

**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

### Safety Performance

### NEED

Crash data considerations (past 5 years):

- 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?

Additional safety performance considerations:

- 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?

## POTENTIAL RESOURCES & DATA SOURCES

### Resources:

#### Crash data

- State (NHDOS) Crash Database
- Fatality Analysis Reporting System (FARS) Database
- Crash Reports from Local Police Departments
- Crash Data from Local Transit Agencies

#### Additional safety considerations

- Completed and Pending Road Safety Audit (RSA) Reports
- HSIP Program Summaries from the NHDOT Bureau of Highway Design

### Federal Performance Measures Addressed

Federal Highway Administration (FHWA) Safety Performance 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 and serious injuries.

Federal Transit Administration (FTA) Performance 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.

**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

### Safety Measures

### IMPACT

Highway and Bridge Safety Measures:

- 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?

Rail & Transit Safety Measures:

- 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)?

Pedestrian Safety Measures:

- 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?

Bicycle Safety Measures

- 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?

## POTENTIAL RESOURCES & DATA SOURCES

### Resources:

General Guidance:

- Safe System Approach  
<https://highways.dot.gov/safety/zero-deaths>

Highway and Bridge Safety Measures:

- Crash Modification Factor Clearinghouse  
[www.cmfclearinghouse.org/](http://www.cmfclearinghouse.org/)
- AASHTO Highway Safety Manual  
[www.highwaysafetymanual.org/](http://www.highwaysafetymanual.org/)
- Completed or pending Road Safety Audits
- FHWA Proven Safety Countermeasures  
[www.safety.fhwa.dot.gov/provencountermeasures/](http://www.safety.fhwa.dot.gov/provencountermeasures/)

Rail & Transit Safety Measures:

- NHDOT Bureau of Highway Design Railway-Highway Crossing Improvement Priorities
- Local or Statewide Public Transit Agency Safety Plans (PTASPs)

Pedestrian Safety Measures:

- FHWA Safe Transportation for Every Pedestrian (STEP) Countermeasures [https://safety.fhwa.dot.gov/ped\\_bike/step/resources/](https://safety.fhwa.dot.gov/ped_bike/step/resources/)
- Crash Modification Factor Clearinghouse  
[www.cmfclearinghouse.org/](http://www.cmfclearinghouse.org/)

Bicycle Safety Measures

- 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/](http://www.cmfclearinghouse.org/)

### Federal Performance Measures Addressed

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.

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.

**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

### State of Repair

### NEED

- 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?

### Resources:

- 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*

### Maintenance Considerations

### IMPACT

- 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? *Note: buried utility improvements are typically not Ten Year Plan-eligible (funded locally).*

### Resources:

- 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.

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

## REGIONAL EVALUATION CONSIDERATIONS

### Support

### NEED

#### Local Support

- 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.

#### Regional Support

- 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.

#### Statewide Support

- 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.

#### Emergent Needs

- Does the project address an emergent need(s) (*identified after the previous TYP project solicitation*) that could have significant regional impacts if not addressed?

#### Public Involvement

- Has there been recent public discussion or input opportunities regarding this project?
- Do recent public input/discussions show support for the project?

## POTENTIAL RESOURCES & DATA SOURCES

### Resources:

#### Local Support

- Master Plan
- Capital Improvements Plan
- Hazard Mitigation Plan
- Other local plan (Bike-Ped Plan, Sub-Area Plan, etc)
- NHDOT Road Safety Audit reports

#### Regional Support

- 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

#### Statewide Support

- *NH Long-Range Transportation Plan*
- *Statewide Strategic Transit Assessment*
- *NH Pedestrian and Bicycle Plan*
- *NH Strategic Highway Safety Plan*
- *Statewide Freight Plan*
- *NH Rail Trails Plan*
- *NH Vulnerable Road Users Assessment*
- *NH State Rail Plan*
- *Transportation Asset Management Plan*

#### Emergent Needs

Emergent issue/need is documented by one or more of the following:

- Letter from NHDOT District Engineer
- Letters from municipal boards or committees
- Letters from subject-area experts
- Results of studies and assessments

#### Public Involvement

- Minutes and meeting summaries from local board meetings and/or community outreach events
- Other documentation of public involvement