
- Percentages stay the same across scales

SCORING DISTRIBUTION EXAMPLE



WEIGHTING PROCESS OPTIONS

When thinking about **Regional scale projects**, what criteria are most important? Drag each category into the area that says "Your Top Priority" to start and order from most important to least. Order can be re-arranged until the confirm button is pushed.

YOUR TOP PRIORITY

Ensuring the efficient and effective operation of the most travelled roadways (Network Significance)

Improving the safety of the transportation system (Safety)

Ensuring that people, regardless of their access to a car or ability to drive, can get where they need to go via the transportation system (Accessibility & Environmental Justice)

Supporting economic development and access to activity centers (Economic Development)

Supporting community, RPC, and state planning and priorities (Support)

Reducing the impacts of exposure to natural hazards risks (Natural Hazards Resiliency)

The "**Economic Development**" category has two criteria. Please rank each in terms of importance from most to least:

YOUR TOP PRIORITY

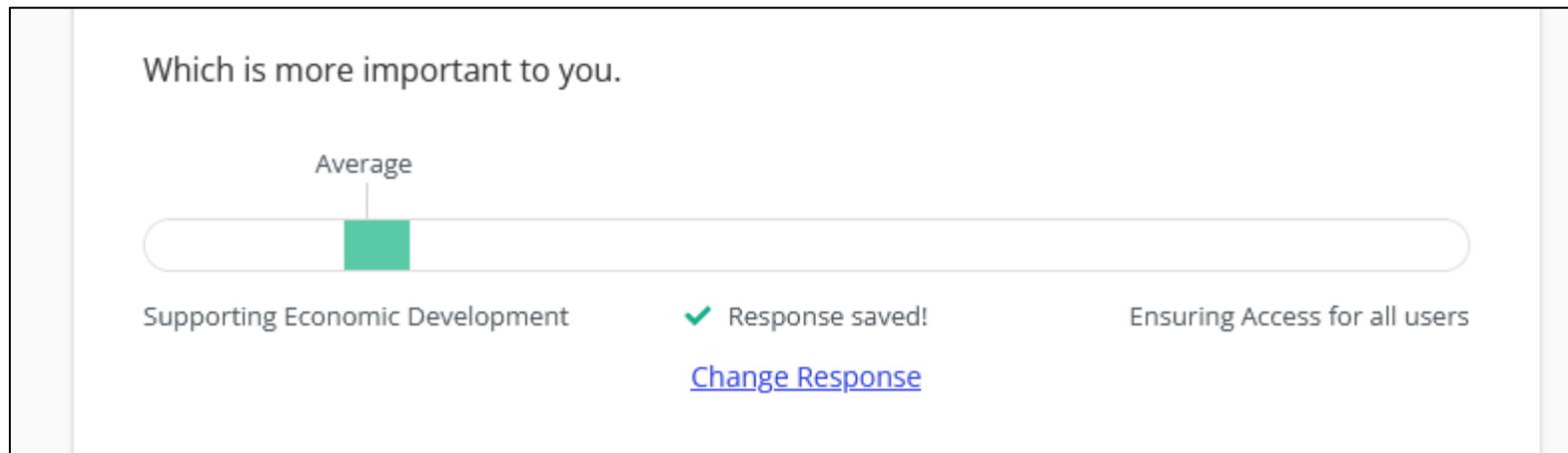
Improving Access to employment and residential hubs, tourism destinations, and other activity centers

Improving freight travel and goods movement

- TAC has set criteria weights the last two iterations of the Ten Year Plan using this methodology
- Rank Categories and Criteria by Scale
- Provides relative priority of each Category
- Provides relative priority for each criterion within the Category.

MORE DETAILED PAIR-WISE COMPARISON

- Advantage is we get a sense of how much more important one criteria is than another.
- To use this for the 8 Criteria Categories requires 28 paired questions per Scale (Local, Regional, Inter-Regional) = 84 comparison questions.
- Could be used to get a more fine-tuned weighting of the individual criterion within each category



Which is more important to you.

Average

Supporting Economic Development

Ensuring Access for all users

✓ Response saved!

[Change Response](#)

The image shows a horizontal slider interface for comparing two criteria. The slider is positioned at approximately 25% towards the left, indicating that 'Supporting Economic Development' is considered more important. A green square is placed at the end of the slider on the left side. The text 'Average' is centered above the slider. Below the slider, the two criteria are listed: 'Supporting Economic Development' on the left and 'Ensuring Access for all users' on the right. A green checkmark and the text 'Response saved!' are displayed in the center, and a blue link 'Change Response' is located below it.

SIMPLE SPREADSHEET/TABLE

- Each TAC member submits their preferred weight distribution via email
- Average weights of all submittals
- Advantage is that it provides exact priority for each submittal
- Disadvantage is that we can't standardize a response form

Category	Local	Regional	Inter-Regional
Economic Development	%	%	%
Equity & Accessibility	%	%	%
Mobility	%	%	%
Natural Hazard Resiliency	%	%	%
Network Significance	%	%	%
Safety	%	%	%
State of Repair	%	%	%
Support	%	%	%
	100%	100%	100%

SUMMARY AND ACTION

- Use TAC input to set draft Category and Criteria weights
 - If no preference, use same system as previous rounds but substitute the slider bar for the criteria within the categories
- Starting point for discussion at June TAC meeting
- Looking for feedback and general consensus on approach

When thinking about **Regional scale projects**, what criteria are most important? Drag each category into the area that says "Your Top Priority" to start and order from most important to least. Order can be re-arranged until the confirm button is pushed.

YOUR TOP PRIORITY

Ensuring the efficient and effective operation of the most travelled roadways (Network Significance)

Improving the safety of the transportation system (Safety)

Ensuring that people, regardless of their access to a car or ability to drive, can get where they need to go via the transportation system (Accessibility & Environmental Justice)

Supporting economic development and access to activity centers (Economic Development)

Supporting community, RPC, and state planning and priorities (Support)

Reducing the impacts of exposure to natural hazards risks (Natural Hazards Resiliency)

Improving travel times and reducing delay (Mobility)

Resolving current maintenance issues (State of Repair)

The **Equity, Environmental Justice, & Accessibility** category has two criteria. Which is more important to you?

slide the circle to the side with the option that is more important. The degree to which you move the circle in that direction is indicative of how much more important that option is compared to the other.



Expanding transportation choice or enhancing alternative modes, particularly for traditionally underserved populations

Removing barriers to access (implementing designs that accommodate all users)