



Appendix F

Project
Prioritization
Process

1. LRTP PROJECT PRIORITIZATION PROCESS

The purpose of this document is to describe the process used to prioritize projects and develop a fiscally constrained plan for the 2050 Long Range Transportation Plan (LRTP) Update. Although the LRTP addresses funding for a variety of project and program categories, only roadway and trail projects are prioritized within the LRTP. All other project categories (e.g., transit, on-street bicycle, rehabilitation, etc.) are prioritized outside of the LRTP. These other project categories are funded through a “pool” of funding as established in the Resource Allocation step. The Fiscally Constrained Plan includes the top ranked roadway and trail projects, and pools of funding for the various other project categories.

LRTP Goals

In compliance with federal requirements, the 2050 LRTP Update is a performance-based plan. The Lincoln MPO tracks a series of system-level performance measures that align with the eight LRTP goals (listed below). The project prioritization process is structured to identify those projects that will provide the greatest contributions toward meeting these eight goals. The evaluation criteria used to compare projects are directly related to the eight goals.



Maintenance: A well-maintained transportation system.



Mobility & System Reliability: An efficient, reliable, resilient, and well-connected transportation system that leverages innovation and technology for moving people and freight.



Livability & Travel Choice: A multimodal system that provides convenient and affordable travel options to support a more compact, healthy, livable urban environment.



Safety & Security: A safe and secure transportation system.



Economic Vitality: A transportation system that promotes economic vitality and sustainable growth for residents and businesses.



Environmental Sustainability: A transportation system that minimizes negative impacts on and strives to enhance the natural, cultural, and built environment.



Funding & Cost Effectiveness: Collaboration in funding transportation projects that maximize user benefits and local funding and embrace innovative funding approaches.



Access & Opportunity: A multimodal transportation system that expands access to opportunities and enhances connections for communities with limited transportation options.

Project Identification

The following process was used to identify projects to be evaluated and prioritized in the LRTP:

1. Started with previous 2050 LRTP, as amended (adopted in 2021), Lincoln Roadway Capital Projects, Rural Road Projects, and Trail Project lists.
2. Identified projects that have been completed; these projects were removed.
3. Identified projects included in the current Capital Improvement Program (CIP)/Transportation Improvement Program (TIP) and County 1 & 6 Year Plan. These committed projects are listed at the top of the Fiscally Constrained Plan.
4. Identified projects with funding obligations such as Lincoln on the Move (LOTM), highway allocation bonds or public-private partnerships. These projects are also listed at the top of the Fiscally Constrained Plan.
5. Used the travel demand model to identify areas of congestion that would not be addressed by previously identified projects. The Congestion Management Process (CMP) was applied to these congested roads to identify potential congestion mitigation. The initial recommendations were discussed with the Roadway Subcommittee for consideration of additional projects.
6. Overlaid the On-Street Bike projects and the Trail sidepath projects with the Roadway Capital Projects to identify opportunities to combine bike improvements with roadway projects. Such opportunities were presented and discussed with the Trails Subcommittee (and the POPC) for consideration. Trail and On-Street Bike projects that are expected to be constructed with Fiscally Constrained roadway projects are included in the Fiscally Constrained Plan.
7. Based on the Phase 1 public input (specifically, the comment pin map), identified locations with clusters of public comments that would not be addressed by previously identified projects. These clusters of public comment were discussed with the Roadway Subcommittee (and the POPC) for consideration of additional projects and/or project refinements.
8. The Roadway and Trail Subcommittees (and the POPC) were asked to review and refine the project lists.
 - Are there changes in the project scope that should be considered?
 - Are there additional projects to be included?

Project Scoring and Weights

The Lincoln and Lancaster County Roadway Capital Projects were evaluated and prioritized separately in recognition of the unique transportation needs and priorities in the urban versus rural context. The eight L RTP goals (plus community support) were used as the basis for the data-driven project evaluation for the urban and rural projects, as well as the trail projects. Scores for each goal area/criterion are on a 0–1 scale, with 0 being the least favorable and 1 being the most favorable. The roadway projects were evaluated through a data-driven scoring process, and the Roadway Evaluation Subcommittee was responsible for guiding the process, providing relevant data and project information, and reviewing the evaluation results. Similarly, the Trail Subcommittee oversaw the evaluation of the trail projects. The subcommittees met to discuss the scoring results and presented the recommended scores to the POPC.

The relative importance of the eight goals (plus community input) varies; therefore, weights are assigned to each goal category and corresponding evaluation criteria. Because the relative importance of the goals differs for Urban Roadway Projects, Rural Roadway Projects, and Trail Projects, separate weights are established for the three project categories.

Weights by Goal Area and Project Category (shown in Table 1) were developed using the combined input from the POPC and the Planning Commission. The project score (0–1) for each goal was multiplied by the corresponding weight, resulting in a total project score ranging from 0 to 100.

Table 1. Weights by Goal Area and Project Category

Goal/Criterion	Lincoln Roadway Projects	Lancaster County Roadway Projects	Trail Projects
Maintenance	17	16	0
Mobility & System Reliability	11	10	11
Livability & Travel Choice	12	11	18
Safety & Security	14	14	16
Economic Vitality	9	10	7
Access & Opportunity	14	15	17
Environmental Sustainability	8	8	15
Funding & Cost Effectiveness	8	9	7
Public Support	7	7	9
Total	100	100	100

Roadway Projects

The Lincoln and Lancaster County Roadway Capital Projects are evaluated and prioritized separately in recognition of the unique transportation needs and priorities in the urban versus rural context. Projects receive a score ranging from 0 to 1, with 0 being the least favorable and 1 being the most favorable. Because the urban and rural projects are evaluated separately, the scale is established separately for urban and rural projects. The eight LRTP goals plus public support are used as the basis for project evaluation for both urban and rural projects. The following sections describe the evaluation criteria and supporting data.

 Maintenance: A well-maintained transportation system	Evaluation Question: Is the project located on a road or bridge that is in poor condition and would therefore serve dual functions of rehabilitating and improving the road and/or bridge?
	Evaluation Metric: Current pavement condition index (PCI), bridge ratings
Data Sources: • LTU 2024 PCI data • Lancaster County 2026 PCI data • LTU and Lancaster County 2026 Bridge ratings	Scoring Methodology: • Projects on gravel roads receive a score of 1.0 • Projects with a bridge in poor condition receive a score of 1.0; fair condition receive a score of 0.5 • A project’s PCI rating is the weighted average of the PCIs over the length of the project • The project with the worst PCI is given a score of 1.0; all other scores are scaled proportionately. • Project receives the highest score of the three elements (gravel, bridge condition, PCI)



Mobility and System

Reliability: An efficient, reliable, resilient, and well-connected transportation system that leverages innovation and technology for moving people and freight.

Evaluation Question: Is the project located on a road that is currently congested or expected to experience congestion in the future?

Evaluation Metric: Volume to capacity ratio (V/C)

Data Sources:

- 2024, 2036, and 2050 V/C ratios from updated Lincoln MPO travel demand model.
- Available ADT counts for roadways outside of the model area

Scoring Methodology:

Weighted Average V/C =

$0.5 * (2024 \text{ V/C}) +$

$0.3 * (2036 \text{ V/C}) +$

$0.2 * (2050 \text{ V/C})$

Value of 1 is be set based on the highest value in the dataset.

Where model data is not available, applied the following assumptions:

- Brought all counts to 2024, 2036, and 2050 using an annual average growth rate of 1% per year
- For gravel roads, used a capacity of 400 vpd
- For 2 lane paved roads, used a capacity of 14,200 vpd



Livability and Travel

Choice: A multimodal system that provides convenient and affordable travel options to support a more compact, healthy, livable urban environment.

Evaluation Question: Does the project include multimodal elements? Does the project improve access to school(s)?

Evaluation Metric: Presence of StarTran route; inclusion of bicycle or pedestrian enhancements; presence of a school within ¼ mile of the project.

Data Sources:

- StarTran existing routes (assumes that StarTran will benefit from project along the route)
- Bicycle and trail project overlay
- Project description (to identify bicycle and pedestrian improvements)
- School locations (K-12, Universities)

Scoring Methodology:

- Bike facility = 0.25
- Pedestrian Facility = 0.25
- Transit route = 0.25
- School within ¼ mile = 0.25

Modal and school scores are added for a maximum score of 1.0.



Safety and Security: A safe and secure transportation system.

Evaluation Question: Will the project alleviate a known safety problem or risk?

Evaluation Metric:

Lincoln – High Injury Network (HIN), Vulnerable Road User (VRU) HIN, High Risk Network (HRN)

Lancaster County – Crash Rate, Number of Bicycle and Pedestrian Crashes, and Number of Injury and Fatal Crashes

Data Sources:

- **Lincoln:** 2026 Vision Zero Action Plan (VZAP) identified HIN, VRU HIN, and HRN
- **Lancaster County:** 2025 crash data

Scoring Methodology:

Lincoln: Three VZAP metrics are used to calculate the score. The total score is a weighted average of the three VZAP metrics (50% for HIN, 25% for VRU HIN, and 25% for HRN) for a maximum total score of 1.

HIN (Segment OR Intersection):

- Tier 1 = 1
- Tier 2 = 0.5
- Neither = 0

VRU HIN

- Tier 1 = 1
- Tier 2 = 0.5
- Neither = 0

HRN

- Highest Risk = 1
- High Risk = 0.5
- Neither = 0

Lancaster County: Each of three crash metrics within the project area is calculated and scaled. The score is the cumulative with a maximum total score of 1.

- Crash Rate (50% of score)
- Number of Bicycle and Pedestrian Crashes (25% of score)
- Number of Injury and Fatal Crashes (25% of score)



Economic Vitality:

A transportation system that promotes economic vitality and sustainable growth for residents and businesses.

Evaluation Question: Will the project improve access to and/or add value to surrounding land uses? Will the project improve travel on a designated truck route and/or the National Highway System (NHS)?

Evaluation Metric 1: Proximate to mixed use, commercial, industrial, or light industrial land uses in Future Land Use (FLU) map; NHS, primary and secondary truck routes

Data Sources:

- Future Land Use map; mixed use areas identified by Lincoln-Lancaster County Planning Department
- 2026 NHS Designations
- Lincoln 2026 truck route map

Scoring Methodology:

Surrounding Land Use

- Not proximate (within 1/8 mile) to mixed use, commercial or industrial land uses = 0
- Proximate to mixed use, commercial or industrial land uses = 0.5

Truck Route

- Not a truck route = 0
- Secondary truck route = 0.25
- Primary truck route or NHS = 0.5

Surrounding land use and truck route scores are added together for a maximum score of 1.0



Environmental

Sustainability: A transportation system that minimizes negative impacts on and strives to enhance the natural, cultural, and built environment.

Evaluation Question: Will the project impact the natural, cultural, or built environment? Will the project reduce emissions?

Evaluation Metric: Presence of red-flag environmental resources within the project area; project types that reduce emissions

Data Sources:

- Natural, cultural, and built environmental data mapping including floodplains, wetlands, native prairie, tree mass, threatened and endangered species, parks and open space, historic sites
- Project type for the emissions reduction score

Scoring Methodology:

Red-Flag Score: The number of red-flag environmental resources within the project area are counted. Value of 1 is set based on the lowest value in the dataset; all other scores are proportionate.

Emissions Reduction Score: Emissions effect scores are assigned based on project type (detailed below) to reflect the relative influence of different investments on vehicle emissions, without relying on project-level modeling

- 1.0 = Strong emissions reduction
- 0.75 = Moderate reduction
- 0.5 = Neutral
- 0.25 = Moderate increase
- 0.0 = Strong increase

Total score is the average of the red-flag score and the emissions reduction score, for a maximum total score of 1.0.

Score = 1.00 (Strong Emissions Reduction)

Projects that prioritize non-auto travel or significantly reduce vehicle dependence:

- Multimodal projects (standalone or clearly multimodal-focused corridors)
- Projects primarily designed for biking, walking, or transit use

Score = 0.75 (Moderate Emissions Reduction)

Projects that improve operations and reduce delay without adding through capacity:

- Intersection improvements (signalized or geometric)
- Roundabouts
- Intersection improvements with multimodal elements
- Intersection/operational upgrades that improve flow but do not expand capacity

Score = 0.50 (Neutral Emissions Effect)

Projects focused on preservation, rehabilitation, or system continuity:

- Reconstruction or rehabilitation (with or without multimodal)
- Pavement / paving / preservation projects
- Bridge replacement or rehabilitation
- Grade separations
- Corridor enhancements without added capacity
- Combined paving + intersection projects
- Rehabilitation with intersection improvements

Score = 0.25 (Moderate Emissions Increase)

Projects that add limited capacity but are not full corridor expansions:

- Minor widening (with or without multimodal elements)
- Widening for turn lanes or auxiliary lanes
- Center turn lane additions
- Incremental capacity additions within existing corridors

Note: Even when there is a potential bike/ped project bundling, these were still scored as 0.25 to avoid double-counting the benefit of potential bike/ped elements.

Score = 0.00 (Strong Emissions Increase)

Projects that expand roadway capacity or induce new vehicle travel:

- New road segments
- New roadway corridors
- Major widening (e.g., full corridor widening)
- Interchanges (new or expanded)
- Major capacity expansion projects

Access and Opportunity: A multimodal transportation system that expands access to opportunities and enhances connections for communities with limited transportation options.	Evaluation Question: Is the project located in an area of communities with limited transportation options and does the project address the needs identified for that area? Evaluation Metric: Community with limited transportation option mapping (older adults, youth, people with disabilities, zero vehicle households, low-income).
Data Sources: Composite map which includes US Census data (American Community Survey, 2023): older adults, youth, people with disabilities, zero vehicle households, low-income	Scoring Methodology: Composite map identifies five categories of communities with limited transportation options - Low = 0 - Low to moderate = 0.25 - Moderate = 0.5 - Moderate to high = 0.75 - High = 1.0 If the project passes through areas with different index categories, the score defaults to the highest score. If the project may have adverse impacts, the score is reduced to zero.
Funding and Cost Effectiveness: Collaboration in funding transportation projects that maximize user benefits and local funding and embrace innovative funding approaches.	Evaluation Question: How does the cost of the project compare to the benefits? Evaluation Metric: Benefit/Cost Ratio
Data Sources: LTU and Lancaster County (project costs)	Scoring Methodology: Benefits are calculated as the sum of the previous seven evaluation scores (maximum possible value of 7). That score is divided by the project cost. Value of 1.0 is set based on the highest value in the dataset; all other scores are proportionate.



Public Support

Evaluation Question: Does the project have strong community support?

Evaluation Metric: Number of “votes” in Phase 2 engagement activity

Data Sources:

- Phase 2 public engagement

Scoring Methodology:

- The number of “votes” for each project are counted. Value of 1 is set based on the highest value in the dataset; all other scores are proportionate.

Trail Projects

The eight LRTP goals plus public support are used as the basis for project evaluation for trail projects. Each evaluation criterion (linked to a goal) was scored from 0 to 1, with 0 being the least favorable and 1 being the most favorable. The following sections describe the evaluation criteria and supporting data.

	Mobility and System Reliability: An efficient, reliable, resilient, and well-connected transportation system that leverages innovation and technology for moving people and freight.	Evaluation Question: Will the project complete a gap in the trail system?	Scoring Methodology: Project overlay with existing trail network (including sidepaths and existing bicycle facilities)
Assessment			Score
Project will fully complete a gap in the trail system.			1
Project will extend the trail system.			0.67
Project will partially complete a gap in the trail system.			0.33
Project will detract from the connectivity of the trail system.			0

	Livability and Travel Choice: A multimodal system that provides convenient and affordable travel options to support a more compact, healthy, livable urban environment.	Evaluation Question: Will the project encourage the use of alternative transportation?	Scoring Methodology: Identification of school(s), StarTran route, Mobility Hub within ¼ mile or ½ mile buffer of the project; Volume of short trips from the travel demand model
Assessment			
School, StarTran Route, or Mobility Hub:			
• Within ¼ mile radius = 0.5 • Within ½ mile radius = 0.25 • Otherwise = 0			
Value of 0.5 is set based on the highest volume of short trips in the dataset; all other projects are scaled relative to the highest volume. A 1/4 mile buffer is used to capture short trips on parallel routes.			
Livability and Travel Choice score is the sum of the destination score and the short trip score			



Safety and Security:

A safe and secure transportation system.

Evaluation Question: Will the project alleviate a known safety problem?

Scoring Methodology: Focused on the trail interface with the roadway network; use Lincoln's Vision Zero Action Plan (VZAP) designations.

Assessment

Two VZAP designations are used to calculate the score. The total score is the average of the two VZAP metrics for a maximum total score of 1.

HIN (Segment OR Intersection):

- Tier 1 = 1
- Tier 2 = 0.5
- Neither = 0

VRU HIN

- Tier 1 = 1
- Tier 2 = 0.5
- Neither = 0



Economic Vitality: A transportation system that promotes economic vitality and sustainable growth for residents and businesses.

Evaluation Question: Will the project improve access to and/or add value to surrounding land uses?

Evaluation Metric: Proximate to mixed use, commercial, industrial, or light industrial land uses in Future Land Use (FLU) map

Data Sources:

- Future Land Use map; mixed use areas identified by Lincoln-Lancaster County Planning Department

Scoring Methodology:

Surrounding Land Use

- Not proximate (within 1/8 mile) to mixed use, commercial or industrial land uses = 0
- Proximate to mixed use, commercial or industrial land uses = 1.0



Environmental

Sustainability: A transportation system that minimizes negative impacts on and strives to enhance the natural, cultural, and built environment.

Evaluation Question: Will the project impact the natural, cultural, or built environment?

Evaluation Metric: Presence of red-flag environmental resources within the project area

Data Sources:

- Natural, cultural, and built environmental data mapping including floodplains, wetlands, native prairie, tree mass, threatened and endangered species, parks and open space, historic sites

Scoring Scale:

Red-Flag Score: The number of red-flag environmental resources within the project area is counted. Value of 1 is set based on the lowest value in the dataset.



Access and

Opportunity: A multimodal transportation system that expands access to opportunities and enhances connections for communities with limited transportation options.

Evaluation Question: Is the project located in an area of communities with limited transportation options and does the project address the needs identified for that area?

Evaluation Metric: Community with limited transportation option mapping (older adults, youth, people with disabilities, zero vehicle households, low-income).

Data Sources:

- Composite map which includes US Census data (American Community Survey, 2023): older adults, youth, people with disabilities, zero vehicle households, low-income

Scoring Methodology:

Composite map identifies five categories of communities with limited transportation options

- Low = 0
- Low to moderate = 0.25
- Moderate = 0.5
- Moderate to high = 0.75
- High = 1.0

If the project passes through areas with different index categories, the score defaults to the highest score.

If the project may have adverse impacts, the score is reduced to zero.

	Funding and Cost Effectiveness: Collaboration in funding transportation projects that maximize user benefits and local funding and embrace innovative funding approaches.	Evaluation Question: How does the cost of the project compare to the benefits?
		Evaluation Metric: Benefit/Cost Ratio
Data Sources: • LTU and Lancaster County (project costs)	Scoring Methodology: Benefits are calculated as the sum of the prior seven evaluation scores (maximum possible value of 7). That score is divided by the project cost. Value of 1.0 is set based on the highest value in the dataset; all other scores are proportionate.	

	Public Support	Evaluation Question: Does the project have strong community support?
		Evaluation Metric: Number of “votes” in Phase 2 engagement activity
Data Sources: • Phase 2 public engagement	Scoring Methodology: The number of “votes” for each project are counted. Value of 1 is set based on the highest value in the dataset; all other scores are proportionate.	