MaineDOT Highway Safety Update

MMTA/APTA TRANSPORTATION SAFETY CONFERENCE

9/29/2025

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Maine's State-Jurisdiction Highway Network

- Maine has approximately
  - 8,800 miles of state-jurisdiction highways
  - 2,800+ state-jurisdiction bridges and minor spans.

- This network is the largest and most heavily used component of Maine's transportation system; it represents nearly 40 percent of all road miles in Maine but carries almost 90 percent of the total vehicle-miles traveled in our state.

MaineDOT Planned Capital Expenditures

- Maine's latest 3-year Work Plan invests more than **$2.7 billion** in these highways and bridges. Most of that amount is for capital investments. Those investments include:
  - 242 bridge construction and 95 bridge engineering projects – $998 million.
  - 157 miles of highway construction and rehabilitation – $667 million.
  - 255 highway safety and spot improvements – $216 million.
  - 1,210 miles of preservation paving – $632 million.
  - 2,100 miles of Light Capital Paving (LCP) – $120 million.

MaineDOT Highway and Bridge Annual Maintenance & Operations Costs

- Winter maintenance - $51.0 million.
- Drainage maintenance - $28.6 million.
- Custodial maintenance - $19.1 million.
- Bridge and other infrastructure inspections - $14.8 million.
- Surface and base maintenance - $12 million.
- Bridge and structural maintenance - $12.2 million.
- Operational and safety maintenance – $7 million.

MaineDOT Programs and Initiatives

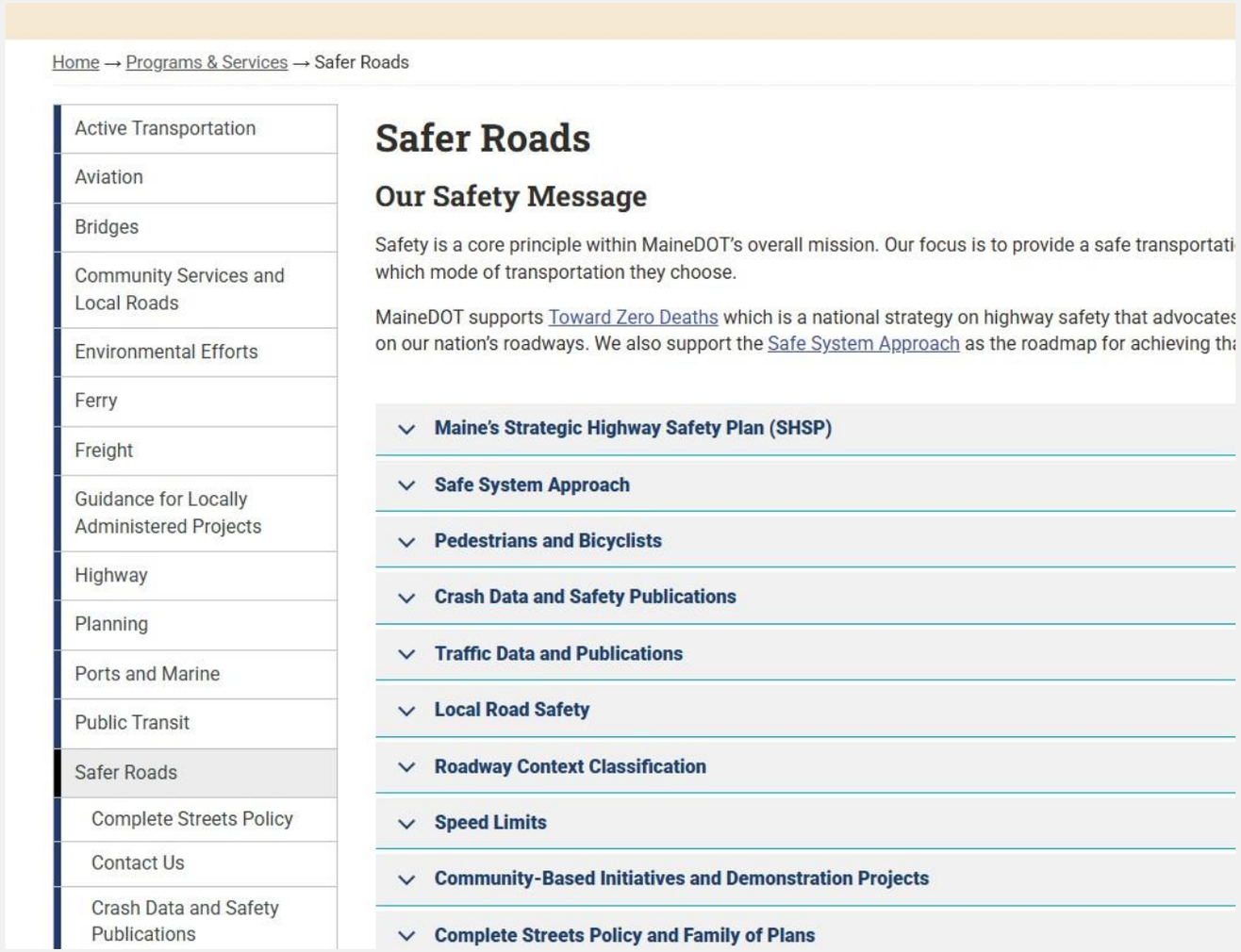
- Weigh In Motion (WIM) Stations
- Village Partnership Initiative (VPI)
- Active Transportation
- Bridge Condition
- Publicizing Major Construction
  - Virtual Public Involvement
  - New England 511

MaineDOT's New Safer Roads Web Page

Safer Roads

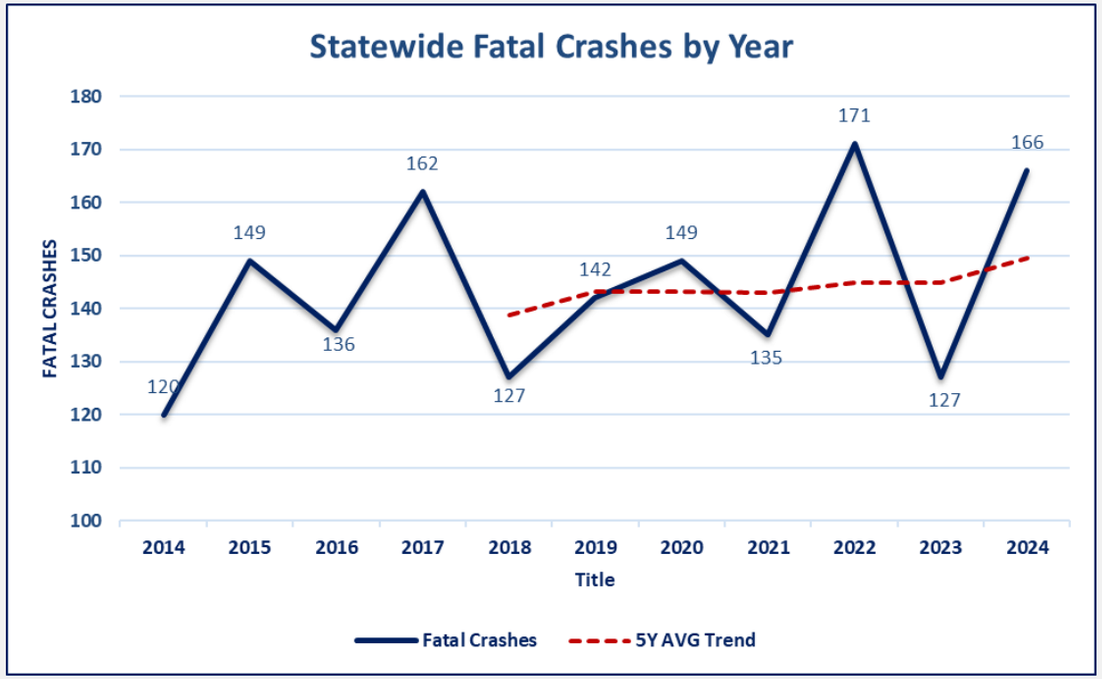
Easily accessible through the front page of MaineDOT's site via the link below the graphic shown

https://www.maine.gov/dot/programs-services/safety-and-mobility

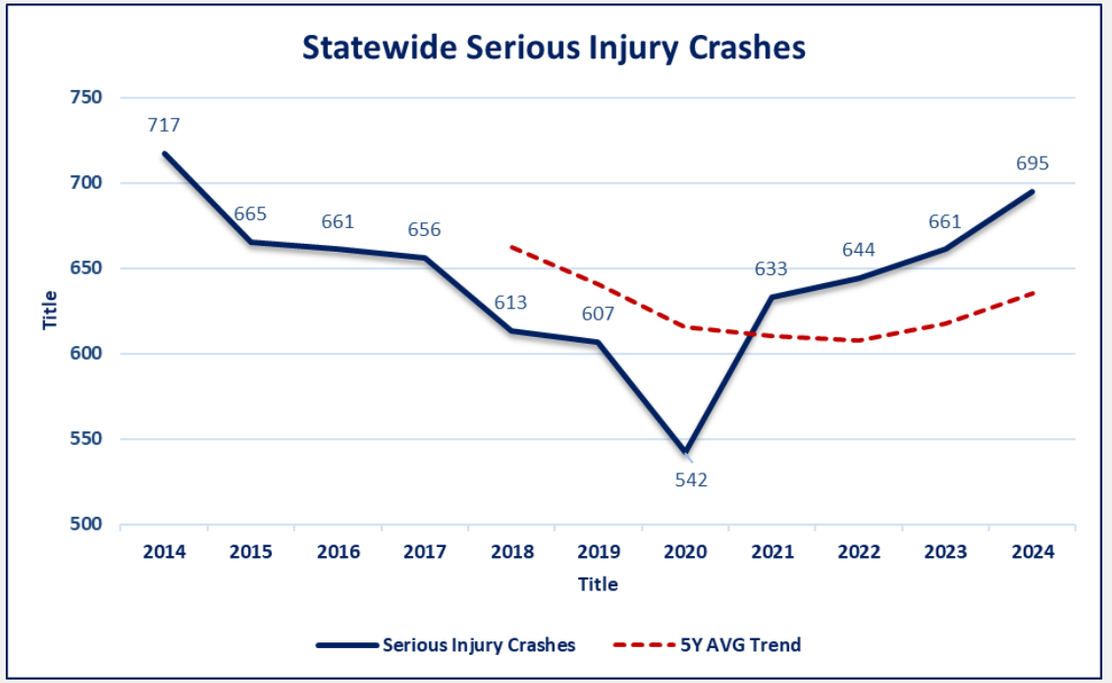


Statewide Fatal & Serious Injury Crashes

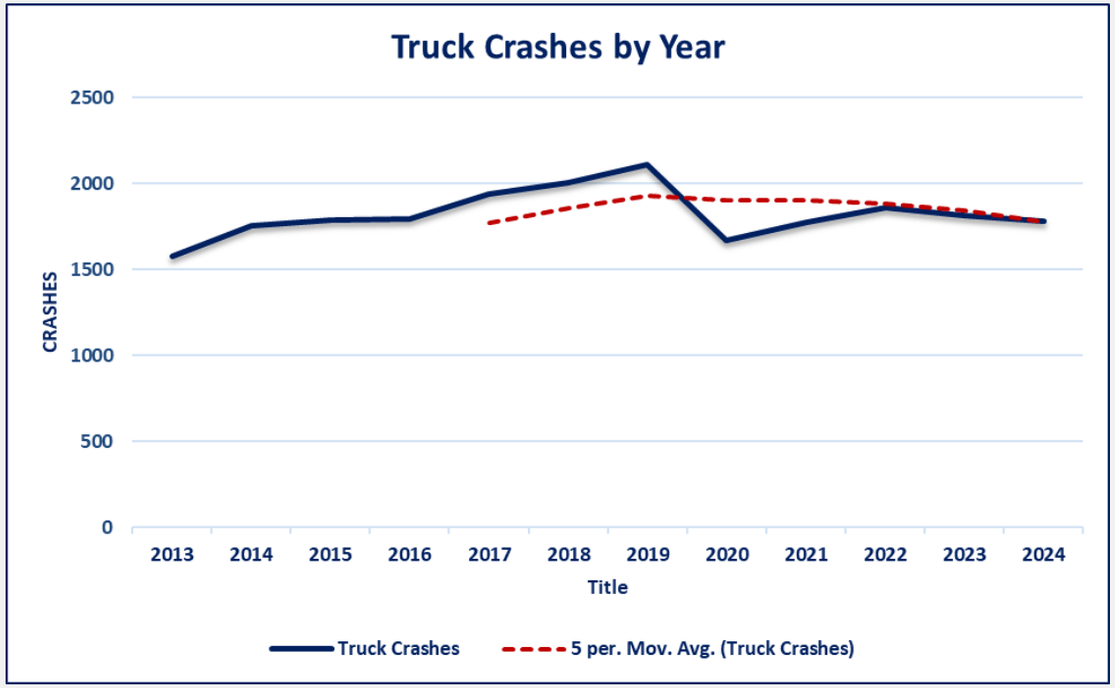
Fatal Crashes

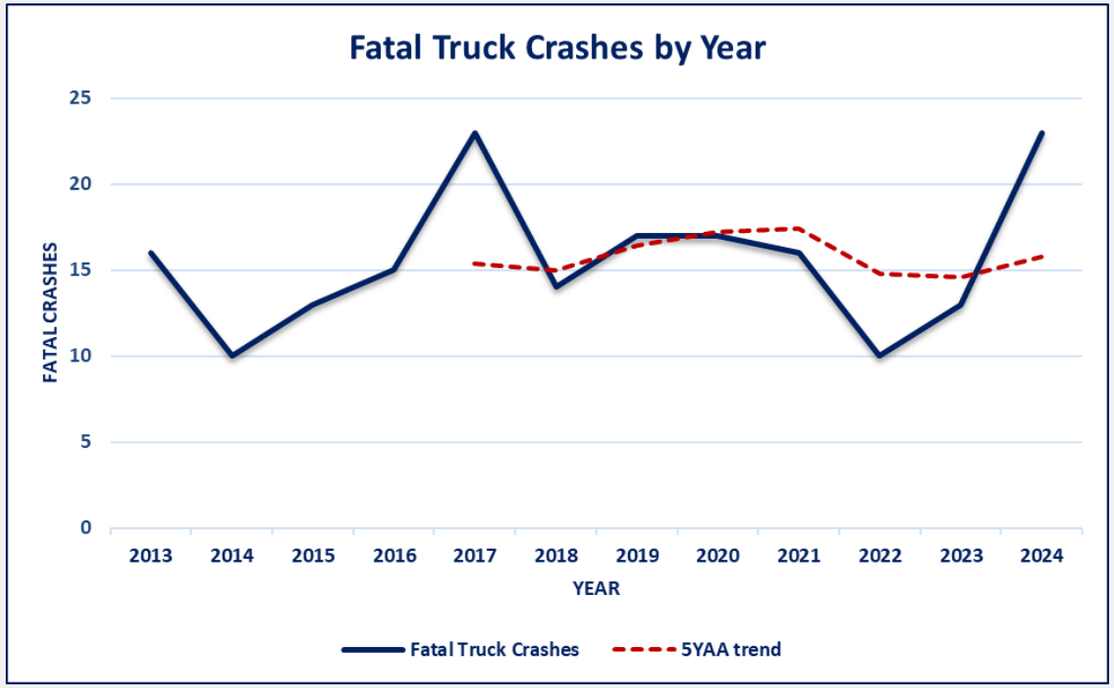


Serious Injury Crashes



Statewide Truck Crash Trends



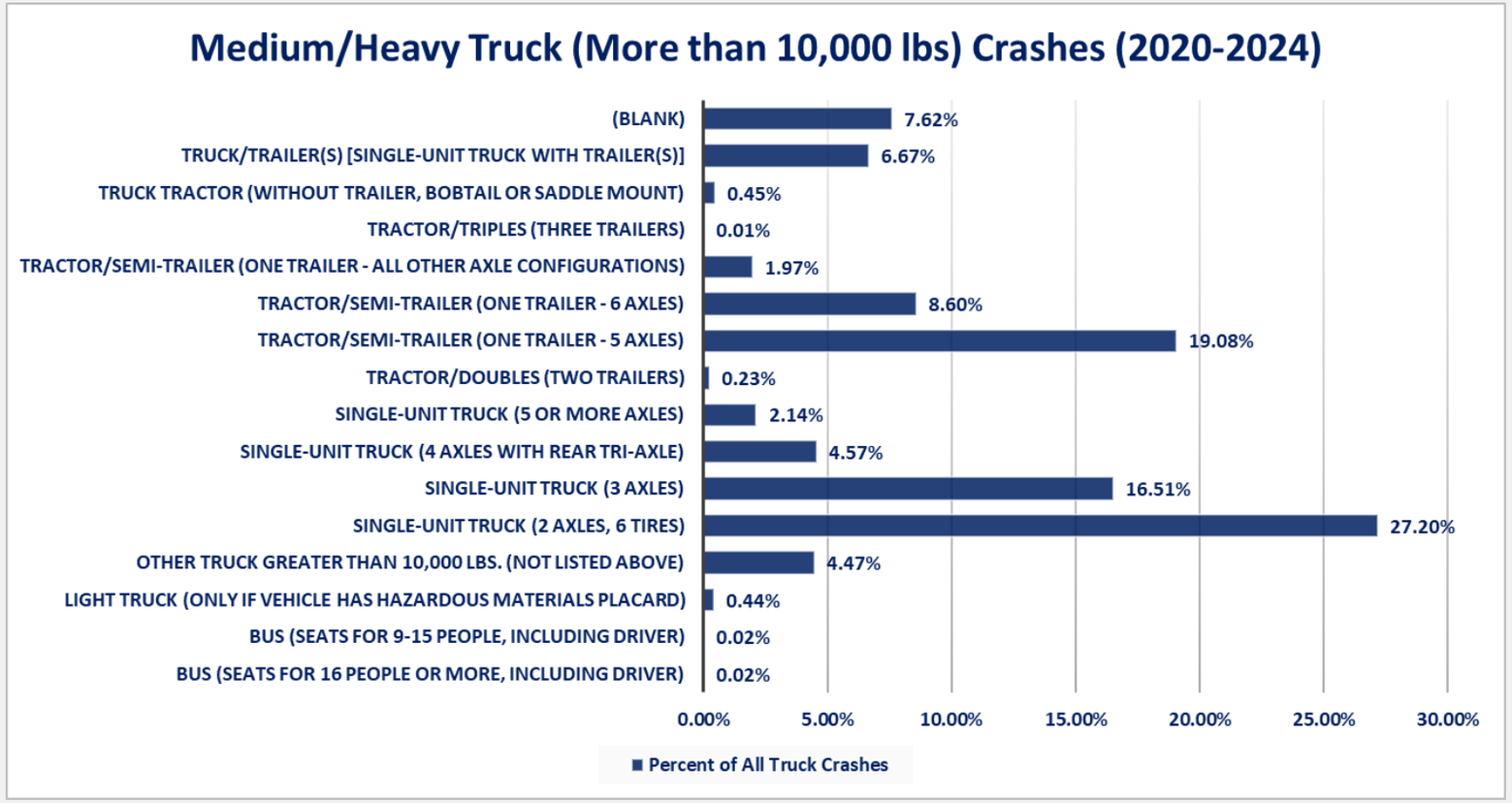


Maine overall truck crashes are trending lower, but fatal truck crashes are trending higher. This matches Maine's overall fatal crash trend which is also trending higher.

Maine Heavy Truck Crashes (2020-2024)

29.7% Involved Tractor/Semi-Trailers

48.3% Involved Single-Unit Trucks



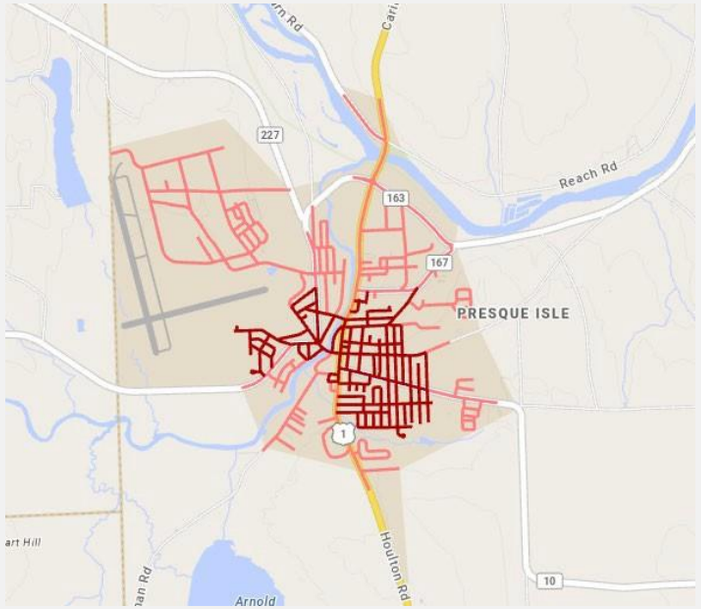
MaineDOT Safety Initiatives

- Roadway Context Classification
- Speed Limit Setting Policy
- Highway Corridor Safety Reviews/Plans
- Safety Countermeasures

Roadway Context Classification

Roadway Context Classification

- In 2024, MaineDOT established a Roadway Context Classification System that identifies the current context of a roadway based on many factors, including the density and nature of the built environment around the road.
- Transportation decision-making based on context is one tool MaineDOT uses to link Safe Speeds and Complete Streets in our effort to provide a safer transportation system.



Roadway Context Examples

FIGURE 1: MAINE RURAL CONTEXT EXAMPLE IMAGE IN WALDOBORO, ME (GOOGLE EARTH, 2023)

FIGURE 2: MAINE VILLAGE CONTEXT EXAMPLE IMAGE IN DAMARISCOTTA, ME (GOOGLE EARTH, 2023)

FIGURE 3: MAINE RURAL VILLAGE CONTEXT EXAMPLE IMAGE IN MONSON, ME (GOOGLE MAPS, 2023)

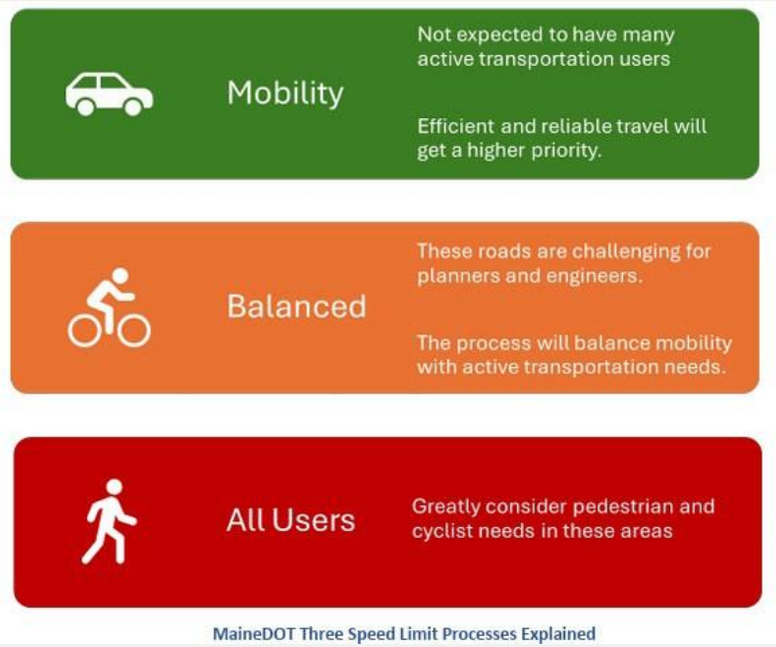
FIGURE 4: MAINE COMMERCIAL/SUBURBAN CONTEXT EXAMPLE IMAGE IN AUGUSTA, ME (GOOGLE MAPS, 2023)

FIGURE 5: MAINE URBAN CONTEXT EXAMPLE IMAGE IN BANGOR, ME (GOOGLE EARTH, 2023)

New Speed Limit Setting Process

MaineDOT Speed Limit Setting Process

MaineDOT new speed limit methodology is variable, with three processes that consider different factors to appropriately weigh the needs of road users.



MaineDOT Three Speed Limit Processes Explained

Speed Limit Setting Processes

Type/Context	Rural	Rural Town	Village	Suburban	Urban
Principal Arterial	Mobility	Balanced	All Users	Balanced	All Users
Minor Arterial	Mobility	Balanced	All Users	Balanced	All Users
Major Collector	Mobility	Balanced	All Users	Balanced	All Users
Minor Collector	Mobility	All Users	All Users	All Users	All Users
Local	Mobility	All Users	All Users	All Users	All Users

Speed Limit Maximums by Expanded Functional Classification (MPH)

Type/Context	Rural	Rural Town	Village	Suburban	Urban
Principal Arterial	55	40	30	45	30
Minor Arterial	55	40	30	45	30
Major Collector	55	35	30	40	30
Minor Collector	50	35	30	35	30
Local	45	30	25	30	25

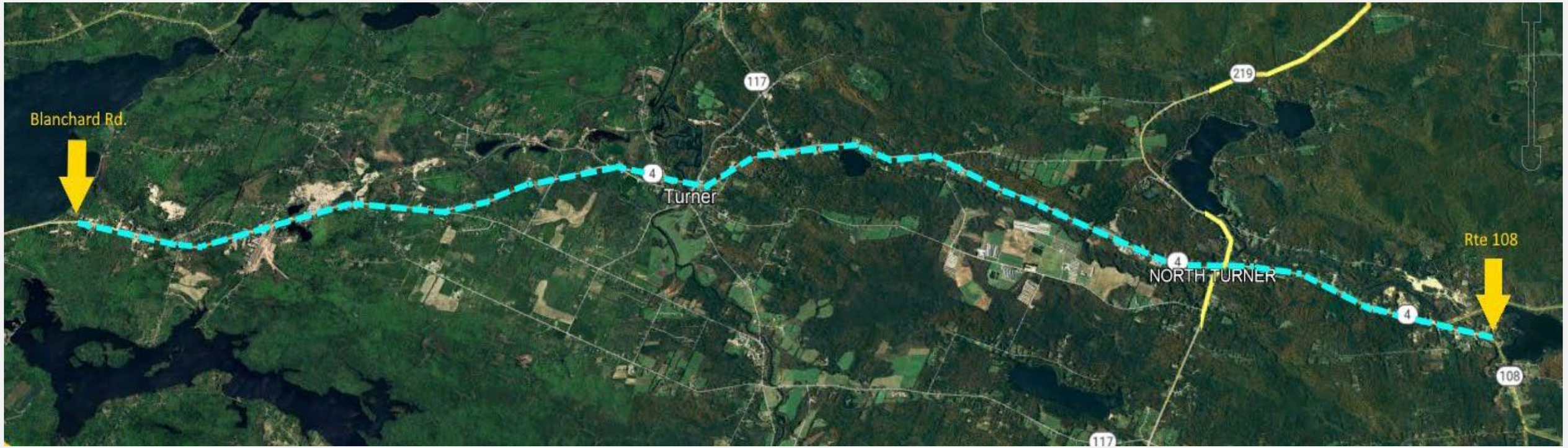
Other Factors That May Impact Posted Speed

MaineDOT's speed limit setting methodology	The new posted speed limit may be impacted by the
• Observed speed data • Crash history • Segment length • Traffic volumes • Number of lanes • Median presence • Density of driveways/access points • Level of pedestrian activity • Presence of pedestrian destinations	• Lane, shoulder, and pavement width • Clear zone width • Frequency of sharp vertical curves • Terrain type • Horizontal alignment type • Frequency of sharp horizontal curves • Number of traffic signals • Presence of all-way stops or roundabouts • Pedestrian and bicycle facility presence, width, and separation • Level of bicycle activity • Crosswalk presence • On-street parking presence, type, and activity

Highway Corridor Safety Reviews/Plans

Route 4 Corridor Highway Safety Plan

Auburn - Turner-Livermore



DRIVING TOWARD ZERO DEATHS
MAINE

ZERO IS OUR GOAL
A SAFE SYSTEM IS HOW WE GET THERE

April 14, 2025

MaineDOT Office of Safety and Mobility

Additional Corridors Being Studied

- US 1 - Wiscasset
- US 1A – Brewer to Ellsworth
- Route 3 – Ellsworth to Bar Harbor/Mt. Desert Town Line
- Route 11 – Sherman to Fort Kent
- Route 144 - Wiscasset
- Route 161- Caribou to Fort Kent
- Route 202 – Gray to Auburn

Safety Countermeasures

Center and Edge Line Rumble Strips

- MaineDOT has installed centerline rumble strips on nearly 1000 miles of the state highway network with posted speed limits of 45 mph or greater.
- Sinusoidal rumble strips reduce noise to abutting properties compared to the older rectangular style.
- Centerline rumble strips have resulted in around a 40% reduction in head-on crashes and 70% reduction in fatalities resulting from those crashes.

Centerline Buffer Areas

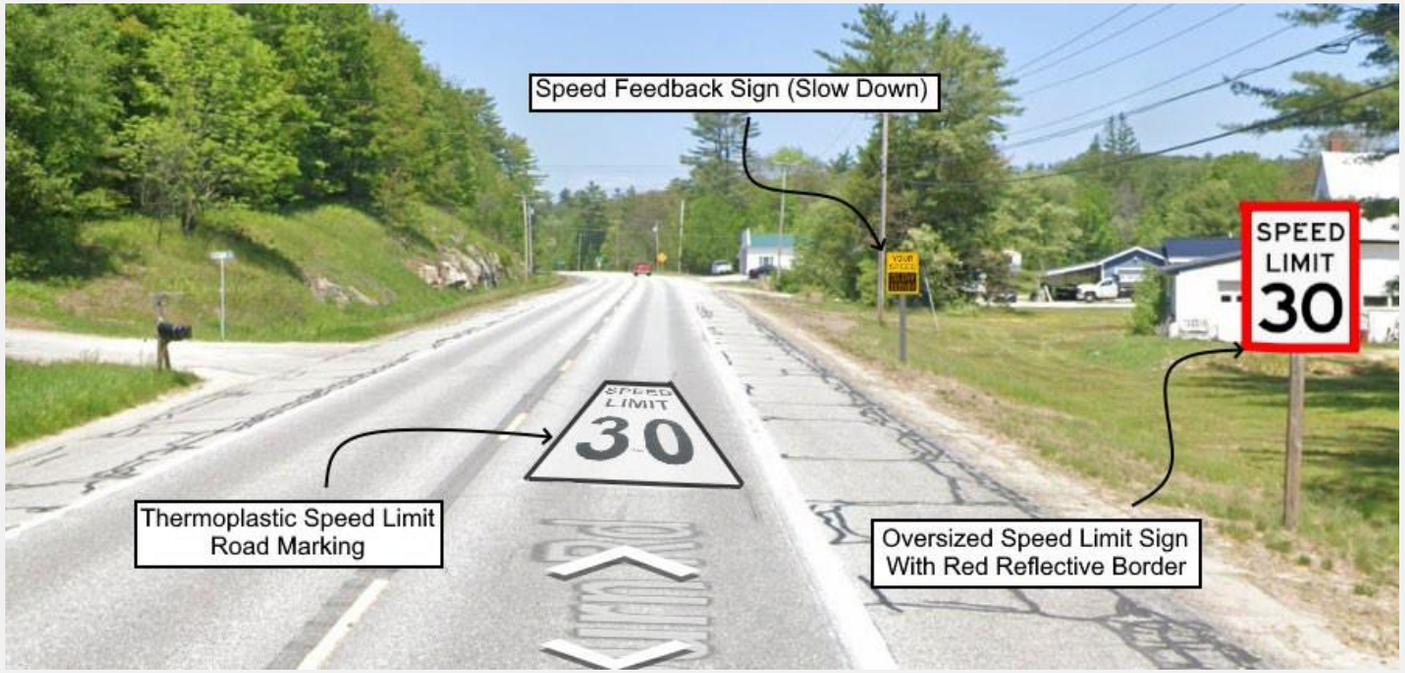
- Recent research shows that a 2-foot buffer area reduced opposite direction crashes by 35% (NCHRP Research Report 995) (Wider is even more effective.)
- Rumble Strips offer even greater crash reductions

Route 9 Connector - Brewer


NH Route 101

Enhanced Speed Zone Transitions

- Highlight Locations Where Speed Limits Transition from Higher to Lower Speeds
- Actual components installed will depend on the context where the speed zone transition is located



Village Gateway Example

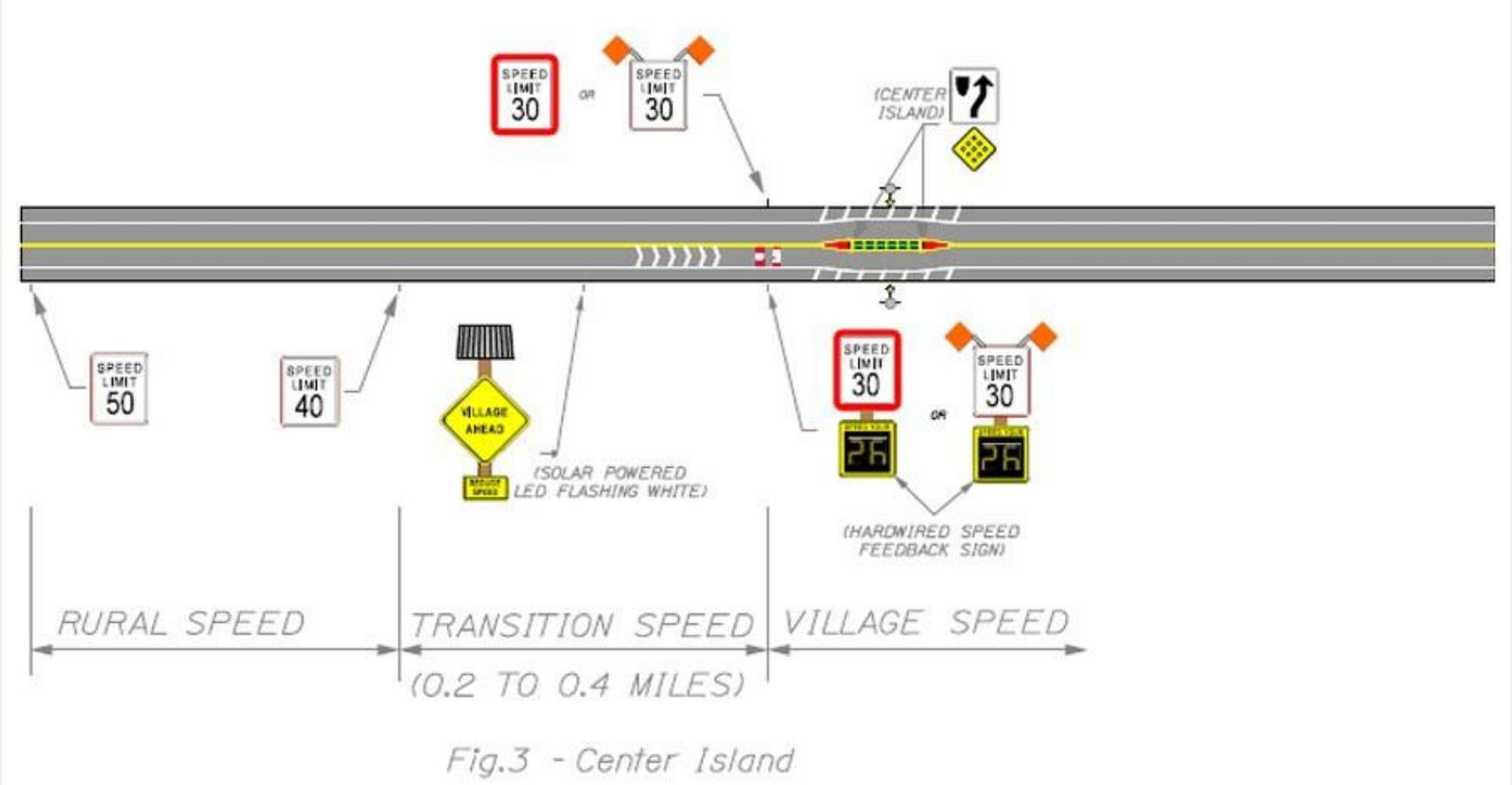


Fig.3 - Center Island

Village gateway components are intended to “calm” traffic or reduce speeds as drivers transition from higher speed rural roadway environments to a rural village context. A combination of these traffic calming measures can be used to inform drivers and reinforce the changing environment

Facts About Maine All Way Stop Conversions

- Crash Reduction = **53%**
- Injury Crash Reduction = **74%**
- Crash Cost Reduction = **92%**

Facts About Maine Roundabouts

- Crash Reduction = **48%**
- Injury Crash Reduction = **69%**
- Crash Cost Reduction = **70%**

Questions?