

DelDOT Project Prioritization Criteria

The Delaware Department of Transportation (DelDOT) began the process to enhance the prioritization process to provide greater transparency and accountability to the public for projects included in the 6-year Capital Transportation Program (CTP) and to ensure that all projects are consistent with the mission, vision and goals of the department.

There were several shortcomings with the existing prioritization process adopted in 1998. They include, but are not limited to, the inability to weight criteria and score projects in an objective manner, the inability to document the project selection process, and the inability to easily compare all projects using different underlying assumptions.

Based on the fiscal constraints that began back in 2006, DelDOT eliminated most of the pooled funds that allowed projects to move forward within a specific program. Many of the projects that were funded through those specific pools were never prioritized against the rest of the program. The enhanced prioritization process will allow those projects to be prioritized with the rest of the program.

The criteria selected for the enhanced prioritization process were based on the following documents:

- Provisions from TITLE 29 CHAPTER 84 § 8419 of the Delaware Code
- DelDOT's Mission Statement, Vision, and Goals
- DelDOT's current prioritization Process (1998)
- Delaware's Long Rang Transportation Plan
- Provisions from the latest Federal Authorization Bill - MAP-21

To develop the priority weights of each criterion, DelDOT leadership performed a comparison of each of the criteria based on how those criteria met the mission, vision and goals of the department. This process allowed the complex decision making process to be broken down into a series of paired comparisons ranking the importance of two criteria at a time. This process created a level of importance for each of the criteria based on the mission, vision and goals of the department and the percentages are found below:

- Safety – 33%
- System Operating Effectiveness – 24.8%
- Multi-Modal Mobility/Flexibility/Access – 15.6%
- Revenue Generation/Economic Development/Jobs & Commerce – 7.9%
- Impact on the Public/Social Disruption/Economic Justice – 7.2%
- Environmental Impact/Stewardship – 6.5%
- System Preservation – 5%

These weights are more fully described in the prioritization criteria towards the back of the document.

Provisions from TITLE 29 CHAPTER 84 § 8419 of the Delaware Code

The Department of Transportation, with Council approval, shall:

(2)a. Establish a formula-based process which shall be used for setting priorities on all Department transportation projects and which shall consider, but not be limited to the following: Safety, service and condition factors; social, economic and environmental factors; long range transportation plans and comprehensive land use plans; and continuity of improvement.

b. The formula based process shall not be utilized for setting priorities for dirt roads, suburban street aid projects, municipal street aid projects or system preservation projects. System preservation projects will be prioritized based upon performance measures established in the Department for pavement management, bridge management and safety management projects.

DelDOT's Mission, Vision and Goals

Mission:

To deliver Excellence in Transportation for Every Trip, Every Mode, Every Dollar, and Everyone.

Vision:

- ▶ Every Trip
 - We strive to make every trip taken in Delaware safe, reliable and convenient for people and commerce.
- ▶ Every Mode
 - We provide safe choices for travelers in Delaware to access roads, rails, buses, airways, waterways, bike trails, and walking paths.
- ▶ Every Dollar
 - We seek the best value for every dollar spent for the benefit of all.
- ▶ Everyone
 - We engage and communicate with our customers and employees openly and respectfully as we deliver our services.

Goals:

- ▶ Minimize the number of fatalities and injuries on our system
- ▶ Build and maintain a nationally recognized system benefiting travelers and commerce
- ▶ Provide every traveler with access and choices to our transportation system
- ▶ Provide every customer with the best service possible
- ▶ Minimize the environmental impact of the state's transportation system
- ▶ Achieve financial sustainability through accuracy, transparency and accountability
- ▶ Develop and maintain a place where talented and motivated employees love to work and can be national leaders in transportation

DelDOT's Current Prioritization Process (1998)

DelDOT's current prioritization process adopted by the Council back in 1998 had several factors that were considered in the enhanced prioritization process. These factors included:

Factor #1: Safety	High Accident Locations - Severity of Existing Conditions Project Scope - Extent or Comprehensiveness of Project on Safety
Factor#2: Mobility	Travel Flow - Degree to Which Traffic Travels At/Near Posted Speeds Access Management - Extent Access Management Policy Addressed
Factor #3: Transit	Location - Type of Investment Area Designation Service Level - Number & Variety of Transit and Support Amenities
Factor #4: Bike	Location - Type of Investment Area Designation Type - Type of Bikeway Improvement Access/Connections - Extent of Bike Connections
Factor #5: Pedestrian	Location - Type of Investment Area Designation Effective Length - Extent of Pedestrian Connections Access/Connections - Types of Land Uses Interconnected
Factor #6: Support for Existing Communities	Plan Consistency - State, County, MPO, Local Plans Right of Way - Existing vs. New ROW Traffic Volumes - Increase vs. Decrease of Traffic
Factor # 7: Other Community Environmental Impacts	Right of Way Category - Type of ROW Utilized Travel Patterns - Diversion of "Thru" Traffic Summary of Location & Environmental Impacts
Factor #8: Other Economic Impacts	Freight Mobility - Commercial Issues Passenger Mobility - Commuter Issues Economic Benefits - Amount & Extent of Economic Issues
Factor#9: Sustainability	Project Duration - Years Before Additional Investment Required Intermodal Support - Number of Modes Addressed by Project
Factor #10: Congestion Mitigation	Project Source - Consistent with Other Plans Intersection Level of Service - Locational ("Hot Spot") Congestion Corridor Delay - Corridor or Area-wide Congestion

DELAWARE DEPARTMENT OF TRANSPORTATION
PRIORITIZATION PROCESS - PROJECT WORKSHEET
"RATING FACTORS FOR SELECTING CIP PROJECTS"

Project Name _____ Rating Factors _____ Total Points _____ Avg Point Subtotals _____

Long Range Plan Goal #1: "Provide a Safe Transportation System Supplying Access & Mobility that Sustains or Improves 1996 Levels"

Factor #1: Safety

High Accident Locations - Severity of Existing Conditions
 Project Scope - Extent or Comprehensiveness of Project on Safety

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #2: Mobility

Travel Flow - Degree to Which Traffic Travels At/Near Posted Speeds
 Access Management - Extent Access Management Policy Addressed

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #3: Transit

Location - Type of Investment Area Designation
 Service Level - Number & Variety of Transit and Support Amenities

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #4: Bike

Location - Type of Investment Area Designation
 Type - Type of Bikeway Improvement
 Access/Connections - Extent of Bike Connections

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #5: Pedestrian

Location - Type of Investment Area Designation
 Effective Length - Extent of Pedestrian Connections
 Access/Connections - Types of Land Uses Interconnected

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Long Range Plan Goal #2: "Support the State's Economic Well-Being While Remaining Sensitive to Environmental Needs & Issues".

Factor #6: Support for Existing Communities

Plan Consistency - State, County, MPO, Local Plans
 Right of Way - Existing vs. New ROW
 Traffic Volumes - Increase vs. Decrease of Traffic

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #7: Other Community/Environmental Impacts

Right of Way Category - Type of ROW Utilized
 Travel Patterns - Diversion of "Thru" Traffic
 Summary of Location & Environmental Impacts

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #8: Other Economic Impacts

Freight Mobility - Commercial Issues
 Passenger Mobility - Commuter Issues
 Economic Benefits - Amount & Extent of Economic Issues

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Long Range Plan #3: "Achieve Efficiency in Operation and Improvements on the Transportation System."

Factor #9: Sustainability

Project Duration - Years Before Additional Investment Required
 Intermodal Support - Number of Modes Addressed by Project

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

Factor #10: Congestion Mitigation

Project Source - Consistent with Other Plans
 Intersection Level of Service - Locational ("Hot Spot") Congestion
 Corridor Delay - Corridor or Areawide Congestion

+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____
+5	+3	0	-3	-5	_____	_____

TOTAL POINTS (Goal #1 + Goal #2 + Goal #3) _____



Delaware's Long Range Transportation Plan 2010

The Statewide Long-Range Transportation plan provides a 20-year view of the principles, policies, actions and performance measures that will shape future transportation investments in the state. The full document can be found at:

http://www.deldot.gov/information/pubs_forms/delrtp/delrtp_102510.pdf

Section 1.1 Transportation Vision, Core Values and Goals

The Department identified the following six goals that provide the framework for meeting transportation needs through strategic planning, policy making, partnering, smart transportation decisions and prioritizing spending to support implementation.

1. **Economic Vitality:** Promote and strengthen the economic vitality of Delaware through transportation policies and programs.
2. **Safety:** Ensure the safe and secure movement of people and goods.
3. **Accessibility and Mobility:** Improve the accessibility and mobility of goods and all people.
4. **Environmental Stewardship:** Focus on environmental stewardship through the integration of land use and transportation, and responsible energy consumption.
5. **Multi-Modal:** Enhance multi-modal transportation by advancing transportation system integration and connectivity across all users including people and freight.
6. **Efficiency & Effectiveness:** Maximize efficient and effective transportation system management and operation through innovative strategies and techniques, as an alternative for infrastructure expansion.

Provisions from the latest Federal Authorization Bill - MAP-21

A key feature of MAP-21 is the establishment of a performance- and outcome-based program. The objective of this performance- and outcome-based program is for states to invest resources in projects that collectively will make progress toward the achievement of the national goals.

National Policy in Support of Performance Management

“Performance management will transform the Federal-aid highway program and provide a means to the most efficient investment of Federal transportation funds by refocusing on national transportation goals, increasing the accountability and transparency of the Federal-aid highway program, and improving project decision-making through ”[§1203; 23 USC 150(a)]

National Performance Goals

Establishes national performance goals for the Federal-aid highway program in seven areas:

Goal area	National goal
Safety	To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
Infrastructure condition	To maintain the highway infrastructure asset system in a state of good repair
Congestion reduction	To achieve a significant reduction in congestion on the National Highway System
System reliability	To improve the efficiency of the surface transportation system
Freight movement and economic vitality	To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
Environmental sustainability	To enhance the performance of the transportation system while protecting and enhancing the natural environment
Reduced project delivery delays	To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices

National Performance Measures

Requires the Secretary, in consultation with States, metropolitan planning organizations (MPOs), and other stakeholders, to establish performance measures in the areas listed below. Provides for DOT to establish such measures within 18 months of enactment, and prohibits DOT from establishing additional performance measures. [§1203; 23 USC 150(c)]

- Pavement condition on the Interstate System and on remainder of the National Highway System (NHS)
- Performance of the Interstate System and the remainder of the NHS
- Bridge condition on the NHS
- Fatalities and serious injuries—both number and rate per vehicle mile traveled--on all public roads
- Traffic congestion
- On-road mobile source emissions
- Freight movement on the Interstate System

More information on MAP-21 can be found at:

<http://www.fhwa.dot.gov/map21/>

Prioritization Criteria for the Enhanced Prioritization Process

Safety (33%) - *The ability of the transportation system to allow people and goods to move freely and without harm.*

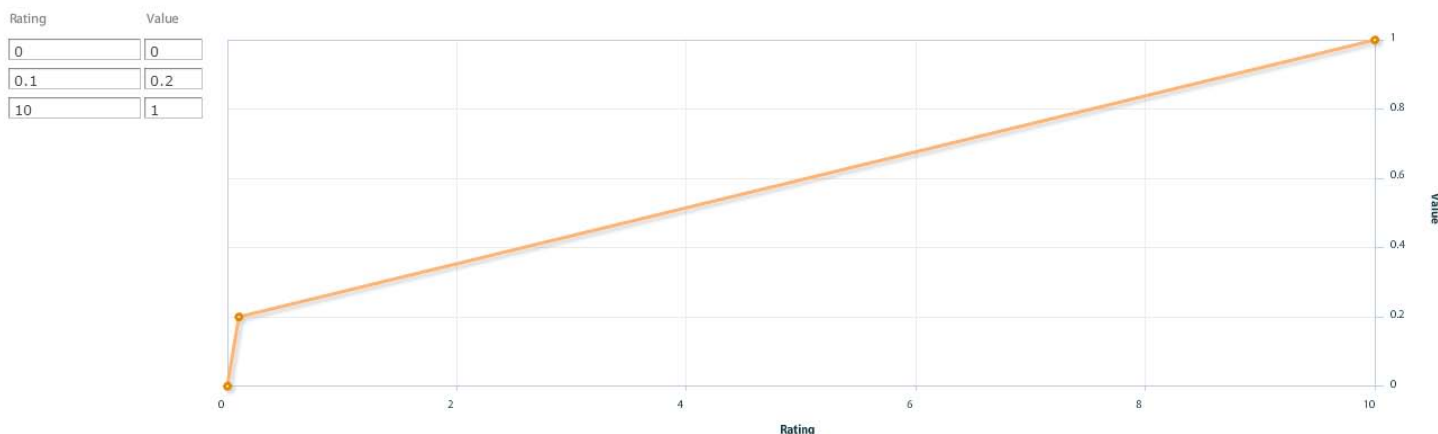
This criterion assesses the extent to which a project addresses identified safety issues and improves safety.

Identified in a Safety Program (80%)

For projects identified in the Highway Safety Improvement Program, the critical ratio is calculated by dividing the crash rate for the location by the average statewide crash rate (known as the critical crash rate) for the functional classification of the roadway. This information is provided by DelDOT's Traffic Section.

Rating Scale

The critical ratio value is entered and the score value is determined utilizing the linear scale below. If a project was not identified in the Highway Safety Improvement Program, the critical ratio value is zero.



Addresses strategies in the Strategic Highway Safety Plan (20%)

The project addresses one or more of the strategies identified in the Strategic Highway Safety Plan, which include:

- Reducing the frequency and severity of roadway departure crashes
- Improving the design and operation of highway intersections
- Making walking and street crossing safer

Rating Scale

A project either does or does not address one or more strategies in the Strategic Highway Safety Plan. This information is entered and a score value of either zero or one is assigned.



System Operating Effectiveness (24.8%) - *The ability of the transportation system to efficiently move people, goods and services without excessive delay or inconvenience.*

This criterion is used to assess the extent to which the Project meets operating objectives as described in the State Strategy and in regional or local community plans.

Existing Level of Service (50%)

The existing level of service is calculated for the intersection or nearest intersection (for a non-intersection project).

Rating Scale

The level of service is selected and the score value is determined using the table below.

Rating Name	Value	0	0.25	0.50	0.75	1
LOS F	1					
LOS E	0.8					
LOS D	0.5					
LOS C	0.25					
LOS B	0					
LOS A	0					
N/A	0					

Congestion Management (50%)

Existing congestion is identified by a project's location along a congested corridor or within a congested area.

Rating Scale

A project can be along a congested corridor, in a locally congested area, or in an area without significant congestion. These corridors are identified and adopted by WILMAPCO and Dover/Kent MPO. WILMAPCO provides the information on a statewide level. The appropriate designation is selected and the score value is determined using the table below.

Rating Name	Value	0	0.25	0.50	0.75	1
Congestion Corridor	1					
Locally Congested Area	0.75					
No Significant Congesti	0					

Multi-Modal Mobility/Flexibility/Access (15.6%) - *The ability of a project to provide efficient movement of people and goods between destinations by motor vehicle, pedestrian, bicycle and transit modes (including land side access to airports and marine terminals.)*

This criterion is used to assess the extent to which the Project addresses transportation choices and allows additional connectivity to the existing system.

Rating Scale

A project is evaluated to determine whether it will:

- *Create a significant improvement by positively impacting multiple groups or locations*
- *Create a moderate improvement by positively impacting a single user group or location*
- *Neither improve nor degrade the existing access and mobility within the project limits*
- *Negatively impact the transportation choices or access/connectivity*



Revenue Generation/Economic Development/Jobs & Commerce (7.9%) - *The ability of a project to facilitate or support business development and employment.*

This criterion is used to assess the extent to which the Project has the potential to generate revenue or will support economic development and benefit commerce.

Identified in a Transportation Improvement District (TID) (33%)

A TID is a geographic area identified in a local jurisdictions comprehensive plan where growth is planned and there is a desire for a comprehensive approach to adequate facilities. These are areas where the State has partnered with the local jurisdictions to provide the necessary infrastructure to keep pace with the development within the TID

Rating Scale

A project is either in or not in a Transportation Improvement District. This information is entered and a score value of either zero or one is assigned

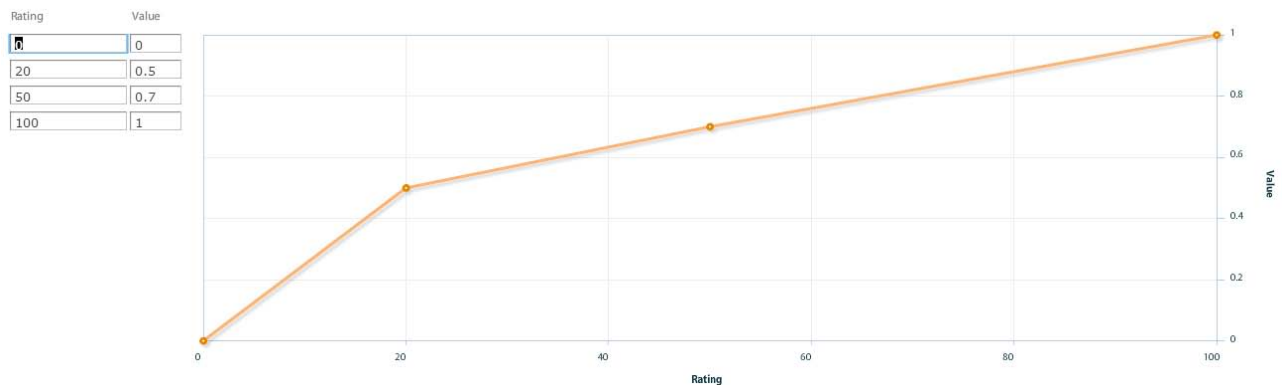


Cost-sharing Support (33%)

This criterion supports the active development that has been approved by the local land use agencies. Projects are identified that will support the proposed development and where there is a cost sharing percentage identified as part of the approval.

Rating Scale

The percentage of private contributions to a project is entered and the score value is determined utilizing the linear scale below. If a project does not have any outside funding source then the value is zero.



Freight Corridor (33%)

The Freight Plan has identified primary and secondary freight corridors throughout the state. It is critical that these corridors allow the efficient movement of goods and services so that Delaware can remain competitive in attracting business to the State

Rating Scale

The project is evaluated to determine if it resides on either a primary or secondary freight corridor. If it is not located on a freight corridor then it receives a value of zero.



Impact on the Public/Social Disruption/Economic Justice (7.2%) - The assessment of the project on the transportation system as it relates to existing communities and population centers.

This criterion will assess the extent to which the project supports investment in existing communities and provides community enhancements such as sidewalks, safe routes to school, etc.

Rating Scale

The project provides a positive impact if it provides improvements in access/mobility OR physical environment of community. A project is detrimental if there is an adverse impact on access/mobility OR physical environment of community



Environmental Impact/Stewardship (6.5%) - The effect of the transportation system on energy use and the natural environment.

This criterion is used to assess the extent to which the Project mitigates the threat or damage to the environment, including Air Quality.

Rating Scale

The project is considered to have a positive impact if it completely resolves existing outstanding environmental impact or issue that was not created by the current transportation project. The project is considered to have a minor negative impact if the project creates minor environmental impact that are resolved as part of the project. A major negative impact is selected if the project creates a major environmental impact.



System Preservation (5%) - Fix it first / State of Good Repair addresses the improvement of the physical condition of existing transportation assets.

This criterion will assess the extent to which a project contributes towards system preservation and is identified through an existing preservation program. (Note: Improvements/Impacts are identified through State data)

Rating Scale

The project is evaluated to determine if it addresses issues identified under a system preservation program. If the project does not address any issues then it receives a value of zero.

