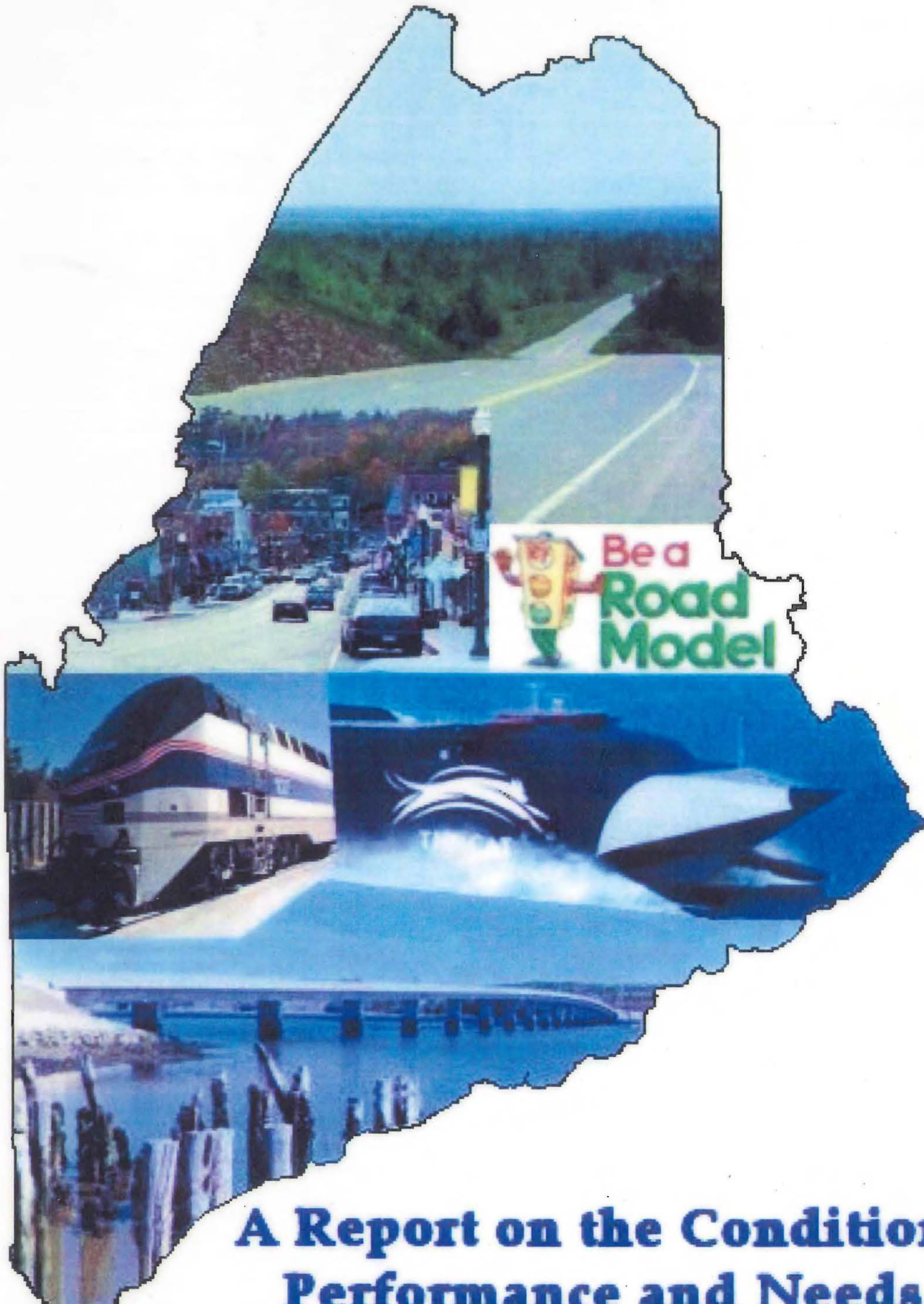
State of the System



A Report on the Condition, Performance and Needs of Maine's Transportation System

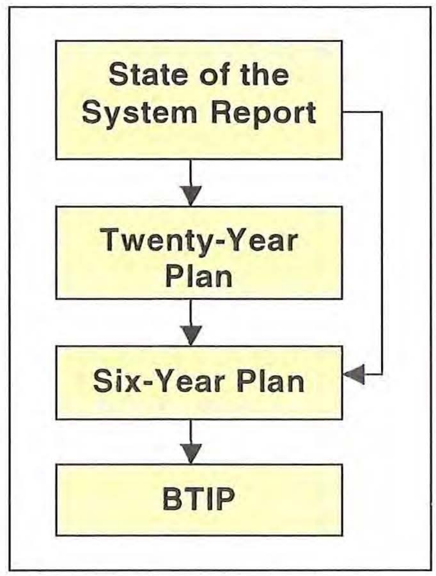
Contents

Soldier Pond, Wallagrass

State of the System Report prepared by MaineDOT Systems Management Division, November, 2002

1.0 Introduction

This is the first *State of the System Report*. Its purpose is to objectively assess the condition, report on the uses, and identify the present and future needs of Maine's transportation system. This report is a precursor to MaineDOT's Twenty-Year Transportation Plan and it provides data-supported historical trends and future predictions essential for long term planning. The Executive Summary found in Section Two summarizes the key findings. Section Three details the condition of the State's highway and bridge assets and the modal assets owned or supported by MaineDOT. Section Four examines the transportation system's performance. Section Five looks at different funding scenarios and related implications. In short, the *State of the System Report* is a tool for strategic transportation planning and analysis of the State Transportation System and the physical infrastructure that supports the movement of Maine's people and goods.



The Twenty-Year Transportation Plan, updated every three years, expresses MaineDOT's mission, policies and the long-term goals that guide the Department's allocation of resources. MaineDOT formulates the Twenty-Year Plan on the basis of the condition and performance of the system and on information obtained from the public, municipal officials, the Regional Transportation Advisory Committees (RTACs), Metropolitan Planning Organizations (MPO's) Regional Planning Commissions (RPCs) and the Legislature.

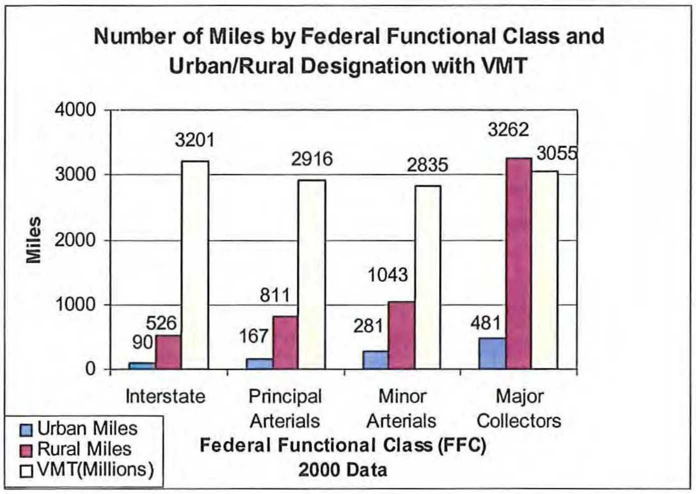
The Six-Year Transportation Improvement Plan (Six-Year Plan), updated every two years, links the goal-oriented Twenty-Year Plan to the Department's project-based Biennial Transportation Improvement Program (BTIP). Unlike the Twenty-Year Plan, the Six-Year Plan includes specific projects. Projects and initiatives included in the Six-Year Plan provide a snapshot of the State's most pressing transportation needs. As funding permits, these needs will be addressed in order of priority within the subsequent three BTIPs. Municipalities, Maine Indian Nations and County Commissioners for unorganized territories request specific projects for inclusion in the Six-Year Plan. RTACs also provide input into the prioritization framework of the Six-Year Plan.

The Biennial Transportation Improvement Program (BTIP), updated every two years, identifies the funding necessary to address the next two years of capital improvements associated with all modes of transportation and advance the federal and state goals outlined in the Twenty-Year Plan and Six-Year Plan. BTIPs provide details of specific projects based on needs established in the Six-Year Plan and anticipated funding levels in a two year cycle. A draft of the BTIP is presented to the Legislature for funding approval as part of the department's budget request; final approval of any bond funding rests with Maine voters through referendum.

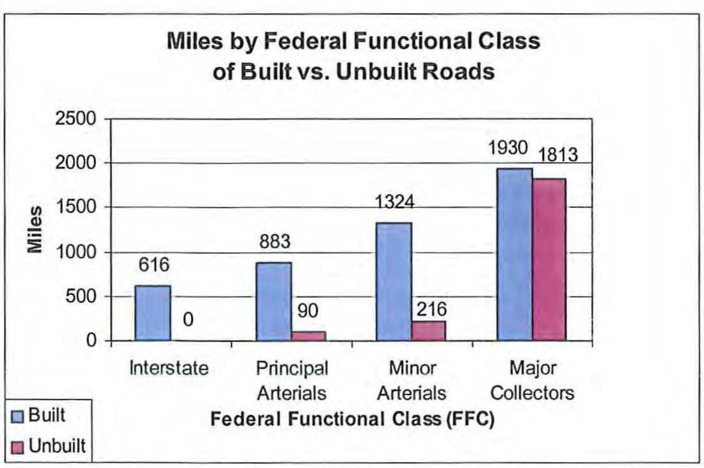
Highway: Assets and Condition

Assets

There are 22,700 miles of public roads in the State of Maine. Of that mileage, more than 8,300 miles are state responsibility. The majority of traffic is carried on these roads. The following graphic shows the miles of road in the state by Federal Functional Class (FFC) with Vechicle Miles Traveled (VMT).

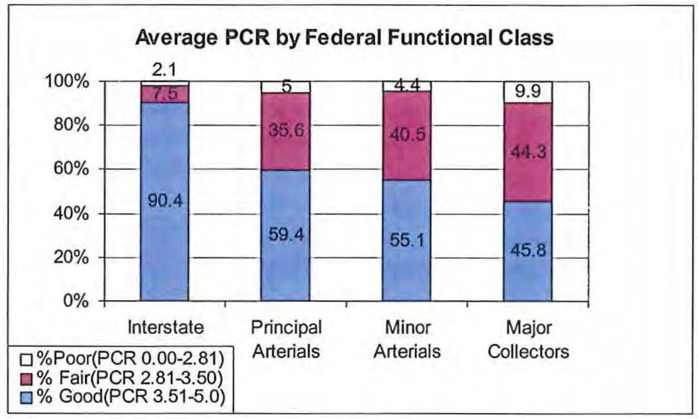


Maine's highways can be split into two distinct categories: built and unbuilt. A built road is defined as one that has been constructed to a modern standard, usually post-1950. This includes adequate drainage, base and pavement to carry the traffic load with adequate sight distance and width to meet current safety standards. Unbuilt roads (backlog) are defined as roadway sections that do not meet one or more of the characteristics of a modern highway.

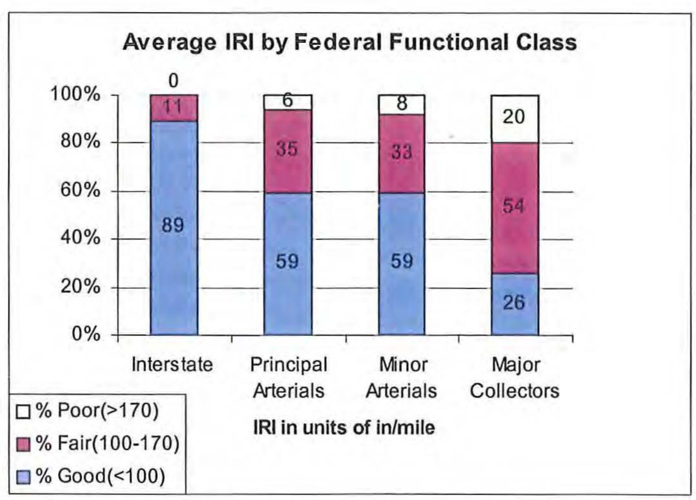


Condition

Pavement Condition Rating (PCR) is defined as the composite condition of the pavement on a roadway. The PCR is compiled from the severity and extent of pavement distresses such as cracking, rutting, and ride quality. The rating system uses a scale of 5.00 (perfect) to 0.00 (fully deteriorated). The PCR is the condition of the pavement only, not necessarily a reflection of the condition of the roadway base structure.



Ride quality is a key indicator of customer satisfaction. Ride quality is expressed in terms of International Roughness Index (IRI) and is measured in inches per mile. IRI is a measurement of the inches of vertical displacement experienced by a vehicle in a mile of roadway. The lower the IRI, the smoother the ride will be. The average IRI on Maine's roads is less than 170 in/mile, and is considered "acceptable" by the Federal Highway Administration. The range of IRI on Maine's roads is a low of 47 in/mile to a high of 330 in/mile.

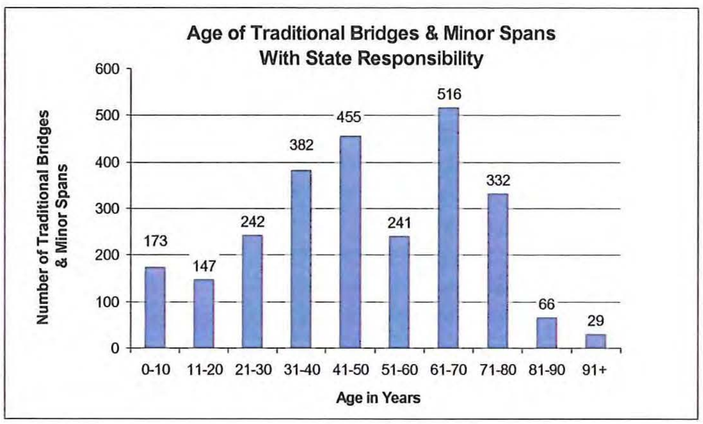


Bridges: Assets and Condition

Assets

The State of Maine has full responsibility for capital improvement and maintenance of 769 minor spans, 1,953 traditional bridges, and 19 extraordinary bridges. Minor spans are generally 10-20 feet long and traditional bridges are generally greater than or equal to 20 feet long. Extraordinary bridges are 250 feet or more in length, have an improvement cost of at least $5 million and need capital improvements in the next 20 years.

Of the 2,960 structures with full or partial state responsibility, there are 2,583 traditional structures and 377 steel culverts. The traditional structures (non-steel culverts) have an average service life of about 80 years while the bridge/minor span steel culverts have an average service life of about 50 years.

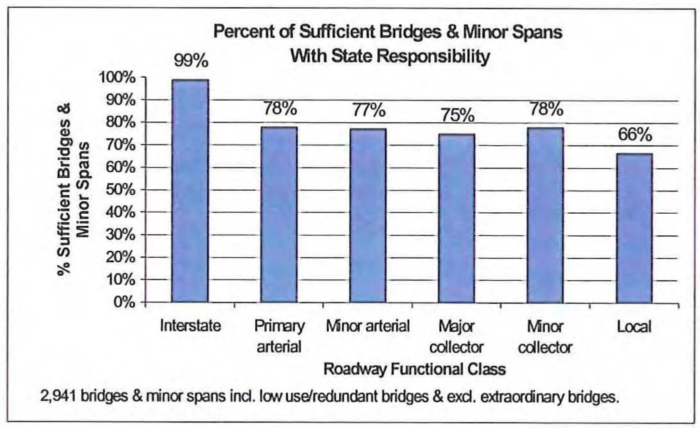


Deer Isle-Sedgwick Bridge

Condition

Maine's bridge and minor span network is evaluated in terms of the following indicators: percent sufficient, federal sufficiency rating weighted by deck area, priority functional needs, and extraordinary bridge needs. In aggregate, these indicators provide valuable insight for the State's current bridge and minor span inventory. The age distribution of Maine's structures is only one indicator of future needs, and should not soley be relied upon to determine the timing of improvements.

Using federal *sufficiency rating* procedures (a single number - 0% is worst and 100% is best), the percent sufficient indicator will identify those structures that are structurally and functionally sufficient. Bridges and minor spans are considered sufficient if the federal sufficiency rating is greater than 60 indicating that capital improvement is not likely for at least 10 years, except for the possibility of paint or wearing surface work.



West Branch Bridge, Rt. 17 Byron

Passenger and Freight Transportation

Passenger Transportation

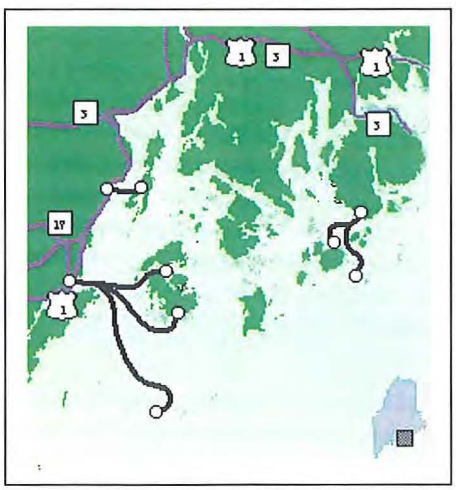
➤ Ridership on ferries, airplanes, and buses, from 1994-2000, grew from 5.3 million to 6.4 million, a 20% increase.

➤ Passenger rail service returned to Maine in 2001 with Amtrak service between Portland and Boston. To date, revenues have exceeded projections.

➤ MaineDOT is currently upgrading the state-owned Rockland Branch rail line from Brunswick to Rockland (56 miles) for passenger and freight use.

➤ Maine is served by a variety of public and private ferry services. The Maine State Ferry Service (MSFS) serves six year-round island communities. In recent years the MSFS has implemented an aggressive maintenance program for vessels and facilities.

MSFS Routes

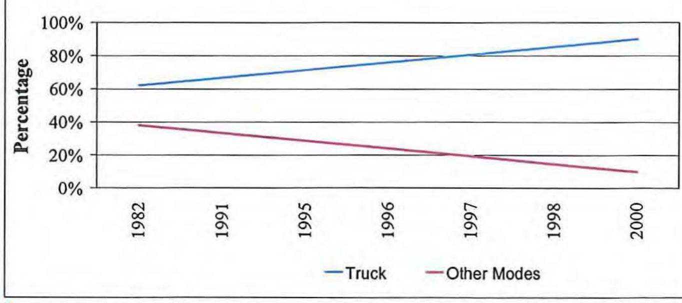


➤ The Maine State Airport System provides six commercial service airports and 30 municipally-owned general aviation airports. Over the past 30 years, the airports in Maine have received approximately $120 million in state and federal funds.

Freight Transportation

MaineDOT supports the development of a free-flowing intermodal freight system that provides Maine shippers more choices among modes, increased productivity, improved environmental benefit, better balance between modes, and reduced transportation costs. This is a difficult challenge.

Freight Transportation in Maine by Truck and Other Modes



➤ In 1998, motor carriers shipped 89% of Maine's manufactured freight.The great preponderanceof truck freight market share in Maine reflects the nation-wide business trend toward just-in-time delivery. MaineDOT initiatives like the Heavy Haul Truck Network and Commercial Vechicle Service Plan seek to insure the safer and more efficient flow of truck traffic in Maine.

➤ Maine is served by six railroad companies, which move over eight million tons of freight per year over 1,200 miles of active track. Rail is critical to Maine's manufacturing base. The State of Maine owns over 300 miles of track.

➤ The State, in following a Three Port Strategy, has provided substantial economic support for the development of three cargo ports—Eastport, Searsport, and Portland. These facilities handle: forest products; liquid and drybulk products; petroleum, bulk and breakbulk cargoes; aiding the fishing and aquaculture industries. The Maine Port Authority works closely with MaineDOT on seaport development. Our cargo port system provides windows for Maine's international trade for both imports and exports.

➤ Rail/truck intermodal facilities are located in Auburn, Waterville, and Presque Isle.

Rail/Truck Intermodal Facility, Waterville

➤ Air freight, utilized for the shipment of low-weight, high-value commodities, moves primarily through the Portland International Jetport, the Bangor International Airport, and the Auburn-Lewiston Municipal Airport.

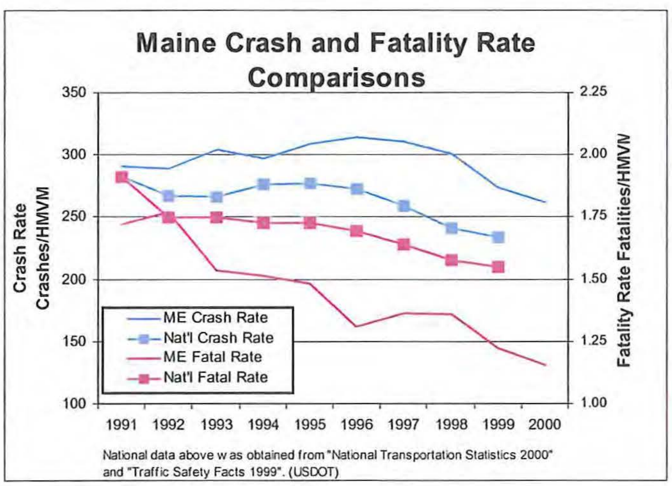
System Performance: Safety

Safety is a key consideration in every MaineDOT project. Additionally,the safety of Maine's roads has improved steadily over the past ten years. A variety of measures have contributed to this improvement including:

- **Vehicle safety improvements**
- **Education programs**
- **Law enforcement**
- **Infrastructure improvements**

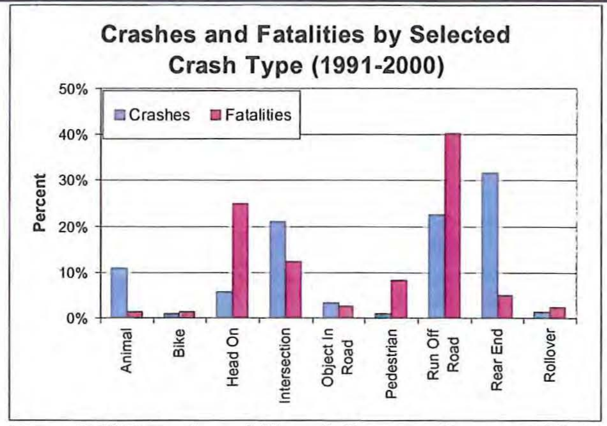
Maine's Highway Safety Improvement Program is dedicated to improving transportation safety in Maine. It provides approximately $4.7 million per biennium to address roadside safety hazards and $2.0 million per biennium to improve railroad grade crossings at public roads.

Maine's crash and fatality rates have dropped 10% and 33%, respectively, over the past ten years (1991 - 2000). The crash rate has remained above the national average, but the fatality rate continues to be below the national rate, and has dropped at a significantly greater rate.



While the reductions in both the crash and fatality rates are encouraging, there are some disturbing trends that should be addressed to continue the improvement. The safety areas of particular concern include:

- **Work Zone** crashes have accounted for over 7,200 crashes and 25 fatalities over the past ten years. Work zone safety is a major concern both nationally and in Maine.



- **Run Off Road and Head On crashes on Rural Non-Interstate Roads** combined account for over 60% of all fatalities on Maine roads. Clearly, this is an area where increased vigilance will be required. MaineDOT has recently undertaken an initiative to develop a "toolbox" of traditional and non-traditional tools to reduce both the incidence and severity of these types of crashes.
- **Commercial Vehicles** Crashes continue to rise as more freight is diverted from rail to trucks.
- **Large Animals** crashes in Maine have increased by over 70% in the past ten years.
- **Human Factors** account for at least 80% of all crashes, according to data provided in police crash reports. The primary contributing factors in crashes include Driver Inattention (25%), Failure to Yield (13%), Illegal or Unsafe Speed (12%) and Following Too Close (6%). MaineDOT has undertaken a new initiative to address driver-related safety issues. "Be A Road Model" is a high-profile public awareness program that airs on television station WGME-13.

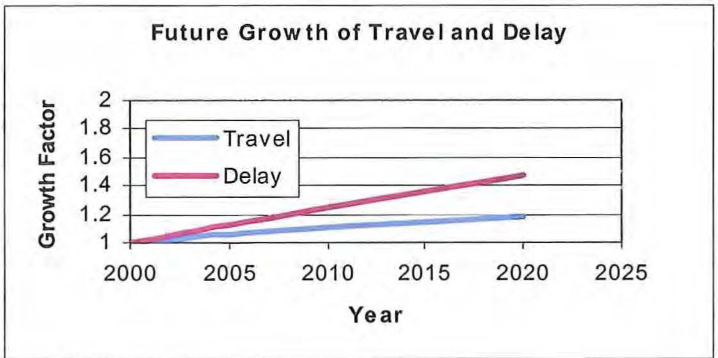
Several innovative safety programs have been initiated to address these and other areas of concern, including:

- Work Zone Safety Awareness Week activities
- Revised Utility Pole Location Policy
- Revised Design Standards
- Guardrail Improvement Program
- Multi-agency efforts to increase commercial vehicle safety and reduce crashes involving large animals
- Innovative warning systems at non-signalized intersections (35% reduction in conflicts).

System Performance: Highway Mobility

Mobility is the ability of people and goods to move from one place to another. Arterials, the most important links in the highway system provide most of the mobility in Maine. While only representing 12% of the road mileage, arterials account for more than 60% of the vehicle-miles traveled (VMT) statewide. Therefore, the performance of the arterials, in serving the mobility needs of the state, is an important part of the system evaluation.

In the year 2000, statewide VMT was approximately 14 billion. Projected growth in travel over the next 20 years will increase statewide VMT to 17 billion. As traffic volumes increase, the utilization of available arterial capacity will also increase. If no investments to improve the existing arterial network are made, traffic congestion will increase more rapidly than VMT. The following chart shows the relative growth of VMT and congestion (delay) from 2000 to 2020.



However, MaineDOT has a history of making investments to enhance highway mobility. Over the last three Biennial Transportation Improvement Programs (BTIPs), the level of funding for mobility-enhancing highway projects has averaged $40 million per biennium. If this were to continue for the next 20 years, the investment in highway mobility projects would total $400 million in the equivalent of $20 million annual increments. This is the "status quo" level of investment for mobility purposes.

A variety of strategies are available to enhance mobility on Maine's arterial highways. In addition to investments in alternative modes, which provide new options for passenger and freight movement, major mobility-enhancing strategies include the following highway treatments:

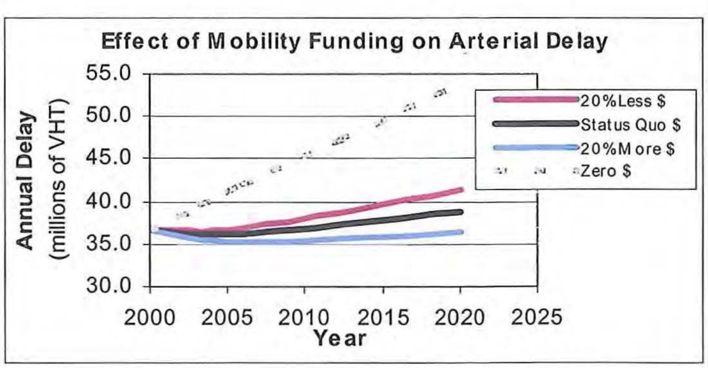
- **Access Management** - to preserve and enhance the mobility and safety qualities of existing highways.
- **Installing Auxiliary Lanes** - for left turns, right turns, climbing and passing.
- **Widening for Through Lanes** - for additional capacity on existing highways.
- **New Through Lanes at a New Location** - for additional capacity by passing existing highways.

Optimum investments of funds will result in a mix of investments best suited to improving mobility in the arterial network. The table below shows the potential mixes of these strategies for three funding scenarios. Traditional investment in additional through lanes, where needed, continues to be a major part of the investment mix. However, a significant share of the investment should be directed toward access management.

Mix of Strategies Under Three Funding Scenarios

FUNDING SCENARIO	20% LESS	STATUS QUO	20% MORE
Annual Investment ($ millions)	16	20	24
MOBILITY IMPROVEMENT STRATEGY	INVESTMENT SHARE		
Access Management	30%	28%	26%
Installing Auxiliary Lanes	18%	18%	18%
Widening for Through Lanes	30%	31%	32%
New Through Lanes at New Location	22%	23%	24%

Investments in mobility-enhancing strategies can manage the growth of congestion on the arterial system. The following chart shows that higher funding scenarios can do more to minimize congestion, but even funding that is 20% less than the status quo manages delay far better than no highway mobility funding at all.



Highway Adequacy

Treatments to Maine's highways can be placed in two categories, Major Treatments and Pavement Preservation. The distinct difference in these two categories of improvements is the expected service life. A Major Treatment can be expected to last 15-20 years and would remove a roadway from the unbuilt (backlog) listing. A pavement preservation project is done to a previously built roadway, with an expected service life of 6-12 years.

An analysis of the last 15 years of highway treatments has given the Department a data set of the most recent highway treatment for nearly 90% of the system. In summary the capital improvement program has provided:

- resurfacing of 25%-30% of the Arterial System every six years;
- a major treatment to 3% to 5% of the Arterial System every six years;
- a major treatment to 17% of the Interstate System in the last six years;
- 32% (2,124 miles) of the Arterial and Major Collector System is still unbuilt.

As indicated by the table below, there has been a significant increase in investment in both the Pavement Preservation Program and the Highway Improvement Program (major treatments). Over the last three BTIPs, there has been a 59% increase in resurfacing funding and a 44% increase in highway improvement funding. In the 2002-2003 BTIP over 620 miles of highway were addressed by one of these treatment methods.

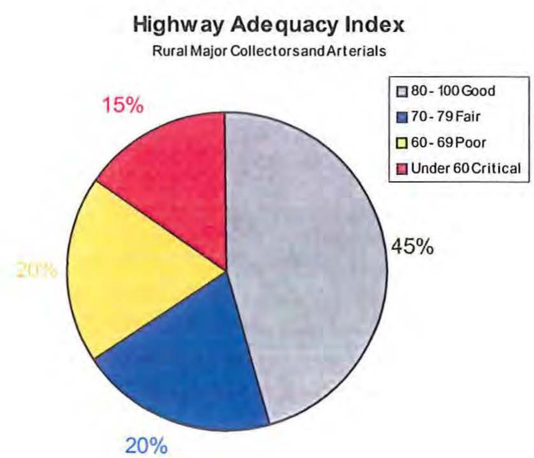
Summary of Highway Improvements
FY 1998-1999, FY 2000-2001, FY 2002-2003
(Cost in Millions)

	1998-1999 BTIP		2000-2001 BTIP		2002-2003 BTIP	
	Miles	**Cost**	**Miles**	**Cost**	**Miles**	**Cost**
Highway Improvements (Major Treatments)						
Principal Arterial	30.8	$45.2	22.9	$33.9	28.1	$38.6
Minor Arterial	39.4	$28.9	20.2	$22.4	27.5	$28.7
Major Collector	36.4	$19.9	101.4	$44.1	110.8	$68.9
Minor Collector	39.1	$12.5	25.4	$4.4	55.1	$17.5
Total Improvement	**145.7**	**$106.5**	**169.9**	**$104.8**	**221.5**	**$153.7**
Resurfacing (Pavement Preservation)						
Interstate	86.0	$14.3	64.0	$12.4	44.6	$9.7
Principal Arterial	67.0	$14.6	119.0	$21.8	80.9	$20.6
Minor Arterial	123.0	$16.1	137.0	$22.7	139.5	$31.7
Major Collector	184.0	$12.6	149.0	$19.1	135.9	$29.4
Total Resurfacing	**460.0**	**$57.6**	**469.0**	**$76.0**	**400.9**	**$91.4**

The Highway Adequacy Index is an empirical evaluation of the health of a particular highway segment. The Adequacy Index is based on 6 basic elements of the condition or performance of the roadway. These basic elements are listed in the following table with their respective point weighting;

Data Element	Arterials & Collectors Point weighting:
PCR (Pavement Condition Rating)	45
Safety	20
Built vs Unbuilt	15
AADT/C (see 4.3.2)	10
Posted Speed	5
Paved Shoulder	5
Total	**100**

The Adequacy Index on rural roadways depicted below indicates that 45% of the roadway mileage is considered "good", with an index of at least 80, while 15% of the highway mileage is considered to be "critical".

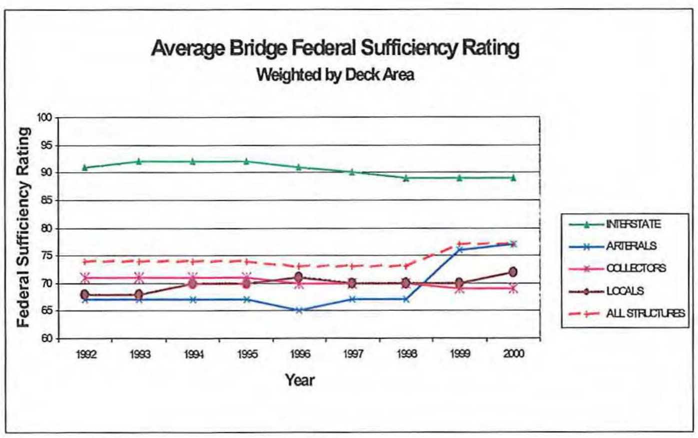


- 94% of Interstate/Freeway is rated "good".
- Nearly 80% of non-Interstate Arterial Highways are rated 70 or higher, which is considered either "fair" or "good".
- 21% rural Major Collector Highways are rated less than 60, which is considered "critical".

Bridge Adequacy

Bridge adequacy has been measured using several indicators in this report, but the federal sufficiency rating is the most telling. The federal sufficiency rating is based on a combination of four factors used to determine a number from 0 to 100 (0 is worst, 100 is best) that describes the overall sufficiency of each structure. The four factors are 1) Structural Adequacy and Safety, 2) Serviceability and Functional Obsolescence, 3) Necessity for Public Use and 4) Special Reductions (detour length, traffic safety features).

The 1992 to 2000 chart below is based on the federal sufficiency ratings of all 2,960 structures for which the state has responsibility, including extraordinary bridges. This indicator has proven quite consistent over time, with the exception of a significant increase in 1999 for bridges carrying arterial highways. This increase is attributed to the significant investments made to improve extraordinary bridges (carrying arterials) in the last six years.



As one might expect, the structures carrying higher federal functional class roadways are in the best condition, reflecting MaineDOT's commitment to funding improvements for those structures that afford the most benefit to Maine's people and economy.

The following table summarizes investments in various types of structures over the last three bienniums. About 40% of all bridge dollars have been spent to improve extraordinary bridges, thereby reducing the extraordinary bridge backlog by nearly half since 1994.

Summary of Bridge Improvements
FY 1998-1999, FY 2000-2001, FY 2002-2003
(Cost in Millions)

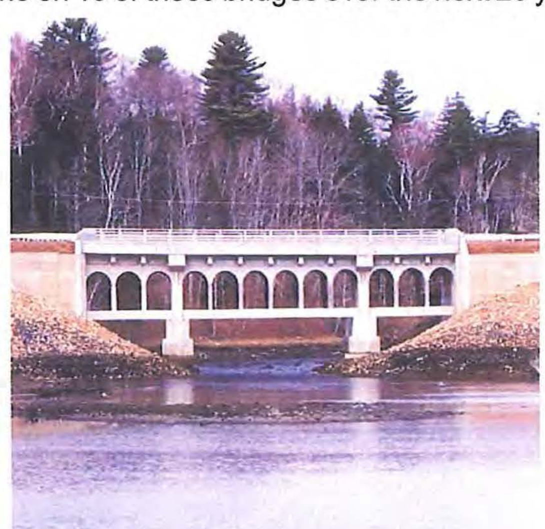
	1998-1999 BTIP		2000-2001 BTIP		2002-2003 BTIP	
	Projects	Cost	Projects	Cost	Projects	Cost
Bridges	61	$44.9	56	$43.0	51	$44.1
Minor Spans	17	$2.9	22	$3.4	41	$8.1
Extraordinary	3	$67.1	5	$23.0	5	$35.3
Total Improvement	81	$114.9	83	$69.4	97	$87.5

Note* Projects programmed for preliminary engineering only were excluded and costs were taken from published BTIPs.

Excluding extraordinary bridges, the funding for bridges (as shown in the table above) has remained relatively stable over the last three bienniums and the percentage of sufficient bridges increased slightly to 80% in 2000.

However, the funding for minor spans has more than doubled in the 2002/03 BTIP. This increase in funding for minor spans was necessary because there has been a significant downward trend in sufficiency for these structures. In the year 2000, 75% of the minor spans with state responsibility were sufficient, down from 87% in 1992.

Extraordinary bridge funding has shown considerable fluctuation over the last three bienniums with a high of $67 million in the 1998/99 BTIP. About 75% of the extraordinary bridge funds in the 1998/99 BTIP were committed to the replacement of the Carlton Bridge in Bath-Woolwich. The Carlton Bridge project also received $3 million in the 2000/01 BTIP and an additional $16.5 million in the 2002/03 BTIP. Despite the significant investment in extraordinary bridges over the last six years, $248.4 million of work remains to be done on 19 of these bridges over the next 20 years.



Ducktrap River Bridge, Rt. 1 Lincolnville

System Needs: Highway

The Department's highway expenditures can be divided into three distinct categories: Highway Improvements, Pavement Preservation, and Maintenance Paving.

Highway Improvements may include a range of treatments applied to a previously unbuilt section of roadway. Available treatments include: new construction, reconstruction, rehabilitation, and reclamation. Treatments for each section of roadway are selected based on what improvement is needed at that location to meet current standards and carry the traffic load.

Cost to Construct Maine's Unbuilt Arterials and Major Collectors

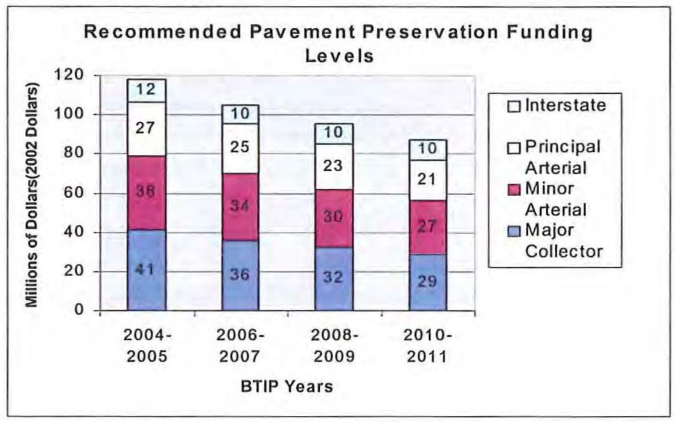
FFC	Unbuilt Miles	Cost per Mile	Total Cost
Principal Arterials	90	$1,500,000	$136,870,000
Minor Arterials	216	$1,500,000	$333,150,000
Major Collectors	1813	$450,000	$816,000,000
Total	**2119**		**$1,286,000,000**

MaineDOT is operating under a 1999 legislative mandate to submit biennial improvement programs that address all previously unbuilt portions of the rural arterial highway system by 2009. In response to this mandate MaineDOT will strive to program 60 miles of rural arterial highway improvements per biennium.

The Collector Highway Improvement Program (CHIP) targets the unbuilt portions of the major collector highway system. The goal of CHIP projects is to stay within existing right-of-way, minimize alignment changes, meet state design standards, eliminate seasonal weight restrictions, and achieve a 12-15 year design life. Since the CHIP began in 1998, 219 miles have been improved at a cost of $82 million. Using traditional improvement methods that same $82 million may have resulted in improvements to only 65 miles.

The **Pavement Preservation** philosophy at MaineDOT is to maintain the condition of the built system before expending resources to improve unbuilt portions of the highway system. More miles of roadway can be treated at a lower cost per mile, thus maintaining the integrity of the system as a whole. This has proven to be a more cost effective method of maintaining the system than the 'worst first,' which dictates treating the worst roads in the system first, and leaving the better roads untreated.

In the 2002-03 BTIP, MaineDOT programmed nearly 401 miles of roadway for pavement preservation projects with an average cost of $230,000 per mile on non-interstate projects. At this rate of treatment it will take 22 years to treat the over 3900 miles of built highway. The design life of these treatments is only 10-12 years, which results in a severe programmatic gap. In order to close this programmatic gap there is a need for 325 miles of pavement preservation treatments per year. At the current unit price of $230,000 per mile, the need would be nearly $150 million per biennium. With the implementation of pavement preventative maintenance, the average cost per mile will be reduced to $160,000 initially with further reductions anticipated in subsequent cycles.



The need for pavement preservation projects in 2004-05, utilizing pavement preventative maintenance strategies, is 900 miles or $118 million, including Interstate mileage. This represents an increase in mileage of 125% over previous programs with only an 18% increase in funding.

Maintenance Paving is a pavement treatment used as a holding action on unbuilt roads until a more significant treatment can be applied. The last three biennial programs have each addressed over 1,400 miles of unbuilt highway with maintenance paving treatments.

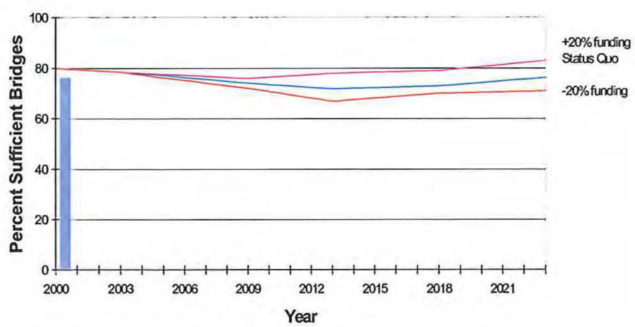
Optimum investment in the highway system would consist of a mix in spending on pavement preservation and highway improvements to unbuilt roadways. During times of reduced funding, available funds should be applied to the preservation of the built system to protect the significant investment in that system. Any additional funding available after all preservation needs have been met can be applied to upgrading the unbuilt highways.

System Needs: Bridge

In 2000, 80% of the bridges carrying town ways, state highways, and state aid roads were sufficient and 75% of the minor spans with state responsibility were sufficient. If MaineDOT continues to invest at the current level of $95 million per biennium (2002 $), the condition of both the bridges and the minor spans will decline to 76% sufficient in 20 years.

It is projected that a 20% increase in funding would bring 83% percent of the bridges and minor spans to sufficient condition in 20 years, while a 20% decrease in funding would result in only 71% of the structures being in sufficient condition in 20 years.

Percent Sufficient Bridges & Minor Spans With State Responsibility By Funding Level



Over time, inflation may cause the improvement costs to rise to $5 million or more. At that point, these traditional structures will qualify as extraordinary bridges by definition, and will no longer be classified as traditional bridges.

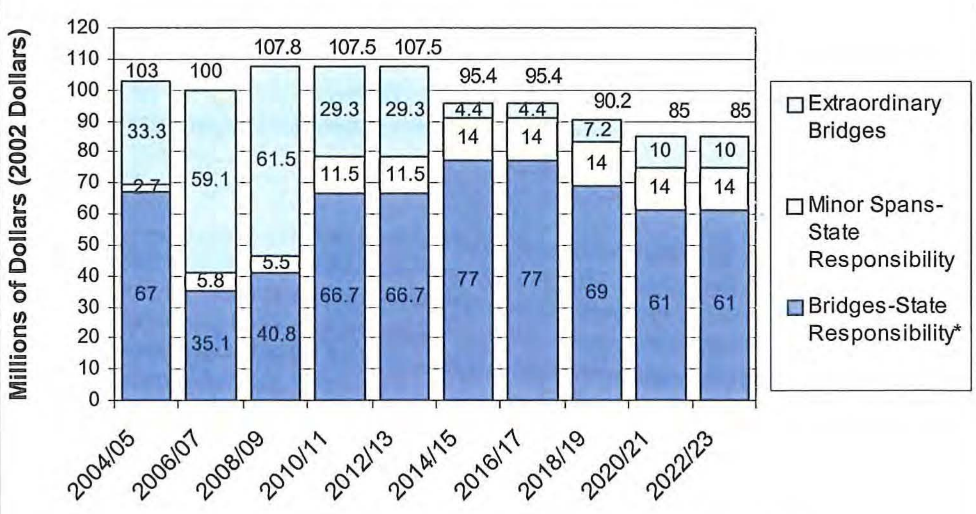
On average, MaineDOT has expended $95 million per BTIP to address structural needs over the last six years, with about 40% of these funds committed to reduce the backlog of extraordinary bridge needs. However, the current status quo level of funding will not address the projected capital improvement needs of Maine's structures. MaineDOT is facing an increased demand for funding of bridges and minor spans over the next 15 years.

There are two primary reasons for the increased need for funding. First, MaineDOT must continue to address extraordinary bridge needs. While the extraordinary bridge backlog decreased significantly over the past eight years, there still remains an additional $248.4 million of work to be done on 19 bridges over the next 20 years. Of this $248.4 million, $154 million (62 %) is needed for extraordinary bridge improvements in the next six years. Second, there is an approaching peak for bridge needs in about eight years. This peak is a result of the end of service life for post-depression era bridges and end of deck life (and paint) for Interstate Highway bridges.

The scopes, costs, and timing of future improvements were individually determined using inspection ratings and inventory data and are based in part on field reviews conducted by bridge engineers and environmental scientists.

The adjacent chart depicts the funding levels necessary to address the bridge, minor span and extraordinary bridge needs statewide over the next 20 years. There are some traditional bridges that are 250 feet or more in length with capital improvement costs approaching $5 million.

Recommended Capital Improvement Funding for Bridges & Minor Spans



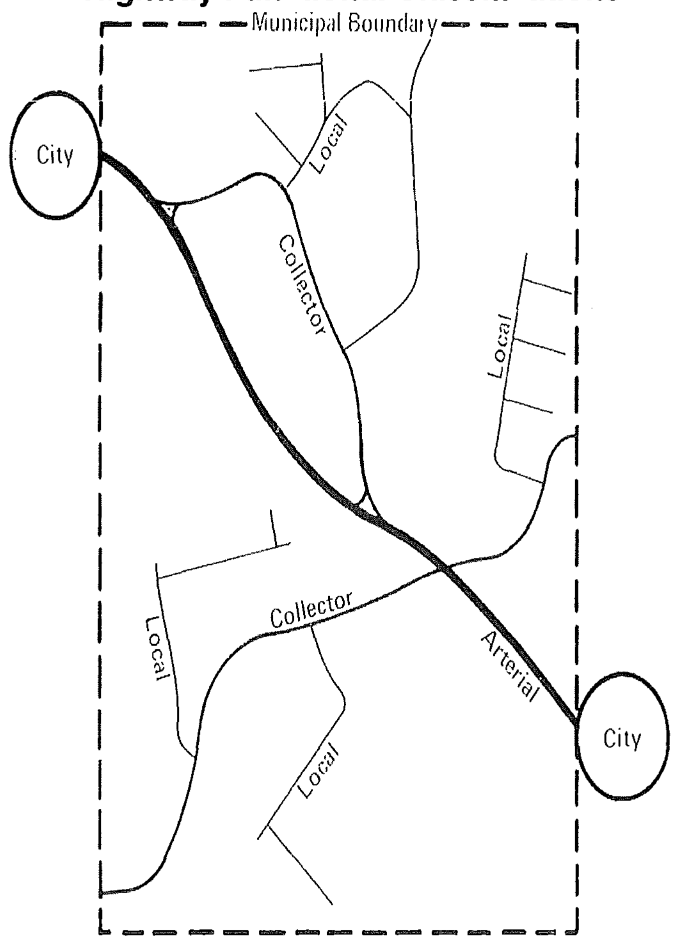
*$41.1 M of the $67 M required in the 04/05 BTIP will be used to construct bridges that were previously engineered in the 02/03 BTIP.

MaineDOT maintains, supports, and invests in a wide range of transportation assets, from Maine's highway and bridge network to the ferry service, passenger and freight rail lines, and shared-use paths. This section reports on these assets and their condition.

3.1 Highways

There are 22,700 miles of public roads in the State of Maine. Of this mileage, 13,893 miles are town ways; 8,327 miles are state roads, and 447 miles are miscellaneous roadways (including state and federal reservation roadways and the Maine Turnpike).

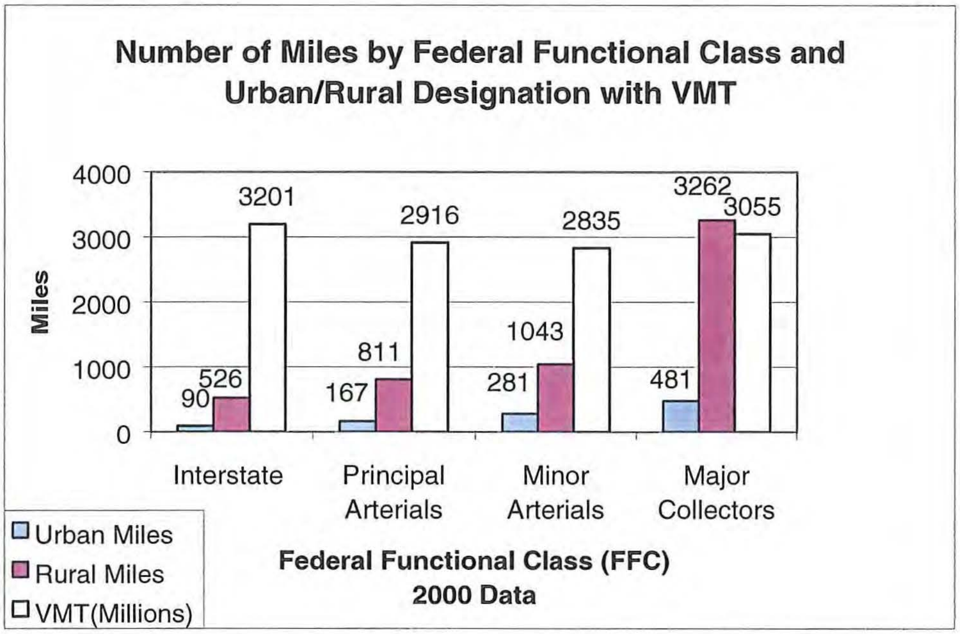
Highway Functional Classifications



Arterial Highways provide for substantial Statewide or interstate through travel for large traffic volumes at generally relatively high speeds with minimal interference. Depending on their location and function, arterials are categorized as Rural or Urban and as Principal or Minor.
Rural Major Collector Highways are outside federally designated urbanized areas and serve as important intracounty travel corridors that connect consolidated schools, shipping points, important agricultural areas, etc. with local roads.
Urban Collectors are collector highways inside federal urbanized areas
Minor Collectors provide service to smaller communities and link locally important traffic generators with arterial and major collector highways.
Local Roads provide access to adjacent land and provide service to travel over relatively short distances.

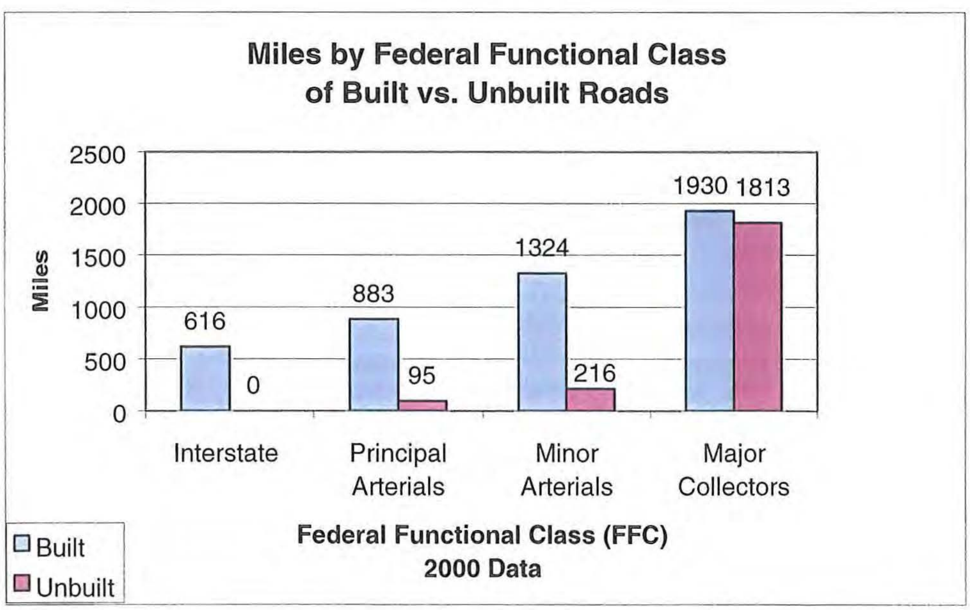
MaineDOT collects pavement data on nearly 9,000 miles of this network, as detailed in the chart below. This data is used primarily to support the Department's Pavement Preservation Program. It focuses on major collectors and higher classifications of roadways, which also carry the majority of all traffic. As an example, arterial highways make up 12% of the state-maintained network, yet they carry more than 60% of the traffic.

Figure 3.1.1



Note: Interstate mileage includes northbound and southbound lanes of all interstates in Maine (I-95, I-295, I-395). It does not include Maine Turnpike Authority mileage.

Figure 3.1.2



3.1.1 Built vs. Unbuilt

Maine's roadway system is split into two distinct categories: built and unbuilt. A built road is defined as one that has been constructed to a modern standard, usually post-1950. Modern standards include adequate drainage, base, and pavement to carry the traffic load, and adequate sight distance and width to meet current safety standards. An unbuilt road is defined as a roadway section that has not been built to modern standards; it may have inadequate drainage, base, and pavement, sight distance and/or width.

This road has adequate lane width for the given traffic volume, paved shoulders, good sight distance, modern guardrail and curb to protect steep slopes, and good drainage features.

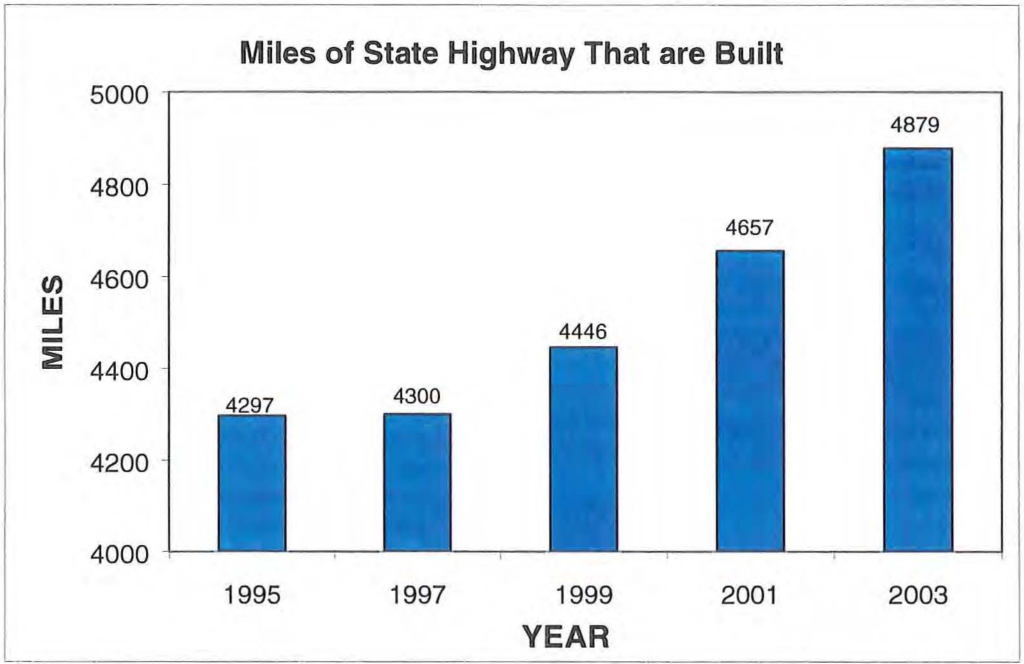
A Built Road

This road has narrow travel lanes, gravel shoulders, poor sight distance (as evidenced by the curve sign in the upper right hand corner), no guardrail protecting the slope to the lake on the left, and no ditches for drainage.

An Unbuilt Road

In May 2000, the 119th Legislature enacted a law that requires MaineDOT to present biennial budgets that will result in the rural arterial highway system being improved to modern design standards within 10 years. Under this initiative, an average of 58 miles of rural arterial highway will need to be improved each biennium. In addition, MaineDOT has a goal of improving the major collector corridors over a 20-year period, which equates to approximately 111 miles of improvement per year. To improve this system be very difficult at present funding levels. As more miles are improved to meet modern standards, these roads become part of the pavement preservation program that strives to keep these roads in good condition, which also requires a significant investment. Roads that cannot be improved due to funding constraints are maintained through the maintenance paving program. This program applies thin pavement treatments (5/8") to unbuilt roads to maintain them in a serviceable condition until they can be improved. The following graphic shows the dramatic progress that has been made in improving the highway system since 1997.

Figure 3.1.3



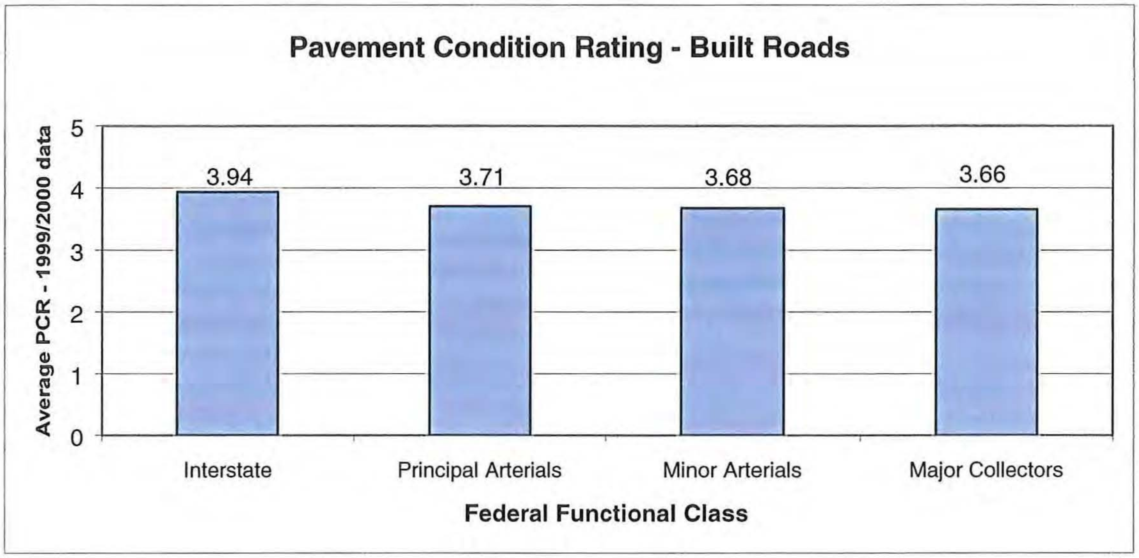
Note: 2003 numbers include the number of miles funded for construction in the 2002-2003 BTIP

3.1.2 Pavement Condition Ratings (PCR) and Road Conditions

The Pavement Condition Rating (PCR) is the key indicator used to determine the optimum time to treat a particular section of road on the built roadway system. PCR is defined as the composite condition of the pavement on a roadway only; it is not necessarily a reflection of the condition of the roadway base structure. The PCR is compiled from the severity and extent of pavement distresses such as cracking, rutting, and patching. The rating system uses a scale of 5.00 (perfect) to 0.00 (fully deteriorated). It is generally most cost effective to treat a road before the PCR drops below a value of 3.0.

PCR	DESCRIPTION
5	**EXCELLENT** - New or nearly new pavement. Free of cracks, patches or rutting.
4	**GOOD** - Pavement exhibits few, if any, visible signs of surface deterioration. Evidence of initial cracking or rutting.
3	**FAIR** - Visible defects including moderate cracking, distortion and rutting. Some patching may now be present.
2	**POOR** - Pavement deterioration consisting of advanced cracking and severe distortion. Extensive patching and rutting also present.
1	**VERY POOR** - Extremely deteriorated pavement. Defects include severe cracking, distortion, and rutting. Very extensive patching.

Figure 3.1.4



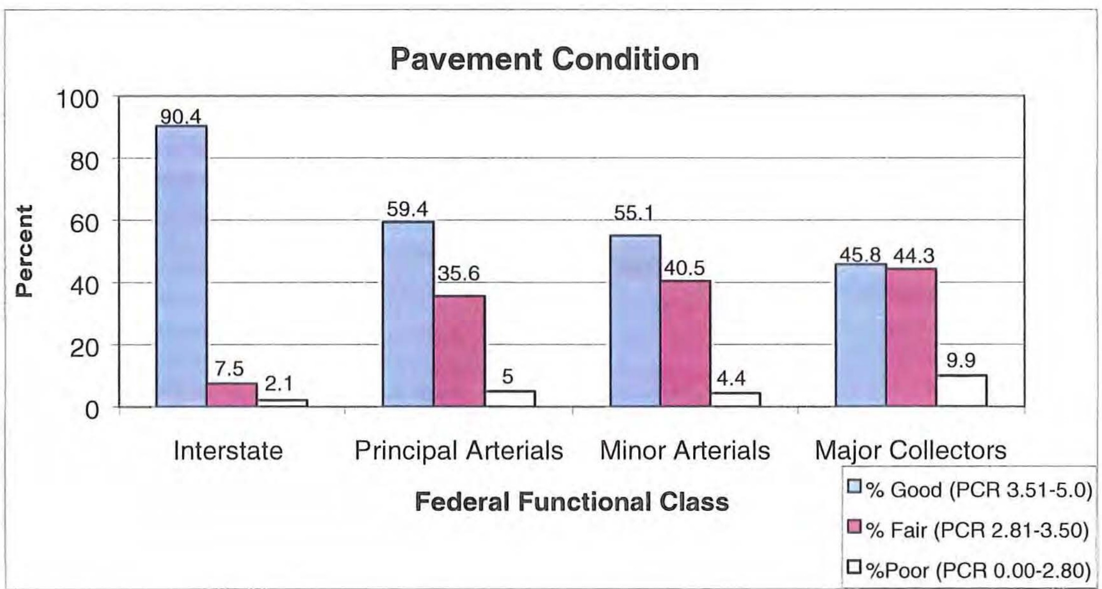
Average PCR values have remained relatively constant over the last 10 years, although there has been an upward trend in PCRs from 96-97 through 99-00. This is most likely due to the fact that beginning in the 96-97 BTIP, the maintenance paving program was roughly doubled from previous BTIPs. This has the effect of improving the short-term rideability of these roads, but does not address structural or other roadway deficiencies. As more roads are constructed to modern standards, the number of miles eligible for the Pavement Preservation Program increases.

Figure 3.1.5

PCRs do not account for base material, shoulders, drainage or geometric characteristics. A section of unbuilt road could have new pavement as a holding action until rehab or reconstruction can take place. This pavement will have a short lifespan compared to a structural preservation overlay on a built highway.

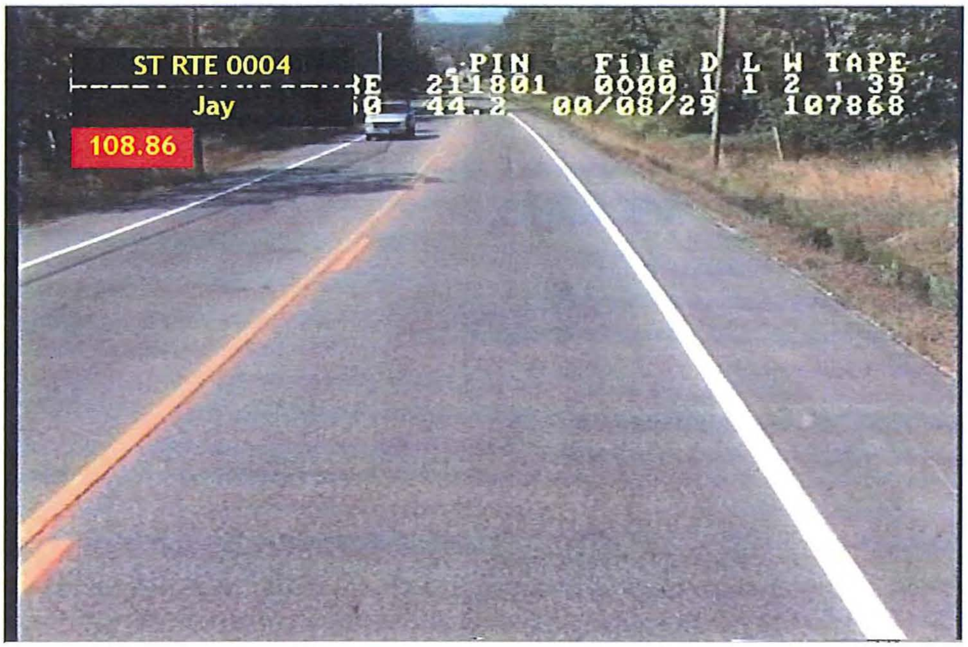
MaineDOT's pavement preventive maintenance strategy maintains the condition of the built system before expending resources to reconstruct the unbuilt portion of the system. This approach allows more miles of roadway to be treated at a lower dollar cost per mile, thus better maintaining the integrity of the system as a whole. Preventive Maintenance is a more cost-effective method of maintaining the system than treating the 'worst first, and not treating the 'better' roads. Figure 3.1.6 shows the percentage of the state's highway network that is in good, fair, or poor condition. The photos that follow were taken from the ARAN vehicle, which is the Departments data collection vehicle for pavement management purposes.

Figure 3.1.6



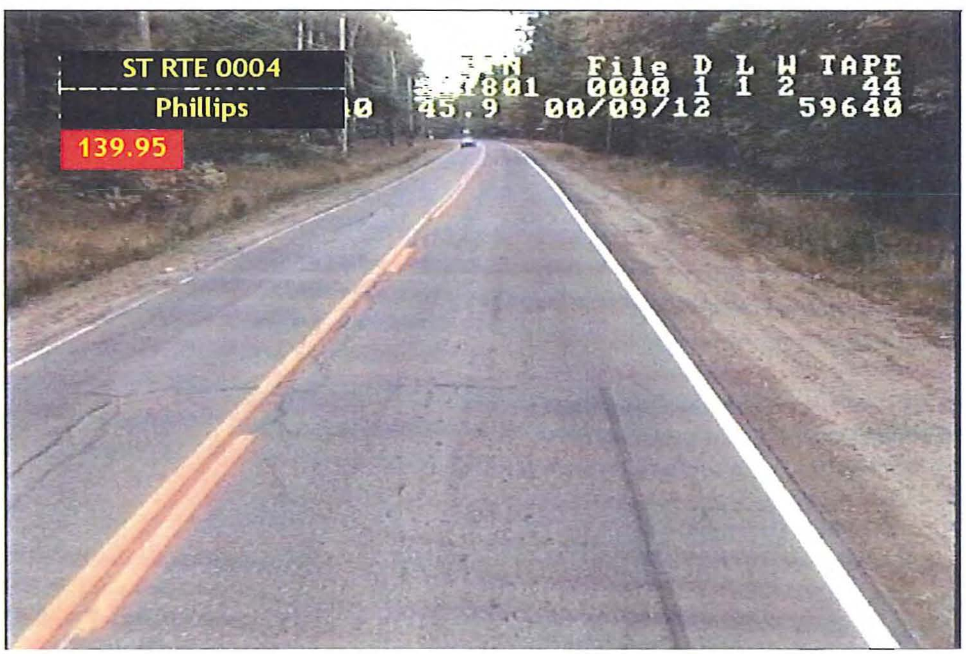
Note: Based on 1999-2000 data collected for pavement management purposes.

Good = PCR 3.51 - 5.0



The PCR on this road is good due to the lack of visible cracking, rutting, or surface defects. PCR = 4.0

Fair = PCR 2.81 - 3.50



The PCR on this road is Fair because of minor cracking, but no major rutting or surface distresses. PCR = 3.0

Poor = PCR 0.0 - 2.80

The PCR on this road is Poor due to severe cracking and wheel rutting. PCR = 2.2.

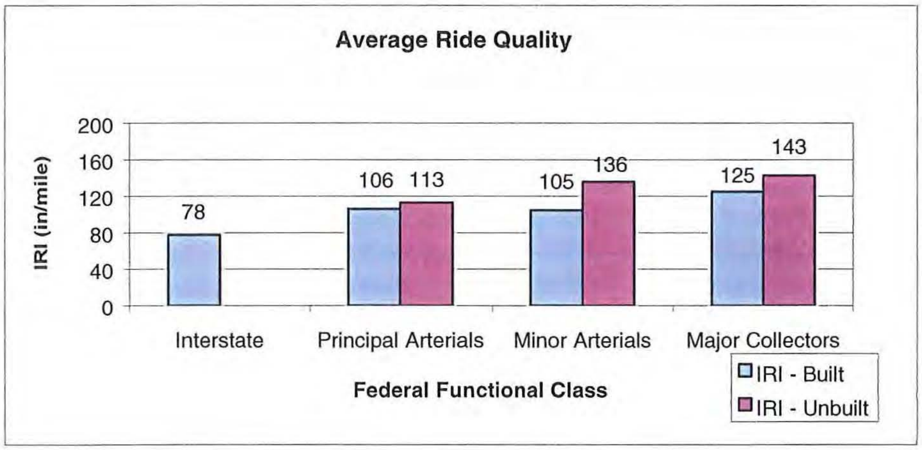
Automated Road ANalyzer (ARAN)

ARAN is a data collection vehicle used to gather a variety of information about Maine's highway network while traveling at highway speeds.

3.1.3 RIDE QUALITY (IRI)

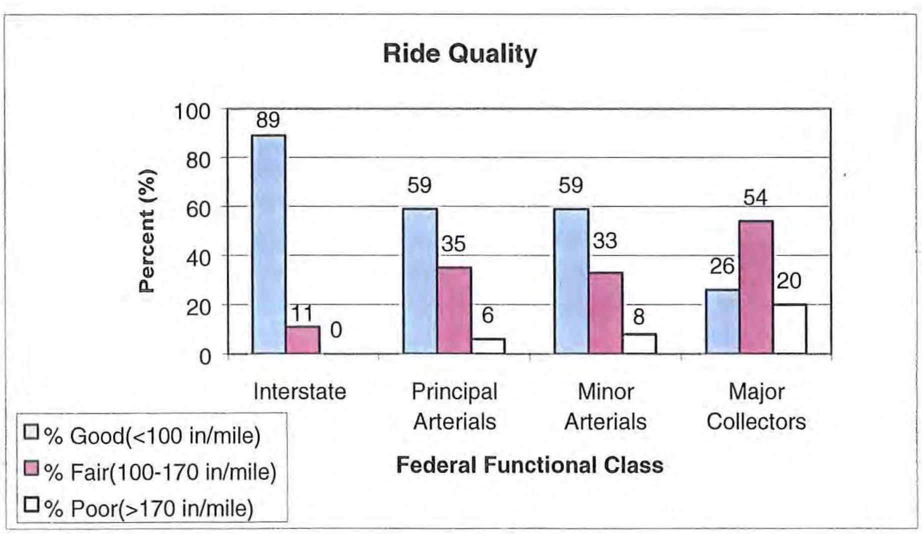
Ride quality is a key indicator of customer satisfaction. It is expressed in terms of the International Roughness Index (IRI) and is measured in inches per mile. It is a measurement of the inches of vertical displacement experienced by a vehicle in one mile of roadway. The lower the IRI, the smoother the ride is. The Federal Highway Administration has determined that an IRI of less than 170 in/mile is an acceptable ride.

Figure 3.1.7



As can be seen in Figure 3.1.7, even the unbuilt system has an acceptable average ride quality, due in large part to the extensive maintenance paving program on these roads. The IRI on Maine's roads range from 47 in/mile to 330 in/mile. Figure 3.1.8 shows the percent of the roads by federal functional class with good, fair, an poor ride. See Table 5.1.4 for a matrix of treatments used on Maine's highways.

Figure 3.1.8



3.1.4 Visitor Information Centers

Maine's existing State Visitor Information Center system includes seven centers and their attendant rest areas. Centers exist on the Turnpike in Kittery and on Interstate 95 in Yarmouth, as well as on Interstate 95 in Hampden and Houlton. Two other existing centers are located in the National Highway System gateway communities of Calais and Fryeburg. Until recently, a facility existed in Bethel; it was owned by the United States Forest Service and operated by the Maine Tourism Association without state funds. See section 5.1.4 for ongoing maintenance and operations cost and needed improvements associated with existing centers, and proposed replacement of the Fryeburg and Bethel facilities along with development of new centers in South Lebanon, Jackman and Madawaska.

Figure 3.1.9 Hampden Visitor Information Center

3.2 Bridge Network

Wiscasset-Edgecomb, Donald Davies Bridge

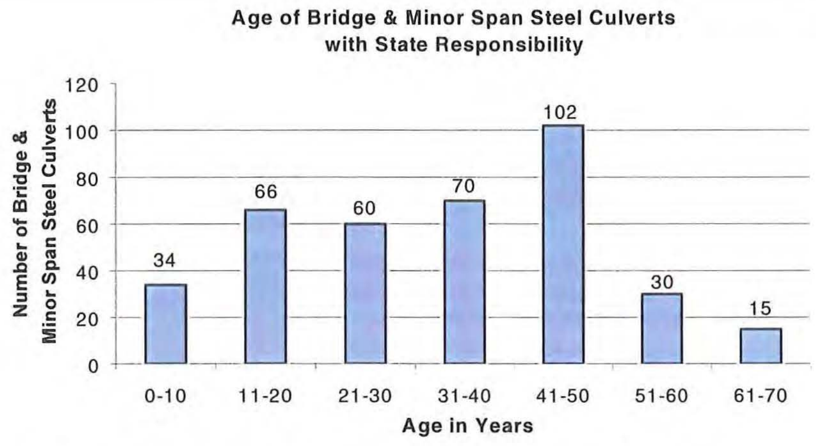
Ownership and maintenance of Maine's bridge and minor span network was modified as a result of a 2001 law (23 MRSA Chapter 9 Bridges, Sub Chapter IV - A Local Bridges). The State of Maine now has full responsibility for capital improvement and maintenance of 769 minor spans (10 feet to 20 feet long) and 1,972 bridges generally equal to or greater than 20 feet in length, including 19 extraordinary bridges. Extraordinary bridges are 250 feet or more in length and require improvements of at least $5 million in the next 20 years. In addition, the state will pay half of the capital improvement costs for 219 low-use/redundant (town maintained) bridges on town ways if a compelling public benefit is demonstrated. There are now 2,960 structures with total or partial state responsibility.

This report examines the state's bridge and minor span network in terms of the following indicators: age, percent sufficient (the percentage of structures with a federal sufficiency rating greater than 60), federal sufficiency rating weighted by deck area; extraordinary bridge needs; and priority functional needs. In aggregate, these indicators provide valuable planning insight for the state's current bridge and minor span inventory. Excluded from this report are: new crossing sites where there has been no bridge construction to date; structures used exclusively for rail, pedestrian or snowmobile traffic; structures owned by the Maine Turnpike Authority, federal agencies, or private entities, and minor spans on town ways owned and maintained by municipalities.

3.2.1 Age of Maine's Structures

Of the 2,960 structures with state responsibility, 377 are bridge/minor span steel culverts and 2,583 are traditional structures. The steel culverts typically have a service life of about 50 years while the traditional structures normally have a service life of about 80 years. While age is an indicator of future needs, it cannot be solely relied upon to determine the timing of capital improvements because past maintenance actions and environmental considerations influence service life. There were 45 steel culverts that exceeded their normal service life in 2000, and of this number, 16 culverts (35%) have already been programmed for capital improvement.

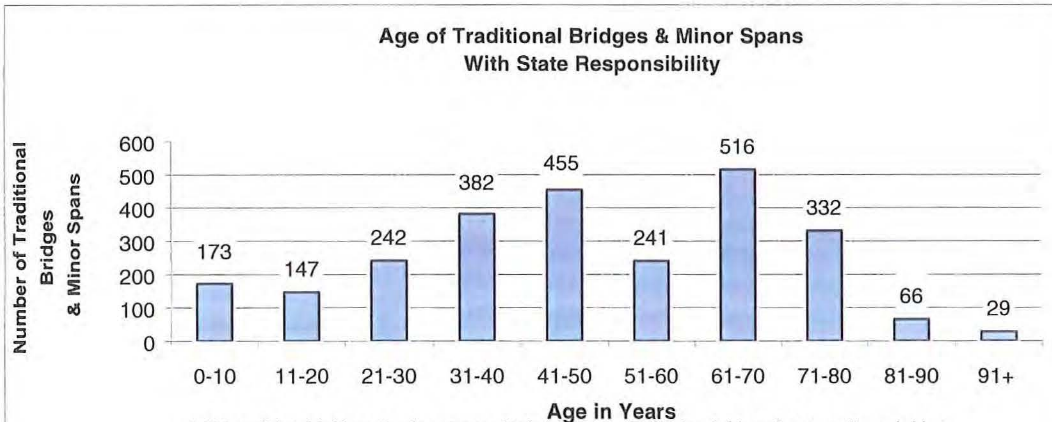
Figure 3.2.1



377 bridge & minor span steel culverts - including low use/redundant structures

Ninety-five of the traditional structures have exceeded their normal service life of 80 years. Of this number, 12 structures (13%) have already been programmed for capital improvement. It should be noted that nearly 20% of the traditional structures with an age greater than 80 years are low-use/redundant bridges.

Figure 3.2.2



2,583 traditional bridges & minor spans - includes low use/redundant bridges & extraordinary bridges

3.2.2 Percent Sufficient Method

Federal Sufficiency Rating procedures are used to identify those structures that have a sufficiency rating of greater than 60. This rating means they are structurally and functionally "sufficient" or unlikely to need capital improvements for at least 10 years, except for the possibility of paint or wearing surface work. Tracking the percentage of structures with a sufficiency rating of greater than 60 is a good proxy for the overall condition of Maine's bridges and minor spans.

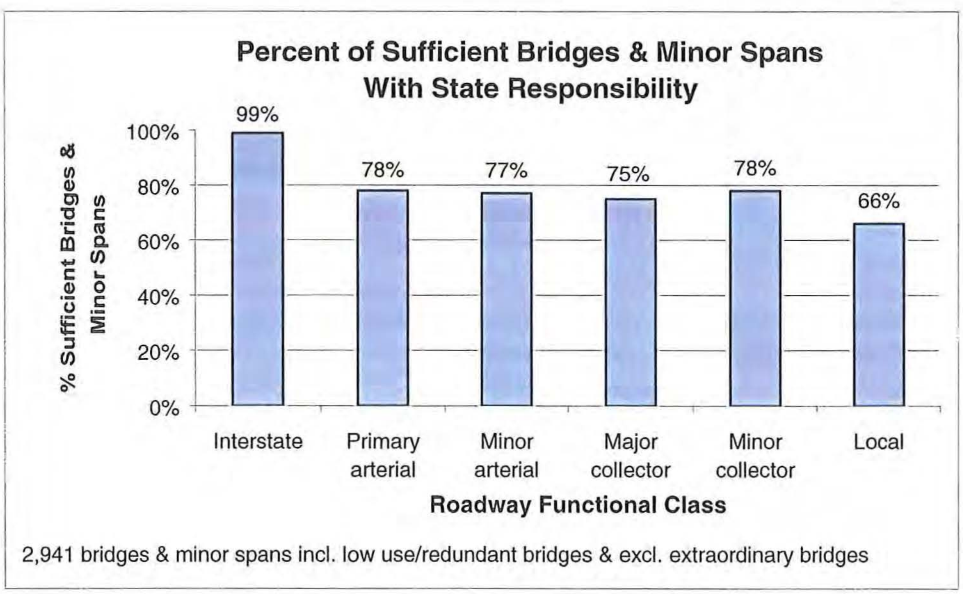
The sufficiency rating is based on a combination of four factors used to determine a number from 0 to 100 (0 is worst, 100 is best) that describes the overall sufficiency of each structure. The four factors are:

1. Structural Adequacy and Safety
2. Serviceability and Functional Obsolescence
3. Necessity for Public Use
4. Special Reductions (detour length, traffic safety features)

3.2.3 Sufficiency of Maine's Bridges and Minor Spans

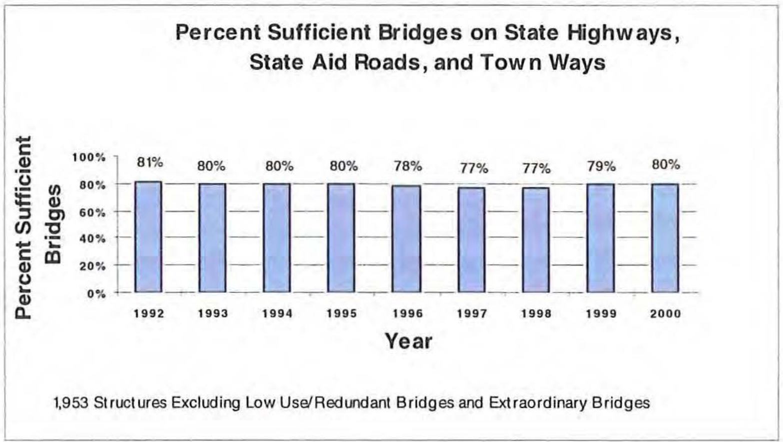
The chart that follows shows the percent of sufficient bridges and minor spans based upon the federal functional class of the roadway (excluding minor spans on town ways and extraordinary bridges). As expected, the vast majority of interstate structures are sufficient, whereas structures on local roads distinctly lag behind all others.

Figure 3.2.3



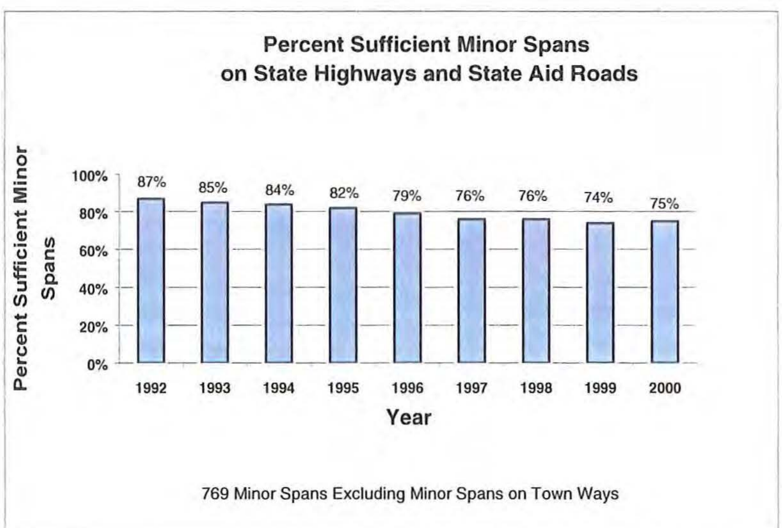
About 65% of the 2,960 structures with total or partial state responsibility are "bridges" on state highways, state aid roads and town ways. These are defined as structures greater than 20 feet in length. They represent the largest and most important piece of the state's roadway structure inventory. The following chart shows that 80% of these bridges are currently sufficient, and that this percentage has been stable for the last decade. (This chart does not include low use/redundant bridges on town ways or extraordinary bridges.)

Figure 3.2.4



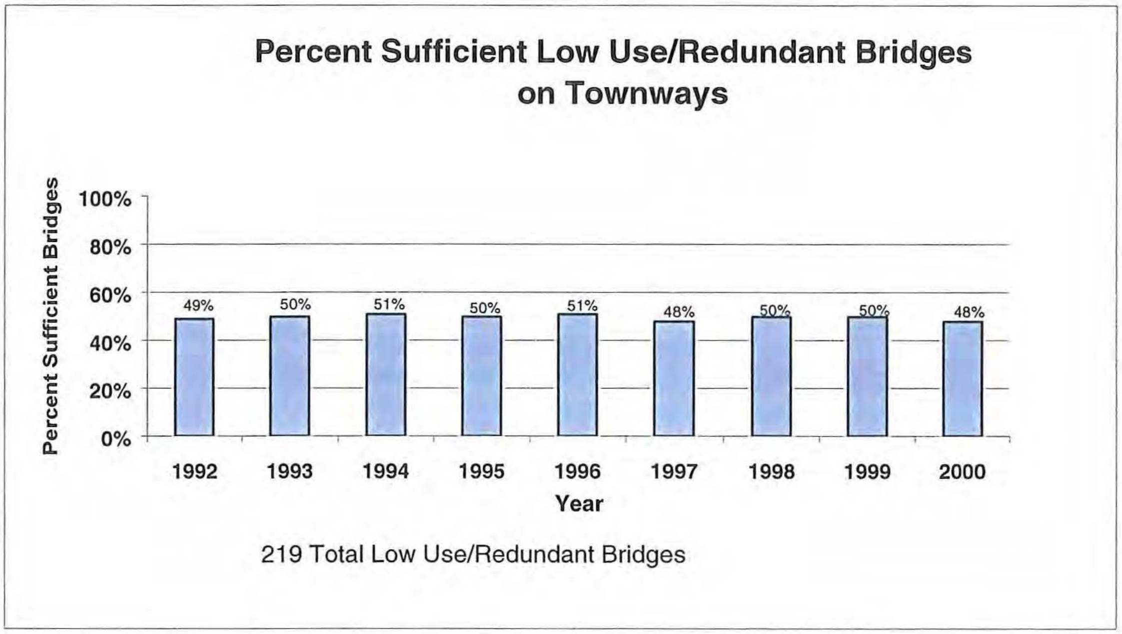
The 769 minor spans on state highways and state aid roads with full state responsibility have experienced a significant downward trend in sufficiency since 1992, as shown in figure 3.2.5. In the year 2000, 75% of the minor spans with state responsibility were sufficient, down from 87% in 1992. The MaineDOT anticipates that about 80 of these minor spans will be candidates for the 2004-2009 Six-Year Plan.

Figure 3.2.5



As a result of the new Local Bridge Law passed in 2001, Maine towns have half the capital improvement responsibility for 219 low-use/redundant bridges on town ways, and full maintenance responsibility for these bridges. As of 2000, 48% of the low use/redundant bridges were sufficient.

Figure 3.2.6



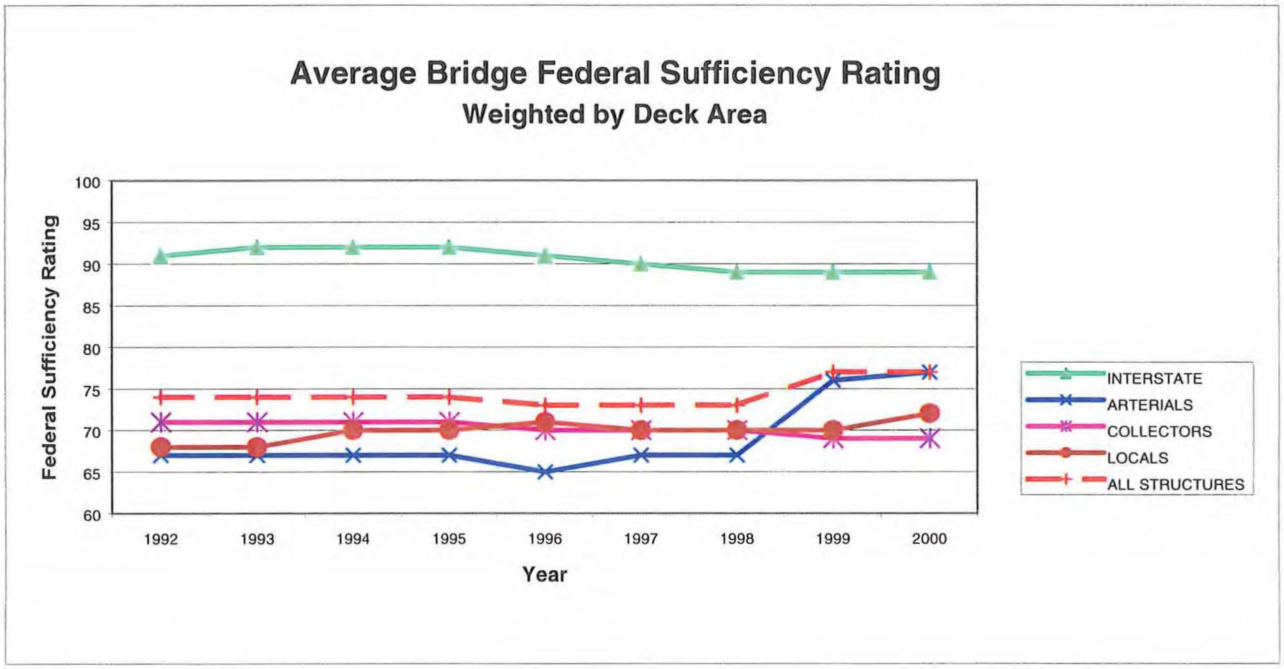
The low priorities associated with low use/redundant bridges, together with anticipated shortfalls in funding, suggest that very few of these bridges will receive financial assistance in the near future. MaineDOT will continue to perform safety inspections on low use/redundant bridges, in order to protect the traveling public.

3.2.4 Bridge Adequacy

Another method of assessing the overall condition and functionality of Maine's structures is to use the average Federal Sufficiency Rating weighted by deck area. Weighting the sufficiency ratings by deck area will more accurately reflect the condition of the total bridge network. More weight is given to the sufficiency ratings of the larger structures representing a larger proportion of the bridge network. As shown in figure 3.2.7, this indicator has proven quite consistent over time, with the exception of a significant increase in 1999 for bridges carrying arterial highways. This increase is attributed to capital improvement projects for eight large structures.

The 1992 to 2000 chart is based on the ratings of all 2,960 structures for which the state has responsibility, including extraordinary bridges and low-use/ redundant bridges.

Figure 3.2.7

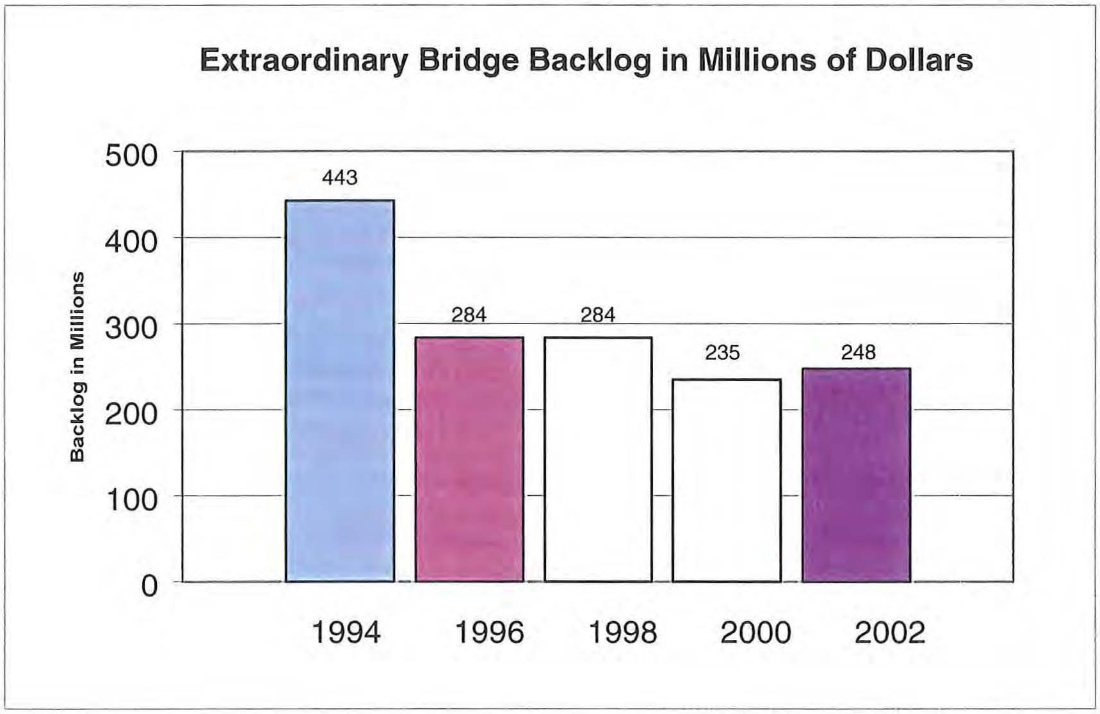


As one might expect, the structures carrying higher federal functional class roadways are in the best condition, reflecting MaineDOT's commitment to funding improvements for those structures that carry the most traffic and thus afford the most benefit to Maine's people and economy.

3.2.5 Extraordinary Bridges

Extraordinary bridges are 250 feet or more in length and have an improvement cost of at least $5 million. MaineDOT has spent between 34% and 44% of its total bridge improvement dollars over the last three biennia to fund projects that address the capital improvement needs of extraordinary bridges.

Figure 3.2.8



While the extraordinary bridge capital improvement needs have been reduced by nearly half over the past 8 years, there still remains an additional $248.4 million worth of work to be done. Extraordinary bridge needs have been identified for the next 20 years and are summarized in Table 3.2.1, along with the cost of the improvement, and the remaining amount of funding required for completion of the work.

Extraordinary Bridge Needs 2002 - 2023

Table 3.2.1

Town	Name	Age Years	Scope	Previous Funding $ Millions	Remaining Need $ Millions
Augusta	Memorial	53	Improvement	0	17
Bath-Woolwich	Carlton Bridge	76	Rehabilitation	25.8	13.875
Bath	West Approach	44	Improvement	0	15
Brunswick-Topsham	Frank J. Wood	71	Improvement	0	9
Canaan	Sibley Pond	63	Replacement	0	7.2
Caribou	Aroostook River	50	Improvement	0	7
Deer Isle-Sedgwick	Deer Isle Sedgwick	63	Improvement	0	19.9
Fort Kent-New Brunswick	International	73	Improvement	0.1	6.9*
Harpswell	Bailey Island	76	Rehabilitation	0	10.95
Howland	Penobscot River	56	Improvement	0	7
Howland	Piscataquis	74	Improvement	0	7
Jonesport-Beals	Beals Island	44	Improvement	0.1	25
Kittery-Portsmouth	Memorial Bridge	81	Rehabilitation	0.3	10.3*
Norridgewock	Covered	74	Improvement	0.2	8.05
Old Town-Milford	Old Town-Milford	72	Replacement	0.7	8.42
Portland-Falmouth	Martin Point	59	Improvement	0	25
Prospect-Verona	Waldo Hancock	71	Rehabilitation	10.4	5.33
Richmond-Dresden	Maine Kennebec	72	Improvement	0	14.5
Portland – S. Portland	Veterans Memorial	47	Improvement	0	31
	Average Age:	**64.2**	**Total Cost:**	**51.3**	**248.4**

*Maine Share Only

3.2.6 Priority Functional Need Bridges

Priority functional need bridges are purely functionally challenged bridges and minor spans. These bridges are functionally obsolete and not structurally deficient. The types of deficiencies include, but are not limited to, structures with insufficient vertical clearance, narrow bridges/minor spans, or structures with poor alignment. Of those structures classified as functionally obsolete, only those with a federal sufficiency rating of less than 60 are considered as potential priority functional need bridges/minor spans. A history of structure-related crashes does increase the possibility that a bridge or minor span will be included in this category, as does substantial public interest in improving the structure for functional reasons.

MaineDOT has identified 32 structures as priority functional need bridges/minor spans according to these criteria. Generally, MaineDOT funds improvements that address structural deficiencies prior to programming improvements solely to correct functional problems. However, safety considerations may allow a structure classified as a priority functional need to compete with a structurally deficient bridge/minor span for funding.

If the roadway and the structure that carries it are both considered functionally deficient, then the timing of the structural improvement may be coordinated with the roadway improvement to achieve cost savings and to minimize disruption to the traveling public.

Prospect-Verona: Waldo Hancock Bridge

3.3 Passenger Transportation

The focus of the MaineDOT Office of Passenger Transportation (OPT) is the movement of people by modes other than single occupancy vehicles, such as buses, trains, airplanes, ferries, vanpools, carpools, walking, and bicycling. OPT plans passenger transportation initiatives and administers federal and state capital and/or operating programs for airports, ferry services, public fixed route and demand response services, passenger rail service, pedestrian and bicycling trails, park and ride facilities, and intermodal facilities. MaineDOT is also developing *Explore Maine*, an integrated system of transportation options to attract visitors to the state without their cars and to provide more travel choices to Maine's citizens.

3.3.1 Transit

Transit is transportation by bus, passenger rail, or other conveyance, either publicly or privately owned, that provides general or special service to the public on a regular and continuing basis. Transit in Maine is provided by buses and vans in both urban and rural areas across the state. Transit service varies from running 7 days per week, 18 hours per day in the larger urban areas to running one day per week in the very rural areas. Service categories are:

- Fixed Route: Service on a fixed schedule and fixed routes.
- Demand Response: Door-to-door service by appointment, often limited to social service clients.
- Intercity: Between urban areas.

Transit operators and their subcontractors provide transit to most cities and towns in the state through grants and contracts. (See Appendix E for a detailed list of providers.) Thirty-two towns and cities receive regularly scheduled service three or more days per week. Many other towns receive service on a weekly basis or on a demand-response basis. Maine is unique in that its transit services in all the rural areas and most of the urban areas are run on a 'community transit' model. Contracts come from the social service community, Medicaid, the Department of Human Services, etc., and are executed by the transit operators. This enables a seamless transit system that services more people more efficiently than separate systems.

New service is being implemented across Maine. In 2002, seasonal transit service in the Bethel ski region began limited operation that combined the diverse offerings of the town of Bethel with the major ski centers in the area. Skiing business interests have shown that bookings are reduced when transit is not a viable option. Other new services being offered include the Island Explorer on Mt. Desert Island, ZOOM commuter bus from Biddeford to Portland, FAST service (15 minute service on Forrest Ave., Portland), free ridership for the Universities of Maine, Wheels to Access Vocation and Education (WAVE), and Rider's Choice employment transportation systems. Expanded service makes transit a more attractive alternative to driving for many travelers and commuters.

3.3.2 Airports

The Maine State Airport System provides six commercial service airports and 30 municipally owned general aviation airports, as shown in the table below.

Maine State Airport System

Table 3.3.1

Commercial Service[1]	General Aviation[1,2]		
Portland	Auburn-Lewiston	Fryeburg	Norridgewock
Bangor	Belfast	Greenville	Old Town
Augusta	Bethel	Houlton	Pittsfield
Knox County (Rockland)	Biddeford	Islesboro	Princeton
Presque Isle	Caribou	Jackman	Rangeley
Hancock County - Bar Harbor	Deblois	Kingfield	Sanford
	Dexter	Lincoln	South Paris
	Dover-Foxcroft	Lubec	Stonington
	Eastport	Machias	Waterville
	Frenchville	Millinocket	Wiscasset
[1] Total enplanements for the state during 2000 were 917,352 [2] There are 1,200 registered aircraft in the State of Maine			

Maine has a total of 48 runways, both commercial and general, with a combined runway pavement length of 197,112 feet. Of these runways:

- 47% are in excellent condition
- 31% percent are in very good condition
- 15% are in good condition
- 4% are in fair condition
- 3% are in poor condition.

Typically airport pavement is considered to have a 20-year lifespan. However, this can be extended by a variety of pavement maintenance activities, including overlays and surface treatments. The average age of the surface pavement on the 48 municipally owned, paved runways in Maine is around 14½ years. Other capital investments include terminals, hangers, and maintenance equipment.

MaineDOT is currently in process of updating the Maine State Aviation System Plan (MSASP), which looks at the "system" of airports in Maine and how those airports meet the needs of the people using air service. The MSASP will provide recommendations to improve the system and guide capital developments on a statewide basis. Individual Airport Master Plans are also developed to guide capital developments for each individual airport over a twenty-year time line.

3.3.3 Passenger Rail Service

In December 2001, Maine saw the return of passenger rail service with service between Portland and Boston. This service, provided by Amtrak, utilizes about 42 miles of track in Maine from the New Hampshire border to Portland on Guilford Transportation Industries' right-of-way. The upgrade of the 114 mile line form Boston to Portland cost $70M. Maintenance costs are covered in the operating agreement with Guilford Transportation.

The State of Maine owns more than 300 miles of rail lines:

- Union Branch, Portland
- Rockland Branch, Brunswick to Rockland
- Calais Branch, Brewer to Calais
- Belfast & Moosehead Branch, Belfast to Unity
- Augusta Branch, Brunswick to Augusta

By law, MaineDOT cannot operate a railroad and will look to the private sector to provide services on state-owned as well as privately held rail lines.

MaineDOT is currently upgrading the state-owned Rockland Branch rail line from Brunswick to Rockland (56 miles) for passenger and freight use at a cost of approximately $30M. This project is fully funded. Studies are underway to determine the feasibility of restoration of service on the Calais Branch, with expansion to Trenton. An Environmental Assessment is being prepared for upgrades for the Union Branch.

3.3.4 Ferries

Maine is served by a variety of public and private ferry services. The Maine State Ferry Service (MSFS) serves six year-round island communities: Matinicus, Vinalhaven, North Haven, Islesboro, Swans Island, and Frenchboro. Service frequencies vary from nine trips daily to Islesboro to 27 trips a year for Matinicus.

Maine State Ferry Service Vessels

Table 3.3.2

Name	Year Built	Passenger Capacity/Seating	Car Capacity	Service
North Haven *	1959	125/26	9	Matinicus
Everett Libby **	1960	175/50	12	Backup
Gov. Curtis	1968	250/62	30	Vinalhaven
Margaret Chase Smith	1987	226/176	30	Islesboro
Capt. Henry Lee	1992	250/60	17	Swans Island and Frenchboro
Capt. Charles Philbrook	1993	250/60	17	Vinalhaven
Capt. Neal Burgess	1993	250/60	17	North Haven

** In limited service.*
*** Backs up any vessels that are not in service*

The Maine DOT is working to secure funding to replace the Curtis, at a cost of $5.5M. In recent years the MSFS has implemented an aggressive maintenance program for the vessels. In addition, new terminals have been built in Rockland, Vinalhaven, Islesboro, North Haven, Lincolnville, Bass Harbor, and Islesboro. Piers have been refurbished in North Haven, Matinicus, and Vinalhaven and funds have been procured for refurbishing the existing pen (where vessels berth) in Rockland and building an additional one. New pens are needed in Bass Harbor and Swans Island.

Other ferry services in Maine include:

- Casco Bay Island Transit, (CBITD) linking Peaks, Great Diamond, Little Diamond, Long, Cliff, and Chebeague Islands to Portland.
- Chebeague Island Transportation, linking Chebeague Island in Cumberland to Cousins Island in Yarmouth.
- Bay Ferries, seasonal high-speed service between Bar Harbor and Nova Scotia.
- Scotia Prince, seasonal service between Portland and Nova Scotia.
- Numerous privately owned seasonal services to island communities.

The Maine DOT supports CBITD with capital and operating funds and has assisted Cumberland in securing mainland access for Chebeague Island Transportation.

3.3.5 Vanpools/Carpools/Park and Ride Lots

MaineDOT supports a statewide carpool/vanpool matching service through the Greater Portland Council of Governments (1-800-288-RIDE).

MaineDOT and the Maine Turnpike Authority also develops and maintains park-and-ride facilities throughout the state. Park-and-ride lots provide a safe place for commuters to leave their cars for transfers to another mode for the rest of their trip. These park-and-ride lots, which provide more than 2,000 parking spaces for commuters, are owned by the state, Maine Turnpike Authority, local communities, or private entities. They are located at interstate exchanges, on state and municipally owned property, at churches, shopping centers, and on private property. (See Appendix D for details.)

MaineDOT recently opened park-and-ride lots on Route 1 in Waldoboro and Edgecomb in support of proposed rail and bus services between Rockland and Bath Iron Works. Also in the developmental stage are park-and-ride lots in Wiscasset, Newcastle, Warren, Oakland and Skowhegan.

3.3.6 Bicycle/Pedestrian Network

MaineDOT contributes to increased bicycle and pedestrian mobility by constructing paved shoulders, bike lanes, or sidewalks along or within state highways, local streets, and roads, as well as through the construction of shared-use paths.

Sidewalks are a basic element of an urban pedestrian network. Without them, many people are reluctant to walk along the side of the road. Many municipalities have serious gaps in their sidewalk networks, a situation that impedes pedestrian access. In addition, Maine has only a small percentage of sidewalks that meet the Americans with Disabilities Act (ADA) guidelines regarding accessibility for the physically handicapped. Sidewalk construction and maintenance is primarily the responsibility of local municipalities, although MaineDOT provides some funding for new sidewalk construction through its Transportation Enhancements Program, which requires a 20% match. Maine DOT also replaces sidewalks as part of its road improvement projects.

Paved shoulders are essential to bicycle access and safety on rural roads, as well as for driver and pedestrian safety and for maintenance, on most streets and highways. Without paved shoulders, many people are reluctant to bicycle. MaineDOT's Shoulder Surface Policy, established in January 2000, is helping to create more miles of paved shoulders. This policy will convert gravel to paved shoulders for reconstruction or pavement preservation projects on all arterials and on some major collectors with Summer Average Daily Traffic (SADT) of more than 3,000 cars per day. Under MaineDOT's F.Y. 2002/2003 BTIP, some 250 to 300 miles of gravel shoulders will be converted to paved shoulders. However, there are deficits in the paved shoulder network and it will be decades before all major collectors are built to current standards.

Although there are few miles of bike lanes presently in Maine, they are appropriate on urban streets where adequate width exists. Bike lanes are often important in increasing the percentage of urban bicycling because they provide a greater degree of comfort and safety to the bicyclist. Because bike lanes are primarily located in urban areas, it is primarily the responsibility of the metropolitan planning organization or the local municipality to fund and install them. There is currently a demonstration project for bike lanes in Portland and, if successful, other municipalities will be encouraged to follow suit.

Shared use paths have significantly increased bicycle and pedestrian use and access where constructed because many users desire facilities completely separated from the highway system. There are currently short stretches of shared use path in a few Maine communities totaling approximately twenty miles. While the demand for shared use paths is quite high, their implementation has taken many years primarily due to the lack of funding and responsible managing authority after construction.

MaineDOT has identified three major trail initiatives:

- Mountain Division, 40 miles, Windham to Fryeburg
- Downeast Trail, 144 miles, Brewer to Calais
- Eastern Trail, 55 miles, Kittery to South Portland

Although construction has not yet begun on any of these trails, small amounts of construction funding (less than four miles each) are programmed in the F.Y. 2002/2003 BTIP.

3.3.7 Intermodal Facilities

Intermodal facilities link two or more modes of passenger or freight transportation. The MaineDOT, in partnership with Concord Trailways, has developed an intermodal passenger facility at Sewall Street in Portland. This facility, developed through a public-private partnership, services intercity buses and the Portland to Boston Amtrak service. Concord Trailways, MaineDOT, and the Northern New England Passenger Rail Authority shared the $2.3 million cost for this facility. The municipality, often through public/private partnerships, covers maintenance costs.

Three intermodal passenger facilities are planned at or adjoining the airports in Auburn, Bangor, and Trenton. These facilities will provide park and ride lots and access to air, motor coaches, and passenger services. The Trenton facility is being planned to include a new visitor center for Acadia National Park. These facilities will include income-generating rental space to help defray operating costs of the facility and supporting transit services.

Amtrak Facility Portland

3.4 Freight Transportation

MaineDOT recognizes the increasingly important role of freight transportation in the management and growth of Maine's overall transportation infrastructure and in the promotion of Maine's economic vitality. MaineDOT has made consideration and advancement of freight improvement projects a priority and is following a detailed Integrated Freight Plan in its actions.

3.4.1 Cargo Ports

The state has pursued its Three Port Strategy to support development of cargo ports in Portland, Searsport and Eastport. The Port of Eastport consists of two facilities, the Breakwater Terminal and the Estes Head Terminal. In the late 1990s, the state invested roughly $16 million in the Estes Head Terminal, which provides service for the shipment of value-added forest products to destinations around the world. The Breakwater Terminal is a backup to Estes Head and is positioned to take advantage of Maine's growing cruise ship market. Both terminals also provide benefits to the fishing and aquaculture industries.

The Port of Searsport features private facilities for handling liquid and dry bulk products. The state has begun construction of a new $18 million breakbulk and container terminal in Searsport, which is expected to be in service August 2003. This new terminal will allow Searsport to be a fully intermodal facility with direct access by truck, rail, and water.

The Port of Portland's public facilities serve the needs of the fishing, tourism, and cruise ship industries. Public facilities at the International Marine Terminal also provide weekly container feeder services for imports and exports, and are scheduled to be re-developed. Private facilities in the port handle petroleum, bulk, and breakbulk cargos. A new container crane and warehouse at Merrill Marine Terminal are recent additions of approximately $5 million value.

MaineDOT invests in the marine infrastructure of the state's 142 coastal communities on tidal water through the Small Harbor Improvement Program (SHIP). SHIP is designed for improvements to publicly owned coastal marine infrastructure like piers, boat ramps, float systems, etc. In 1996 and 1997, MaineDOT awarded grants to 43 projects in 38 coastal cities and towns totaling $2.5 million. All projects are matched by a minimum of 25% local funds. These projects are now completed, in use, and of great benefit to the local and marine communities. In 2001, $1.5 million in funds were made available by the Maine Legislature and approved by Maine voters. Twenty-one projects have been selected and initiated in 2002. The goal of these programs is to promote economic development, improve public marine infrastructure, and improve public access to the Maine coast. (See Appendix F)

3.4.2 Freight Rail

Freight railroads are classified based on annual operating revenue as follows:

- **CLASS I** - Annual revenues of greater than $258.5 million
- **CLASS II** - Annual revenues between $40 million and $258.5 million
- **CLASS III** - Annual revenues of less than $40 million.

Maine has no Class I service, but its Class II carriers connect with four Class I railroads in New York, Montreal, and St. Leonard, N.B. The state's Class II railroads, Bangor & Aroostook Railroad Co. (known as BAR and now bankrupt), Guilford Transportation, Inc. (GTI), and St. Lawrence & Atlantic Railroad (SLA), form the core of its regional rail system. The Belfast & Moosehead Lake Railroad, Eastern Maine Railway, and Safe Handling Rail are Class III railroads. These six railroad companies move more than 8 million tons of freight per year over 1,200 miles of active track. Maine has roughly 206 miles of inactive track.

The Bangor and Aroostook Railroad is just emerging from a long and difficult bankruptcy process with a new name, Maine, Montreal and Atlantic (MMA) and new owners. There are three rail/truck intermodal facilities, located in Auburn, Waterville, and Presque Isle. MDOT partnered with local communities, FHWA, and the private rail carriers to build these facilities.

The Auburn facility is served by SLA via its connection to Class I railroad Canadian National. Canadian National's merger with Illinois Central, along with newly developed partnerships with Kansas City Southern and Tex-Mex, opens Maine rail markets to new opportunities that SLA is actively marketing. Additional opportunity for growth has occurred through the development of Mini-Landbridge (MLB) traffic from the Pacific Rim via the port of Vancouver. MLB is generally defined as traffic received over a Pacific coast port with a destination on the U.S. east coast. The SLA, which was recently purchased by Genesee & Wyoming Railroad, is fully cleared for two high cube double-stacked containers between Auburn and Montreal.

The Presque Isle facility is served by BAR/MMA. The traffic moves via BAR/MMA to the Northern Maine Junction, then via GTI to Ayer, MA, from which point it is trucked to Southern New England and Pennsylvania destinations.

The BAR/MMA east-west service is primarily dictated by steamship arrivals and departures at the Canadian ports of St. John, Halifax and Montreal. A small portion of the Canadian port traffic is destined for southern Maine and eastern New England. This traffic moves on the BAR/MMA to Mattawamkeag, where it is interchanged to the GTI system. GTI then delivers the containers to its terminal in Ayer, MA. The route from Mattawamkeag to Ayer is not cleared for double-stacks. Guilford also runs an intermodal service from the Maritimes to US markets.

The Waterville facility is served by GTI. Intermodal service was developed between Worcester, MA and Waterville in the mid-1990s in concert with Conrail. GTI has now developed alternative service routings in concert with CSX and Norfolk Southern. With improving service levels on CSX and Norfolk Southern, GTI expects to grow the intermodal business.

3.4.3 Motor Carrier

As chair of the Intelligent Transportation Systems/Commercial Vehicle Operations (ITS/CVO) Working Group, OFT has supported several initiatives to utilize emerging ITS technologies in commercial vehicle operations. To date, the Working Group has completed an ITS/CVO Business Plan for the state, overseen a project to map motor carrier data files in Maine State Government, and sponsored a Bureau of Motor Vehicles project to tie together the various state motor carrier computer databases using the USDOT numbers as a common identifier in a new relational database, the Unified Motor Carrier Account Management System (UMCAMS). MDOT has begun reconstructing the Kittery and York I-95 weigh scales and new building for improved enforcement interface with UMCAMS and other databases. Installation of an automated vehicle pre-clearance system is planned for both sites. These projects will improve the efficiency of commercial vehicle field inspections and enforcement, allowing more rapid automated clearance of vehicles at enforcement areas and a reduction in the number of staff involved.

MaineDOT has completed a Heavy Haul Truck Network (HHTN) study that has identified major truck freight routes in Maine and provided criteria for evaluating projects that may improve freight flow by truck. MaineDOT/OFT is also managing a Commercial Vehicle Service Plan (CVSP) study that will determine statewide needs for truck rest area facilities. The plan will suggest ways for public-private cooperation in the building and maintenance of truck rest area facilities.

3.4.4 Air Freight

Air freight is a relatively small component of Maine's current freight transportation system, but it is one that is experiencing rapid growth (7 to 10% annually). Air freight is especially important for the transportation of low-weight/high-value commodities, such as semiconductors, and of perishable commodities, such as seafood. These two commodities are important components of Maine's economy and rely on air cargo services. Air freight in Maine moves primarily through the Portland International Jetport, the Bangor International Airport, and the Auburn-Lewiston Municipal Airport. Future investment in warehouse facilities will be necessary as airfreight levels grow.

Passenger and freight movements occur continually throughout Maine and the nation in an increasingly competitive global economy. The efficiency and safety of these movements is critical to Maine's vitality. This section's focus is on the performance of Maine's transportation system.

4.1 Highway Use

Measurements of the use of the highway system are an indication of the demands that are being placed on the system by its users, people who need to travel or move goods across the state. The following describes some key measures of highway use.

4.1.1 Annual Average Daily Traffic

The most basic measure of the use of a highway is Annual Average Daily Traffic (AADT) the total number of vehicles that pass a location on a roadway in one year, divided by 365. Estimates of AADT are used in the planning, design, and management of highway facilities. AADT is the measure used to track historic traffic growth and forecast future traffic growth at specific locations on the highway system. AADT is an important component of the measurements of highway safety and mobility performance. Existing and forecasted AADT also helps determine appropriate design standards for highways and bridges.

The statewide map in Figure 4.1.1 shows the relative AADT volumes on the arterial highways in Maine. Most of the higher volume arterials are in the southern half of the state. Interstate 95 and other arterials across the state are the backbone of Maine's highway network.

While AADT represents an annual average, daily traffic varies seasonally throughout the year. Figure 4.1.2 shows how traffic levels change from month to month for three types of highways. Each of the three patterns shows higher traffic volumes in the summer months and lower volumes in the winter months. The strongest pattern change is shown for highways with recreational traffic heavily affected by the summer peak in tourism. The most uniform pattern exists in urban locations and many suburban areas, which are dominated by commuting and other local traffic. The intermediate pattern change is typical of many rural arterial highways, which have a balanced mix of tourism and year-round traffic.

Figure 4.1.1. Arterial AADT

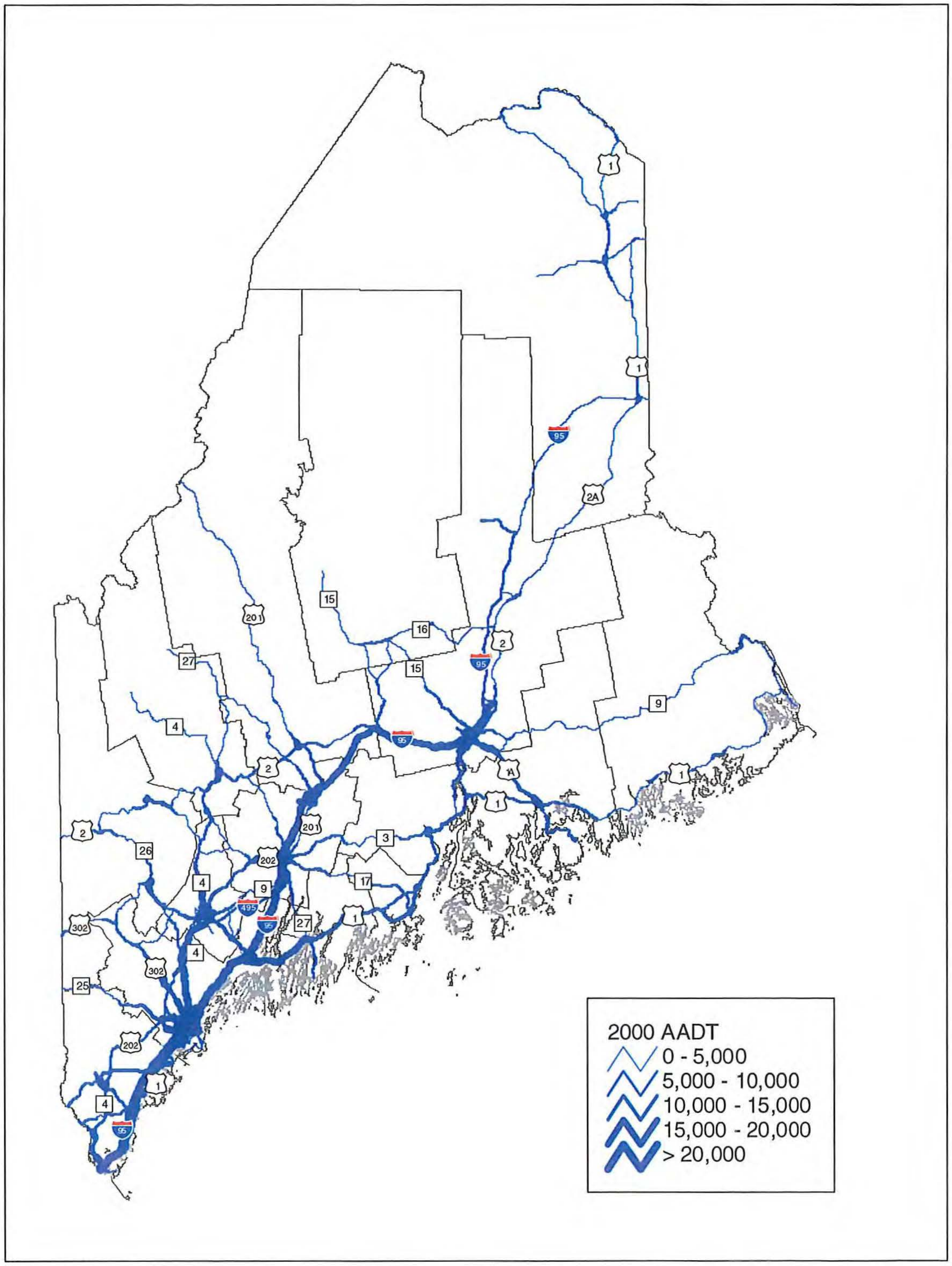
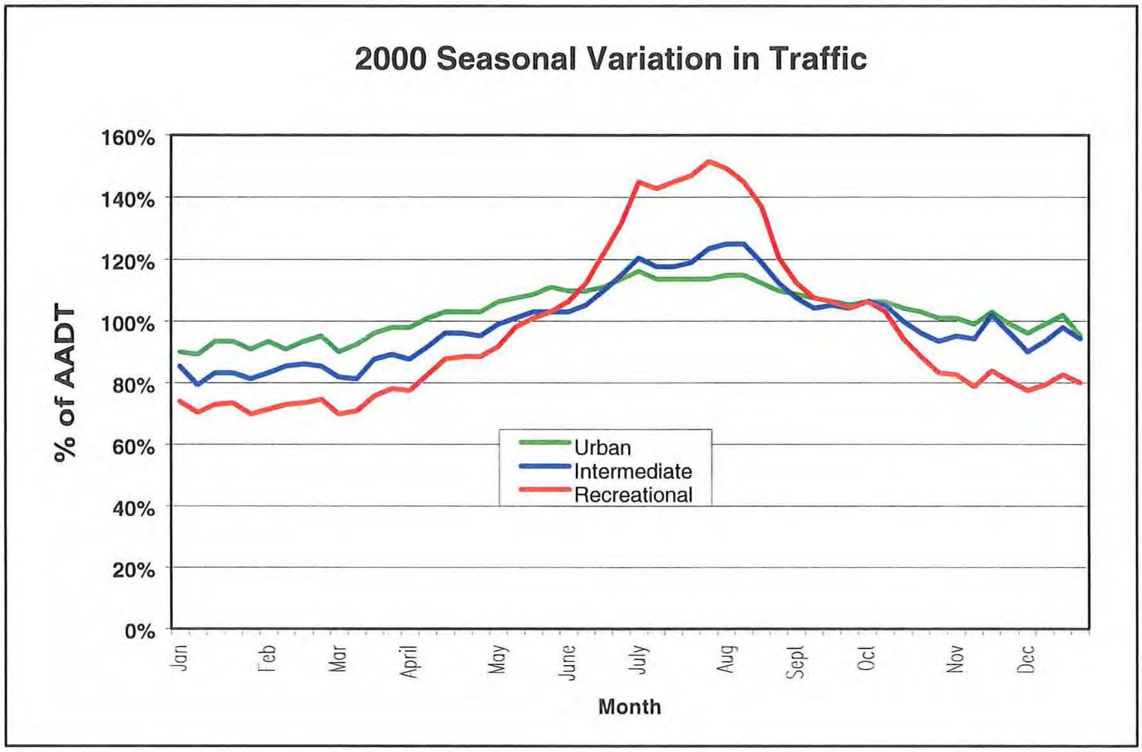


Figure 4.1.2



4.1.2 Vehicle-Miles Traveled

Vehicle-Miles Traveled (VMT) is the principal measure of the overall use of the highway system or significant portions of the system. In year 2000, statewide VMT was approximately 14 billion vehicle-miles. As an overall measure of use of the highway system, VMT is useful in tracking growth in highway travel, which affects overall system condition, performance, fuel use and air quality.

The chart in Figure 4.1.3 shows that VMT has been growing steadily statewide through the years. Continued growth in VMT is expected in the foreseeable future.

A further breakdown of statewide VMT in 2000 is shown in Table 4.1.1. Light vehicles, which include passenger cars, light trucks, and motorcycles, account for more than 90% of all vehicles on the highway system. Rural areas account for about 74% of all vehicle miles. The highest percentage of heavy trucks can be found on the rural Interstate system, where single-unit trucks and tractor-trailers comprise 13% of the total VMT.

Figure 4.1.3. Trends in Statewide VMT

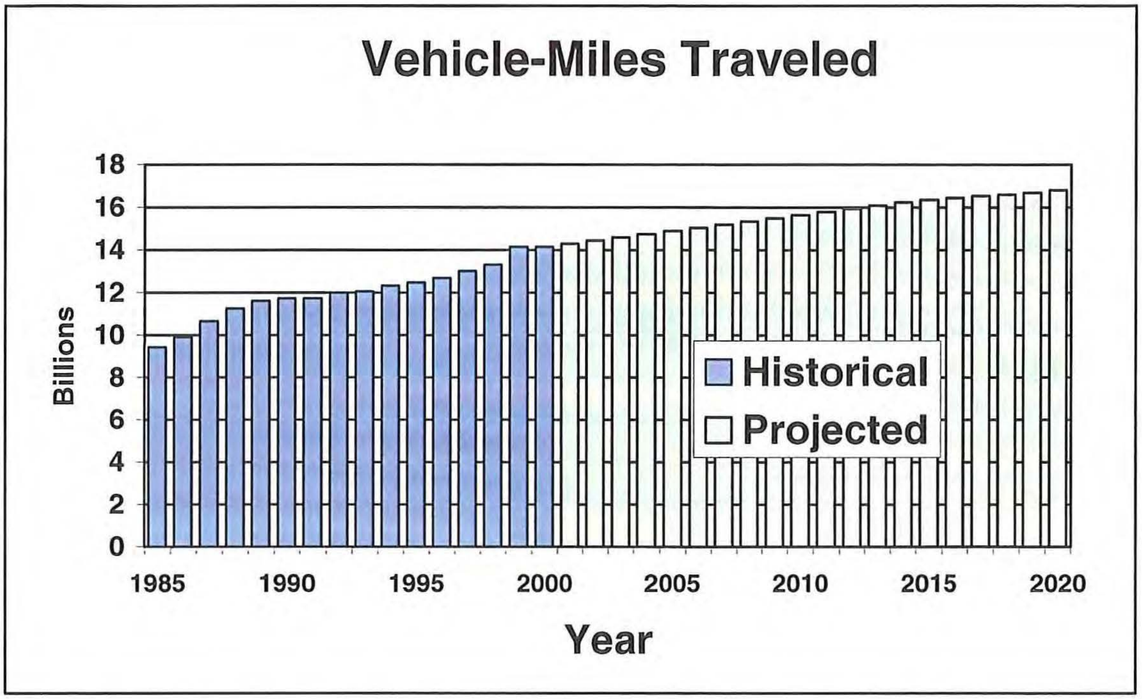


Table 4.1.1 2000 VMT by Vehicle Type and Federal Functional Class

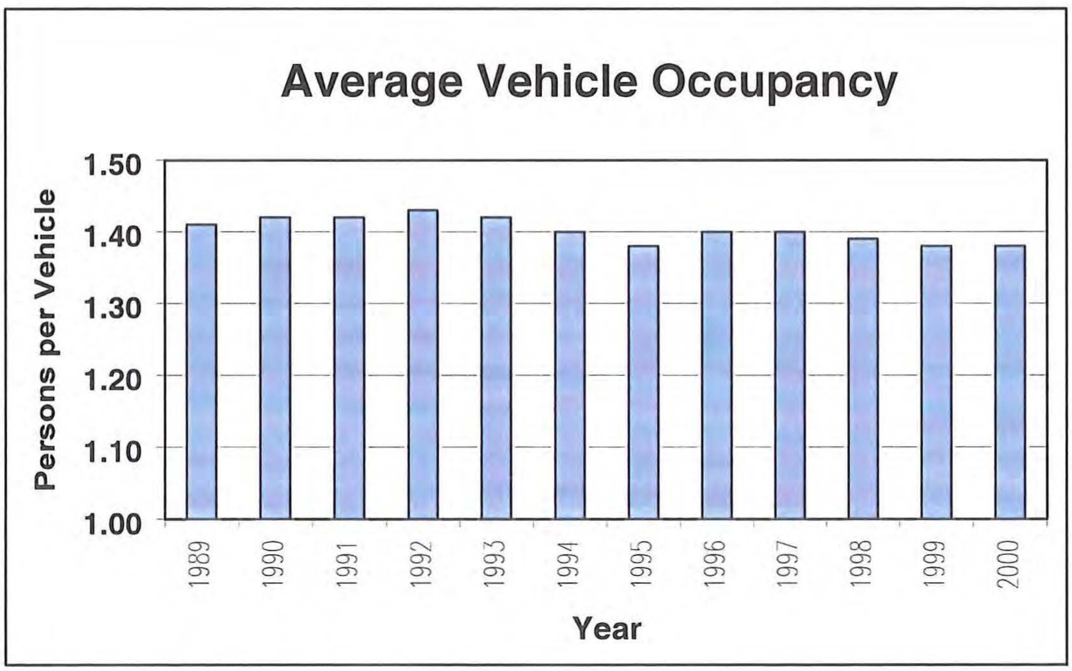
Area Type	Federal Functional Class	Light Vehicle	Single Unit Truck	Tractor-Trailer	VMT (billion)	Percent of Grand Total
Urban	Interstate	92%	1%	7%	0.6	4%
	Other Freeway & Expressway	98%	1%	1%	0.2	1%
	Other Principal Arterial	96%	2%	3%	1.0	7%
	Minor Arterial	97%	1%	2%	0.9	7%
	Collector	97%	2%	1%	0.7	5%
	Local	96%	4%	0%	0.3	2%
	Total Urban	96%	2%	3%	3.7	26%
Rural	Interstate	86%	4%	9%	2.3	16%
	Other Principal Arterial	95%	1%	4%	1.9	13%
	Minor Arterial	94%	2%	4%	1.9	13%
	Major Collector	96%	2%	2%	2.4	17%
	Minor Collector	93%	5%	2%	0.8	6%
	Local	94%	6%	0%	1.2	8%
	Total Rural	93%	3%	4%	10.5	74%
Grand Total		93%	3%	4%	14.2	100%

4.1.3 Average Vehicle Occupancy

Average Vehicle Occupancy (AVO) is the average number of occupants (driver and passengers) in vehicles on the highway. This indicator is used to convert vehicle-based measures, such as VMT, to person-based measures, such as person-miles traveled (PMT). AVO is estimated from data compiled in thousands of crash records each year. This method has proven to be a reliable source of AVO information for highway traffic overall.

The trend shown in Figure 4.1.4 indicates that the statewide AVO has been slowly decreasing. This slow decrease may be the result of dispersed patterns of land development, reduced household size, reduced carpooling, and increased levels of auto ownership.

Figure 4.1.4

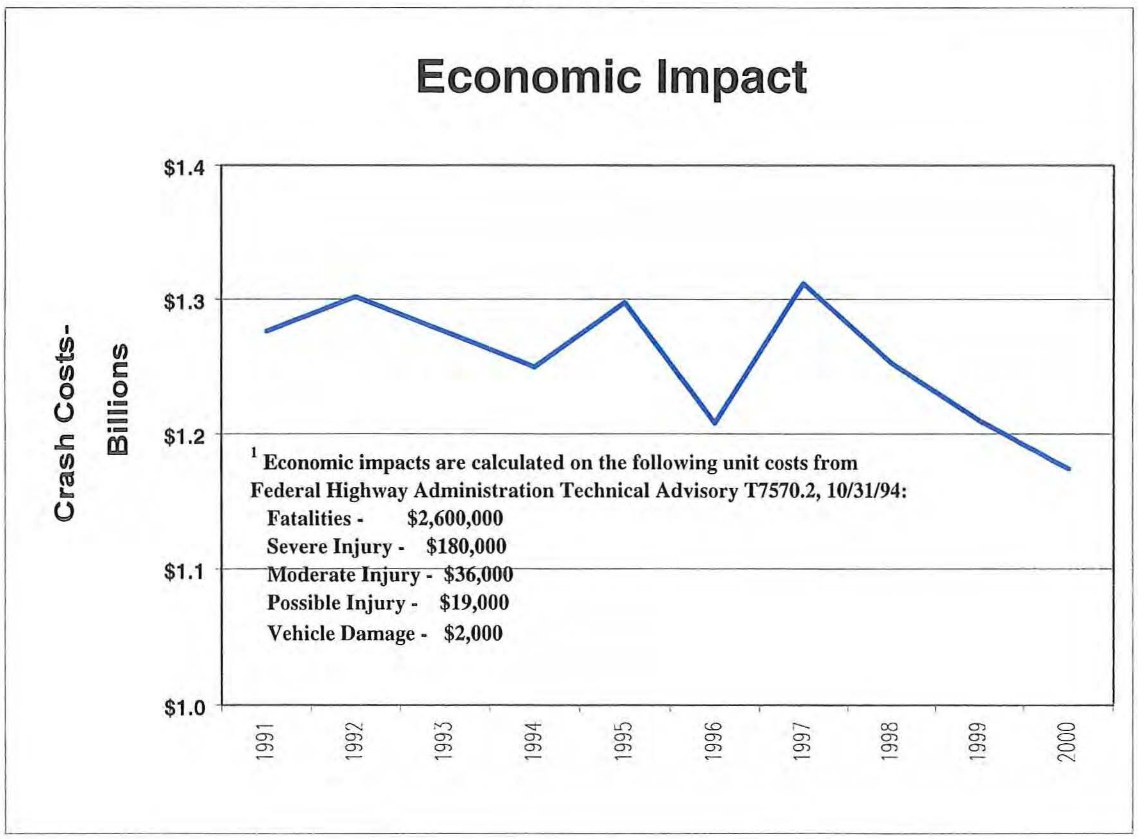


4.2 Safety Performance

Motor vehicle crashes in Maine result in significant economic and societal impacts. While these impacts are generally on the decline, they are still very significant. For instance, the economic impact of crashes occurring on public roads in Maine in 2000 was nearly $1.2 billion (see Figure 4.2.1). This represents about a 7% reduction in economic impact over the past 10 years and can be attributed to safer roads and safer vehicles. The toll taken on families and friends who have lost loved ones is immeasurable, however.

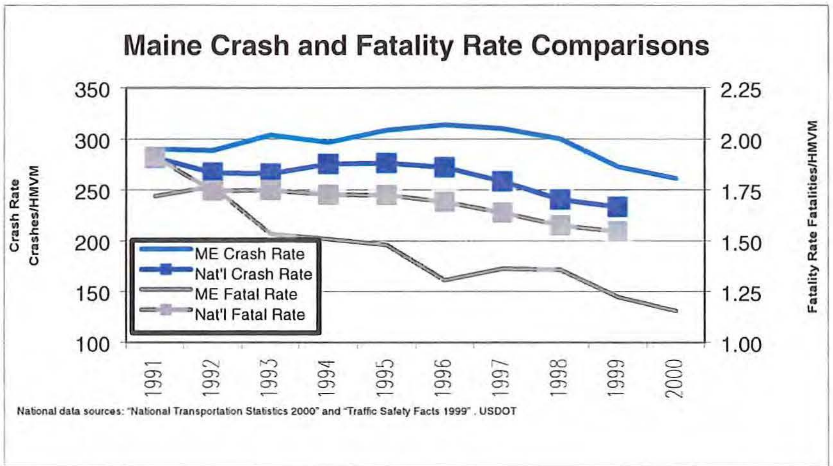
According to Maine law, a police report must be filed whenever a collision results in combined damage of $1,000, bodily injury or death. Prior to 1999, the minimum reportable damage was $500. MaineDOT maintains a database for all police-reported crashes that have occurred on all public roads from 1989 to the present. For the purposes of this report, crash data is presented for the 10-year period of 1991 through 2000. Generally speaking, highway safety performance is improving; however, there remain several significant issues and concerns that need attention.

Figure 4.2.1



4.2.1 National Comparisons

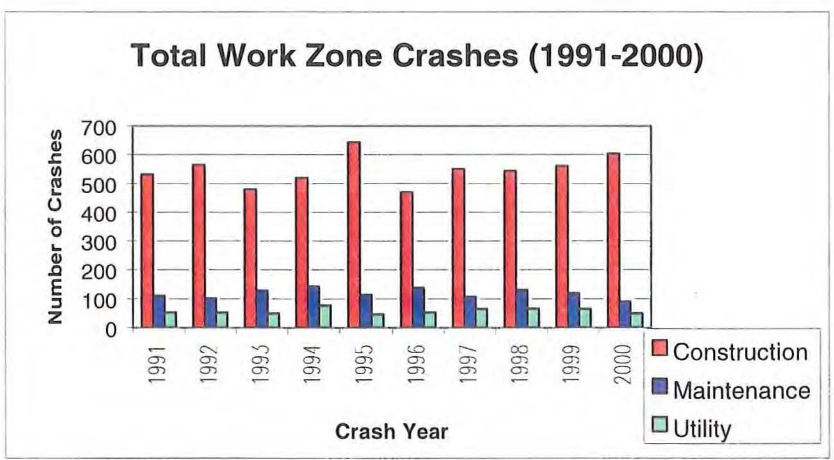
Figure 4.2.2



Maine's crash rate, expressed as the number of crashes per hundred million vehicle miles traveled (HMVM) was 17% higher than the national average in 1999. Maine's crash rate dropped about 8% from 1991 to 1999, while the change nationally was a decrease of more than 17%, (see Figure 4.2.2). The slower reduction in overall crash rate may be due to Maine's rural nature and winter weather conditions. Rural and urban crash rates are discussed in section 4.2.2.

Though Maine experiences a crash rate well above the national average, its fatality rate is now significantly lower than the national average. The fatality rate on Maine public roads has dropped 1.5 times faster than the national average for the period 1991 through 1999. Maine's fatality rate has dropped a significant 33% over the past ten years, down to a rate of 1.15 fatalities per HMVM in 2000. In 1998, Maine had the 15th lowest fatality rate in the nation (Source: Traffic Safety Facts 1998, National Highway Traffic Safety Administration).

Figure 4.2.3



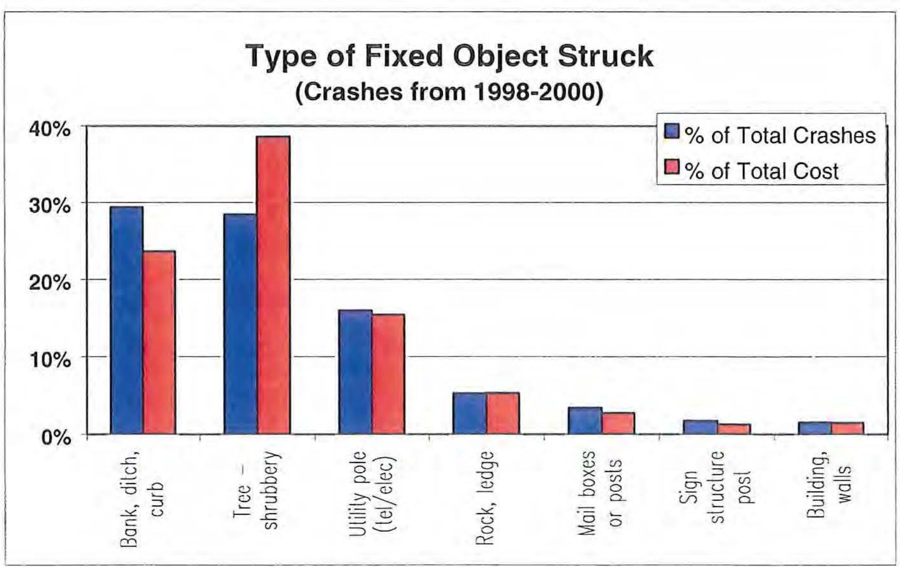
Maine ranks high nationally in two areas—fatality rates in work zones and crashes involving utility poles. More than 7,200 crashes and 25 deaths occurred in Maine work zones from 1991 through 2000. Work zones are road or roadside areas where construction, maintenance or utility work is being conducted. Workers in these areas are particularly vulnerable, but serious driver injuries occur in these areas as well. The changing road and traffic conditions in work zones require full driver attention and reduced speed. Excessive speed and driver distraction/inattention are the leading contributing factors to crashes in work zones.

Currently, Maine ranks eighth nationally in the fatality rate involving utility poles. This high rate is partially due to many of the state roads being rural 2 lane highways, where run off road crashes are common and often result in striking a fixed object.

Fixed objects including utility poles near roadsides present a serious hazard to vehicles involved in Run Off Road crashes. Figure 4.2.4 below summarizes the top types of objects struck. Even though Maine ranks high nationally for its fatality rate involving utility poles, crashes involving other objects such as embankments, ditches and trees result in significantly greater economic impacts. The number of crashes involving utility poles has stayed relatively constant over the 10-year period but fatalities have decreased, while vehicle miles traveled have increased. MaineDOT has completed a utility pole crash study that contributed to the development of a revised utility pole location policy. This policy includes standards regarding the elimination of multiple pole lines within the highway corridor and defines standard pole offsets based on the roadway classification. As MaineDOT undertakes transportation projects, utility pole locations are reviewed with respect to the revised policy. To further evaluate location and corridor utility pole crash problems, maps can now be generated for utility companies to identify where utility pole relocations are needed most. MaineDOT has stepped up its program to improve pole location offsets, making improvements on more miles of highway each year.

Another fixed object concern is rigid guardrail ends. A guardrail improvement program is underway to help minimize the crash severity of vehicles that strike guardrail ends.

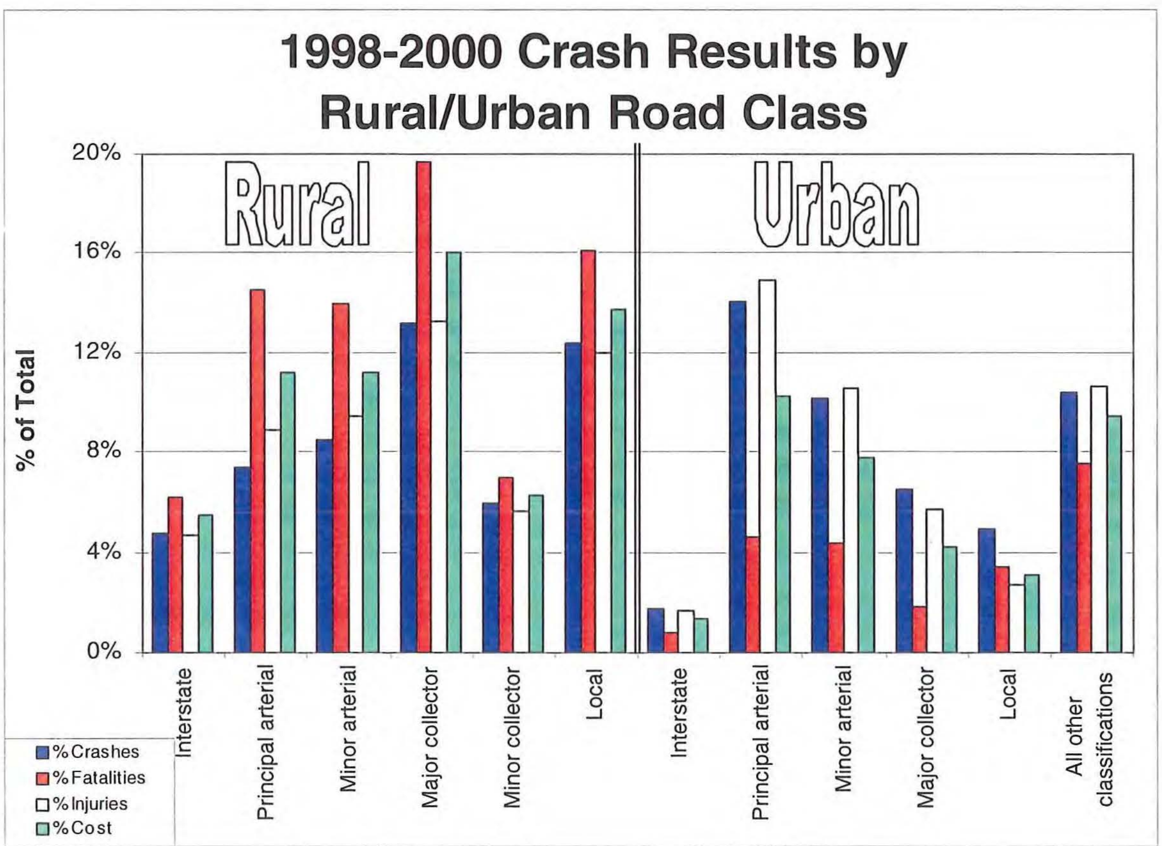
Figure 4.2.4



4.2.2 Urban-Rural Safety Trends

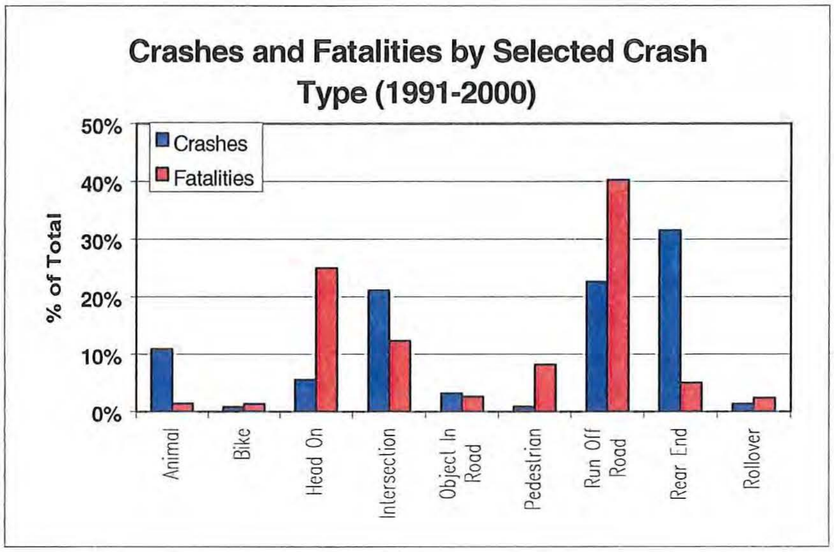
Maine is a rural state, and this is reflected in the generally higher number of crashes and their human toll on rural roads, as illustrated in Figure 4.2.5. While the percentage of crashes occurring on rural versus urban roads varies for road classification with no clear pattern, the percentage of fatalities and total economic losses are significantly greater in rural settings for any given road class. The leading rural fatal crash types on non-interstate highways are Head On and Run Off Road. Unsafe speed is a contributing factor in more than half of rural Run Off Road fatal crashes. MaineDOT will soon undertake a new initiative to identify methods to address Run Off Road and Head On Crashes on rural roads. Plans include education through MaineDOT's public awareness campaign, identifying and piloting techniques and technologies that would best improve road safety, and implementing updated design guidelines provided in MaineDOT's updated State Standards Highway Design Guide.

Figure 4.2.5



4.2.3 General Crash Trends

Figure 4.2.6

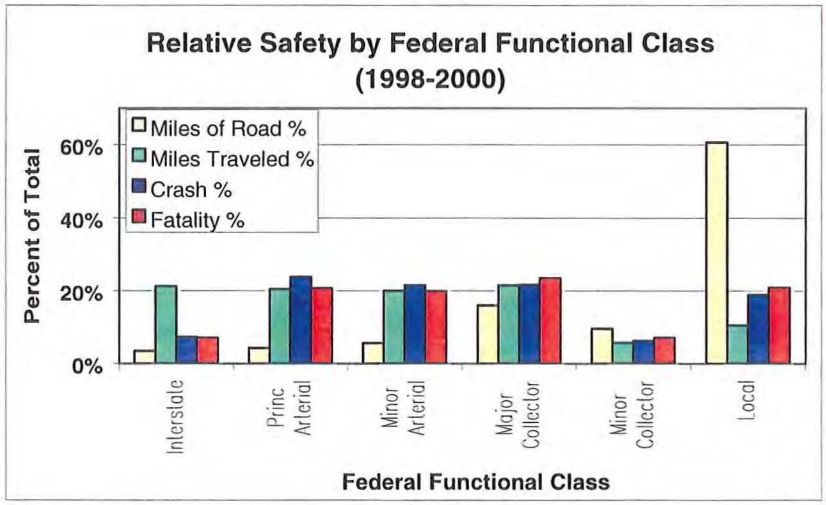


Crash and fatality data for the most severe crash types for the period 1991-2000 period are shown in Figure 4.2.6. Rural and urban crash type trends differ. Not surprisingly, Run Off Road crashes are the most prevalent in rural areas, while Rear End and Intersection crashes are most common in urban locations. Rear End crashes account for more than 30% of all crashes and are the most prevalent crash type on Maine's public roads. However, they tend to be much less severe than Run Off Road crashes, which account for more than 40% of all fatalities in Maine. Head On crashes represent just 4% of total crashes, but account for over 25% of all fatalities. Head On crashes tend to be more severe than other crash types due to the combined forces of the opposing vehicles. As stated in the prior report section, MaineDOT is undertaking efforts to reduce the number and severity of Run Off Road and Head On crashes.

4.2.4 Relative Safety by Federal Functional Road Classification

Interstate roads are the safest roads in Maine, as is illustrated in Figure 4.2.7. This is primarily because the interstate system is designed to a high standard with significant clear zones along the roadside. Clear zones are roadside areas free of obstacles that also allow vehicle recovery. MaineDOT continues to improve clear zones on non-interstate roadsides to provide improved ability for vehicles to safely recover from problems. Close roadside proximity of trees, utility poles, culvert ends, embankments and stone/ledge all are evaluated in project design. Also, the interstate roads are divided with controlled access, so there are few traffic conflicts. Vehicles travel in the same direction and side friction is introduced only periodically at on and off ramps and when lane change maneuvers occur.

Figure 4.2.7



Non-interstate principal arterials, minor arterials and major collector roads each experience about 20% of the total vehicle miles of travel, crashes and fatalities. Local roads exhibit the greatest ratio of crashes and fatalities per mile driven for both urban & rural road classes. This is likely due to the additional traffic conflicts caused by stopping vehicles, turning traffic and lower design standards(local roads are not designed to the standards as state roads). Local roads account for approximately 60% of the total public road mileage in Maine but only 10% of the vehicle miles traveled.

4.2.5 Safety Impacts of Posted Speed Limit

In general, roads having higher posted speed limits are built to higher design standards and have fewer driveways and other conflict points than roads with lower posted speeds. As the speed limit increases, crash rates on Maine roads decrease (Figure 4.2.8), but the severity of the crashes is greater at higher speeds (Figure 4.2.9) because of the greater force of impact. The estimated unit crash cost rises from less than $8,000 per crash at 25 mph speed limits to nearly $16,000 per crash at 50 mph. The fatality rate averages between 0.8 to 1.0 fatalities per Hundred Million Vehicle Miles (HMVM) at speeds lower than 45 mph, then rises to a peak of 1.8 fatalities per HMVM at 45 mph, the legal limit on most roads. The fatality rate drops to 0.4 fatalities per HMVM at 65 mph. The reduction in fatality rates at the highest speed is likely due to the higher design standards used on interstate roads.

Figure 4.2.8

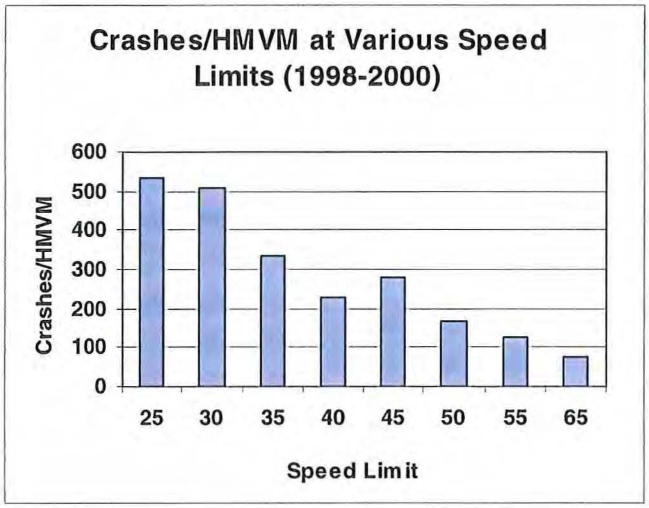


Figure 4.2.9

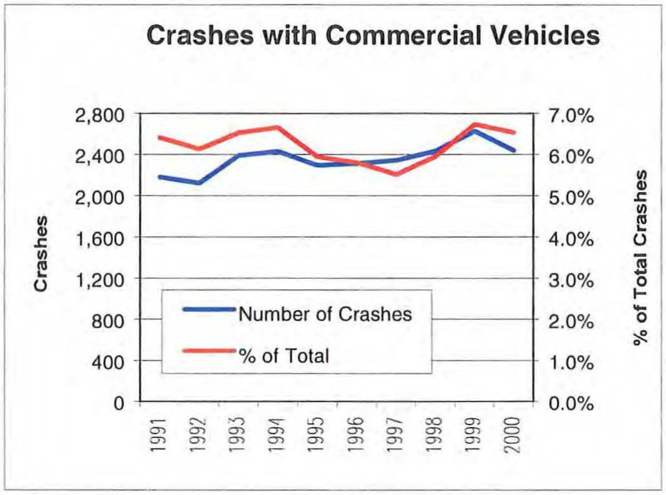
4.2.6 Primary Human Contributing Factors Affecting Safety

The primary contributing factors (human elements) for crashes in Maine are Driver Inattention (25%), Failure to Yield Right of Way (13%), Illegal or Unsafe Speed (12%) and Following Too Close (6%). While Failure to Yield may be the result of poor sight distances at intersections or difficulties for drivers to identify an upcoming intersection, the other contributing factors relate to driver attitudes. MaineDOT is undertaking a new media campaign intended to increase public awareness of the various issues affecting transportation safety in Maine. Over time, this increased public awareness should lead to changes in driver behavior and attitude, and result in improvements to transportation safety in Maine. This reflects the USDOT "4 E's" approach to highway safety—Engineering, Enforcement, Education, and Emergency Services. The Engineering aspect is automatically considered part of MaineDOT's role, but it is also involved in the other three "E's" as well. Speed enforcement is budgeted in certain highway projects due to high traffic volumes, known speeding problems or other safety factors. MaineDOT's Transportation Safety Media Campaign is aimed at Educating the public on a wide range of safety topics. MaineDOT is also involved with several interagency groups such as the Maine Transportation Safety Coalition, which includes groups/agencies involved in Emergency response, and another inter-agency group involved with identifying the medical outcomes of crashes.

4.2.7 Commercial Vehicle Safety

In 2000, there were 2,400 crashes involving commercial vehicles on Maine's public roads. This number is up from about 2,200 crashes in 1991. This represents a 10% increase over the past 10 years (Figure 4.2.10) and is primarily due to greater use of trucks in transporting America's goods. There has also been an increase in the number of crashes involving four-axle single units.

Figure 4.2.10

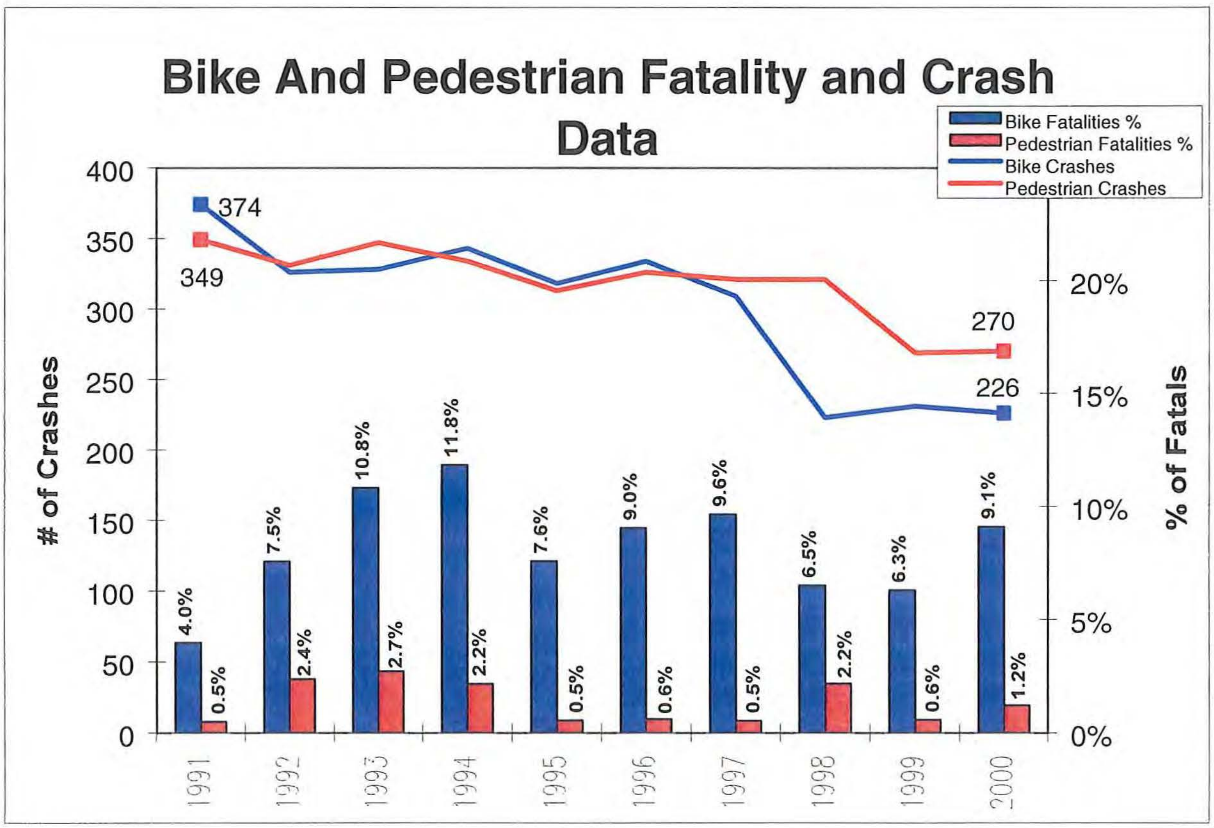


Six-axle trailers have shown the greatest increase in crash activity, most likely due to their increased use. Increased numbers of larger trucks/tractor trailers are being used primarily because they can carry additional weight. Their axle configuration actually decreases road wear. A typical six-axle vehicle carrying 100,000 pounds causes about 7% less pavement consumption than a five-axle trailer carrying 88,000 (maximum allowed for some special commodities such as concrete products, pulp wood, logs, wood chips or farm produce). (Note: Neither of the vehicles described would be allowed on Maine Interstates, but would be allowed on the Maine Turnpike.) The result of this shift to larger truck combinations is fewer vehicles can carry more product with less road degradation, and an overall decrease in truck units on the road. Although these trucks are less problematic in terms of impact to the road, safety implications are likely to arise and will require close monitoring. Commercial vehicle use is expected to grow well into the foreseeable future, though truck-to-train intermodal facilities have also increased in use.

4.2.8 Bicycle and Pedestrian Safety

Both bicycle and pedestrian crashes have decreased over the last 10 years. However, the fatality rates, expressed as a percent of total Maine traffic fatalities have fluctuated significantly for both. The decrease in crash frequency may be due to decreases in bicyclists and pedestrians rather than improvement in their safety. A new MaineDOT policy to pave road shoulders and a new policy currently under consideration for sidewalks may help turn the trend to increase bicycle and pedestrian uses of the public road system.

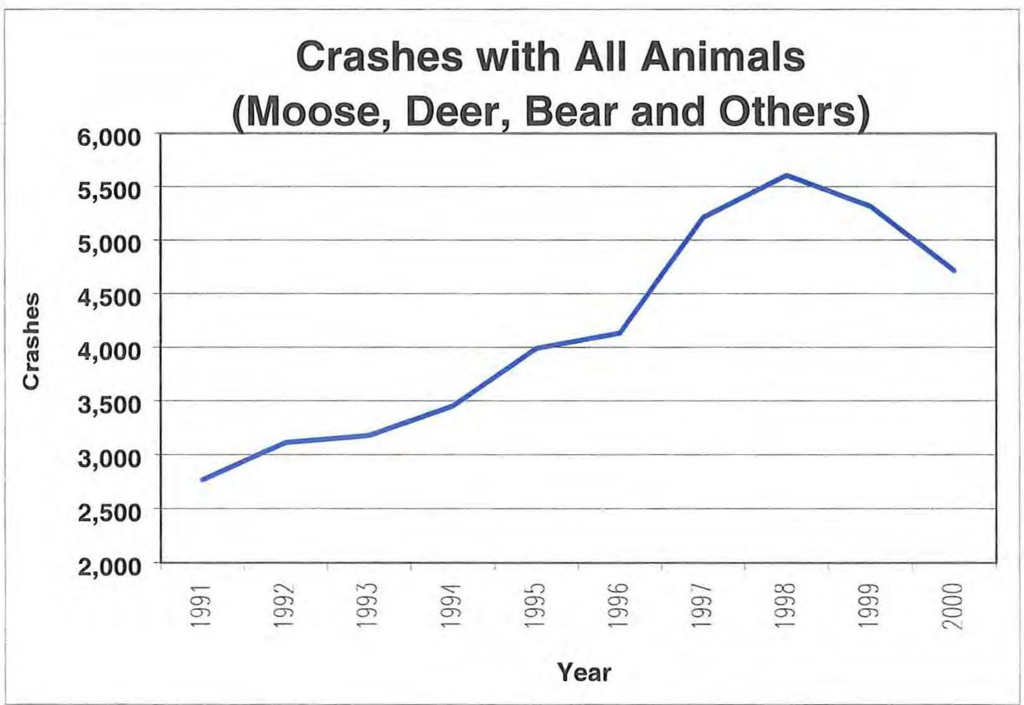
Figure 4.2.11



4.2.9 Crashes with Animals

Collisions with animals increased dramatically from 1991 through 2000, from 2,767 such incidents in 1991 to a high of 5,605 in 1998. The number of crashes involving animals has been on the decline since then. A number of factors may be affecting the increase in crashes including sprawl which fragments animal's habitat and increases overall vehicle travel. MaineDOT is working with the Maine Department of Inland Fisheries and Wildlife, the Office of the Secretary of State, the Department of Public Safety, Maine State Police, Maine Turnpike Authority and others to address concerns resulting from crashes involving large animals, particularly moose. Each year, two to three people are killed in collisions with moose. To date, this working group has conducted extensive research, issued an interim report and developed a map depicting moose crash locations. Additionally, the group was successful in obtaining a Maine Outdoor Heritage Fund grant for the production of a short movie on crashes involving moose for inclusion in all driver education courses. Three public service announcements were also developed and aired on major television stations. MaineDOT intends to continue participating with the multi-agency work group and will implement test projects for promising techniques to reduce the number of crashes involving large animals.

Figure 4.2.12



4.2.10 Motorcycle Safety

For the period 1990 through 1999, Maine crashes involving motorcycles dropped about 15% (Table 4.2.1). In the same timeframe, crashes involving motorcycles on the national level dropped about 47%. Injury levels have also decreased more on the national level than in Maine. Over the same timeframe, Maine data suggests a slight reduction in fatalities, while the national fatality number has decreased by about twice that rate. It is not known at this time why national data are significantly better than for Maine. This is particularly troubling since Maine's motorcycling season is significantly shorter than most of the rest of the country. MaineDOT will conduct more analysis to better define the reason for the discrepancy between Maine and national experience.

Maine and National Motorcycle Crash Comparisons

Table 4.2.1

	Maine			National		
Year	**Fatalities**	**Injuries**	**Crashes**	**Fatalities**	**Injuries**	**Crashes**
1990	18	559	653	3,244	84,000	103,000
1991	21	541	638	2,806	80,000	106,000
1992	18	418	509	2,395	65,000	72,000
1993	9	470	539	2,449	59,000	72,000
1994	13	472	530	2,320	57,000	67,000
1995	14	280	524	2,227	57,000	63,000
1996	15	354	425	2,161	55,000	66,000
1997	9	426	448	2,116	53,000	61,000
1998	15	384	455	2,294	49,000	54,000
1999	16	425	475	2,472	50,000	57,000
2000	15	396	439			
Ten Year Trend	**-11%**	**-26%**	**-15%**	**-25%**	**-42%**	**-47%**

4.2.11 Highway Railroad Grade Crossings

There are currently 628 active railroad grade crossings at public roads in Maine. Of these, 259 are located on arterial and collector roads, and 369 cross local roads. Active warning devices (gates, flashing lights and bells, flashing lights, and flagged) are present at 71% of the currently active crossings. (A flagged crossing is one in which the train comes to a stop prior to the crossing and railroad personnel control vehicular traffic and direct the train safely through the crossing.) Table 4.2.2 lists warning device type by road classification. There are no passive warning devices on arterial roads and only 10 passive warning devices remain on collector roads. Nationally, 21% of the crossings have gates (compared to Maine's 12%) and 19% have only bells or lights (compared to Maine's 54%).

Table 4.2.2

Type of Crossing Protection Provided							
		Active Protection			Passive Protection		
Fed functional class	Number of Active Railroad Crossings	Gates	Flashing Lights or Flashing Lights & Bells	Flagged	Cross-bucks	Stop Signs	None
Other principal arterial	30	12	15	3	-	-	-
Minor arterial	49	15	33	1	-	-	-
Major collector	132	25	94	7	6	-	-
Minor collector	48	1	42	1	4	-	-
Local	362	25	155	16	163	2	1
Seasonal, Other	7	-	2	-	4	-	1
Total	**628**	**78**	**341**	**28**	**177**	**2**	**2**

Partially due to the relatively low volume of railroad activity, Maine at-grade railroad crossings have an excellent safety record. As can be seen in Table 4.2.3, only a handful of vehicle-train crashes occur annually at Maine's public at-grade crossings, and there have been no fatalities as a result of this type of crash since 1992.

Table 4.2.3

Year	Number of Crashes at Railroad Crossings	Fatalities	Incapacitating Injuries	Evident Injuries	Possible Injuries
1991	15	1	0	3	3
1992	8	1	0	0	3
1993	6	0	0	1	1
1994	6	0	1	1	1
1995	8	0	0	3	2
1996	6	0	0	0	2
1997	12	0	1	2	3
1998	8	0	1	1	1
1999	5	0	1	2	0
2000	5	0	0	2	0
Total	**79**	**2**	**4**	**15**	**16**

With the advent of higher speed passenger rail service in December of 2001 (Amtrak Boston to Portland), the safety of grade crossings may be reduced due to increased train speeds, additional train movements, driver risk-taking and rail trespassing. All 17 public grade crossings along the Amtrak line have been outfitted with gates and lights. Because freight rail shares the same tracks, all of the warning devices on the Amtrak line provide consistent warning times by monitoring train speed. Traffic signals are pre-empted with the railroad grade crossing warning systems where the traffic signals could cause traffic queues to encroach on the tracks. Maine Operation Lifesaver and Amtrak also have launched emergency services training and a public awareness campaign to educate first responders, schoolchildren, travelers and the general public about railroad safety. Given the exemplary safety record, MaineDOT intends to continue its recent investment rate for grade crossing safety improvements.

4.2.12 Public Awareness Initiatives

More than 80% of all police accident reports indicate some form of human error. In order to address the many and varied transportation safety issues, many of which are due to human elements, MaineDOT has expanded upon previous successful Work Zone Safety Awareness Week public awareness activities. In 2000 and 2001, MaineDOT lead the state multi-agency Work Zone Safety Awareness Week (WZSAW) campaigns in coordination with the national WZSAW emphasis. The last two year's efforts included a highly publicized Design-A-Poster contest that resulted in hundreds of entries from Maine fourth graders, a MaineDOT employee contest and a general public contest. This emphasis on protecting workers and motorists in highway work zones was again a core focus in 2002, with media attention being sought to continue to increase driver safety awareness.

Expanded media attention to work zones is not the only safety topic MaineDOT is targeting with its media campaign. Run Off Road, Head On and other crash types and causal factors lead to many highway deaths and injuries. MaineDOT has teamed up with a major television station (WGME-13) and a media consultant to assist in the development of a yearlong public awareness campaign to address these and other significant traffic safety issues. Activities have included the development of a MaineDOT safety character, Flash, who is used at various public appearances.

Flash also appears in a series of television commercials sponsored by WGME-13, MaineDOT and Lee Auto Malls. The commercials air at all times of the day. The character provides some initial shock value with his antics, which, it is hoped, will lead to memorable safety messages. WABI-TV in Bangor has also been airing the commercials since July 1, 2002. Additionally, WGME-13 broadcasts safety tips every Monday, Wednesday and Friday at 5:40 and 6:40 AM on its Daybreak News program. MaineDOT felt it was necessary to provide safety tips as part of the news rather than with public service announcements to obtain greater viewer attention and credibility. A different transportation safety topic is covered each week.

WGME-13 is also committed to running several feature news stories on various safety issues. It is hoped that this effort will generate significant media and public interest and help modify driver behavior over time.

4.3 Highway Mobility

Mobility is the ability of people and goods to move from one place to another. The arterials in the highway system provide most of the mobility in Maine. While representing only 12% of the road mileage, arterials account for more than 60% of the vehicle-miles traveled (VMT) statewide. For this reason, the performance of the arterials in serving the mobility needs of the state is an important part of the system evaluation. The following describes key indicators of highway mobility performance.

4.3.1 Posted Speed

The speed limit (posted speed) of a roadway is an important indicator of the facility's potential to provide mobility. Roads with higher posted speeds can serve the movement of people and goods more efficiently than low-speed roads.

Interstate highways, other principal arterials, and minor arterials account for more than 3,000 miles of Maine's road network. Table 4.3.1 shows the percentage breakdown of arterial mileage by posted speed. Half of Maine's arterial mileage is posted at 55 mph or higher. Two-thirds of the mileage is posted at 50 mph or higher.

Percentage of Arterial Mileage by Posted Speed

Table 4.3.1

Posted Speed (mph)	Percentage of Arterial Mileage
65	23%
60	0%
55	27%
50	18%
45	10%
40	5%
35	7%
30	3%
25	7%
Total	**100%**

Posted speeds vary by functional class and area type. Higher functional classes tend to have higher posted speeds; also, roads in rural areas generally have higher posted speeds than urban areas. Table 4.3.2 shows the average posted speed of urban and rural functional classes of arterials, weighted by mileage in each class. With posted speeds that are generally 65 mph, rural interstate highways provide the highest level of highway mobility in Maine. At the other extreme, minor arterials in urban areas have a weighted average posted speed of about 31 mph.

Average Posted Speed by Functional Class

Table 4.3.2

Functional Class	Average Posted Speed	
	Urban	Rural
Interstate & Expressway	57.7	64.2
Other Principal Arterial	33.9	49.2
Minor Arterial	31.1	48.1

4.3.2 Utilization of Capacity

In addition to posted speed, Annual Average Daily Traffic (AADT) and hourly highway capacity (C) are important factors in the measurement of mobility. While AADT is a measure of use, C is the maximum number of vehicles that can pass by a location on a highway during a single hour. When AADT is divided by C, the AADT/C ratio measures how intensely a highway is utilized. If traffic volumes increase over time but the capacity remains the same, the AADT/C ratio also increases. As a highway facility's AADT/C ratio increases, the average speed of vehicles on that facility tends to decrease. This decrease in average speed is evidence of reduced mobility.

Table 4.3.3 shows a breakdown of arterial mileage by area type and by ranges of AADT/C, based on volume data for the year 2000. Nearly 80% of all arterial miles are in the low and very low ranges of AADT/C where the traffic-carrying capacity of the roadway is never challenged. Only about 2% of the mileage is in the high or very high ranges where capacity is routinely reached. Most urban mileage is in the low, moderate, and moderately high ranges of AADT/C. The majority of rural mileage is in the low and very low ranges.

Arterial Mileage in 2000 by AADT/C Range

Table 4.3.3

Range of AADT/C	Operates at Capacity (Typ.)	Urban Miles	Rural Miles	Total Miles	% of Arterials
Very Low (0-2)	Never	70	1307	1377	43.4%
Low (2-4)	Never	164	947	1111	35.0%
Moderate (4-6)	Rarely in peak hours	166	236	403	12.7%
Moderately High (6-8)	Seasonally in peak hours	108	103	211	6.7%
High (8-10)	Routinely in peak hours	37	21	58	1.8%
Very High (> 10)	For prolonged peak periods	12	1	13	0.4%

Table 4.3.4 shows the average AADT/C ratios for urban and rural functional classes of arterials. As indicated, the arterials in urban areas are more heavily utilized than rural arterials. Among the functional classes, interstate and expressway mileage has lower utilization of capacity than other arterial classes, mainly due to their ability to carry relatively large numbers of vehicles (close to 2,000 vehicles/lane/hour). This high capacity is made possible by multiple lanes, full control of access, and a median to separate the two directions of flow. Other principal arterials, with their high transportation importance and lower capacity (often less than 1,000 vehicle/lane/hour), have the heaviest utilization of capacity.

Average AADT/C by Functional Class

Table 4.3.4

Functional Class	Average AADT/C	
	Urban	Rural
Interstate & Expressway	3.58	2.54
Other Principal Arterial	5.30	2.68
Minor Arterial	4.77	2.02

As traffic volumes increase on Maine's arterials over the next 20 years, the AADT/C ratio on most arterial mileage can be expected to increase. Table 4.3.5 shows the projected breakdown of arterial by AADT/C range in 2020 if no changes are made to the arterial network. A comparison of Table 4.3.5 with Table 4.3.3 shows the likely shift to the higher ranges of AADT/C. The amount of arterial mileage in the very high range could increase nearly fourfold, from 13 to 50 miles. Mileage in the high range could more than double, going from 58 to 128 miles. At the other end of the spectrum, mileage in the low and very low ranges could decrease by nearly 300 miles.

Arterial Mileage in 2020 by AADT/C Range

Table 4.3.5

Range of AADT/C	Operates at Capacity (Typ.)	Urban	Rural	Total	Percentage
Very Low (0-2)	Never	54	1133	1187	37.4%
Low (2-4)	Never	124	884	1008	31.8%
Moderate (4-6)	Rarely in peak hours	149	370	518	16.3%
Moderately High (6-8)	Seasonally in peak hours	124	163	287	9.0%
High (8-10)	Routinely in peak hours	72	56	128	4.0%
Very High (> 10)	For prolonged peak periods	38	11	50	1.6%

The potential increase in the utilization of arterial capacity could lead to more arterial miles being pushed to the limits of their capacity more often. These strains on capacity would lead to increased levels of traffic congestion on arterials in the future. Figures 4.3.1 and 4.3.2 show, in map form, the capacity utilization of the Maine arterial network in 2000 and the potential utilization in 2020, respectively. The increasing demands on capacity are evidenced by the spread of red and orange levels of utilization on arterials in the southern and central regions of the state, an indication that additional highway capacity will be needed in the future.

4.3.3 VHT and Delay

While vehicle-miles traveled (VMT) is an overall measure of travel on the highway system, an overall measure of the amount of time spent traveling is vehicle-hours traveled (VHT). Because time has value, evaluation of VHT allows the estimation of travel time costs and benefits.

Ideally, travel would be free flowing for all travelers. However, the presence of many travelers on our arterial network creates interference in the free flow of traffic. As a result, travel speeds decline and travel times increase. The increase in travel time caused by the interference among vehicles is called delay, which can be considered as the excess travel time due to traffic interference (congestion). Delay is an added cost to the traveler. If actions are taken to reduce delay in the highway network, these reductions in delay are considered to be mobility benefits of the actions.

The level of congestion on a highway facility or system can be measured by the proportion of total VHT represented by delay. This proportion is defined as the delay ratio. The relationships between total VHT, delay and the delay ratio are shown in Table 4.3.6, which also shows that delay expressed as VHT can be converted to delay costs expressed in dollars.

Vehicle-Hours Traveled and Delay in 2000 by Functional Class

Table 4.3.6

Area Type	Functional Class	Total VHT (millions)	% of VHT	Delay VHT (millions)	Delay Ratio	Delay Costs ($ millions)	% of Delay
Urban	Interstate & Expressway	11.2	5%	0.7	0.06	7	2%
	Other Principal Arterial	37.0	17%	11.9	0.32	119	33%
	Minor Arterial	38.6	18%	12.7	0.33	127	35%
Rural	Interstate & Expressway	38.1	18%	1.0	0.03	10	3%
	Other Principal Arterial	43.9	21%	5.5	0.13	55	15%
	Minor Arterial	43.1	20%	4.7	0.11	47	13%
Combined		**212.0**	**100%**	**36.6**	**0.17**	**366**	**100%**

Figure 4.3.1 AADT/C on Arterials in 2000

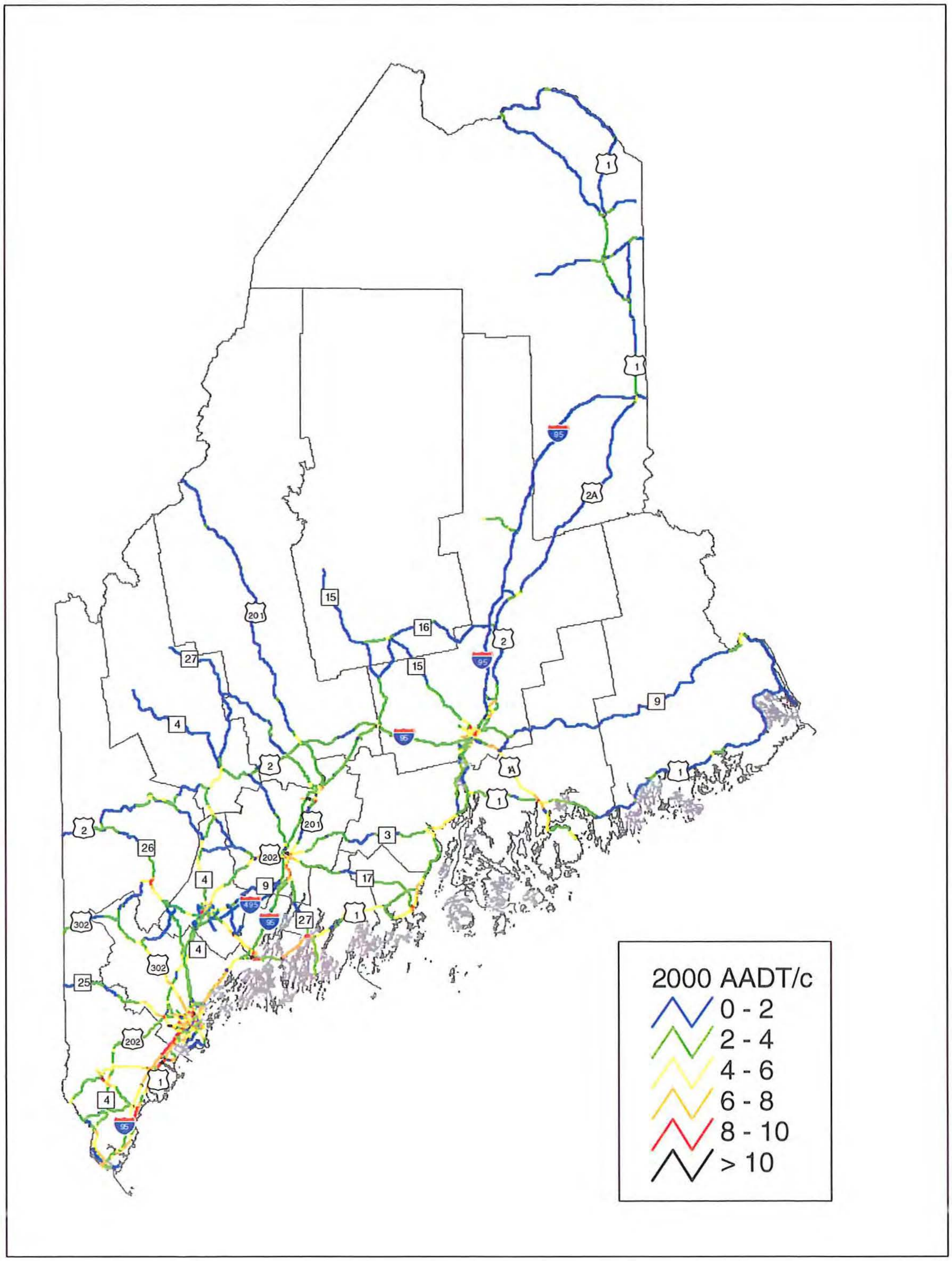
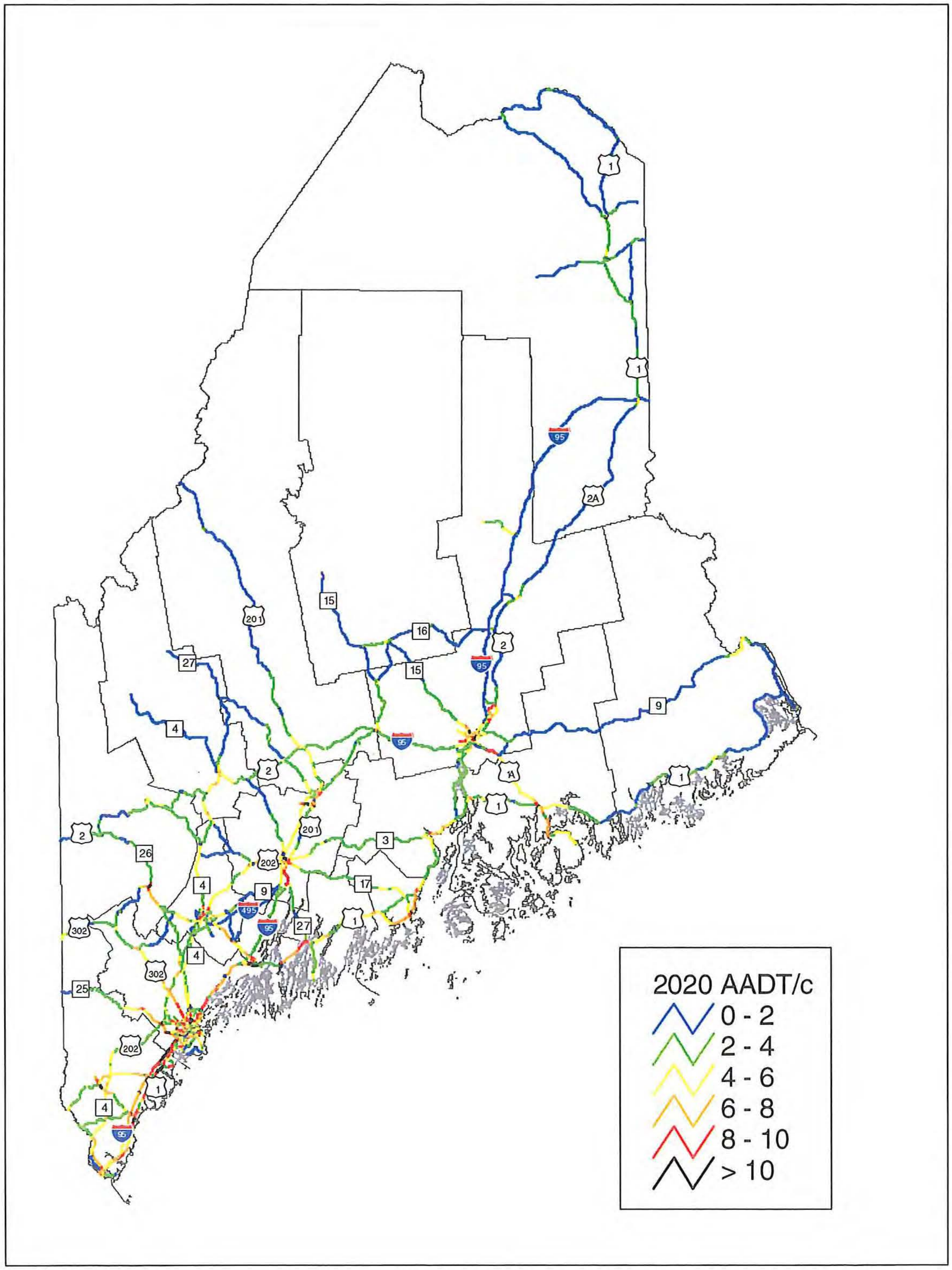


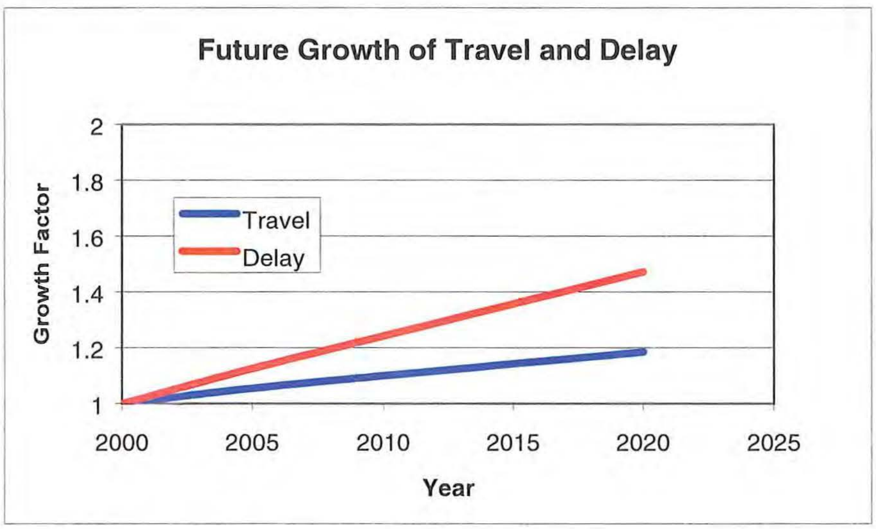
Figure 4.3.2 AADT/C on Arterials in 2020



Overall, it is estimated that delay on Maine's arterials in 2000 exceeded 36 million vehicle-hours, with delay costs of more than $360 million dollars. Although rural arterials have more VHT, most of the delay occurs on urban non-Interstate arterials where capacity is limited, traffic volumes are high, and land use access is generally uncontrolled.

Figure 4.3.3. shows the effect of future travel growth on delay on the existing arterial network (with no mobility improvements). The chart shows that growth in delay, measured in VHT, would more than double the growth in travel, measured in vehicle-miles traveled (VMT). When the growth of delay exceeds the growth in travel, the travelers will experience higher levels of congestion and reduced travel efficiency.

Figure 4.3.3



To moderate the growth of delay, actions must be taken to reduce VMT growth, improve control of access on arterials, and/or increase future capacity in the arterial network. If these actions are successful in holding the growth in delay to the same rate as the growth in travel, then current levels of congestion and mobility can be maintained.

4.4 Use of Passenger Transportation Modes

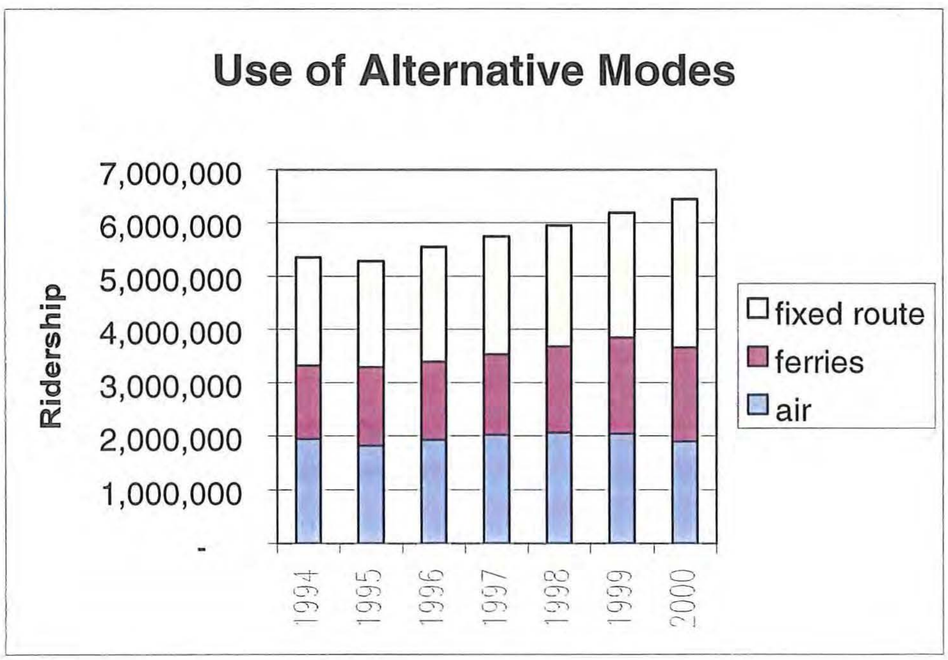
From 1994 to 2000 ridership on ferries, airplanes, and buses in Maine grew by more than one million riders, from 5.3 million to 6.4 million, a 20% increase in growth. The decrease in air travel in response to the September 11, 2001 terrorist attacks is expected to continue. Decreased ridership and increasing insurance and security costs jeopardize commercial air service to Maine's smaller airports. Ridership on buses and ferries is expected to continue to increase.

Ridership in Millions

Table 4.3.7

Year	Air	Ferries	Buses	Total
1994	1.94	1.37	2.04	5.35
1995	1.83	1.46	1.99	5.28
1996	1.93	1.46	2.16	5.55
1997	2.03	1.50	2.21	5.74
1998	2.06	1.61	2.28	5.95
1999	2.04	1.80	2.34	6.19
2000	1.90	1.76	2.79	6.45

Figure 4.3.4



With the return of passenger rail service and the implementation of *Explore Maine,* increased utilization of alternative transportation modes is expected to continue to grow.

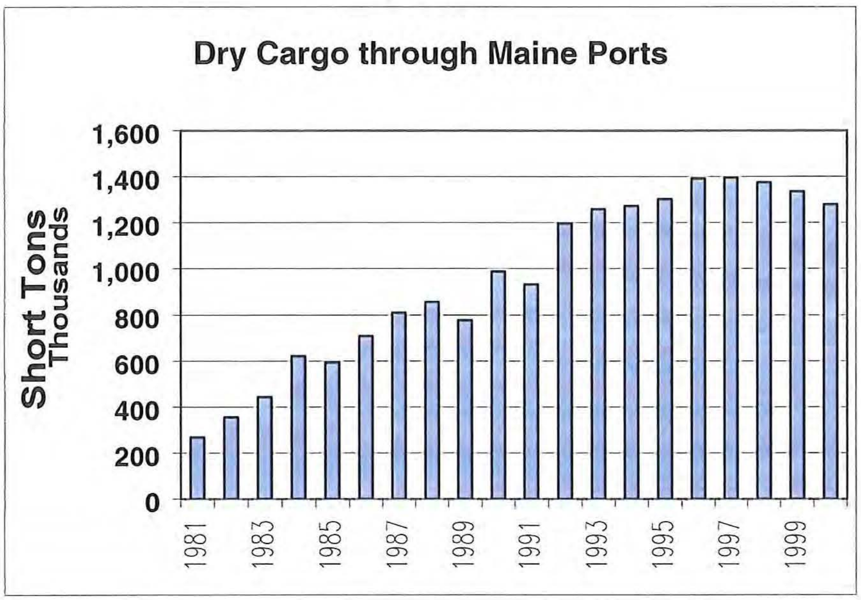
Projections for Amtrak service between Portland and Boston are 330,000 riders annually. *Explore Maine* estimates that 88,000 new tourists will come to Maine by alternative modes each year. In September 2000, the Maine Rail Concept and Feasibility study forecasted that a seasonal train between Portland and Montreal would attract more than 300,000 Canadian travelers annually. The Bangor, Trenton corridor study estimates that transit services between Bangor and Mount Desert Island will attract 190,000 riders a year. The combined impacts of these services are expected to represent an increase of nearly 1 million riders to passenger transportation systems.

4.5 Freight Transportation

4.5.1 Cargo Ports

In 2001, Maine's ports moved 1,249,413 short tons of dry cargo, both bulk and breakbulk. Additionally, Portland and Searsport handle roughly 125 million barrels of petroleum products. In the past 10 years, port traffic has increased roughly 3.3% a year. It has been held back by the lack of a new facility at Searsport, however, a new facility in Searsport will be completed in 2003.

Figure 4.5.1



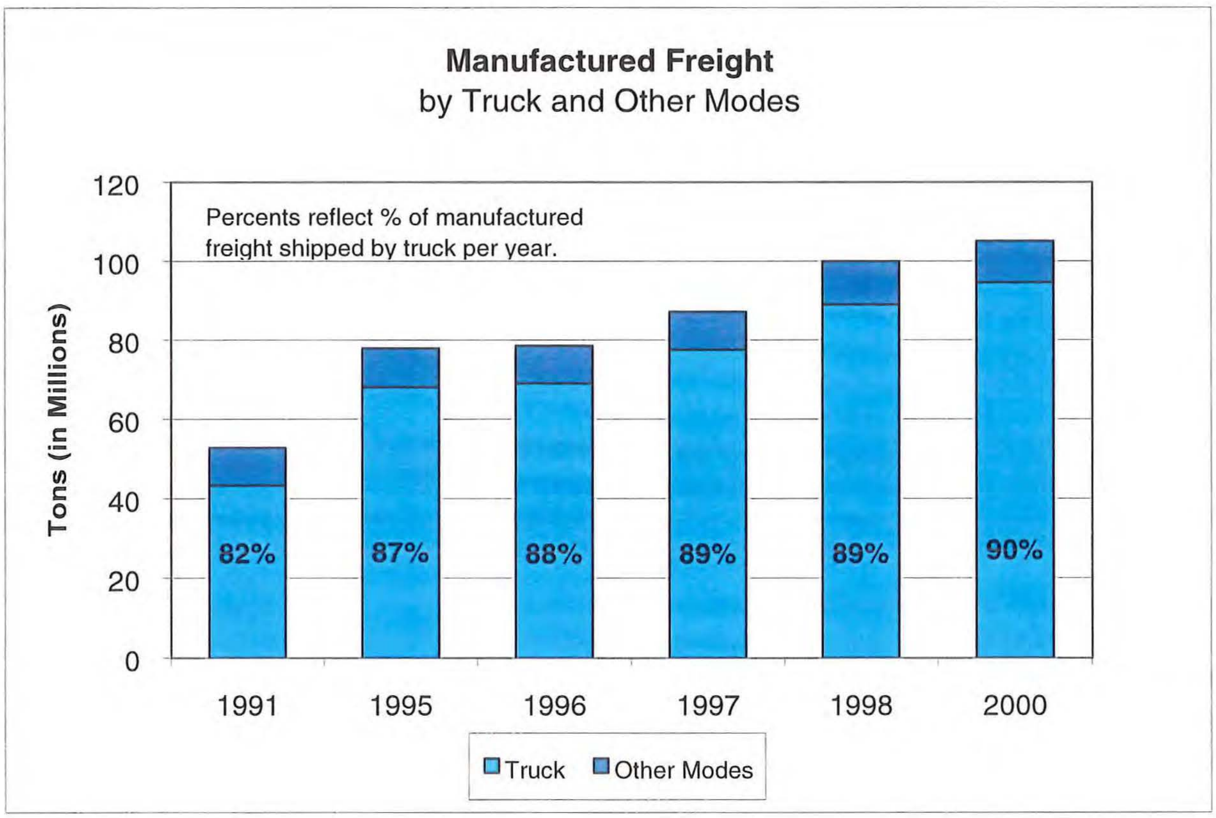
4.5.2 Freight Rail

Currently, the Maine freight rail system is in transition. The Bangor & Aroostook Railroad is in Chapter 11 bankruptcy. A new owner, Montreal Maine and Atlantic Railway, will acquire the BAR system before the end of the calendar year 2002. MMA intends to operate and revitalize the entire system. St. Lawrence & Atlantic Railroad's parent company, Emons Holdings, Inc., was recently acquired by Genesee & Wyoming, Inc., a short-line railroad holding company with assets in five countries. Its new operation has been beneficial to shippers. Guilford Transportation, Inc. is in stable condition.

4.5.3 Motor Carrier

In 1998, motor carriers shipped 89 percent of Maine's manufactured freight. The great preponderance of truck freight market share in Maine reflects the nation-wide business trend toward just in time delivery. The need to reduce warehouse inventories and promote responsive delivery systems to customers, along with generally more favorable rate structures, favors motor carriers over rail in Maine as a transport mode. High truck usage results in greater highway congestion, pavement consumption, and bridge stress, which impact the Maine transportation system. The safety and continued integrity of the highway system with respect to heavy vehicle traffic is therefore, vital to Maine's economic well being. MDOT initiatives like the heavy Haul Truck Network and Commercial Vehicle Service Plan seek to insure the safer and more efficient flow of truck traffic in Maine.

Figure 4.5.2



MaineDOT Resource Allocation Policy

This policy establishes general and flexible decision-making guidance on how MaineDOT should effectively spend its resources to advance its mission and goals as far as possible.

1. Meet system preservation needs.
Good management of a large system of capital facilities like the State's transportation system requires a continuing investment in system preservation.

2. Invest in system modernization needs for all modes second.
When system preservation needs have been addressed, MaineDOT will invest its resources in the significant number of transportation infrastructure modernization needs. A safe and efficient transportation system is key to the State's economic growth.

3. Invest in transportation system management and travel demand management alternatives.
In today's economic and environmental climate, the demand for transportation mobility must be addressed, to the extent possible, through actions that maximize the efficiency of our existing transportation infrastructure.

4. Invest in all modes of transportation.
MaineDOT must continue its efforts to provide a "seamless" interconnection between all modes, both for passengers and freight. Mobility options such as trains, buses, air and ferries can be efficient, environmentally sensitive and cost-effective modal choices.

5. Target limited resources for new capacity to the highest priorities.
Funding for new capacity projects is extremely limited. Only those projects supporting State and regional transportation goals and strategies and those that have demonstrated merit and strong public support will be considered.

5.1 Highways

MaineDOT monitors the condition of approximately 9,000 miles of the state's public highway network using the Automatic Road Analyzer (ARAN) vehicle. The monitoring program is performed on a two-year cycle. Data on the condition of highways in the southern half of the state is collected in even-numbered years, and data for the northern half of the state is collected in odd-numbered years. Interstate system data is collected annually. This data is used to identify necessary funding levels for the upcoming BTIPS.

The data collected includes information about pavement condition, which is used by MaineDOT's Pavement Management System—a set of tools that assists planners and designers in:

- Optimizing the effectiveness of pavement expenditures by providing timely recommendations on treatment alternatives and locations to protect the current investment in highways and reduce users costs.
- Improving the efficiency of decision-making.
- Monitoring the consequences of decisions. This is accomplished by monitoring the life cycle of treatment types.

The goals of MaineDOT's Pavement Management System are to maintain the present average network condition, prevent increases in deficient and unacceptable highways, and maintain the present distribution of conditions within each system (See Section 3.1.2).

MaineDOT's highway expenditures are broken up into three categories: Highway Improvements, Pavement Preservation, and Maintenance Paving.

5.1.1 Highway Improvement Projects are generally those projects involving an unbuilt roadway in order to improve the condition of the road to meet modern standards (adequate drainage, base, pavement to carry the traffic load, sight distance, geometry and width).

Unbuilt Miles by Federal Functional Class and $ to Repair

Table 5.1.1

FFC	Miles	$ to Repair
Principal Arterials	90	$136,870,000
Minor Arterials	216	$333,150,000
Major Collectors	1813	$816,000,000
Total	**2119**	**$1,286,000,000**

Highway Improvement Projects can be divided into three major categories. The first category would be Collector Highway Improvement Projects (CHIPs). These projects are done on the State's Major Collector highway system. These projects are designed to meet state design standards, which are less stringent than American Association of State Highway Officials (AASHTO) standards. State standards are governed by the average annual daily traffic (AADT) on a given section of highway. For example, a major collector with a projected AADT of 3500 for the design life of the project would be constructed with a travel lane width of 11' and 3' paved shoulders. MaineDOT intends to rebuild approximately 100 miles of rural major collector highway per biennium to make progress on the 1600 miles of existing major collector backlog.

Summary of Resurfacing and Highway Improvement Expenditures by BTIP

Table 5.1.2

Summary of Highway Improvements
FY 1998-1999, FY 2000-2001, FY 2002-2003
(Cost in Millions)

	1998-1999 BTIP		2000-2001 BTIP		2002-2003 BTIP	
	Miles	Cost	Miles	Cost	Miles	Cost
Highway Improvements						
Principal Arterial	30.8	$45.2	22.9	$33.9	28.1	$38.6
Minor Arterial	39.4	$28.9	20.2	$22.4	27.5	$28.7
Major Collector	36.4	$19.9	101.4	$44.1	110.8	$68.9
Minor Collector	39.1	$12.5	25.4	$4.4	55.1	$17.5
Total Improvement	**145.7**	**$106.5**	**169.9**	**$104.8**	**221.5**	**$153.7**
Pavement Preservation						
Interstate	86.0	$14.3	64.0	$12.4	44.6	$9.7
Principal Arterial	67.0	$14.6	119.0	$21.8	80.9	$20.6
Minor Arterial	123.0	$16.1	137.0	$22.7	139.5	$31.7
Major Collector	184.0	$12.6	149.0	$19.1	135.9	$29.4
Total Resurfacing	**460.0**	**$57.6**	**469.0**	**$76.0**	**400.9**	**$91.4**

The second major category of highway improvements is improvements to the rural arterial system. These roads, since they are part of the arterial highway system, are usually designed to AASHTO standards, although low volume rural arterials may sometimes be designed using State Standards. Arterials built to AASHTO standards will generally be built with 12' travel lanes and 6'-8' paved shoulders. In 1999 the Maine Legislature mandated that MaineDOT submit biennial budgets to reconstruct all unbuilt sections of the rural arterial highway system by 2009. In response to this mandate MaineDOT will strive to program 60 miles of rural arterial highway improvements per biennium. There is approximately 235 miles of rural arterial backlog remaining.

The third category would be urban highway improvements. In the greater Bangor, Kittery, Lewiston-Auburn and Portland areas, the federally designated Metropolitan Planning Organizations (MPO) are responsible for transportation planning and capital improvement decision-making. MaineDOT works closely with each of the four MPO's to develop and manage transportation projects.

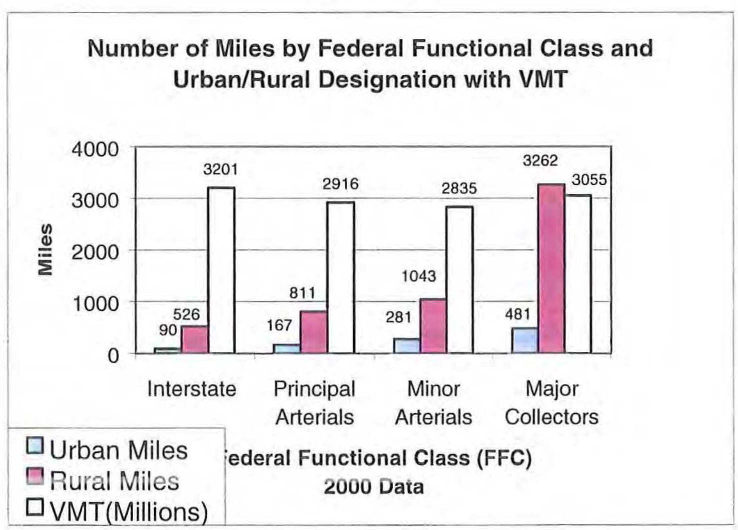
In addition to those three major categories, there is also the Rural Road Initiative (RRI) Program. These are projects on minor collectors, which require a 33% match by the local municipality and the remaining 67% by the State.

5.1.2 Pavement Preservation

Pavement Preservation Projects are those done on a built highway to preserve the condition and to cost effectively extend the life of the pavement. These treatments can be applied to any built road with a Federal Functional Class of Major Collector or higher. The purpose of pavement preservation is to maintain good road conditions. Pavement Preservation is the first priority for funding, and it's critical that the Department apply the right treatment at the right time to minimize life cycle costs. These treatments can be done at a lower cost per mile than highway improvements, and allows more miles to be covered at a lower cost per mile. If pavement preservation is not done when it's needed, then a built section of road risks deteriorating to the point that it needs a highway improvement type treatment. This comes at a much higher cost per mile, to restore the road to good condition.

The following graphic depicts the recommended pavement preservation expenditures for the next four BTIPS. Optimum investment in the highway system would consist of a mix of spending on pavement preservation and highway improvements. When the funding levels are reduced, the available money should be directed to preservation of the built system, protecting the investment made in that system. Any additional funding available after preservation needs have been met can then be applied to upgrading unbuilt highways.

Figure 5.1.1



For the next biennium, an increase in funding of 20% in the pavement preservation program would meet all of the preservation needs on the built system. That would translate into about 900 miles of built roads receiving a treatment. With status quo funding, the Department would only be able to treat about 600 miles, leaving 300 miles of preservation needs unmet. The result would be 300 miles that would require a more substantial treatment in the next biennial work plan at a higher cost per mile. Similarly, with a 20% reduction in preservation funding, the Department would be able to treat about 450 miles, leaving 450 miles of preservation needs unmet. Again, this would result in those 450 miles needing a more substantial treatment in the next biennium at a higher cost per mile.

5.1.3 Maintenance Paving

Maintenance Paving is defined as paving that is done primarily on the unbuilt system of highways in order to keep those roads in a serviceable condition until a more substantial treatment can be done. Maintenance paving is most commonly used as a holding action and does not address issues of drainage, sight distance, or structural adequacy.

Summary of Maintenance Paving Activities by BTIP

Table 5.1.3

BTIP Years	Miles	Cost in Millions
1992-93	893	$8.9
1994-95	787	$7.9
1996-97	1434	$14.7
1998-99	1401	$16.4
2000-01	1436	$14.7
2002-03	1450	$20.4

5.1.4 Treatment Methods, Costs, and Life Expectancy

The various methods of treatment provided under each of MaineDOT's three categories of highway expenditures are summarized in Table 5.1.4. For more detailed treatment information, see Appendix C.

Treatment Type, Cost and Life Expectancy

Table 5.1.4

Expenditure Type	Treatment Type		Price Per Centerline Mile	Expected Life in Years
Highway Improvement	New construction, reconstruction, rehabilitation, reclamation, or CHIP		$0.4-1.8 million	15-20
Pavement Preservation	Pavement Preventive Maintenance	Crack Seal	$4000	2-4
		Microsurfacing	$50,000-60,000	6
		¾" Overlay	$84,000	6-8
	Level II Highway Resurfacing		$230,000	8-12
Maintenance Paving	Hot mulch		$17,000	4-6

5.1.5 Treatment History

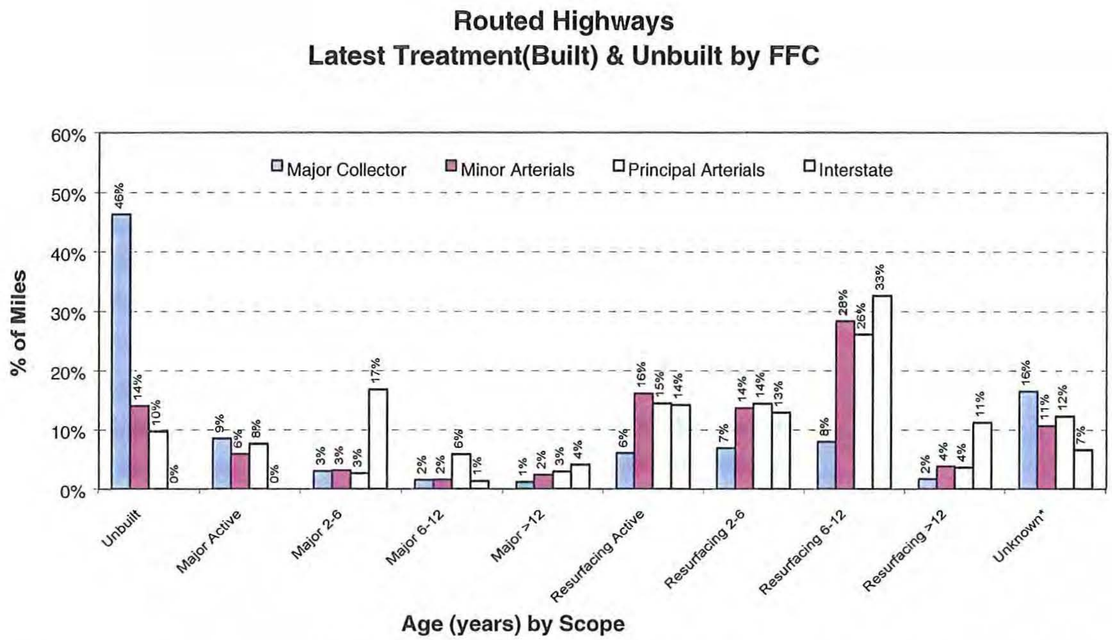
Treatments to Maine's highways can be placed in two categories, Major Treatments and Resurfacing. The distinct difference in these two categories of improvements is the expected service life. A Major Treatment can be expected to last 15-20 years and would remove a roadway from the unbuilt (backlog) listing. A resurfacing project is done as part of the pavement preservation program, to a previously built roadway, with an expected service life of 8-12 years.

Figure 5.1.2 shows the status of the Routed Highway System (base year 2003) by latest treatment (see appendix B for maps and tables), roadways that have not been built to a modern standard are shown as 'unbuilt'. The unknown category is comprised of built roadways that, for one reason or another, have not received a treatment in the last 18 years other than a maintenance mulch holding activity, or where there is missing data.

Figure 5.1.2 shows that historically there has been:

- resurfacing of 25%-30% of the arterial system every six years
- a major treatment to 3% to 5% of the arterial system every six years
- 17% of the interstate system has received a major treatment in the last six years
- 32% (2,110 miles) of the Arterial and Major Collector system is unbuilt.

Figure 5.1.2



As suggested by figure 5.1.2 and confirmed by the Table 5.1.2, there has been a significant increase in investment in both the pavement preservation program and the highway improvement program. Over the last three BTIPs, there has been a 59 % increase in resurfacing funding and a 44% increase in highway improvement funding. In the 2002-2003 BTIP over 620 miles of highway were addressed by one of these treatment methods.

5.1.6 Highway Adequacy

The Highway Adequacy Index is an empirical evaluation of the health of a particular highway segment. The Adequacy Index is based on 6 basic elements of the condition or performance of the roadway. The Highway Adequacy Index is a cumulative score on a scale from 0 to 100. The basic elements are listed in table 5.1.5 with their respective point weighting.

Table 5.1.5

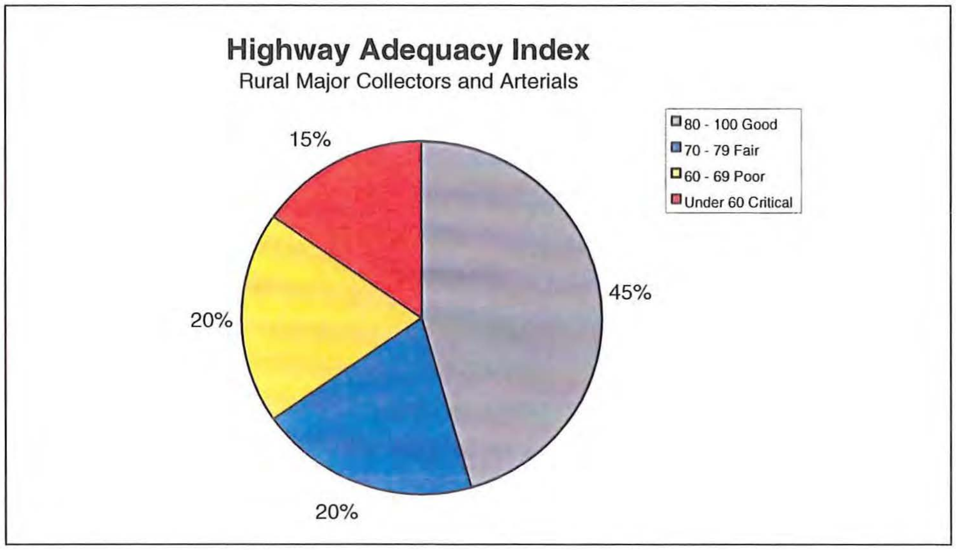
Data Element	Arterials & Collectors Point weighting:
PCR Pavement Condition Rating	45
Safety	20
Built vs. Unbuilt	15
AADT/C	10
Posted Speed	5
Paved Shoulder	5
Total	**100**

Rating elements were chosen based on three considerations: significance to a highway's performance, reliability and accessibility of data, and the data elements' sensitivity to outside forces. The resulting index evaluates the condition, safety, and mobility of a roadway segment. MaineDOT's intent is to utilize this index as a measure of the value of the highway system over time.

A complete discussion of the individual factors, their origins, and the methodology for calculation can be found in the appendix of this report.

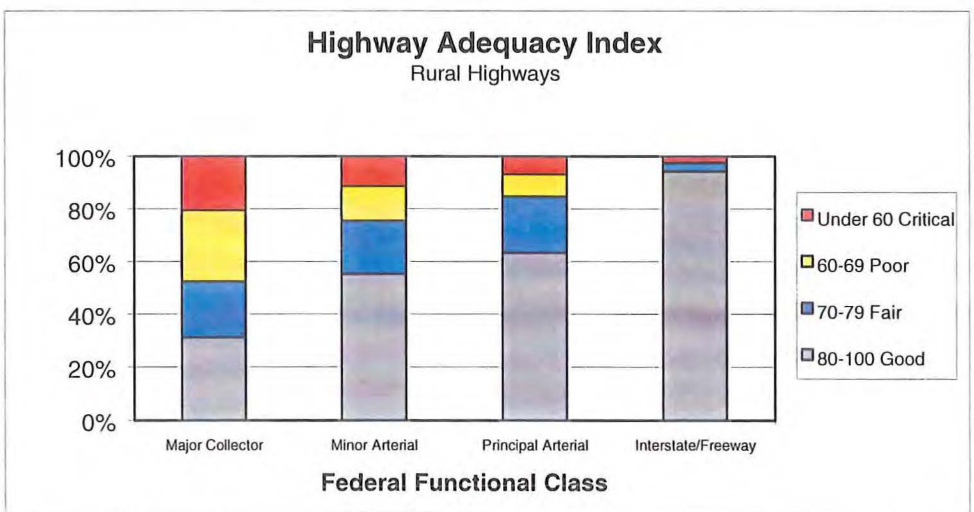
The Adequacy Index on rural roadways depicted below indicates that 45% of the roadway mileage is considered "good" with an index of at least 80. While 15% of the highway mileage is considered to be "critical".

Figure 5.1.3



Within each functional class there are significant differences in the distribution of highway adequacy ratings. Figure 5.1.4 illustrates these variations.

Figure 5.1.4



Over 94% of the rural Interstate System mileage is rated "good". However, this system only comprises slightly over 9% of the rural mileage. In Contrast, only 53%

of the Major Collector System is "fair" or "good", while this system accounts for nearly 58% of the rural mileage. Of the 858 miles of rural highway that are rated "critical", 672 of these miles are major collectors.

It is evident that the scoring is weighted quite heavily towards the Pavement Condition Rating of a highway with 45% of the Index coming from PCR. Thus it is likely not a coincidence that the percentages of highways rated "good" on the major collector system is very similar to the percentage of mileage that has been built. This apparent correlation leads to the conclusion that the best way to improve the overall highway adequacy of a section of highway is to build it to modern highway standards.

Divisional summaries for all routed highways and corresponding maps are provided in the appendix of this report as well as the Highway and Bridge Adequacy Report.

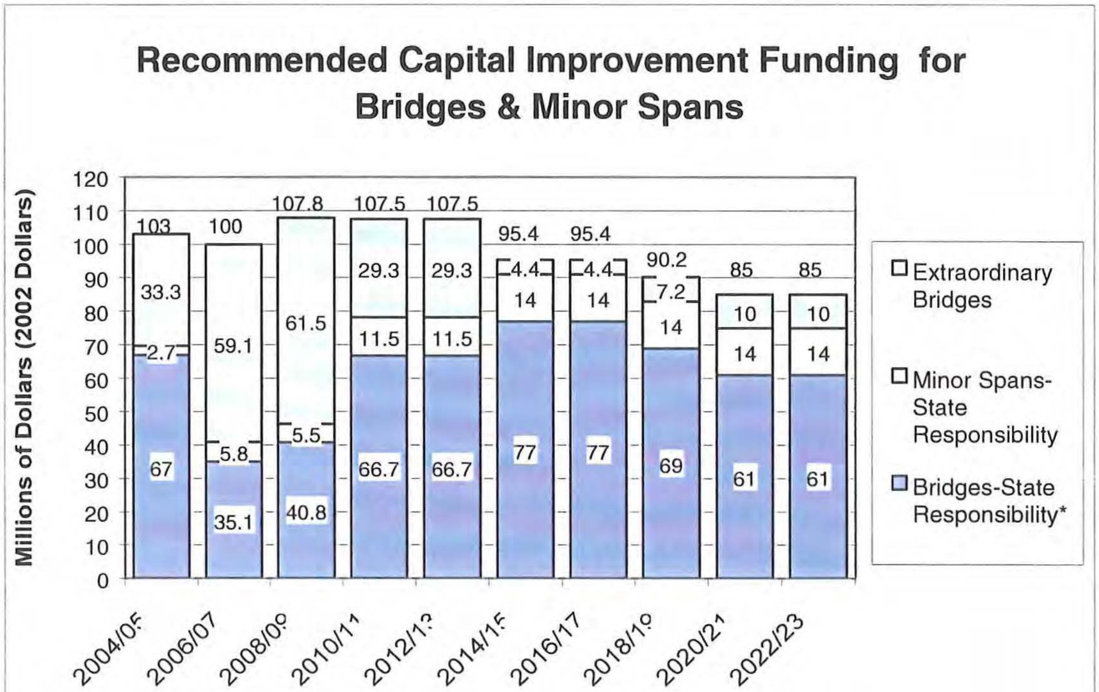
5.1.7 Visitor Information Centers

The following presents the current and future budgetary needs for the implementation of the State Visitor Information Center.

	Maintenance and Operations Funding per Biennium		
	Current	**Additional After Ten-Years**	**Total After Ten-Years**
MDOT			
Rest Area Maintenance and Operations	$2,238,000	$2,065,000	$4,303,000
VIC Heat and Lights (Hampden, Kittery, Houlton, and Yarmouth)	$71,800	$0	$71,800
Subtotal MDOT Funding	$2,309,800	$2,065,000	$4,374,800
Department of Economic and Community Development			
System Administration Costs	$307,164	$120,000	$427,164
VIC Maintenance and Operations (includes heat and lights for new VICs)	$1,167,434	$748,800	$1,916,234
Subtotal DECD Funding	$1,474,598	$868,800	$2,343,398
Total Funding	$3,784,398	$2,933,800	$6,718,198

5.2 Bridges

Figure 5.2.1. Funding Needs in the Future



*$41.1 M of the $67 M required in the 04/05 BTIP will be used to construct bridges that were previously engineered in the 02/03 BTIP.

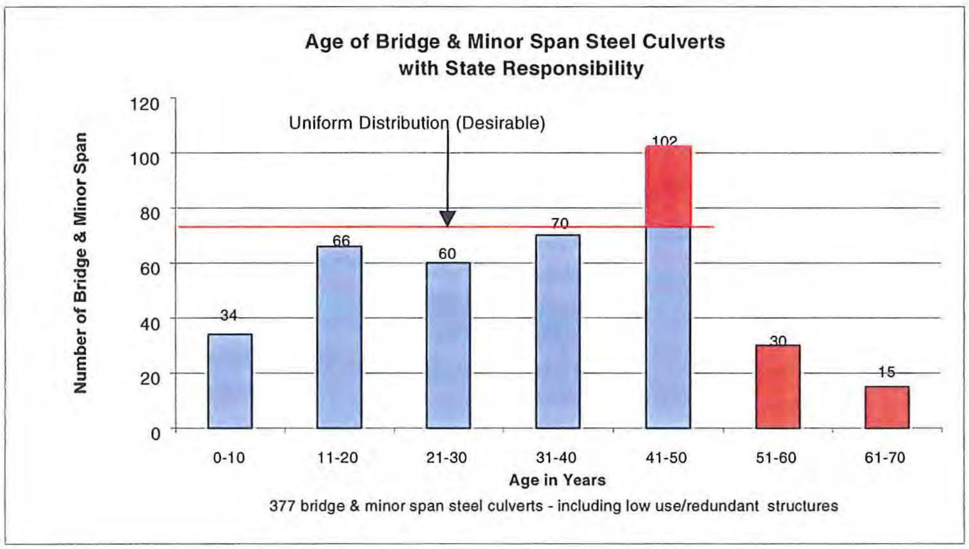
The bridge projections in this report were established using the methodology developed in the MaineDOT Bridge Management Section. The scopes and costs of future improvements, and the timing of the improvements, were individually determined using inspection ratings and inventory data, and based in part on field reviews conducted by bridge engineers and environmental scientists. Figure 5.2.1 depicts the funding levels needed to address all the bridge and minor span needs and the extraordinary bridge needs statewide over the next 20 years. On average, MaineDOT has expended $95 million per BTIP to address structural needs over the last six years, with 40% of available funds used to address the capital improvement needs of extraordinary bridges. However, that level of funding will not adequately address the projected capital improvement needs of Maine's structures, as indicated in Figure 5.2.1. MaineDOT is facing an increased demand for funding of bridges and minor spans in the next 15 years. These projections are based upon historic trends in the decrease of sufficiency ratings over time, and professional engineering judgment. The increased need for funding in 7 to 10 years reflects the aging and end of service life of post depression era structures as well as the end of deck life (and paint) for interstate bridges constructed in the 1960's.

5.2.1 Age of Bridges and Minor Spans

The age distribution of Maine's structures provides one assessment of future needs. However, age alone should not be relied upon to determine the timing of improvements because current physical condition, local site conditions, and past rehabilitation have a major impact on remaining service life.

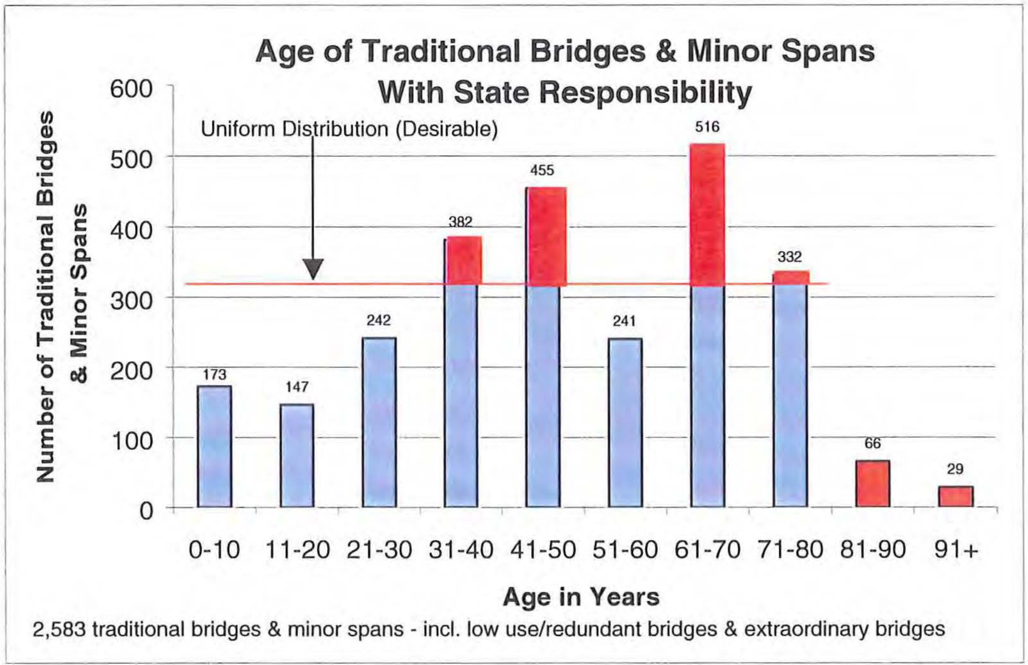
It would be desirable from a network management standpoint if the steel culvert bridges and minor spans were uniformly distributed with respect to remaining service life. With a life expectancy of 50 years, the uniform age distribution line in Figure 5.2.2 indicates that Maine has an over-abundance of older bridge and minor span steel culverts. Note the red portions of the bars. In the next 10 years, MaineDOT should address the 45 structures older than 50 years and the 27 aging structures above the uniform distribution line.

Figure 5.2.2



For traditional bridges and minor spans, a uniform age distribution is the preferred scenario. Traditional bridges have a life expectancy of about 80 years with MaineDOT's diligent maintenance, repair and rehabilitation. The uniform age distribution line in Figure 5.2.3 on the following page illustrates the desired scenario. Red portions of the bars indicate that the number of structures in the age group exceed the desired uniform distribution level and the fact that Maine has an over-abundance of older traditional bridges and minor spans. There are 95 structures older than 80 years and 195 aging structures above the uniform distribution line in the 61-70 year age group. These structures and those in the 71-80 year age group will need very close attention in the next 20 years.

Figure 5.2.3



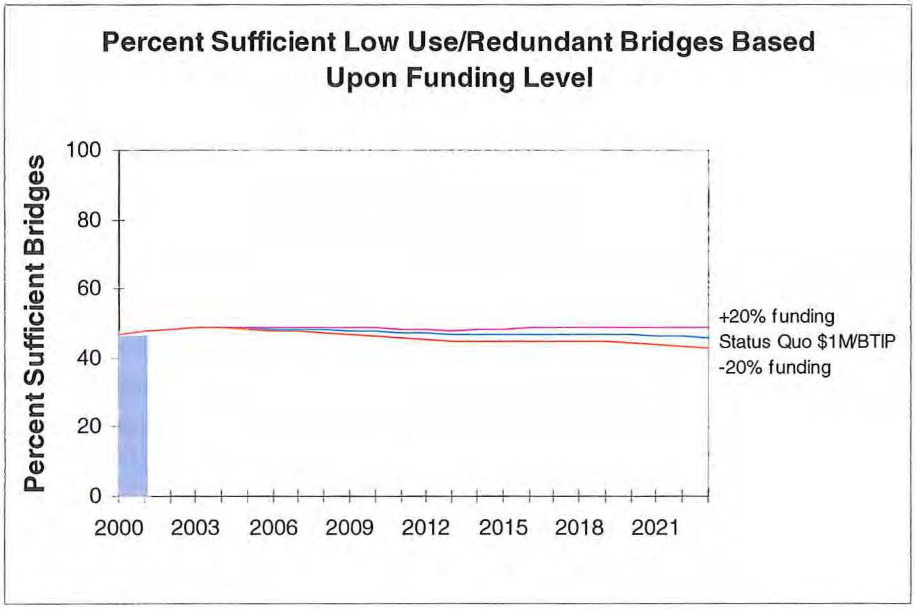
5.2.2 Percent Sufficient

The federal government gives structures a sufficiency rating [from 0 to 100 [0 is worst, 100 is best)] based on a combination of four separate factors that speak to the overall sufficiency of each structure [As described in Section 3]. A sufficiency rating of greater than 60 indicates capital improvement is not likely for at least 10 years, except for the possibility of paint or wearing surface work. Therefore, MaineDOT uses the percentage of structures with a sufficiency rating of greater than 60 as a measure of the overall condition of Maine's bridges and minor spans.

Low use/redundant bridges are those bridges on town ways that either serve fewer than 100 vehicles per day <u>or</u> are close to other crossings (average annual daily traffic multiplied by the detour length is less than 200). Some low use/redundant bridges have serious deficiencies from an engineering standpoint, but are given low priorities due to their minimal benefit to the traveling public. There are presently 219 low use/redundant bridges in the State of Maine.

Each of the last three BTIPs included an average of $1.1 million for low use/redundant bridge capital improvements. This level of funding has not been adequate to address the needs of structures in this category. In 2000, only 48% of the low use/redundant bridges were sufficient (assigned ratings of 60 or above). If MaineDOT continues to fund these bridges at the status quo level of $1.1 million per biennium, it is anticipated that the sufficiency of low use/redundant bridges will decline over the next 20 years.

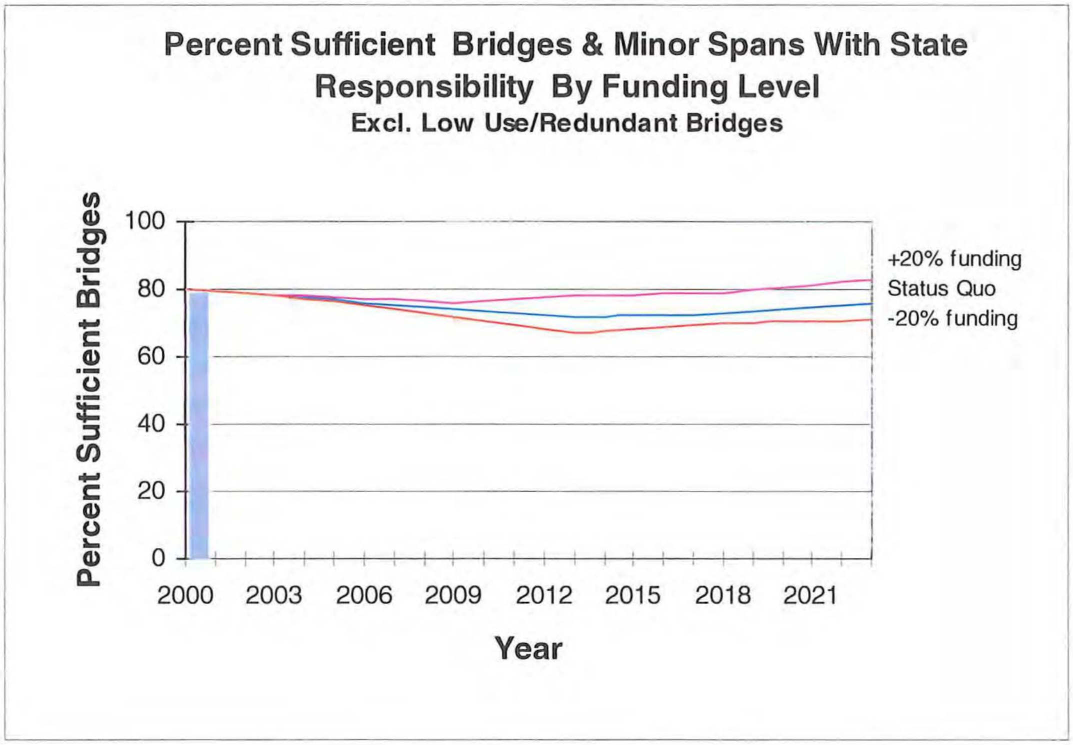
Figure 5.2.4



The State of Maine is responsible for the cost of capital improvements for 1,953 bridges that are 20 feet long or more. This group of structures includes bridges on town ways, state highways, and state aid roads. Over the last six years, MaineDOT has expended an average of $48 million per biennium to improve these structures and the result has been a slight increase in the percentage of sufficient bridges. In 2000, 80% of these bridges were sufficient.

However, the condition of the bridges on town ways, state highways, and state aid roads will gradually decline over the next six years if MaineDOT continues to invest an average of $95 million per biennium in capital improvements for all structures. If the status quo funding level is maintained, then only 74% of these structures will be sufficient in six years, a decrease of 6%.

Figure 5.2.5



The need to fund extraordinary bridge capital improvements has required that funds be diverted from the bridges on town ways, state aid roads, and state highways, leading to a gradual decline in their overall condition since 2000. If the funding for all structures is increased by 20%, then 76% of the bridges on town ways, state aid roads and state highways will be in sufficient condition in six years.

Figure 5.2.5 is based upon the following somewhat optimistic assumptions. First, it is assumed that capital improvement needs for extraordinary bridges will decrease dramatically by 2015, allowing a higher percentage of bridge funds to be expended on bridges on town ways, state highways, and state aid roads. This analysis also assumes that adequate funding is available to perform the prescribed capital improvements at the proper time. Deferral of needed capital improvements results in further unchecked structural deterioration and may lead to even higher capital improvement costs.

The State of Maine is totally responsible for funding capital improvements for 769 minor spans that carry state aid roads or state highways. There has been a significant downward trend in the sufficiency of minor spans since 1992. In 2000, 75% of the minor spans with state responsibility were sufficient, down from 87% in 1992. This negative trend indicates that the average level of funding for minor spans, $5 million per biennium over the last six years, is inadequate.

Table 5.2.1

Summary of Bridge Improvements*

Structure Category	1998/99 BTIP		2000/01 BTIP		2002/03 BTIP	
	No. Projects	Cost in millions	No. Projects	Cost in millions	No. Projects	Cost in millions
Bridges	61	44.9	56	43.0	51	44.1
Minor Spans	17	2.9	22	3.4	41	8.1
Low Use/Redundant	5	1.3	4	0.9	2	0.6
Extraordinary	3	67.1	5	23.0	5	35.3
Total Improvement	86	116.2	87	70.3	99	88.1

Note* Projects programmed for preliminary engineering only were excluded and costs were taken from published BTIPs.

If MaineDOT continues to fund capital improvements for minor spans at the level of $5 million per biennium, their condition will gradually decline in the next 20 years. A 20% increase in funding for minor spans ($6 million/biennium) would be adequate to address the needs of these structures for the next six years. However, that figure would have to be doubled to $12 million per biennium to keep pace with the minor span capital improvement needs from 2010 to 2013.

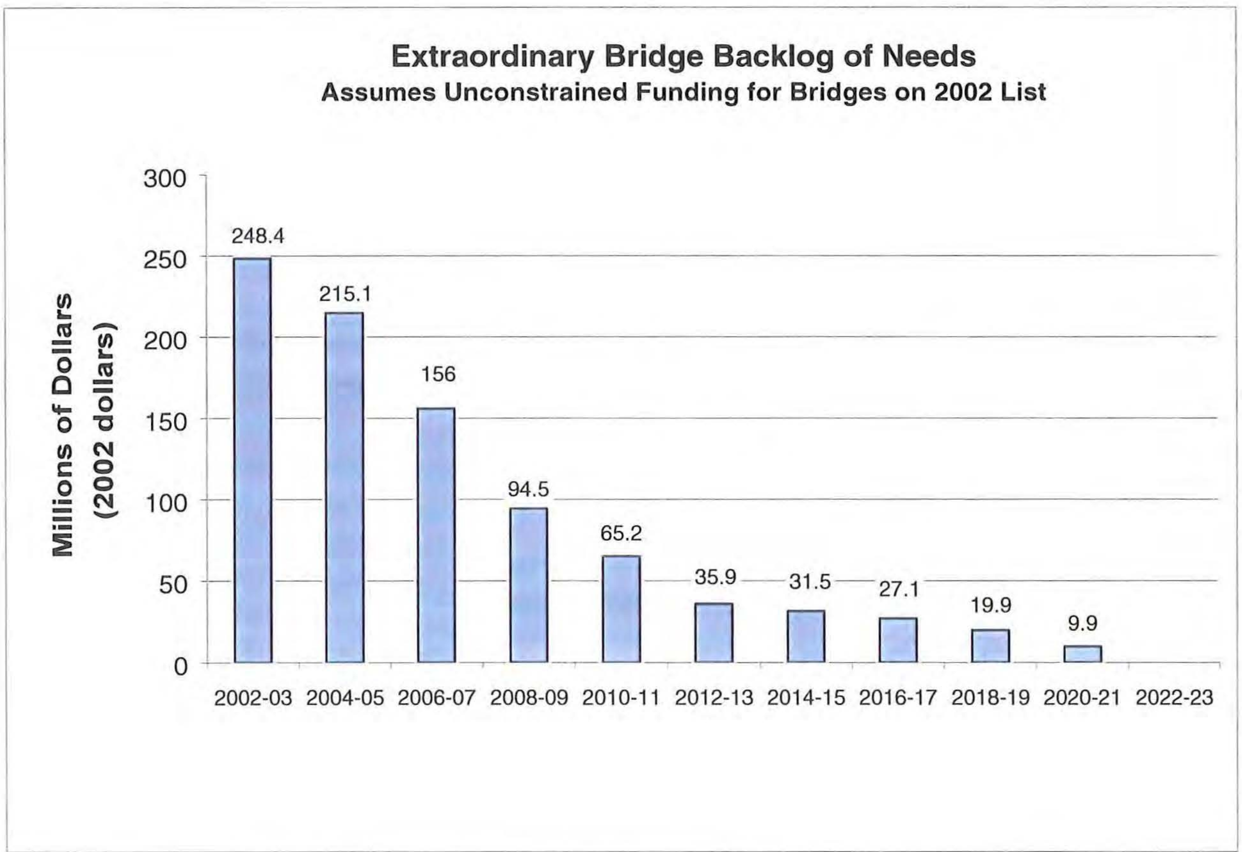
5.2.3 Priority Functional Need Bridges

Presently, MaineDOT has identified 32 structures as priority functional need bridges/minor spans. It is estimated that improvements necessary to correct these functional deficiencies will cost approximately $33 million. This $33 million in needs is not accounted for elsewhere in this report.

5.2.4 Extraordinary Bridges

In 1994, the extraordinary bridges required $443 million worth of capital improvements. The extraordinary bridge capital improvement needs have since been decreased by nearly half, with $248.4 million worth of work remaining. While this represents a significant improvement, it is important to note that several of the 19 extraordinary bridges that still require capital improvement are in very poor condition. If the remaining extraordinary bridge improvements are funded in the time period recommended by MaineDOT, ($33 million in 2004/05 and $59 million in 2006/07) the remaining capital improvement needs of extraordinary bridges will be reduced by nearly 40%. Timely action will also result in decreased bridge maintenance costs for extraordinary bridges.

Figure 5.2.6



There are some traditional bridges that are 250 feet or more in length with capital improvement costs approaching $5 million. Over time, inflation may cause the improvement costs to rise to $5 million or more. At that point, these traditional structures will qualify as extraordinary bridges by definition and will impact future funding scenarios.

5.3 Safety

Safety is a key consideration in the design of every project. With the possible exception of the Maintenance Mulch Program, all MaineDOT construction projects consider safety, and incorporate safety improvements. Additionally, as prescribed by federal law, 10% of the Surface Transportation Program (see Table 5.3.1 on the following page) must be set-aside for the Highway Safety Improvement Program (HSIP); additional funding may be provided at the state's discretion. The program consists of two program areas: Hazard Elimination and Highway-Railroad Grade Crossing Improvements.

5.3.1 Hazard Elimination Program

The Hazard Elimination Program (HEP) funds projects whose primary purpose is to improve road safety. The HEP currently addresses two road safety areas:

- Existing high hazard locations
- Areas not meeting minimum safety standards

In order to address existing high hazard locations, MaineDOT maintains a statewide crash database. Each year, statewide average crash rates are calculated for various road classifications and urban/rural designations. High hazard locations are identified by comparing all locations to the appropriate statewide average crash rate. Those locations that exhibit a statistically significant higher crash rate than the average for all other similar locations with similar traffic exposure and that have experienced at least eight crashes within the most recent three-year period are termed High Crash Locations (HCLs). The number of HCLs dropped from 1,454 for the 1996-1998 period to 1,091 for the 1999-2001 time frame.

Filters such as number of crashes, crash severity and identified patterns are applied to the HCLs listing to obtain a manageable number of candidate projects. Municipal requests for safety projects are also considered. Life cycle cost for capital improvements are compared to anticipated injury cost reductions. Those locations exhibiting the greatest crash cost reduction (benefit) to life cycle (capital plus operational) cost get funded first.

The HEP is also used to address locations that do not meet minimum safety standards. These are systemic enhancements shown to have high benefit-to-cost ratios, such as continuous shoulder rumble strips on rural interstate highways and guardrail improvements.

By federal regulation, the HEP must be directed to all public roads, including local roads. The federal participation rate is 90%. State money is used for the 10% match, except that municipalities provide the 10% match for projects on local roads only. Recent typical program areas include intersection improvements such as traffic signal installations or upgrades, realignment and lane additions. Non-intersection improvements have included roadside clear zone improvements, guardrail upgrades, and rumble strip installations on rural sections of the interstate system.

Over the past three bienniums the HEP program has funded an average of 31 projects at $4,656,700 per biennium. The benefit-to-cost ratio for past safety projects has averaged more than 6 to 1. In other words, for every $1 spent on a project, there has been a $6 reduction in the estimated economic losses due to crashes.

Table 5.3.1

HSIP Funds Expended Over The Last Three Bienniums:				
Biennium	**GCIP Amount**	**Number of GCIP Projects**	**HEP Amount**	**Number of HEP Projects**
1998-1999	$1,708,450	13	$3,786,600	30
2000-2001	$2,550,000	23	$5,251,000	29
2002-2003	$1,910,000	18	$4,932,500	35

5.3.2 Grade Crossing Improvement Program

By federal regulation, the Grade Crossing Improvement Program (GCIP) applies to all rail grade crossings at all public roads, including local roads. Rail grade crossings are comparatively safe in Maine with most of the rail activity being slower moving freight trains. There have been no vehicle-train collision fatalities at any public crossing since 1992. MaineDOT has thus chosen to spend the minimum allowable federal funds on grade crossings. Per Transportation Equity Act for the 21st Century (TEA-21) regulations, the minimum allowable expenditure for grade crossings is the amount a state expended in 1991. For Maine the total program amount is about $2.0 million per biennium. The remainder of the HSIP funds is applied to Maine's Hazard Elimination Program (HEP).

Table 5.3.2

Railroad Crossing Surface Score Summary

Surface Score	Number of Crossings	Percent of Total
No Score	15	2%
0.0 - 0.9	87	14%
1.0 - 1.9	53	9%
2.0 - 2.9	147	24%
3.0 - 3.9	28	4%
4.0 - 4.9	116	19%
5.0 - 6.9	109	17%
7.0 - 8.9	26	4%
9 and over	45	7%
Total	626	100%

Per federal regulations, at least half of the GCIP must be directed to the installation or improvement of active warning devices such as lights, bells and/or gates. The remainder of the funds can be applied to improving the crossing surface. As shown in Table 5.3.2, about 28% of Maine's public rail crossings have a surface score of 5 or more. (The higher the score, the rougher the surface.) It would cost about $10 million to upgrade all crossing surfaces to a "good" (better than "5") level. To maintain them at that level, the current investment rate of about $1.0 million per biennium for surface improvements is inadequate, assuming an average crossing surface life of 20 - 25 years.

The methods used to select GCIP projects are currently under review to ensure low-volume crossings receive appropriate treatment. A "minimum standards" approach may be used to ensure all public crossings are brought to current safety and surface condition standards.

5.3.3 Future Program Efforts

It is expected that highway crashes and injury severity will continue their downward trend. Safety improvements will continue to be carried on with every construction activity and through the FHWA Highway Safety Improvement Program (HSIP). MaineDOT will also continue to utilize its share of the TEA-21 Safety Incentive Program to fund safety activities such as a transportation safety media campaign, non-signalized intersection collision warning systems and other innovative projects. Vehicle safety improvements will also continue to effect reductions in crashes and their severity.

In addition to the general program areas previously described that address hazardous locations, MaineDOT has identified five safety areas of concern that it wants to proactively address:

- Run Off Road and Head On crashes, particularly on secondary roads
- Work Zones
- Commercial Vehicles
- Large Animals
- Human Factors

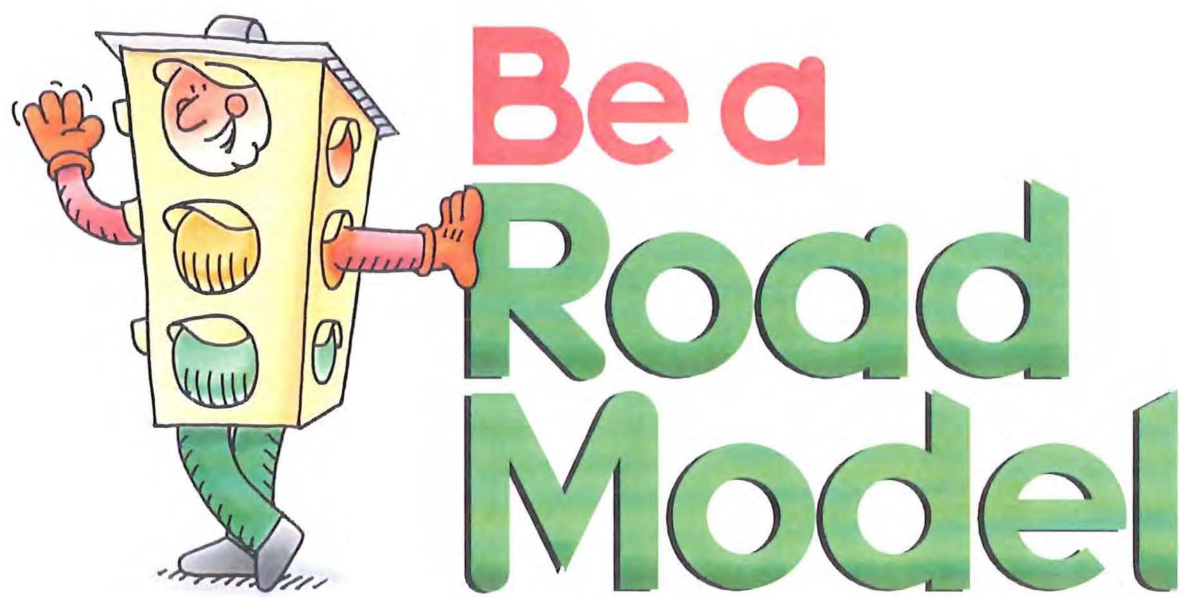
Over 60% of the fatalities resulting from Run Off Road and Head On collisions occur on rural secondary roads in Maine. The specific areas that will be addressed include public awareness activities, upgrading guardrail to meet current design standards, relocating utility poles, tree removal where advisable and pilot projects to consider the use of shoulder and centerline rumble strips at select locations. While it is recognized that rumble strips are of concern to bicyclists and motorcyclists, and can be noisy, there may be some appropriate application for this proven and inexpensive approach.

Twenty-five fatalities have occurred over the past ten years as a result of Work Zone crashes. MaineDOT will continue to increase public awareness and to work with its partners to improve work zone safety in Maine. The Work Zone Safety Awareness Week Campaign will continue to stress safety aspects to contractors, utilities, MaineDOT employees and the general public at the beginning of the Work Zone season (April). The ongoing transportation safety media campaign will periodically highlight safe behaviors when driving through highway work areas.

Commercial vehicle use is expected to increase over the foreseeable future. As such, additional steps will be taken to educate the traveling public on sharing the road with commercial vehicles. MaineDOT will also work with its partners to ensure that commercial vehicles continue to improve their safety performance on Maine roads.

Crashes involving large animals (moose, deer and bear) have increased dramatically over the past ten years. MaineDOT will continue to work with its multi-agency task force to further define the problem and implement new, promising strategies to help reverse this trend (see Figure 4.2.12).

At least 80% of all crashes involve a significant human causative factor, and young driver fatalities are of particular concern. MaineDOT will continue and expand its Transportation Safety Media Campaign to address these and other issues as they arise.



5.4 Highway Mobility

As part of its investment policy, MaineDOT invests in a wide range of strategies to improvement highway mobility. These strategies include highway projects that improve mobility performance, with or without increases in highway capacity, and non-highway projects that offer improved alternatives to highway transportation. In accordance with the Sensible Transportation Policy Act, MaineDOT considers the full range of reasonable alternatives before investments are made to increase arterial highway capacity to address mobility needs.

As Section 4.3 illustrated, the future growth of traffic volume on Maine's arterials will lead to a rapid growth in traffic congestion if investments are not made to address highway mobility. Investments in mass transportation and non-highway transportations projects can enhance highway mobility by reducing the traffic demands on the highway network. Funding for these types of projects is addressed in sections 5.5. and 5.6 Investments in highway mobility projects address highway mobility needs by physically improving the arterial network. This section focuses on the funding scenarios and implications for these highway mobility projects.

5.4.1 Funding Scenarios

For the last three BTIPs (1998-99, 2000-01, and 2002-03), the funding level for mobility-enhancing highway projects has averaged $40 million per program. This programmed funding is in addition to other highway, bridge, safety, and non-highway capital expenditures described in Section 5 of this report. If this level of funding were to continue for the next 20 years, the investment in highway mobility projects would total $400 million in the equivalent of $20 million annual increments. This is the baseline, or status quo, funding scenario.

To evaluate the effects of changes in the baseline funding scenario, two additional funding scenarios were developed. The reduced funding scenario, at $16 million per year, is 20% less than the baseline scenario. The increased funding scenario, at $24 million per year, is 20% more than the baseline scenario.

5.4.2 Potential Actions

Each of the three funding scenarios has an impact on the mobility outlook for the arterial network in the 20-year period from 2000 to 2020. Major mobility-enhancing strategies for highways include the following:

Access Management: Preserving and enhancing mobility and safety qualities of a highway by actions such as purchase of access rights, consolidation of driveways and entrances, and other improvements in access point geometry is called access management. Access management minimizes the potential for driveway/entrance traffic to erode the capacity, safety, and efficiency of an existing highway.

Widening for Auxiliary Lanes: Adding lanes such as left-turn (or right-turn) lanes and climbing/passing lanes to remove turning or slower moving traffic from thru lanes also enhance highway mobility. Turn lanes can be used effectively with or without access management on arterials where substantial turning traffic exists. Climbing lanes and passing lanes are effective on highway segments with a mix of vehicle speeds.

Installing Thru Lanes: Creating lanes on existing arterials to serve thru traffic provides significant increases in highway capacity where auxiliary lanes alone are not sufficient.

New Thru Lanes at a New Location: Creating new travel lanes on a new alignment to serve thru traffic is another highway mobility strategy. New highway capacity on a new location can serve large volumes of thru traffic that do not need access to the existing arterial. In the last three BTIPs, more than 80% of the programmed funding for highway mobility projects was directed toward the strategies of adding thru lanes on either existing highways or new locations. Less than 1% of the funding was directed toward access management projects.

5.4.3 Implications

An optimum investment of funds under the three scenarios will result in a mix of investments best suited to the need to improve mobility in the arterial network. In Table 5.4.1 these potential mixes are shown for each of the three scenarios. Under any of the scenarios, the optimal mix of investments is more balanced than traditional patterns of funding. The share of funding directed toward additional thru lanes would be reduced while the share for other strategies, particularly access management would be increased.

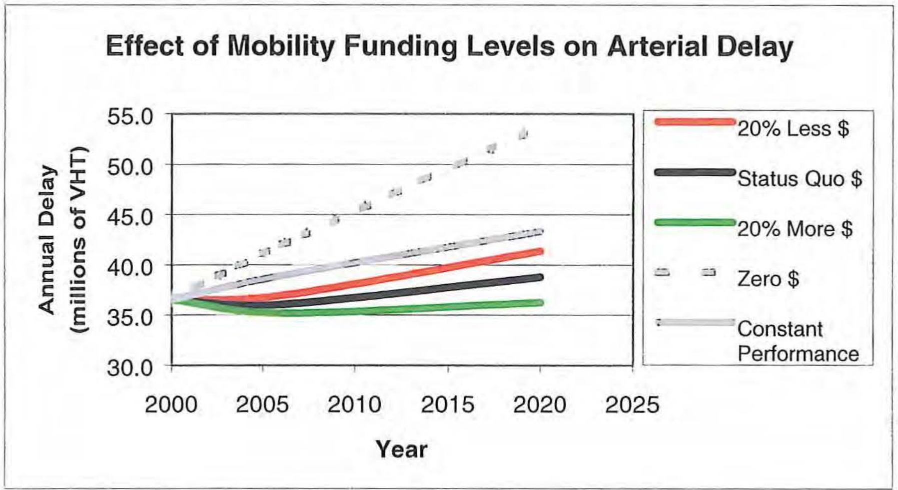
Potential Mix of Actions for Three Potential Funding Scenarios

Table 5.4.1

Funding Scenario	20% Less	Status Quo	20% More
Annual Investment ($ millions)	16	20	24
Mobility Improvement Strategy	Investment Share		
Access Management	30%	28%	26%
Installing Auxiliary Lanes	18%	18%	18%
Widening for Thru Lanes	30%	31%	32%
New Thru Lanes at New Location	22%	23%	24%

Figure 5.4.1 shows the impact of the three mobility funding scenarios on delay in the arterial network. Under the traffic growth projections described in Section 4.1.2, 20% more funding for mobility projects can hold delay on the arterial system close to current levels. Status quo funding or less would result in an increase in delay on the arterial network. On the 20-year horizon, a 20% increase or decrease in funding can make a 2.5 million vehicle-hour ($25 million) difference in annual delay.

Figure 5.4.1



Also shown for comparison in Figure 5.4.1 are a "Zero $" funding scenario and a "Constant Performance" trend line. These two lines, respectively, are equivalent to the delay and travel growth trends in Figure 4.3.3 The zero funding scenario shows growth in delay if no investments are made to improve mobility. The constant performance line shows a growth in delay that equals the growth in vehicle-miles traveled (VMT). If the growth in delay follows the constant performance line, then travelers would experience the same amount of delay per mile traveled as they do now. In the constant performance scenario, increased delay on the overall system is a result of an increase in use, not a decrease in mobility.

Scenarios with lines above the constant performance line indicate worse mobility for future travelers than current conditions provide. Comparison of the zero funding trend line with the constant performance line shows that the current highway mobility performance level cannot be sustained if no investments are made to enhance mobility. However, comparison of the constant performance trend line with the three potential funding scenarios shows that each scenario can result in future performance that is better for travelers than currently exists, with higher funding scenarios resulting in less delay than lower funding scenarios. One of the keys to improved performance under any scenario is a mix of funded actions that are implemented in locations where they can be most effective.

5.5 Funding of Passenger Transportation

On average, fare box revenues cover only 25% of the operating costs for public transit services. Federal, state, and local funds are necessary to meet operating deficits and to address maintenance and equipment needs. The Federal Transit Administration (FTA) is the primary source of federal funds. Limited state operating funding, approximately $500,000 a year, comes from the General Fund. Capital costs are addressed through FTA programs and State bonds. As cost rise, an increasing percent of funding comes form local sources, primarily from property taxes.

Funding for passenger transportation modes falls into two broad categories, capital funding and operating funding. Capital funding is used to procure vehicles and vessels, build new facilities, and rehabilitate existing ones as they age. The major sources for this category of funds are the Federal Transit Administration (FTA), Federal Highway Administration, and state bonds. For some projects a local match, usually 10%, is required.

Operating funds cover the costs of providing services not recovered by fares and other user fees. Since the second half of the 20th century, most passenger transportation services have required operating subsidies. Sources of these subsidies include the FTA, state general fund, and local municipalities. Federal and state funds are limited, increasing the dependence on local property tax revenues.

If additional funding became available, MaineDOT's passenger priorities are the expansion of the intermodal passenger system, as outlined in Explore Maine and the implementation of the Transit needs Study. Key elements are:

- the extension of Amtrak rail service north of Portland
- commuter rail services in appropriate corridors
- marine highway
- intermodal facilities
- three trail initiative
- local and regional transit systems to access the intermodal system.

Any reduction in spending would result in the curtailment of system expansion and would jeopardize existing services. Maine DOT, in this case, would try to maintain the core elements of the system.

5.5.1 Transit

Maine relies heavily on FTA funds for vehicle replacement. The state occasionally receives additional federal capital funds on an earmark-only (money for specific projects) basis. Bond funds are also used to match the earmarked funds.

Maine and the FTA, along with the local providers, have purchased and are operating 295 vehicles ranging in size from minivans to full size transit buses. More than half of those vehicles are completely beyond their federally established 'useful' life. Maine has begun a program to bring 50% of our vehicle fleet to within 50% of its useful life, thereby providing a modern transit fleet. This will take approximately $15 million over the next five years to fully implement. Additional funds will be required to expand fleets and services, convert to clean fuels, replace and build transit facilities, intermodal centers, bus garages, and other support facilities.

Maine annually receives almost $5 million in FTA program funds for operating transit services. This is matched with $545,000 in State General Funds. The remaining funds must be raised through the local municipalities. As operating costs have risen, the burden on the local communities has grown and is an ongoing difficulty for all municipalities in Maine.

Table 5.5.1

FY 2001 Operating Assistance	
Local	$4,003,000
State	$545,000
FTA	$4,814,415
Total	**$9,362,415**

Figure 5.5.1

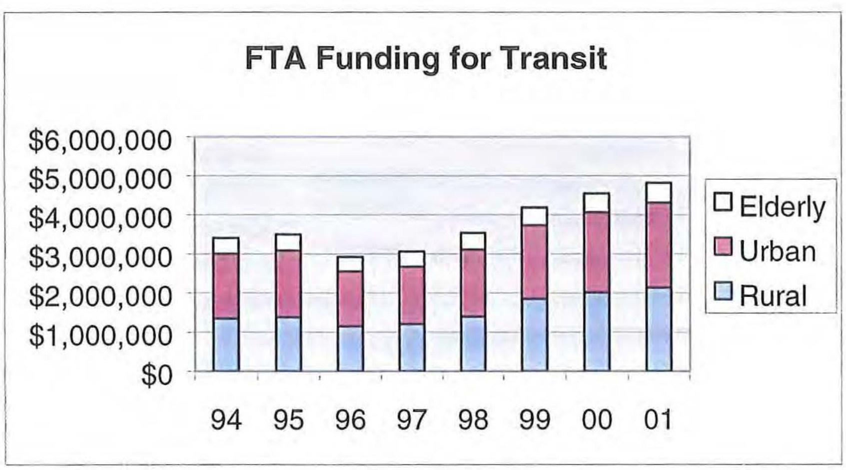


Table 5.5.2

FUNDING LEVELS BY MODE (Cost in Millions)			
	98/99	**00/01**	**02/03**
Air Transportation	23.4	24.6	38.5
MS Ferry Service	2.1	10.1	15.5
Transit	3.2	17.7	23.8
Intermodal	1.1	3.2	8.7
Marine highway	0.0	4.2	2.5
Non-Motorized	1.9	4.6	6.6
Rail	10.4	18.9	13.5
Transportation	0.8	0.4	1.2
Demand Management			
TOTAL	**42.9**	**83.5**	**110.3**

Data is currently unavailable on total costs and revenues for transit service due to reporting discrepancies. MaineDOT will address this by refining reporting requirements for providers.

Funding for new or expanded services is a concern. With the return of rail service and the success of the *Island Explorer,* many communities wish to expand or start seasonal or year-round services. Most federal programs for new starts provide funding for only three years, leaving the municipalities to cover the shortfall with local dollars or discontinue service when the federal funds run out. The *Island Explorer* on Mt. Desert Island is perhaps the most dramatic example of the ending of federal funds after a highly successful three-year start-up. Currently, funding sources are FTA 28%, local towns 13%, local business organizations 8%, local conservation organizations 8%, and the National Park Service 43%. No State General Fund money is currently used for the *Island Explorer* despite the area's major draw as a tourist attraction. The final year for federal Congestion Mitigation Air Quality Program (CMAQ) funding is 2002. A sustainable funding source needs to be established to continue this type of innovation that promotes economic development and protects our environment.

MaineDOT recently concluded an evaluation of unmet general public transit needs in Maine. This *Transit Needs Study* identified the need for $582,542 in additional state operating funds to implement new services with a total cost of $2 million, but did not address increasing social service transportation demands.

5.5.2 Airports

Over the past 30 years, all of Maine's airports have received approximately $120 million in state and federal funds for capital costs. They currently have a state funding level of $3.2 million annually for capital costs. New programs have been implemented to maintain and improve the condition of the airports and their approaches. The pavement preservation program and obstruction removal program are funded at $400,000 each year, and have been implemented to insure a minimum level of safety. Funding is not adequate to address all identified needs. Current needs have been identified at $110 million, with $14 million available from the Federal Aviation Administration and $3.5 million from state bonds.

Maintaining the current level of funding (status quo) will be adequate to maintain current service and maintenance schedules. The commercial service airports are continuously initiating new projects to maintain safety, security and service level. Current funding allows these safety projects to be complete first, while other safety-related projects take their queue in state programming.

The current schedule has a six-year waiting list of safety-related projects. A few projected projects are:

- Removing obstructions in Auburn-Lewiston's approaches
- Relocating terminal facilities in Belfast
- Obstruction removal in Auburn, Caribou, Eastport, and Frenchville
- Repairing the runway at Belfast airport
- Providing needed runway length at Northern Aroostook Regional Airport
- Repairing failing runway surfaces in Carrabasset Valley, Greenville, Jackman, Millinocket, Rockland, Augusta, and Waterville.

Capacity projects that are scheduled beyond the six-year waiting list include:

- Parallel taxiways for Wiscasset, Auburn-Lewiston, Rockland, and Fryeburg
- A precision approach for Houlton
- Aircraft parking ramp repair for Auburn-Lewiston, Hancock-County - Bar Harbor, Belfast, Bethel, Dexter, and Millinocket
- Terminal rehabilitation, including new security initiatives at Augusta, Rockland, and Bar Harbor.

A 20% increase in funding would allow the safety issues to be addressed earlier and the capacity projects to be implemented. This would allow the airports to provide economic growth to the local communities by providing airport services above and beyond the minimum safety requirements, and possibly to attract businesses interested in locating and doing business near an accommodating aviation infrastructure.

If funding was cut 20%, pavements would begin to fail, approaches would be compromised, and growth would cease. Future funding would be higher due to the higher expense of replacement as opposed to maintenance. By not providing the capacity needed to grow, this would also cause safety to be compromised and create a slowdown in the economic activity that airports provide to their local economy.

5.5.3 Passenger Rail Service

There is no current "program" budget for passenger rail development. The next priority is the upgrade of the tracks between Portland and Brunswick (27 miles) for passenger use. This includes upgrade and realignment of the Union Branch in Portland and construction of a new trestle across Back Bay. This rail connection will use a combination of state-owned, Guilford, and Saint Lawrence and Atlantic right-of-way. When complete, this "core system," Portland to Boston and Portland to Rockland, will comprise approximately 126 miles of track, with approximately half in public ownership.

As these key elements are completed, MaineDOT will pursue extension of the passenger rail system from Brunswick to Lewiston-Auburn and on to Montreal, and north to Bangor, connecting to Mount Desert Island.

MaineDOT currently budgets $150,000 of state funds for maintenance of 300 miles of state-owned rail infrastructure each year. However, this funding only takes care of brush clearing and the most basic maintenance needs. It will not provide for tie replacement, ballast maintenance, and rail alignment. If adequate funding is not provided, the quality of the rail system will decrease and result in the mandatory slow down of all rail equipment using the line. This, too, could result in reduced passenger usage and potential failure of passenger operations. Funding is needed for maintenance at approximately $1.8M annually.

Current estimates are $2,000 per mile to maintain an inactive line, and $6,000 to $10,000 per mile for maintenance of an active line. Maintenance of the state-owned passenger system starting in 2003 should run around $400,000 per year with costs increasing as the infrastructure ages. In addition, subsidies may be required to entice private rail operators to maintain their infrastructure at levels that will provide adequate passenger service.

5.5.4 Ferries

In past years, the MSFS had to delay maintenance of vessels and facilities to cover operating costs. Current revenues ($2.4 million) and state operating assistance ($2.1 million), however, are adequate to cover operating costs. This has resulted in the reinstitution of an appropriate maintenance program. Proper maintenance in the long run will prolong the life of vessels and other infrastructure, which should reduce the need for more costly replacement projects. The current maintenance budget is $500,000 annually.

Over the next six years the four remaining pens and piers will need to be refurbished with an estimated cost of $10 million. In the next 20 years, five new vessels will be needed. Funding for these projects has not been secured. While the cost of a replacement vessel for the Governor Curtis alone is $5.5 million, MaineDOT has only been able to secure $250,000 in FHWA Ferry Boat Discretionary funds to replace the fleet's aged vessels.

Maintaining the current level of funding (status quo) in the future will be adequate to maintain current levels of service and maintenance schedules. However, funding for new vessels is an issue as Maine has had limited success in procuring federal discretionary funding for them. A 20% increase in funding would support needed rehabilitation on crew quarters and allow contracting with private operators to handle seasonal demand that exceeds capacity. If funding were cut 20%, maintenance of vessels and facilities would again be deferred. This would be costly in the long run, as capital would need to be replaced sooner.

5.5.5 Vanpool/Carpools/Park and Ride Lots

MaineDOT is currently expanding the Portland and Augusta rideshare programs with a budget of $350,000 per year. This amount is adequate to incrementally establish the program statewide.

5.5.6 Bicycle/Pedestrian Network

Improvements to the bicycle/pedestrian network are funded through two primary sources: Transportation Enhancement funds and Surface Transportation Program funds. The Transportation Enhancement program is a TEA-21 program of which bicycle/pedestrian facilities are an eligible category. These funds have been used to construct most of the shared use paths in Maine and a few municipal bike lane and sidewalk projects. At current funding levels, about $2.5 million/year is invested in bicycle/pedestrian projects.

The estimated cost to complete the three trails of Statewide significance (Mountain Division, Downeast, and Eastern Trails) is over $70 million. Since some of the Enhancement funds go toward municipal projects, these trails could take between 35 to 70 years to complete. Any decreases in funding would lengthen this time frame or reduce funding to improve bicycling and walking facilities in local municipalities.

Androscoggin River Bike Path (Brunswick/Topsham)

5.5.7 Intermodal Facilities

The three intermodal facilities planned at Auburn, Trenton, and Bangor will cost approximately $3 million each. Funding has not been secured for the implementation of these projects, though $850,000 is budgeted for planning and design. These facilities are expected to have income-generating potential to assist with operating and maintenance costs.

5.6 Freight

Funding for freight transportation comes from a variety of sources due to the non-traditional nature of these projects. Frequently, the Maine State Legislature through appropriations or bond funding makes funds available. When sufficient public and commercial benefit is demonstrated, the Maine Port Authority, with its revenue bond capacity, can become involved in projects. Also, federal CMAQ funds have been used for freight projects that substantially improve overall air quality. Lastly, traditional highway funds have been used frequently for a variety of motor carrier projects.

5.6.1 Cargo Ports

The initial major investments in the three cargo port piers have been completed. However, backland developments and intermodal connections need additional funding. If proposed private funding is stable, the Maine Port Authority may be able to work with some private investments, but some public funding is needed for true partnerships, approximately $3 million per year. The Office of Freight Transportation attempts to partner with private industry to leverage as much private funding as possible. Stable funding of the SHIP program will also provide needed infrastructure improvements like piers, boat ramps, floats and public water access to Maine's coastal communities. Reduced funding will naturally result in deferred maintenance of marine structures and loss of potential business and employment. SHIP is currently funded at $1.5 million for the FY 02/03 biennium though the need is approximately $2 million every biennium. SHIP funding supports a healthy working waterfront economy.

5.6.2 Freight Rail:

Currently 97% of Maine's active track will not support a 286,000 lb. rail car, which is the rail industry standard. Installation of the 132 lb. rail needed to support the heavier car over Maine's 1,200-mile system is a capital investment that the Class II carriers cannot undertake alone. It is estimated that the cost for acquisition and installation of heavier track is approximately $208,000/mile. For Maine's entire 1,200-mile system, the cost is nearly $250,000,000. With this improvement, Maine's rail operators have the ability to move the new generation of freight cars. Without investment in the heavier track, much rail traffic will be lost to trucks, increasing highway damage and maintenance costs, as well as increasing congestion and air pollution. Since rail is usually considered 10% more efficient than truck (depending on distance), this continued avoidance of investment in lower cost alternatives perpetuates high pavement and bridge consumption.

The state's rail system has benefited from the recent major investments in mainline track and sidings through the Industrial Rail Access Program (IRAP). Increased funding will help protect the public interest in the Bangor & Aroostook Railroad bankruptcy and fully take care of the backlog of interest in IRAP projects. This will create new traffic and job opportunities, and maintain state-owned track and connections to national Class I carriers. IRAP is a successful and popular program. An estimated $1 million per year will support an ongoing IRAP/economic development program.

Level or decreased rail funding will result in deferred track and rail bridge maintenance and possible loss of connections to national/international Class I carriers. Significant cuts in rail funding could result in emergency and safety concerns. Current rail maintenance funding is at $150,000 per year for the State's 300 miles of track. A much higher level of funding is needed, as there is a substantial backlog of work on state owned track. A funding level of $1.6 million per year in maintenance funds is needed just to stay even.

5.6.3 Motor Carrier

If funding increased, the Motor Carrier programs would provide increased ITS-CVO activity for the trucking community resulting in faster credentialing and more efficient enforcement/inspection stops. It would also result in better motor carrier infrastructure such as rest stops, truck climbing lanes, etc. Stable or reduced funding here would result in possibly decreased motor carrier safety practices and result in increased bridge and pavement wear. There is current funding to support initial ITS-CVO projects in the $300,000 - $500,000 range; however, this level can be reduced slightly in the future to $250,000 annually to comply with Commercial Vehicle Information System Network (CVISN) goals. A commitment to build one truck rest stop per biennium costs $400,000. There is a Commercial Vehicle Service Plan that provides the details to this strategy. MDOT'S Heavy Haul Network planning tool will, it is hoped, allow MDOT planners to better channel limited highway funding to those projects that will best enhance the safe and efficient flow of motor carrier transported freight traffic.

APPENDIX A

A Summary of Highway Adequacy Index

Division 1 - North

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

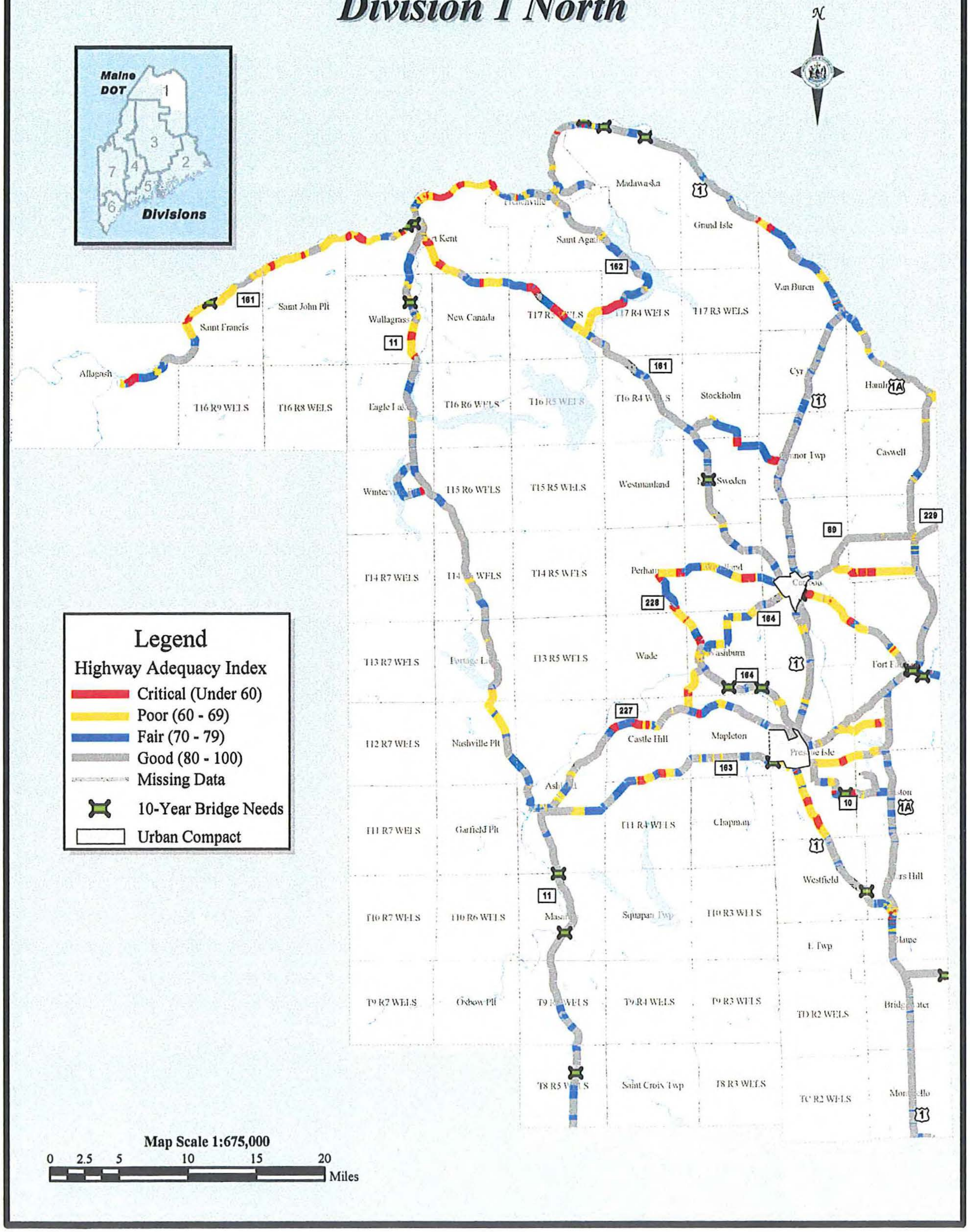
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Allagash	ST RTE 0161		0.96	0.88	2.20	0.94
Ashland	ST RTE 0011			0.07	1.86	6.94
	ST RTE 0163			0.81	1.99	2.22
	ST RTE 0227			0.97	1.06	5.41
Blaine	US 1		0.11	0.16	0.91	1.88
Bridgewater	US 1				0.20	6.24
Caribou	ST RTE 0089				0.32	3.62
	ST RTE 0161		1.35	3.03	0.50	2.06
	ST RTE 0164			0.60	0.19	2.27
	ST RTE 0223			1.02		0.34
	ST RTE 0228				0.55	0.05
	US 1				0.75	10.35
Castle Hill	ST RTE 0163		1.02	1.41	0.82	1.27
	ST RTE 0227		1.38	0.60	2.17	2.79
Caswell	US 1A			0.31	0.49	5.86
Connor Twp	US 1				0.72	5.95
Cyr Plt	US 1				1.02	4.93
Eagle Lake	ST RTE 0011			0.16	1.02	5.35
Easton	ST RTE 0010		0.04	0.05	1.07	1.45
	US 1A				1.29	4.78
Fort Fairfield	ST RTE 0161		0.14	1.58	0.52	3.22
	ST RTE 0163		0.47	1.80		
	ST RTE 0167		0.07	0.20	1.44	3.96
	US 1A		0.11	0.06	1.18	13.09
Fort Kent	ST RTE 0011			0.08	1.63	2.58
	ST RTE 0161		2.14	5.62	0.79	1.67
	US 1		3.11	4.12	0.26	1.26
Frenchville	ST RTE 0162			0.13		0.83
	US 1		0.33	1.52	2.31	6.02
Grand Isle	US 1				0.24	7.42
Hamlin	US 1A			0.70	1.76	7.15
Limestone	ST RTE 0089			0.26		4.67
	ST RTE 0223		1.56	3.15	0.12	
	ST RTE 0229					1.84
	US 1A			0.47	0.55	4.92
Madawaska	US 1	0.02	0.50	0.38	1.88	5.70
Mapleton	ST RTE 0163		0.03	0.42	1.11	4.11
	ST RTE 0227		0.36	0.59	2.99	2.52
Mars Hill	US 1		0.17	0.84	0.91	0.54
	US 1A			0.42	0.11	5.32

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Masardis	ST RTE 0011					6.63
Monticello	US 1				0.22	6.20
Nashville Plt	ST RTE 0011			2.60	1.08	1.53
New Canada	ST RTE 0161		0.32	1.30	1.57	0.36
New Sweden	ST RTE 0161			0.06	1.96	4.76
Perham	ST RTE 0228		1.68	1.62	2.25	
Portage Lake	ST RTE 0011		0.04	1.03	0.26	5.19
Presque Isle	ST RTE 0010		0.90	0.55	0.88	3.25
	ST RTE 0163			1.66	1.20	2.03
	ST RTE 0164			0.50		3.00
	ST RTE 0167					1.47
	ST RTE 0210					0.87
	ST RTE 0227					2.04
	US 1		1.59	3.99	0.88	3.90
St Agatha	ST RTE 0162			0.18	1.74	5.96
St Francis	ST RTE 0161		0.55	6.34	0.63	3.13
St John Plt	ST RTE 0161		0.90	4.51		1.16
Stockholm	ST RTE 0161				0.38	1.01
Twp 08 R 05 Wels	ST RTE 0011				1.73	4.24
Twp 09 R 05 Wels	ST RTE 0011				1.37	4.83
Twp 11 R 04 Wels	ST RTE 0163				1.62	0.99
Twp 14 R 06 Wels	ST RTE 0011			0.22	0.61	6.04
Twp 15 R 06 Wels	ST RTE 0011				0.79	2.76
Twp 16 R 04 Wels	ST RTE 0161				0.65	6.63
Twp 17 R 04 Wels	ST RTE 0161					0.77
	ST RTE 0162		1.16	0.17	2.64	1.20
Twp 17 R 05 Wels	ST RTE 0161		2.01	1.46	3.56	1.43
	ST RTE 0162			2.30		
Van Buren	US 1		0.70	1.38	5.82	3.32
	US 1A				0.17	
Wade	ST RTE 0228			0.32		
Wallagrass	ST RTE 0011		0.69	3.14	0.77	2.02
Washburn	ST RTE 0164			2.91	4.32	5.60
	ST RTE 0228		0.53	1.10	0.76	0.75
	ST RTE 0228T					0.62
Westfield	US 1				0.34	5.11
Winterville Plt	ST RTE 0011				0.51	3.37
Woodland	ST RTE 0161			0.26	1.00	2.68
	ST RTE 0164					0.32
	ST RTE 0228		1.05	2.05	2.33	

HIGHWAY ADEQUACY INDEX

Division 1 North

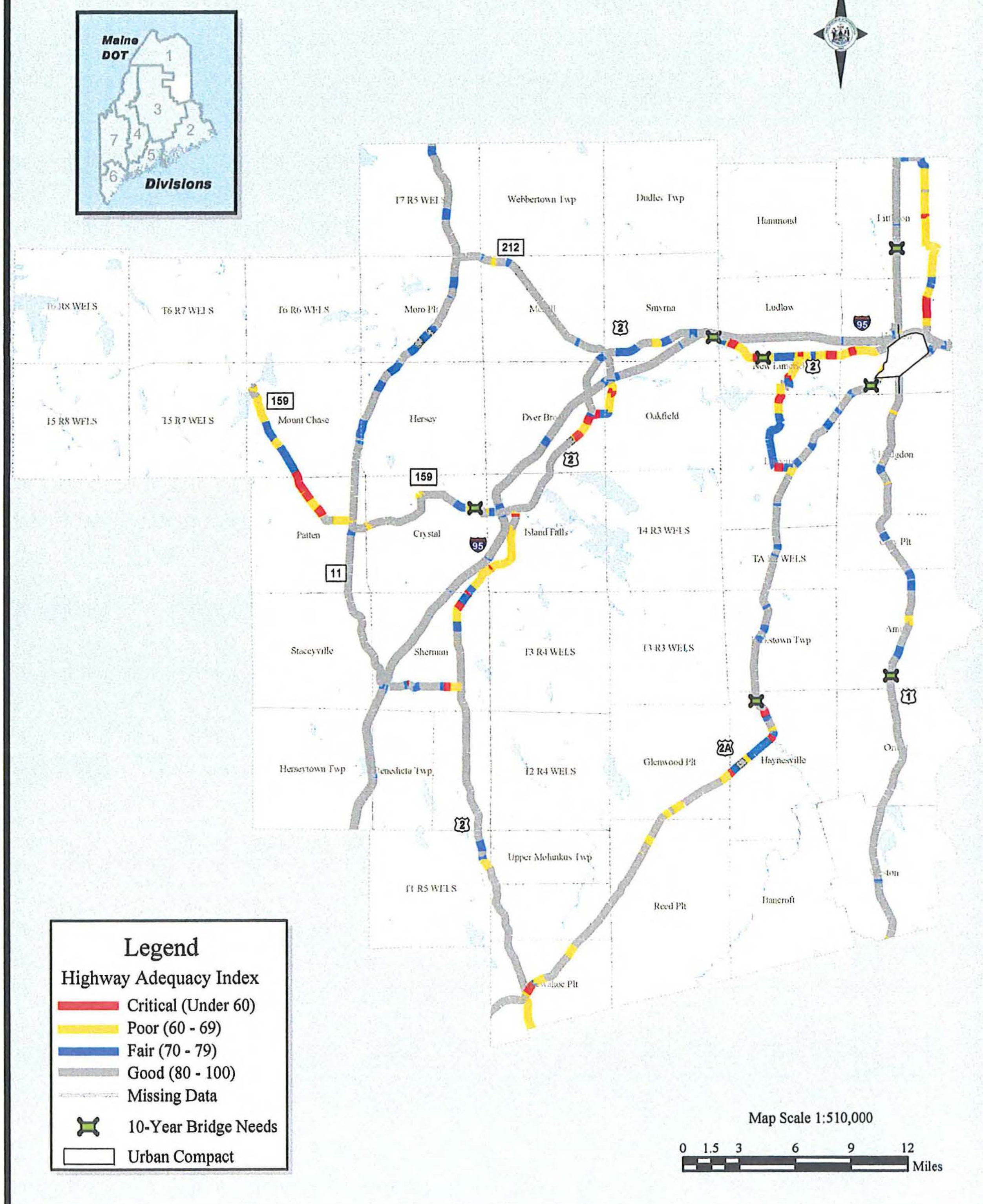


Division 1 - South
Routed, Rural, Major Collector and Arterial Highways
A Summary of Highway Adequacy Index
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Amity	US 1			0.53	1.70	3.93
Benedicta Twp	INT 95 NB				0.18	0.45
	INT 95 SB					0.08
Cary Plt	US 1				0.45	2.90
Crystal	INT 95 NB				0.13	2.57
	INT 95 SB				0.11	2.64
	ST RTE 0159			0.79	0.62	6.57
	US 2			1.20		
Dyer Brook	INT 95 NB					6.50
	INT 95 SB				0.58	6.46
	US 2		0.77	0.48	0.06	5.76
Forkstown Twp	US 2A				0.90	4.62
Glenwood Plt	US 2A			0.93		2.93
Haynesville	US 2A		0.74	0.39	2.35	1.87
Hersey	ST RTE 0011				1.95	2.33
Herseytown Twp	INT 95 NB					6.15
	INT 95 SB					6.78
Hodgdon	US 1			0.26	0.42	5.64
	US 2A					0.39
Houlton	INT 95 NB				0.29	5.76
	INT 95 SB				0.19	5.92
	US 1					2.52
	US 2	0.11	0.40	1.28	0.28	1.74
	US 2A			0.04	0.13	1.66
Island Falls	INT 95 NB				1.08	4.29
	INT 95 SB				0.15	5.01
	ST RTE 0159			0.11	0.37	1.05
	US 2		0.24	3.29		3.58
Linneus	US 2A			0.41	1.49	5.05
Littleton	US 1				0.06	6.41
Ludlow	INT 95 NB				0.13	4.79
	INT 95 SB					4.86
	US 2				0.23	
Macwahoc Plt	ST RTE 0170			1.73		
	US 2			0.19		4.58
	US 2A		0.58	1.21	0.07	2.31
Merrill	ST RTE 0212			0.24	0.72	7.94
	US 2				0.41	0.09
Moro Plt	ST RTE 0011				1.93	4.61
	ST RTE 0212					1.00
Mt Chase	ST RTE 0011				0.56	1.94
	ST RTE 0159		0.35	2.05	2.69	0.71
New Limerick	INT 95 NB					1.64
	INT 95 SB					1.31
	US 2		1.89	3.14	1.63	
No Yarmouth Acad	US 2					2.99
	US 2A					1.93
Oakfield	INT 95 NB				0.23	2.57
	INT 95 SB					2.80
Orient	US 1					6.68
Patten	ST RTE 0011			0.04	0.20	6.07
	ST RTE 0159		1.65	1.71		1.40
Reed Plt	US 2A			0.46		4.58
Sherman	INT 95 NB				0.31	6.82
	INT 95 SB				0.24	7.30
	ST RTE 0011					1.68
	ST RTE 0158		0.46	0.55	0.80	2.61
	US 2		0.53	0.72	1.08	4.71
Silver Ridge Twp	US 2					5.97
Smyrna	INT 95 NB				0.10	3.67
	INT 95 SB				0.07	3.33
	US 2		0.01	1.11	2.27	3.05
Stacyville	ST RTE 0011			0.02		3.72
Twp 01 R 05 Wels	US 2			0.55	0.71	1.05
Twp 07 R 05 Wels	ST RTE 0011				1.05	5.40
Twp A R 02 Wels	US 2A				0.41	3.05
Weston	US 1				0.17	6.62

HIGHWAY ADEQUACY INDEX

Division 1 South



Division 2 - East

Routed, Rural, Major Collector and Arterial Highways

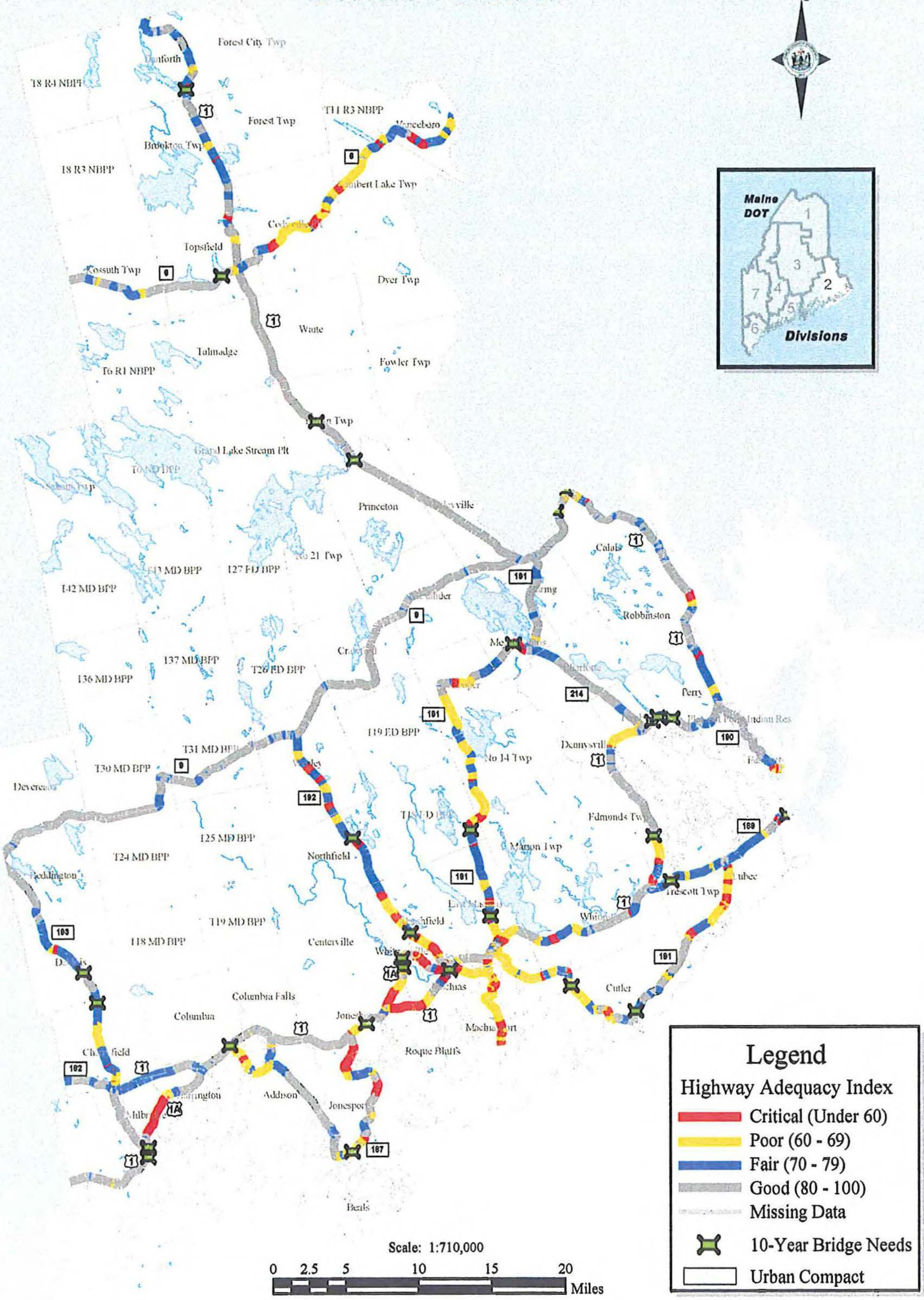
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Addison	ST RTE 0187			0.25	1.51	4.05
Alexander	ST RTE 0009				0.13	6.15
Baileyville	ST RTE 0009					3.64
	US 1			0.03	0.15	8.21
Baring	ST RTE 0191				0.58	3.02
	US 1				0.08	2.51
Beddington	ST RTE 0009				0.08	1.39
	ST RTE 0193				0.57	4.08
Brookton Twp	US 1		0.04	0.56	3.29	2.08
Calais	ST RTE 0009				0.07	0.27
	US 1	0.04	0.07	0.80	1.79	10.60
Charlotte	ST RTE 0214				1.08	3.68
Cherryfield	ST RTE 0182				1.13	2.12
	ST RTE 0193		0.24	2.40	4.14	
	US 1			0.10	1.08	3.05
Codyville Plt	ST RTE 0006		1.19	5.26	1.10	0.49
Columbia	US 1				0.22	2.29
Columbia Falls	ST RTE 0187			0.16		0.55
	US 1			0.05	0.04	3.84
Cooper	ST RTE 0191		0.46	3.73	1.23	2.01
Crawford	ST RTE 0009				0.17	8.91
Cutler	ST RTE 0191		0.36	3.57	2.70	6.22
Danforth	US 1		0.25	0.24	4.25	3.52
Deblois	ST RTE 0193		0.29	0.21	4.01	1.91
Dennysville	US 1		0.15	0.37	0.59	1.00
Devereaux Twp	ST RTE 0009				0.02	5.28
East Machias	ST RTE 0191		1.05	3.61	4.08	0.08
	US 1		0.57	1.29	0.24	2.89
Eastport	ST RTE 0190	0.07	0.41	0.28	0.93	2.60
Edmunds Twp	US 1		0.43	0.72	0.98	5.77
Harrington	US 1			0.25	1.10	1.95
	US 1A			0.34	0.47	1.82
Jonesboro	ST RTE 0187					0.81
	US 1		1.70	1.17	0.16	5.57
	US 1A		1.16	1.30		0.01
Jonesport	ST RTE 0187		2.16	2.86	2.91	5.78
Kossuth Twp	ST RTE 0006			0.55	2.42	3.99
Lambert Lake Twp	ST RTE 0006		0.04	3.53	1.05	0.25
Lubec	ST RTE 0189		0.22	0.44	4.26	1.35
	ST RTE 0191		0.86	1.75	0.56	
Machias	ST RTE 0092		0.50	1.66		
	ST RTE 0192		0.17	0.19	0.10	0.27
Machias	US 1		0.52	0.11	0.77	1.76
	US 1A		1.23	0.76	0.38	0.39
Machiasport	ST RTE 0092		0.42	1.04		
	ST RTE 0191			2.78	0.24	
Marion Twp	ST RTE 0191		0.36	0.34		
Marshfield	ST RTE 0192		1.42	1.84	0.54	0.19
	US 1A		0.29	0.05		
Meddybemps	ST RTE 0191		1.18	0.13	1.49	3.66
	ST RTE 0214				0.58	0.39
Milbridge	US 1			0.11	2.35	3.46
	US 1A		2.87	0.21	0.15	0.73
No 14 Twp	ST RTE 0191		0.13	3.91	2.05	
Northfield	ST RTE 0192		0.60	1.09	4.20	
Passamaquoddy (In	US 1				0.09	7.26
Passamaquoddy (P	ST RTE 0190					0.94
Pembroke	ST RTE 0214			0.11	0.65	3.10
	US 1			1.60	0.62	2.11
Perry	ST RTE 0190					1.57
	US 1		0.16	0.55	4.60	4.02
Princeton	US 1			0.10		4.98
Robbinston	US 1		0.64	0.45	0.46	3.78
Steuben	US 1			0.23	0.12	3.77
Talmadge	US 1					2.47
Topsfield	ST RTE 0006			0.38	0.72	5.59
	US 1		0.27	0.59	1.15	6.89
Trescott Twp	ST RTE 0189			0.50	2.80	
	ST RTE 0191		0.43	2.13	1.06	0.66
Twp 18 Ed	ST RTE 0191		0.34	0.51	0.62	
Twp 24 Md	ST RTE 0009					3.52
Twp 26 Ed	ST RTE 0009				0.08	0.69
Twp 30 Md	ST RTE 0009				1.48	2.74
Twp 31 Md	ST RTE 0009				0.63	6.24
Vanceboro	ST RTE 0006		0.99	0.89	3.90	0.35
Waite	US 1					3.36
Wesley	ST RTE 0009				0.83	4.84
	ST RTE 0192		1.46	1.18	3.26	
Whiting	ST RTE 0189				0.62	
	ST RTE 0191			0.58	0.98	
	US 1		0.92	0.90	3.12	5.63
Whitneyville	ST RTE 0192		1.15	1.18	0.53	
	US 1		0.61	0.61		
	US 1A			1.50		0.50

HIGHWAY ADEQUACY INDEX

Division 2 East



Division 2 - West

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Amherst	ST RTE 0009				0.23	7.28
Aurora	ST RTE 0009			0.37		5.90
	ST RTE 0179		0.55	1.08	0.45	
Bar Harbor	ST RTE 0003		1.06	2.47	1.72	9.86
	ST RTE 0102				0.29	3.08
	ST RTE 0233		0.05	0.73	0.18	4.63
Blue Hill	ST RTE 0015		1.15	2.55	4.11	0.96
	ST RTE 0172		1.21	0.57	0.37	2.43
Brooksville	ST RTE 0015				0.03	
Bucksport	ST RTE 0015		1.11	3.19	4.67	0.42
	ST RTE 0046		3.28	5.31		0.81
	US 1			0.47	0.33	0.37
Castine	ST RTE 0166			1.18	0.12	
	ST RTE 0166A			0.85	0.91	2.01
Dedham	ST RTE 0046		0.72	0.47		
	US 1A		0.05	0.28	1.15	4.95
Deer Isle	ST RTE 0015		1.98	5.37	0.60	0.79
Ellsworth	ST RTE 0003			0.89	0.09	0.72
	ST RTE 0172		0.04	0.16	0.14	2.08
	ST RTE 0179		0.53	0.70	1.16	1.17
	ST RTE 0184					0.04
	ST RTE 0230		0.19		0.22	0.40
	US 1	0.07	0.49	0.74	1.27	8.47
	US 1A		1.65	1.22	6.52	0.94
Franklin	ST RTE 0182		1.43	1.50	0.16	4.65
	ST RTE 0200		2.13	0.61	0.32	
Gouldsboro	ST RTE 0186		2.98	6.72	0.48	1.88
	US 1				0.91	6.37
Hancock	ST RTE 0182		0.48	1.41	0.03	0.34
	US 1			0.42	0.99	6.34
Lamoine	ST RTE 0184		0.92	1.63	1.89	3.76
Mariaville	ST RTE 0179			1.01	1.02	
Mt Desert	ST RTE 0003		1.76	6.08	0.19	3.60
	ST RTE 0102			0.02	0.17	4.29
	ST RTE 0198			0.11	0.18	0.49
	ST RTE 0233					0.15
Orland	ST RTE 0015		0.24	0.11	1.48	1.26
	ST RTE 0046		0.14			
	ST RTE 0175	0.01	3.28	2.46	0.25	
	US 1			0.05	0.64	8.41

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Osborn	ST RTE 0009					0.92
	ST RTE 0179			1.90	0.06	
Penobscot	ST RTE 0015			1.42	1.83	
	ST RTE 0166		0.89	0.36	0.01	
	ST RTE 0175		2.05			
Sedgwick	ST RTE 0015	0.10	0.04	0.61	6.82	0.46
Southwest Harbor	ST RTE 0102		0.09	1.32	1.16	2.00
Stonington	ST RTE 0015		1.18	1.06	0.17	
Sullivan	ST RTE 0200		1.68	1.14		
	US 1	0.04	1.90	0.51	0.83	2.48
Surry	ST RTE 0172				0.12	5.35
Tremont	ST RTE 0102A		0.42	0.37		
Trenton	ST RTE 0003			0.96	1.34	3.70
Twp 07 Sd	US 1					0.44
Twp 08 Sd	ST RTE 0179		0.68	0.32	1.00	
Twp 09 Sd	ST RTE 0182			0.81	0.12	0.52
Twp 10 Sd	ST RTE 0182		4.19	2.51	0.09	0.35
Twp 22 Md	ST RTE 0009				0.43	3.19
	ST RTE 0193					0.36
Twp 28 Md	ST RTE 0009				0.17	1.65
Verona	US 1			0.06	0.20	0.72
Waltham	ST RTE 0179		1.11	5.24	2.05	0.78
Winter Harbor	ST RTE 0186		0.04	2.27	0.14	1.26

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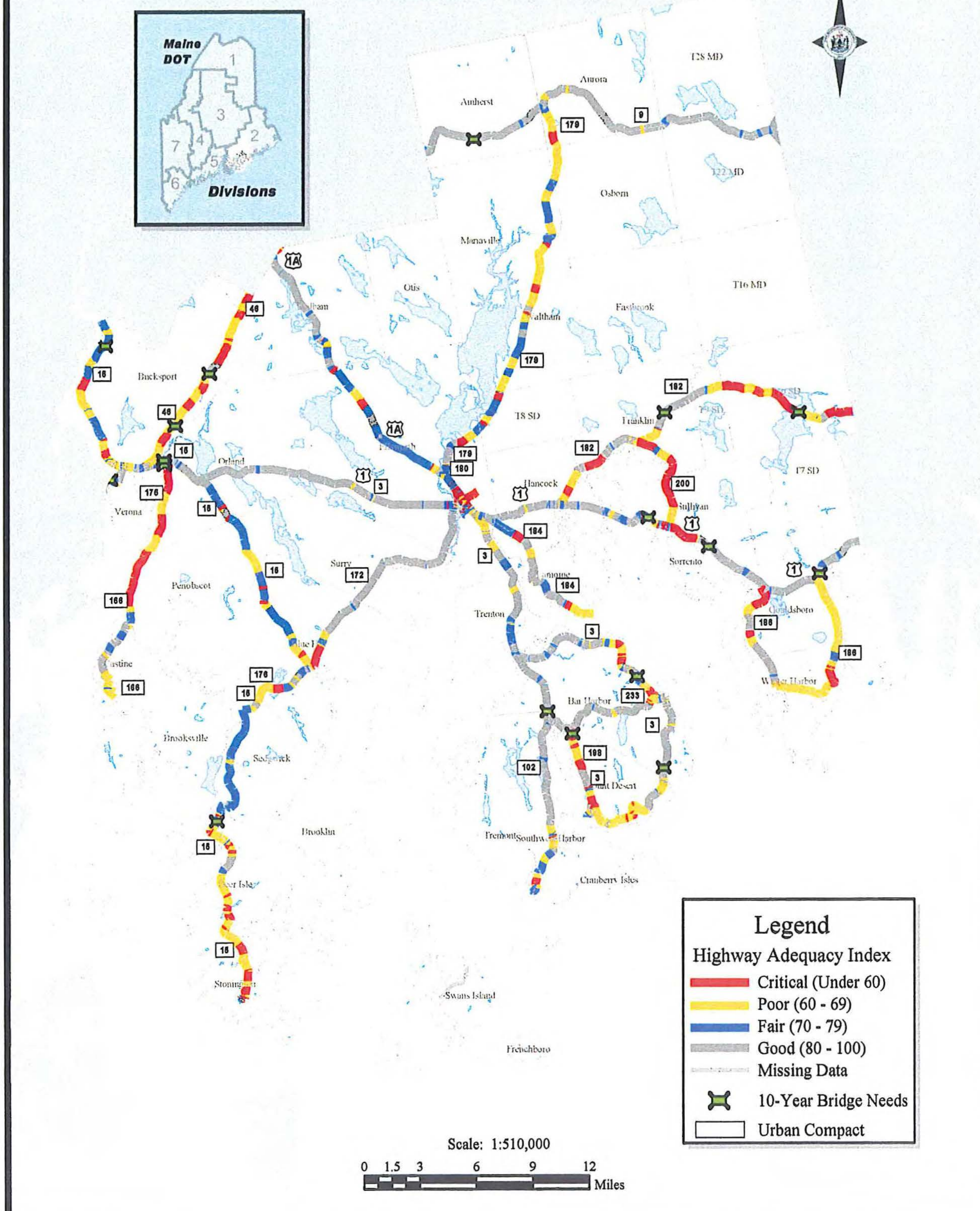
Division 2 West



Division 3 - East

Routed, Rural, Major Collector and Arterial Highways

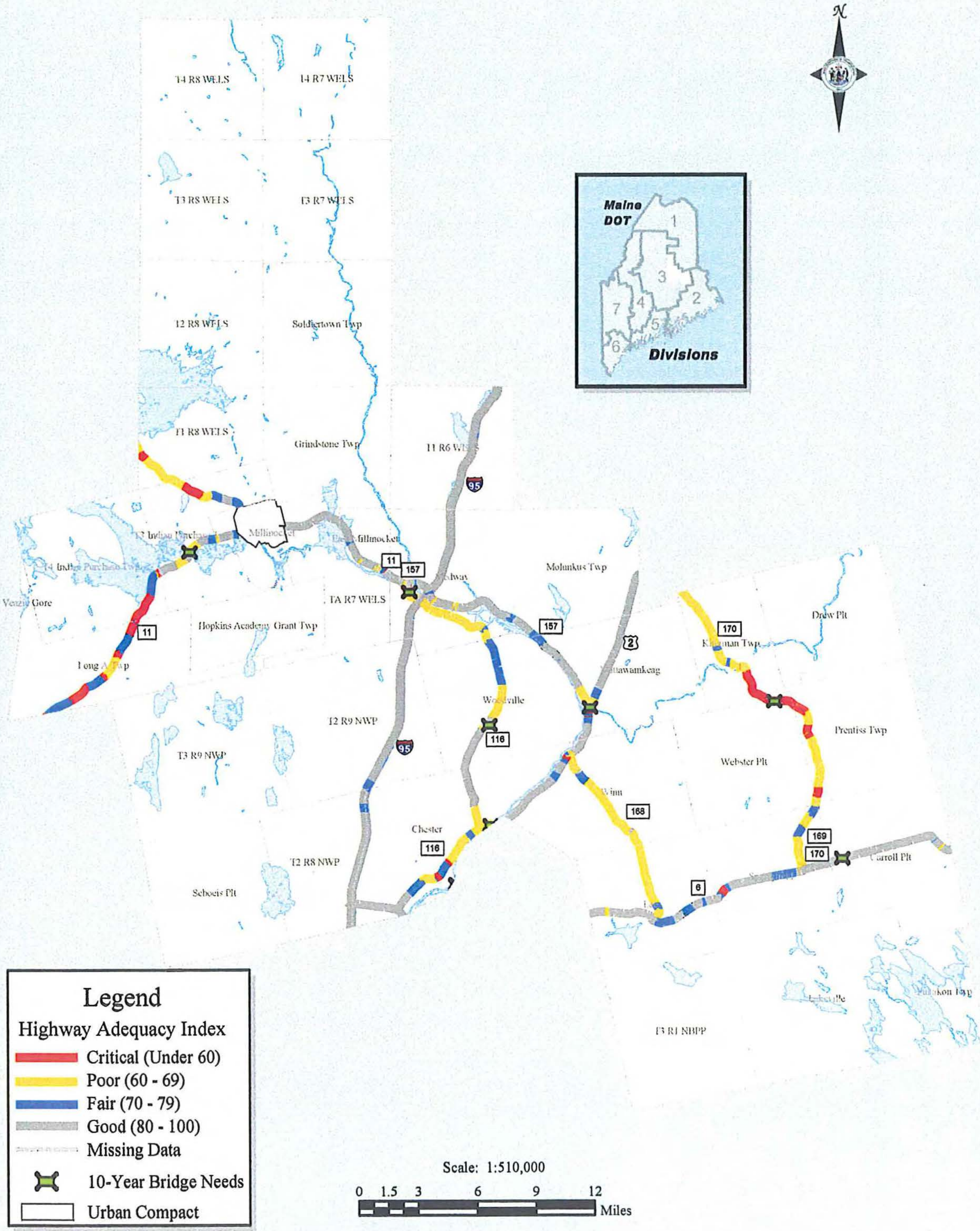
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100	Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Carroll Plt	ST RTE 0006			0.09	0.05	6.26							
Chester	ST RTE 0116		0.54	3.62	2.14	2.91							
East Millinocket	ST RTE 0011		0.04	0.32	0.26	3.31							
Kingman Twp	ST RTE 0170		1.92	5.22	0.50								
Lee	ST RTE 0006			0.20	1.75	4.97							
	ST RTE 0168			3.78	0.40								
Long A Twp	ST RTE 0011		2.30	0.84	3.39								
Mattawamkeag	ST RTE 0157			1.12	0.02	2.87							
	US 2		0.24	0.32	1.15	5.12							
Medway	INT 95 NB				0.15	7.13							
	INT 95 SB					6.95							
	ST RTE 0011			0.16	0.07	1.18							
	ST RTE 0116		0.45	5.15	0.09								
	ST RTE 0157			0.25	0.10	5.00							
Millinocket	ST RTE 0011				0.29	3.54							
Molunkus Twp	ST RTE 0157				0.30	1.17							
	US 2					2.28							
Prentiss Plt	ST RTE 0170		1.93	3.58									
Springfield	ST RTE 0006		0.42	0.02	1.42	4.55							
	ST RTE 0169			2.42	1.24								
	ST RTE 0170			0.10									
T 3 Indian Purchase	ST RTE 0011			1.05	0.53	1.86							
T 4 Indian Purchase	ST RTE 0011		1.10	0.78	1.04								
Twp 01 R 06 Wels	INT 95 NB				0.22	6.66							
	INT 95 SB					6.93							
Twp 02 R 08 Nwp	INT 95 NB				0.10	7.05							
	INT 95 SB				0.41	6.65							
Twp 02 R 09 Nwp	INT 95 NB				0.82	7.26							
	INT 95 SB				0.54	7.44							
Twp A R 07 Wels	ST RTE 0011					0.32							
Webster Plt	ST RTE 0170		1.38										
Winn	ST RTE 0168			4.92	0.57	0.27							
	US 2		0.11	0.15	0.83	3.60							
Woodville	ST RTE 0116			1.96	2.47	2.95							

HIGHWAY ADEQUACY INDEX

Division 3 East



Division 3 - West

Routed, Rural, Major Collector and Arterial Highways

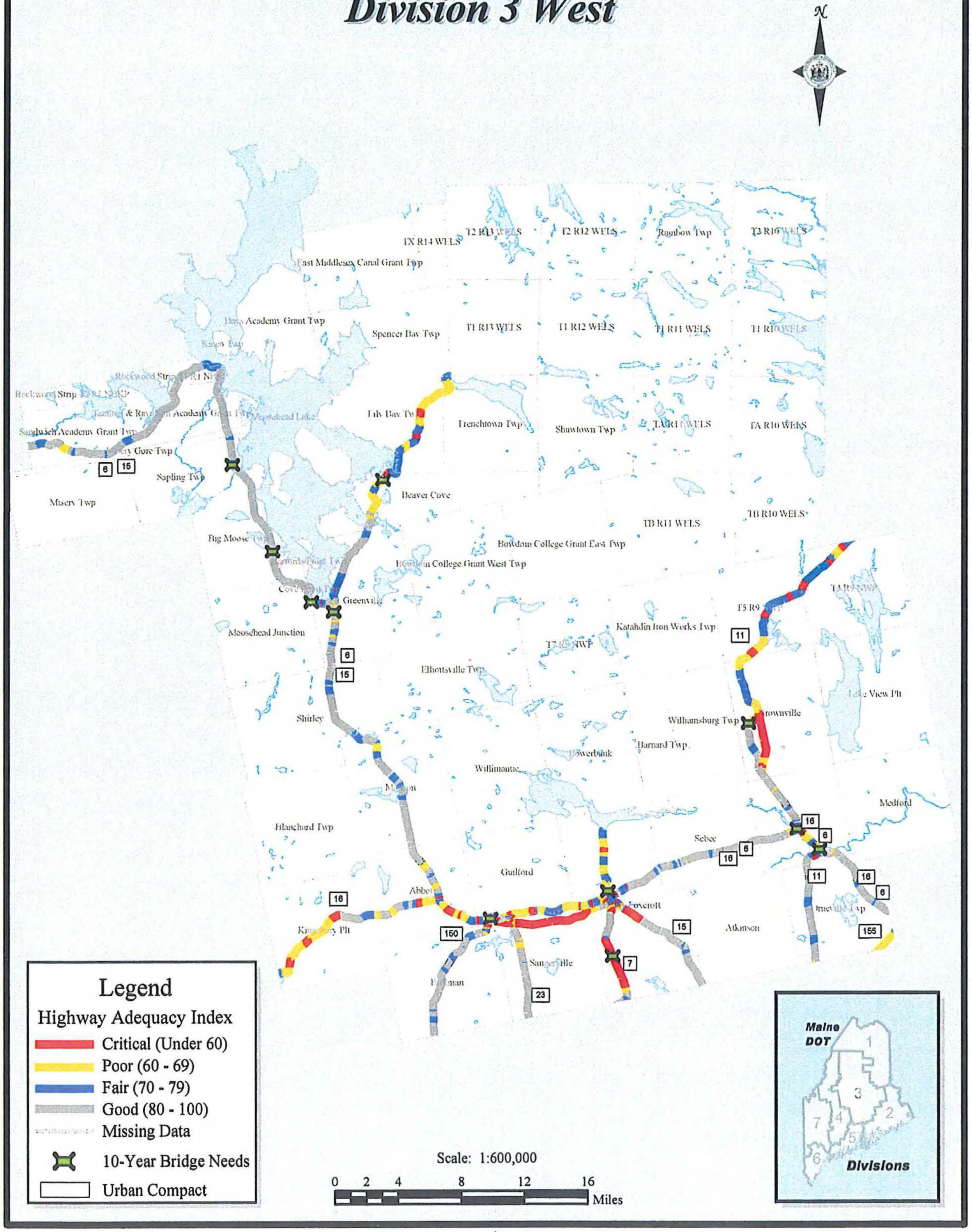
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Abbot	ST RTE 0006		0.97	2.13	1.17	2.48
	ST RTE 0016		0.37	1.63	0.63	1.66
Big Squaw Twp	ST RTE 0006					8.10
Brownville	ST RTE 0011		0.43	1.96	2.89	3.53
Cove Point Twp	ST RTE 0006					0.45
Dover-Foxcroft	ST RTE 0006		0.62	1.34	2.04	2.33
	ST RTE 0007		3.78	0.53	0.49	1.88
	ST RTE 0015		1.61	0.15	0.91	5.65
	ST RTE 0153		0.42	2.00	2.09	0.11
Greenville	ST RTE 0006		0.10	0.55	1.33	3.32
Guilford	ST RTE 0006		0.84	3.19	2.02	0.38
	ST RTE 0023				0.13	
	ST RTE 0150		0.20		0.04	
Kingsbury Plt	ST RTE 0016		1.82	3.88	1.11	1.52
Little Squaw Twp	ST RTE 0006			0.02	0.15	1.95
Milo	ST RTE 0006		0.56	1.10	0.77	3.70
	ST RTE 0011		0.30	0.11	1.34	3.59
Misery Gore	ST RTE 0006					0.72
Monson	ST RTE 0006			0.50	2.14	5.95
Orneville Twp	ST RTE 0006				0.42	4.46
	ST RTE 0011				1.18	5.11
	ST RTE 0155			0.94		
Parkman	ST RTE 0150		0.15	0.16	1.83	6.54
Rockwood Strip T1	ST RTE 0006				1.19	2.94
Sandwich Academy	ST RTE 0006			0.47	1.36	4.93
Sangerville	ST RTE 0023			0.50	0.11	5.82
Sapling Twp	ST RTE 0006			0.01	0.29	1.69
Sebec	ST RTE 0006				0.72	5.93
Shirley	ST RTE 0006				0.82	3.95
T5 R9 Nwp (Ebeem	ST RTE 0011		1.34	1.73	3.41	
Taunton and Raynh	ST RTE 0006					7.97
Twp 04 R 09 Nwp	ST RTE 0011		1.28	0.58	2.52	

HIGHWAY ADEQUACY INDEX

Division 3 West



Division 3 - South

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

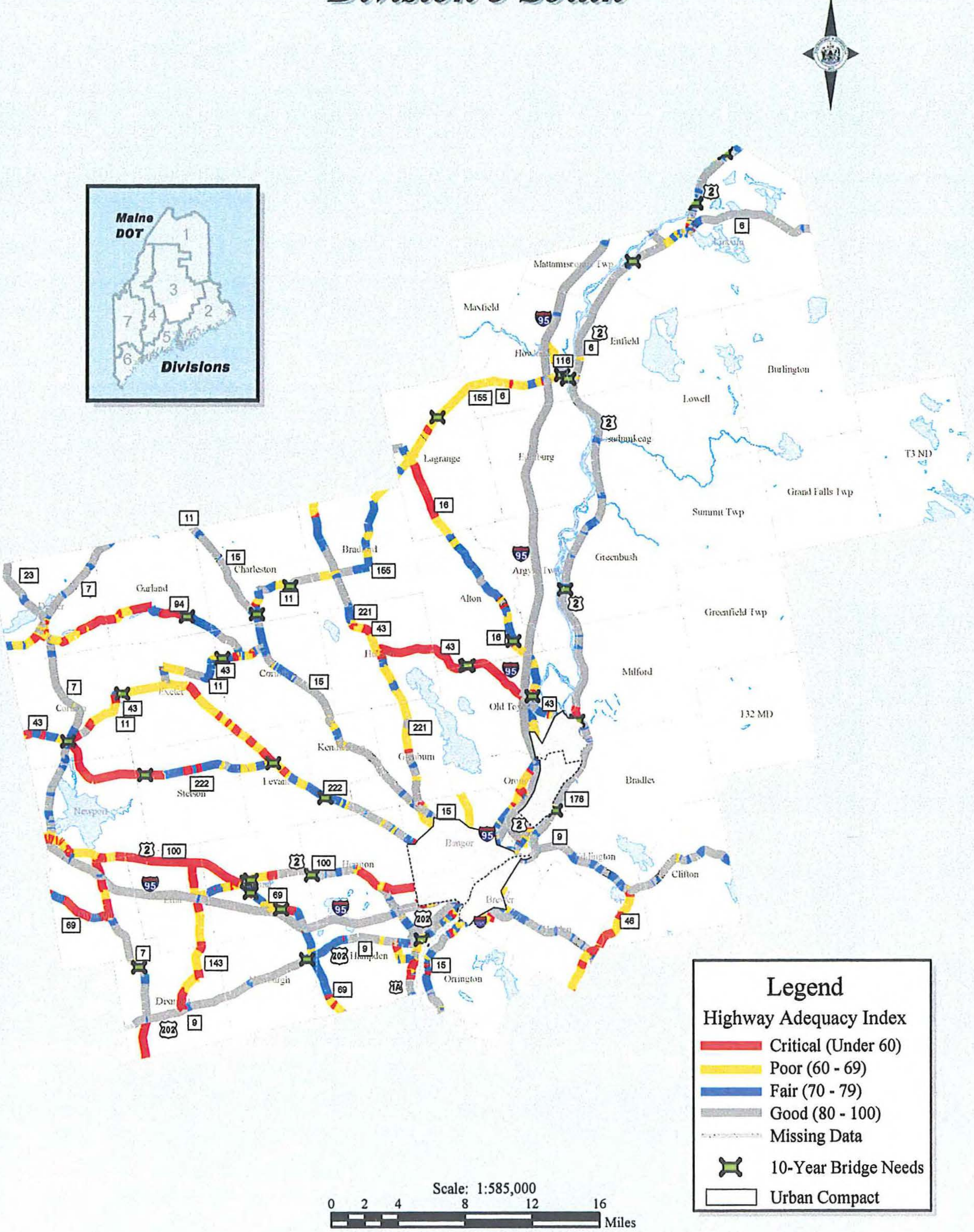
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Alton	INT 95 NB					1.86
	INT 95 SB					1.34
	ST RTE 0016		0.61	2.10	5.56	0.80
	ST RTE 0043		2.05		0.10	
Argyle Twp	INT 95 NB					6.82
	INT 95 SB					6.68
Bangor	INT 95 NB					1.27
	INT 95 SB					1.36
	ST RTE 0015			0.03	0.43	1.10
	ST RTE 0221		0.33	0.24	0.06	
	ST RTE 0222		0.20		0.52	
Bradford	ST RTE 0011		0.11	1.80	2.13	1.91
	ST RTE 0155			1.88	4.12	1.05
	ST RTE 0221				0.25	1.86
Bradley	ST RTE 0178				0.12	4.46
Brewer	INT 395 EB					1.51
	US 1A		0.01	0.30	0.62	
Carmel	INT 95 NB					5.83
	INT 95 SB				0.11	5.32
	ST RTE 0069		1.41	2.51	2.63	0.48
	US 2		3.85	1.10		1.78
Charleston	ST RTE 0011		0.14	0.91	1.89	2.54
	ST RTE 0015				0.73	5.84
Clifton	ST RTE 0009			0.11	0.96	4.94
Corinna	ST RTE 0007		0.07	0.25	1.05	5.96
	ST RTE 0011		1.72	2.02	0.31	0.56
	ST RTE 0043		0.87	0.62	1.18	
	ST RTE 0222		1.10	0.16	0.19	
Corinth	ST RTE 0011		0.50	0.57	2.35	0.76
	ST RTE 0015			0.22	1.82	3.87
	ST RTE 0094				0.85	1.44
Dexter	ST RTE 0007		0.44	0.69	1.41	4.65
	ST RTE 0023		0.17	1.35	1.35	4.46
	ST RTE 0094		1.99	1.78		
Dixmont	ST RTE 0007		2.39	0.11	0.61	3.26
	ST RTE 0143		1.94	2.55		
	US 202	0.61			0.32	5.46
Eddington	ST RTE 0009			0.06	2.14	5.06
	ST RTE 0046		1.07	1.94	0.03	0.07
	ST RTE 0178			0.24	0.22	2.82
Edinburg	INT 95 NB					6.59
	INT 95 SB					6.73
Enfield	ST RTE 0006			0.11		0.39
	US 2			0.45		7.50
Etna	INT 95 NB					4.25
	INT 95 SB				0.13	4.19
	ST RTE 0069			0.62	0.08	0.35
	ST RTE 0143		2.43	2.34		
	US 2		4.47			
Exeter	ST RTE 0011		0.09	4.14	2.27	1.67
Garland	ST RTE 0007					1.21
	ST RTE 0094		3.57	0.86	2.61	
Glenburn	ST RTE 0015			0.07	0.25	2.12
	ST RTE 0221		0.26	2.46	0.28	3.18
	ST RTE 0222					0.73
Greenbush	US 2				1.12	7.42

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Hampden	INT 95 NB				0.58	4.43
	INT 95 SB					4.57
	ST RTE 0009			0.14		0.26
	ST RTE 0069		0.46	0.91	1.86	
	US 1A		1.35	1.52	2.01	1.89
	US 202		0.23	0.21	3.16	6.03
Hermon	INT 95 NB					1.25
	INT 95 SB					1.23
	ST RTE 0222			0.36	0.19	2.19
	US 2		3.51	0.55	0.49	2.57
Holden	ST RTE 0046		1.53	2.17	0.14	
	US 1A		0.03	0.15	1.27	3.90
Howland	INT 95 NB				0.25	6.63
	INT 95 SB				0.22	5.73
	ST RTE 0006		0.66	3.93	0.79	0.41
	ST RTE 0116		0.02	1.35	0.43	0.54
Hudson	ST RTE 0043		4.13	1.67		
	ST RTE 0221		0.47	2.41	1.92	
Kenduskeag	ST RTE 0015			0.60	0.63	3.83
Lagrange	ST RTE 0006		0.38	5.68	0.53	0.35
	ST RTE 0016		3.44	1.41	0.23	
	ST RTE 0155			0.70	0.14	
Levant	ST RTE 0222		0.37	3.28	3.31	0.51
Lincoln	ST RTE 0002W	0.03				
	ST RTE 0006		0.14		0.92	6.85
	US 2		0.30	1.18	2.45	7.77
Mattamiscontis Twp	INT 95 NB				0.41	3.33
	INT 95 SB				0.36	3.75
Milford	ST RTE 0178				0.09	1.11
	US 2		0.76		0.52	4.72
Newburgh	INT 95 NB					0.98
	INT 95 SB					0.57
	ST RTE 0069		0.06	0.59	1.74	
	US 202				1.16	4.85
Newport	INT 95 NB				0.59	1.19
	INT 95 SB					2.38
	ST RTE 0007		0.15	0.40	0.76	3.28
	ST RTE 0011		0.10	0.05		0.03
	ST RTE 0222		4.04			
	US 2		1.91	3.19	0.03	0.13
Old Town	INT 95 NB					6.25
	INT 95 SB					6.19
	ST RTE 0016		0.13	1.83	2.10	1.04
	ST RTE 0043		3.63	0.20	0.81	1.36
Orono	INT 95 NB				0.67	2.80
	INT 95 SB				0.38	3.07
Orrington	ST RTE 0015		0.76	0.87	2.50	2.64
Passadumkeag	US 2				0.36	6.17
Plymouth	INT 95 NB				0.16	3.05
	INT 95 SB					3.66
	ST RTE 0007		2.58	0.66	0.70	2.47
	ST RTE 0069		2.38	0.15	1.53	
	US 2		0.11			
Stetson	ST RTE 0222		2.63	0.26	3.03	0.38
Veazie	INT 95 NB					0.52
	US 2		0.10	0.06	0.25	1.52

HIGHWAY ADEQUACY INDEX

Division 3 South



Division 4 - North

Routed, Rural, Major Collector and Arterial Highways

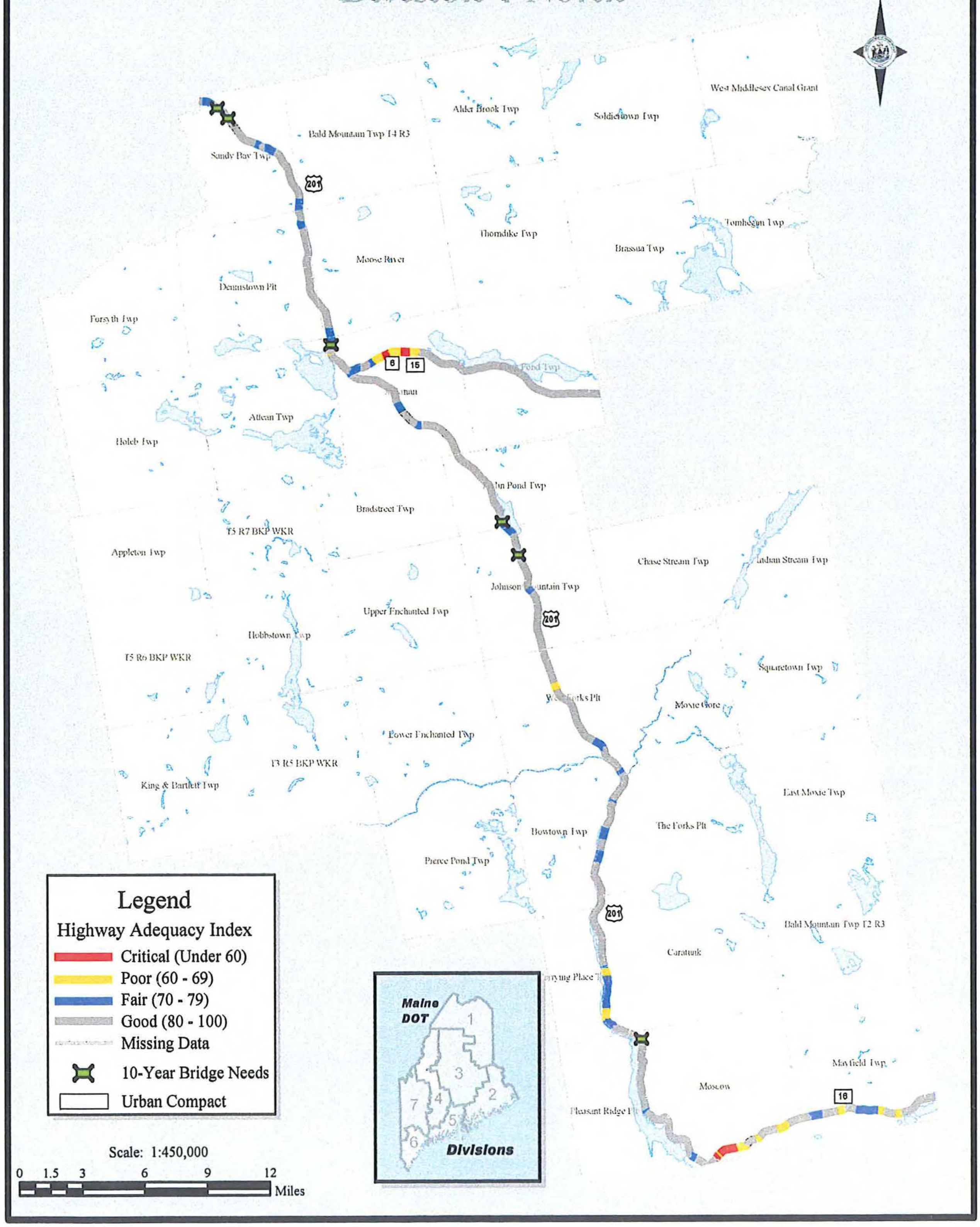
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100	Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Caratunk	US 201			0.89	2.24	4.38							
Dennistown Plt	US 201				0.39	4.35							
Jackman	ST RTE 0006		0.86	1.51	0.78	2.69							
	US 201		0.09	0.08	0.93	8.04							
Johnson Mt Twp	US 201				0.60	5.46							
Long Pond Twp	ST RTE 0006					7.12							
Mayfield Twp	ST RTE 0016			0.82	1.63	4.40							
Moose River	US 201				0.48	1.34							
Moscow	ST RTE 0016		1.06	1.48		2.37							
	US 201				0.33	8.30							
Parlin Pond Twp	US 201				0.37	3.62							
Sandy Bay Twp	US 201				1.17	6.13							
The Forks Plt	US 201				1.52	4.67							
West Forks	US 201			0.32	0.77	6.42							

HIGHWAY ADEQUACY INDEX

Division 4 North



Division 4 - Central

Routed, Rural, Major Collector and Arterial Highways

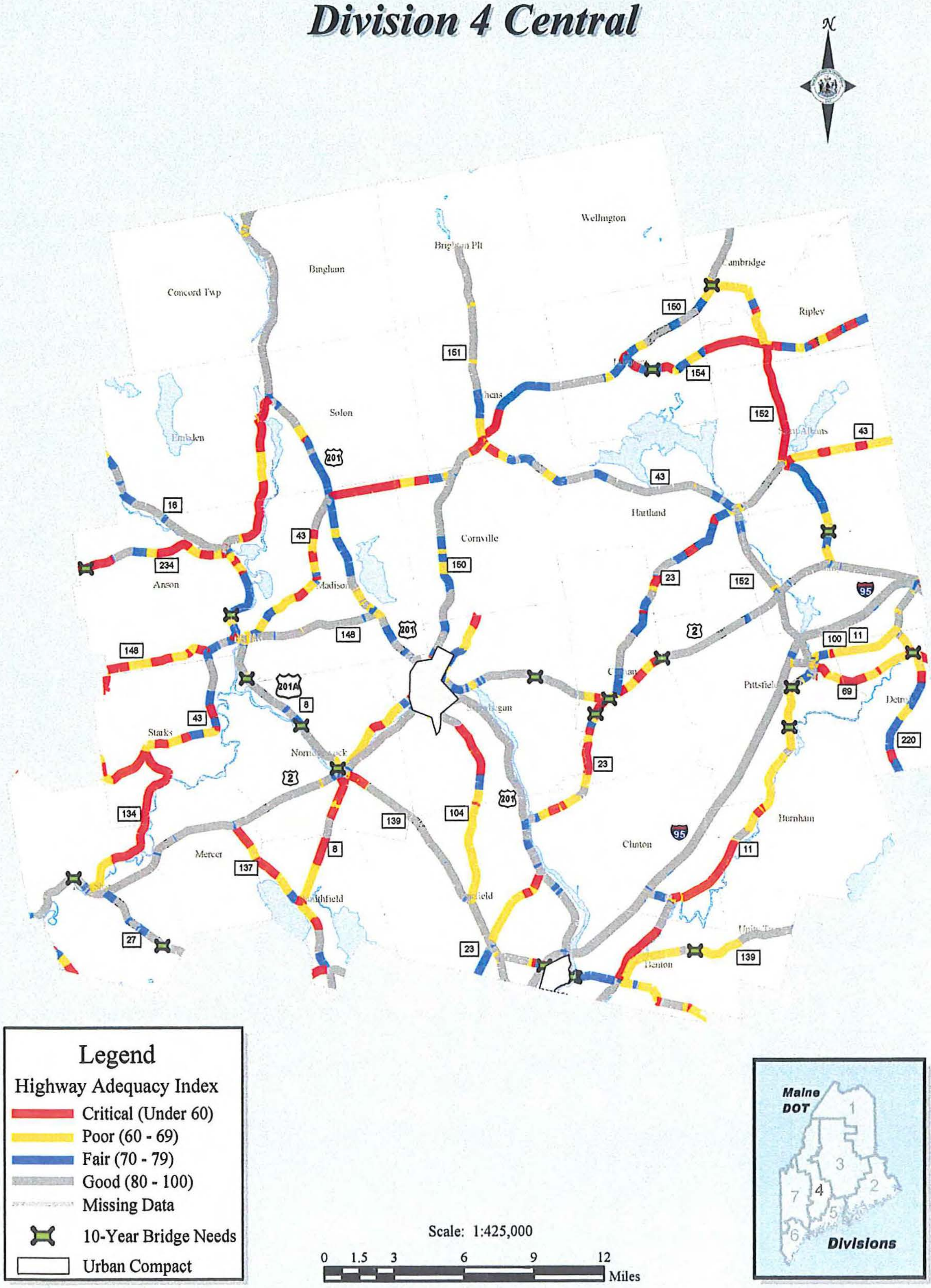
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Anson	ST RTE 0016				0.03	2.97
	ST RTE 0043		0.05		1.23	0.43
	ST RTE 0148		2.35	2.11		
	ST RTE 0234		3.73	1.35	0.64	0.90
	US 201A		2.74	1.19	3.23	0.68
Athens	ST RTE 0043		1.40	0.72	0.39	0.65
	ST RTE 0150		1.77		2.58	
	ST RTE 0151			0.91	1.26	3.06
Benton	INT 95 NB					2.82
	INT 95 SB					2.81
	ST RTE 0011		2.95	0.11	1.71	0.49
	ST RTE 0100A					1.14
	ST RTE 0139		0.10	5.31	0.18	0.89
Bingham	ST RTE 0016			0.02		0.41
	US 201			0.26		6.43
Brighton Plt	ST RTE 0151			0.18		2.98
Burnham	INT 95 NB					0.47
	INT 95 SB					0.85
	ST RTE 0011		0.39	1.50		0.58
Cambridge	ST RTE 0150		0.12	0.98	0.46	1.85
	ST RTE 0152			2.06	0.37	
Canaan	ST RTE 0023		2.87	0.51	3.06	2.04
	US 2		1.66	2.16	0.14	0.27
Clinton	INT 95 NB				0.44	4.38
	INT 95 SB			0.02	0.08	4.85
	ST RTE 0011		3.88	0.17	0.05	0.42
	ST RTE 0023		0.68	1.36	0.19	0.73
Cornville	ST RTE 0043		0.86	0.82	1.56	1.32
	ST RTE 0150			0.76	1.93	4.09
Detroit	ST RTE 0011			2.38		
	ST RTE 0069		1.43	2.21		
	ST RTE 0220		0.90	2.31	3.36	0.09
Embden	ST RTE 0016				0.73	2.44
	US 201A		2.36	1.32		
Fairfield	INT 95 NB				0.10	1.69
	INT 95 SB				0.29	1.51
	ST RTE 0011			0.03		0.15
	ST RTE 0023		0.95	2.90	1.24	0.44
	ST RTE 0104			4.73	0.16	3.19
	ST RTE 0139		0.21	0.14	0.59	5.62
	US 201				1.33	6.26
Harmony	ST RTE 0150		0.46	0.71	1.72	4.11
	ST RTE 0154		0.92	0.85	2.37	
Hartland	ST RTE 0023		1.30	0.58	2.65	1.46
	ST RTE 0043			0.07	1.67	6.06
	ST RTE 0152					0.27
Industry	ST RTE 0148		0.11			
Madison	ST RTE 0043		4.42	3.45	1.46	1.61
	ST RTE 0148			0.24	0.20	5.47
	US 201			1.37	4.41	2.35
	US 201A			0.42	0.05	1.68
Mercer	ST RTE 0137		1.28	0.60		
	US 2				0.22	4.70
New Sharon	ST RTE 0027				1.05	3.09
	ST RTE 0041		0.42	0.47	0.18	
	ST RTE 0134		2.48	1.84		
	US 2			0.14	0.25	6.03
Norridgewock	ST RTE 0008		1.87	0.14		0.70
	ST RTE 0139		0.76	0.21		2.33
	US 2			0.20	0.39	6.78
	US 201A			0.31	0.64	5.02
Palmyra	INT 95 NB				0.46	4.37
	INT 95 SB				0.12	4.62
	ST RTE 0011		0.04	0.55	0.21	1.79
	ST RTE 0151			0.75		
	ST RTE 0152			0.15	0.23	4.30
	ST RTE 0220			0.20		
	US 2			0.10	0.30	7.02
Pittsfield	INT 95 NB			0.05		9.29
	INT 95 SB				0.28	8.91
	ST RTE 0011		0.48	5.37	0.78	1.14
	ST RTE 0069		0.66	0.58	0.04	0.18
	ST RTE 0152			0.19		1.65
	US 2				0.25	4.32
Ripley	ST RTE 0023		1.27		0.73	
	ST RTE 0152		0.92	1.45		
	ST RTE 0154		3.07	0.95	1.02	
Skowhegan	ST RTE 0104		2.37	0.55	0.71	0.97
	ST RTE 0150				0.46	0.76
	US 2			0.41	0.95	5.75
	US 201				0.04	5.48
Smithfield	ST RTE 0008		1.99	2.38	0.86	1.42
	ST RTE 0137		0.91	0.91	0.43	0.74
	ST RTE 0225		0.68			
Solon	US 201		0.04	0.56	2.62	3.51
	US 201A		1.07			
St Albans	ST RTE 0023		0.49	1.21	0.01	2.47
	ST RTE 0043		0.93	2.17		
	ST RTE 0152		4.08	0.06	0.01	
Starks	ST RTE 0043		3.77	1.95	1.54	1.45
	ST RTE 0134		3.55			
Unity Twp	ST RTE 0139					1.88

HIGHWAY ADEQUACY INDEX

Division 4 Central



Division 4 - South

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

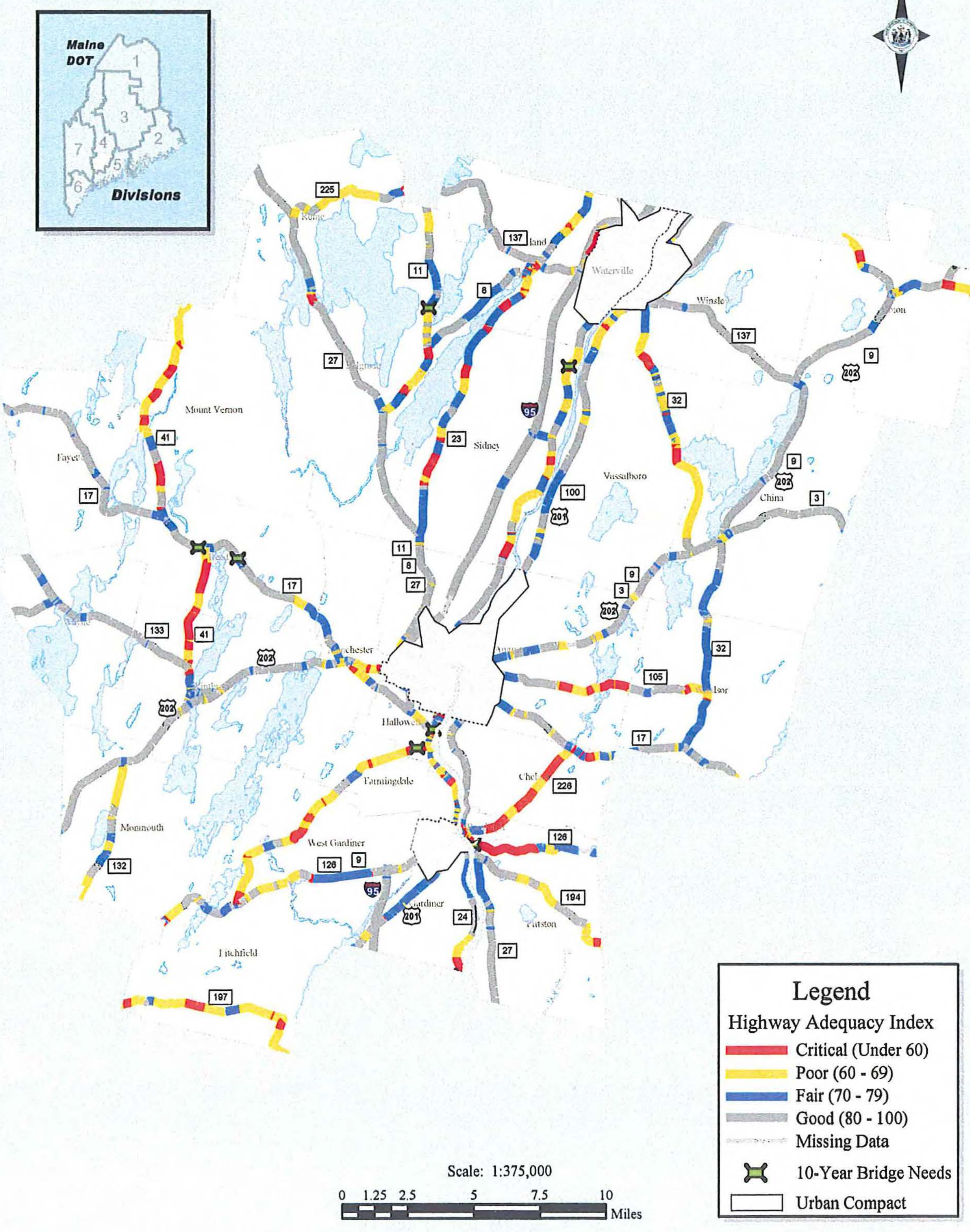
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Albion	ST RTE 0137		0.68	0.77		
	US 202		0.08	0.26	1.38	5.95
Augusta	INT 95 NB	1.24				3.57
	INT 95 SB	1.13				3.48
	ST RTE 0008			0.05		2.35
	ST RTE 0017			0.30	0.54	2.02
	ST RTE 0104					2.73
	ST RTE 0105		1.86	1.00	0.53	1.61
	US 202	0.34		0.95	1.54	3.52
Belgrade	ST RTE 0008		0.83	2.74	3.00	5.50
	ST RTE 0011				0.62	1.12
	ST RTE 0027		0.30	0.13	0.64	4.56
Chelsea	ST RTE 0009			0.09	0.21	2.59
	ST RTE 0017		0.52	0.31	1.14	0.08
	ST RTE 0226		2.15	1.60		
China	ST RTE 0003				0.29	4.79
	ST RTE 0032			2.29	1.65	1.67
	ST RTE 0137					1.41
	US 202			0.30	0.74	8.70
Farmingdale	US 201		0.29	1.50	0.70	
Fayette	ST RTE 0017				0.55	7.46
Gardiner	INT 95 NB					1.97
	INT 95 SB					1.40
	ST RTE 0024			1.06	1.07	1.22
	US 201		0.02	0.37	2.61	0.91
Hallowell	US 201		0.16	0.99	0.90	
Litchfield	ST RTE 0009			1.11	0.57	1.63
	ST RTE 0197		1.17	5.40	0.78	0.17
Manchester	ST RTE 0017			0.15	1.08	0.50
	US 202		0.30	1.14	0.39	0.58
Monmouth	ST RTE 0009		0.05	0.75	0.08	1.09
	ST RTE 0132			1.98	1.15	1.55
	US 202				0.23	4.92
Mt Vernon	ST RTE 0041		2.12	3.82	0.53	0.54
Oakland	INT 95 NB					1.13
	INT 95 SB					1.15
	ST RTE 0011		0.05	0.24	2.67	2.36
	ST RTE 0023		1.16	2.07	2.44	0.78
	ST RTE 0137				0.31	5.18

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Pittston	ST RTE 0027			0.26	2.01	3.70
	ST RTE 0126	0.51	2.32	0.39	1.69	
	ST RTE 0194		0.29	2.36	0.12	3.46
Randolph	ST RTE 0009		0.01	0.02	0.27	0.65
	ST RTE 0027		0.28	0.29	0.20	
	ST RTE 0226	0.12	0.69	0.11	0.61	0.02
Readfield	ST RTE 0017			0.54	2.37	5.15
	ST RTE 0041		1.53	1.43	0.30	0.59
Rome	ST RTE 0027				0.35	4.98
	ST RTE 0225			3.18	0.46	1.24
Sidney	INT 95 NB				0.11	8.92
	INT 95 SB				0.48	8.34
	ST RTE 0008			0.11	0.25	1.61
	ST RTE 0023		1.96	1.21	5.00	0.57
	ST RTE 0104		1.21	4.73	1.73	1.41
Vassalboro	ST RTE 0032		0.93	2.36	1.45	0.23
	US 201			0.60	3.30	4.60
	US 202				0.13	1.80
Waterville	INT 95 NB					4.43
	INT 95 SB				0.05	4.33
	ST RTE 0011			0.08		0.23
	ST RTE 0104					0.54
Wayne	ST RTE 0133				0.76	4.63
	ST RTE 0219				0.44	0.72
West Gardiner	INT 95 NB				0.24	0.76
	INT 95 SB				0.02	1.14
	ST RTE 0009		0.13	0.09	2.28	2.15
Windsor	ST RTE 0017			0.14	0.53	3.36
	ST RTE 0032		0.07	0.45	4.76	0.32
	ST RTE 0105		0.24	0.74	0.29	1.76
Winslow	ST RTE 0032		0.30	1.73		
	ST RTE 0100A					2.73
	ST RTE 0137				0.22	4.85
	ST RTE 0137C					0.27
	US 201		0.19	1.40	0.36	
Winthrop	ST RTE 0041		1.57	0.59	0.88	0.62
	ST RTE 0133				0.05	2.31
	ST RTE 0516W	0.11				
	US 202			0.29	0.42	6.56
	US 202 SB	0.42				

HIGHWAY ADEQUACY INDEX

Division 4 South



Division 5 - East

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

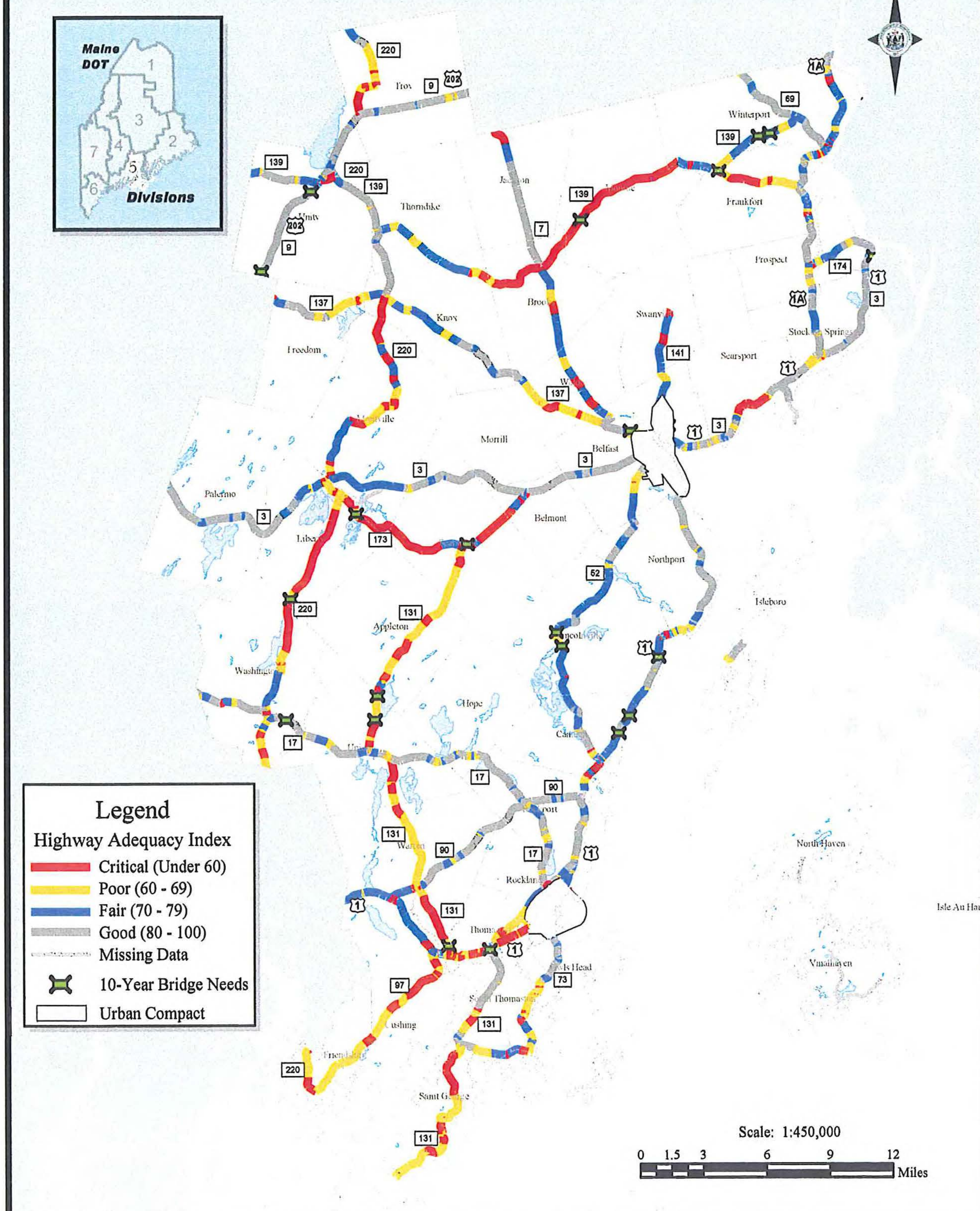
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Appleton	ST RTE 0105		1.97	2.5	0.18	
	ST RTE 0131			0.35		
Belfast	ST RTE 0003				0.39	3.05
	ST RTE 0007			0.26	0.49	1.41
	ST RTE 0052		0.05	1.03	1.29	0.41
	ST RTE 0137			0.58		
	ST RTE 0141			0.53	0.67	
	US 1			0.19	0.7	0.92
Belmont	ST RTE 0003				0.11	3.01
	ST RTE 0131		0.75		0.71	
Brooks	ST RTE 0007		0.7	0.59	2.25	1.13
	ST RTE 0137					0.35
	ST RTE 0139		4.6	0.29		
Camden	ST RTE 0052		0.1	0.34	1.2	1.75
	US 1		0.88	0.23	2.51	0.43
Cushing	ST RTE 0097		2.23	1.97		
Frankfort	US 1A		0.18	0.33	1.09	1.19
Freedom	ST RTE 0137		0.16	2.21	0.6	1.85
Friendship	ST RTE 0097		0.54	3.41		
	ST RTE 0220		0.9	0.97		
Hope	ST RTE 0017			0.32	0.25	1.13
Jackson	ST RTE 0007		0.82		0.91	3.92
Knox	ST RTE 0137		0.06	1.71	4.16	2.49
	ST RTE 0139		0.62	0.39	1.56	
	ST RTE 0220		1.01			1.3
Liberty	ST RTE 0003		0.27	0.19	1.69	1.91
	ST RTE 0173		1.26	0.68		
	ST RTE 0220		4.77	2.23		
Lincolnville	ST RTE 0052		0.43	0.6	6.27	0.59
	ST RTE 0173					0.09
	US 1		0.36	0.22	2.01	1.26
Monroe	ST RTE 0139		6.09		0.08	
Montville	ST RTE 0003				3.81	0.18
	ST RTE 0173		0.58			
	ST RTE 0220		3.99	2.48	3.6	
Morrill	ST RTE 0003				0.03	1.3
Northport	ST RTE 0052				0.96	1.3
	US 1			0.98	1.16	5.55
Owls Head	ST RTE 0073				0.29	1.7
Palermo	ST RTE 0003				0.67	5.16
Prospect	ST RTE 0174		0.3	0.37	1.2	1.53
	US 1				0.34	0.63
	US 1A			0.62	0.4	2.01

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Rockland	ST RTE 0017			0.17		1.14
	ST RTE 0090					0.18
Rockport	ST RTE 0017			0.61	0.8	4.78
	ST RTE 0090			0.02	0.39	3.72
	US 1	0.38		0.38	1.75	2.51
Searsmont	ST RTE 0003				0.39	2.84
	ST RTE 0131		3.16	2.02	0.24	
	ST RTE 0173		2.71		0.97	
Searsport	US 1		1.86	0.44	0.61	3.35
South Thomaston	ST RTE 0073		1.01	2.63	1.62	0.13
	ST RTE 0131		0.1	0.2		2.21
St George	ST RTE 0073		0.03	0.88	0.71	0.7
	ST RTE 0131		3.75	5.44	0.19	0.48
Stockton Springs	US 1			0.55	0.19	5.24
	US 1A			0.1	0.94	1.93
Swanville	ST RTE 0141		0.68		2.09	
Thomaston	ST RTE 0131		0.17	0.37	0.08	0.44
	US 1		2.97	0.98	0.56	0.12
Thorndike	ST RTE 0139		0.07	1.11	2.16	1.11
	ST RTE 0220				0.17	1.98
Troy	ST RTE 0220		1.69	2.17	0.6	0.61
	US 202			0.46	0.39	5.04
Union	ST RTE 0017			0.9	1.71	3.88
	ST RTE 0131		2.73	2.02		
Unity	ST RTE 0139		0.72	0.24	1.75	3.53
	ST RTE 0220				0.07	0.38
	US 202			0.11	0.54	7.95
Waldo	ST RTE 0007		1.17	0.59	1.75	
	ST RTE 0137		0.92	2.72	0.17	
Warren	ST RTE 0090		0.28	0.3	2.28	3.15
	ST RTE 0097		0.57	0.73		
	ST RTE 0131		3.05	4.24		
	US 1		0.85	0.11	4.88	
Washington	ST RTE 0017		0.12	0.46	1.13	3.91
	ST RTE 0105		2.39	0.97		
	ST RTE 0220		0.93	1.83	2.1	
Winterport	ST RTE 0069			0.04	1.01	4.71
	ST RTE 0139		0.62	1.91	4.15	
	US 1A		0.74	0.83	3.62	1.17

HIGHWAY ADEQUACY INDEX

Division 5 East



Division 5 - West

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

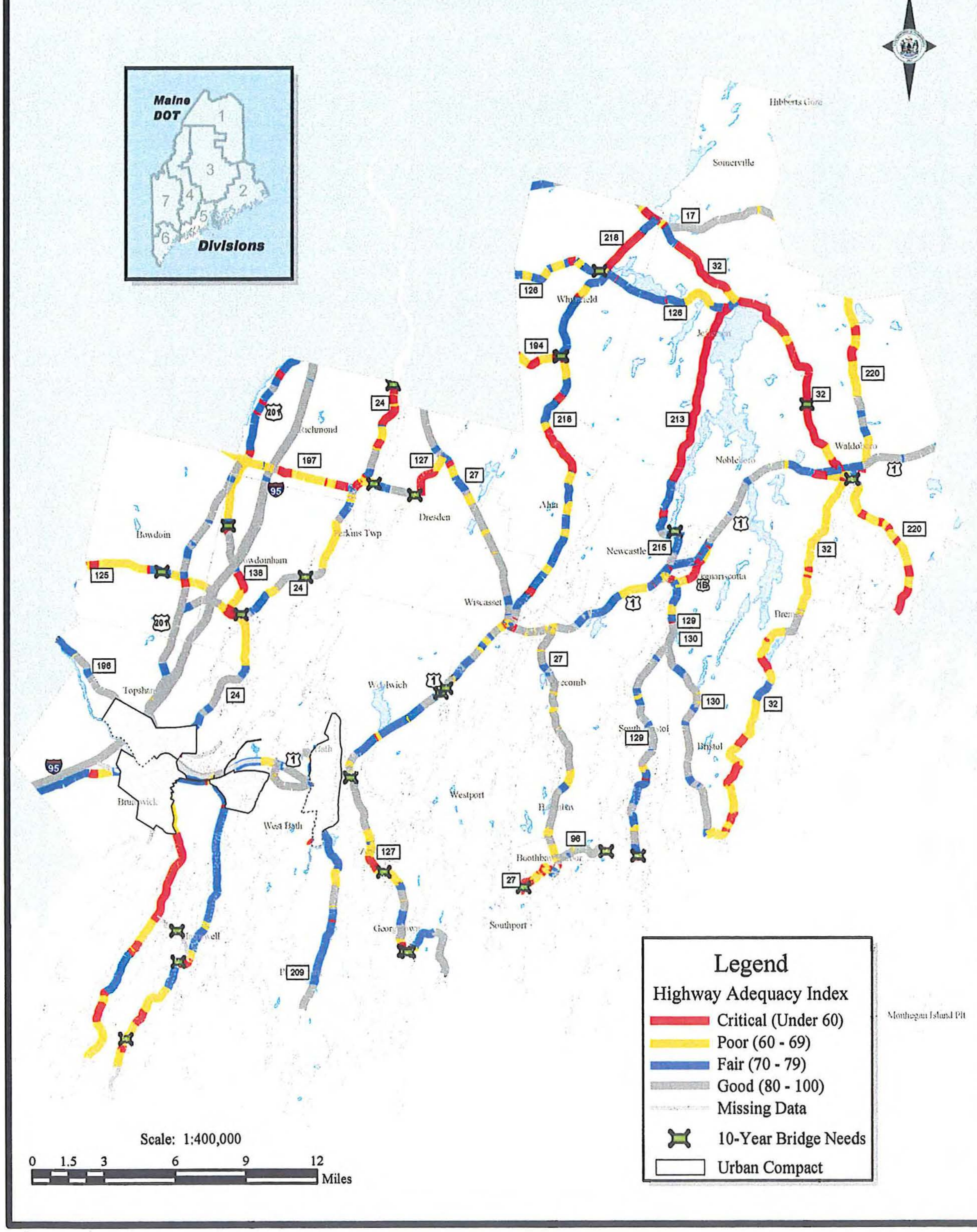
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Alna	ST RTE 0218		2.00	1.33	2.88	
Arrowsic	ST RTE 0127		0.66	1.43	0.05	2.31
Boothbay	ST RTE 0027			0.80	0.34	3.82
	ST RTE 0096				0.02	1.03
Boothbay Harbor	ST RTE 0027		1.02	1.35	0.25	0.66
	ST RTE 0096			0.07	0.15	1.07
Bowdoin	INT 95 NB					0.08
	INT 95 SB					0.15
	ST RTE 0125		0.55	3.27	0.92	
	ST RTE 0138				0.59	
	ST RTE 0197			0.29		
	US 201		0.28		1.09	5.67
Bowdoinham	INT 95 NB					6.82
	INT 95 SB					6.82
	ST RTE 0024		0.07	5.02	2.20	2.51
	ST RTE 0125		0.50	0.45	0.15	1.18
	ST RTE 0138		1.29	2.67	0.48	1.88
	US 201				0.19	
Bremen	ST RTE 0032		1.05	4.74		1.19
Bristol	ST RTE 0032		2.09	5.51	0.69	
	ST RTE 0129					0.50
	ST RTE 0130			0.09	1.28	7.38
Brunswick	INT 95 NB					3.91
	INT 95 SB				0.02	4.25
	ST RTE 0024				1.70	
	ST RTE 0123		1.38			
	ST RTE 1207W	1.00				
	US 1		0.38	0.69	3.66	2.77
	US 1 SB	4.93				
Damariscotta	ST RTE 0129		0.07	0.43	1.41	
	US 1		0.24		0.42	0.79
	US 1B		1.37	1.16	0.14	
Dresden	ST RTE 0027		0.25	0.88	1.44	2.00
	ST RTE 0127		1.27	0.73		
	ST RTE 0197				0.64	1.11
Edgecomb	ST RTE 0027			0.55	0.44	3.74
	US 1			0.35		1.78
Georgetown	ST RTE 0127		0.30	1.13	2.13	1.77
Harpswell	ST RTE 0024		1.56	3.83	4.95	
	ST RTE 0123		3.43	3.43	1.95	

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Jefferson	ST RTE 0017			0.25		2.18
	ST RTE 0032		6.64	0.94	0.88	
	ST RTE 0126		0.34	1.58	2.45	
	ST RTE 0213		7.47			
Newcastle	ST RTE 0213		0.58		1.25	
	ST RTE 0215		0.25		2.30	0.92
	US 1		0.20	1.18	4.07	0.33
	US 1B			0.18	0.04	0.44
Nobleboro	ST RTE 0215				0.34	
	US 1			0.01	0.38	3.20
Phippsburg	ST RTE 0209		0.15	0.76	4.98	2.16
Richmond	INT 95 NB				0.19	4.68
	INT 95 SB				0.05	5.52
	ST RTE 0024		2.83	1.30	0.55	1.11
	ST RTE 0138			0.87		0.09
	ST RTE 0197		1.30	3.76	0.23	0.30
	US 201		0.78	0.44	3.70	0.86
Somerville	ST RTE 0017			0.10		2.34
South Bristol	ST RTE 0129		0.11	0.66	3.33	5.96
Southport	ST RTE 0027		0.06			
Topsham	INT 95 NB					3.61
	INT 95 SB					3.63
	ST RTE 0024				0.79	2.24
	ST RTE 0196			0.05	1.28	2.38
	US 201			0.04	0.55	2.77
Waldoboro	ST RTE 0032		4.88	4.38		
	ST RTE 0220	0.39	3.78	7.83	1.09	1.49
	US 1		0.07	0.18	3.26	3.19
West Bath	US 1				0.36	1.18
	US 1 SB	1.50				
Whitefield	ST RTE 0017		0.71		0.18	
	ST RTE 0126		0.55	1.87	3.44	
	ST RTE 0194		1.08	0.88		
	ST RTE 0218		3.04	1.71	6.38	
Wiscasset	ST RTE 0027			0.22	0.44	4.55
	ST RTE 0218		0.39	0.06	1.67	0.72
	US 1		0.21	0.88	1.43	1.69
Woolwich	ST RTE 0127			0.02		0.17
	US 1		0.07	0.51	3.44	1.63

HIGHWAY ADEQUACY INDEX

Division 5 West



Division 6 - North

Routed, Rural, Major Collector and Arterial Highways

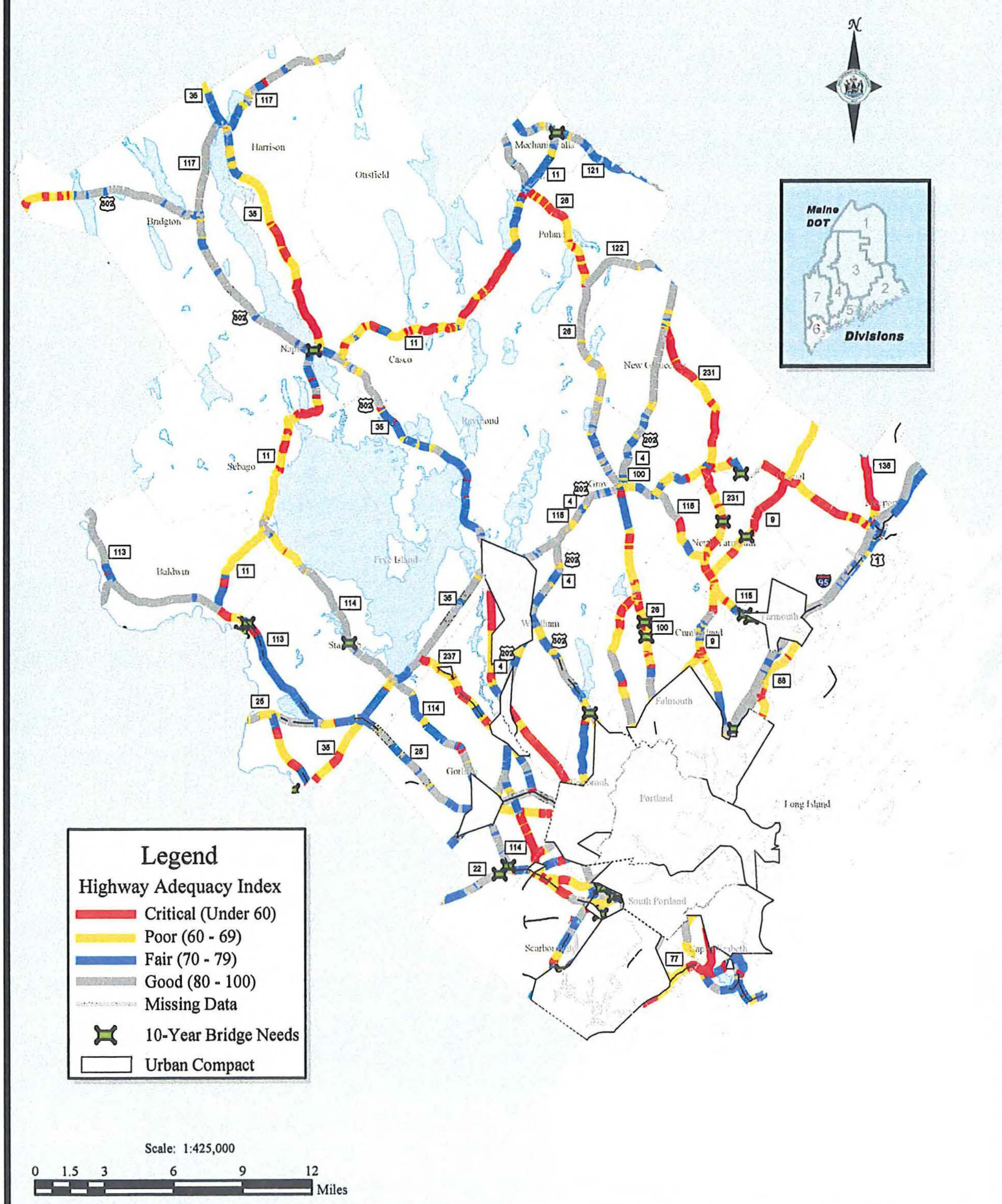
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100	Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Baldwin	ST RTE 0005		0.05		0.87	3.77	Naples	ST RTE 0035		2.81	1.02		
	ST RTE 0011		0.94	1.70	0.96	0.28		US 302		0.20	0.17	1.65	3.78
	ST RTE 0113				0.22	4.91	New Gloucester	ST RTE 0026			0.81		2.09
Bridgton	ST RTE 0035			0.48				ST RTE 0122			0.07		0.49
	ST RTE 0117			0.01	0.14	3.95		ST RTE 0231		4.79	2.57	0.15	
	US 302		0.99	1.75	1.69	8.24		US 202			0.74	0.59	5.08
Cape Elizabeth	ST RTE 0077		0.29	0.11	1.29	0.90	North Yarmouth	ST RTE 0009		2.05	3.21		
Casco	ST RTE 0011		3.43	3.01	0.67			ST RTE 0115		1.33	2.99	0.57	
	US 302		0.10	0.55	1.62	1.95		ST RTE 0231		1.84	1.99		
Cumberland	INT 95 NB					2.55	Otisfield	ST RTE 0117			0.16		1.13
	INT 95 SB					2.63	Poland	ST RTE 0011		1.74	0.86	3.41	0.12
	ST RTE 0009		0.43	1.92	0.40	0.90		ST RTE 0026		2.70	2.61		1.81
	ST RTE 0026		0.96	1.51		0.05		ST RTE 0122					2.31
	ST RTE 0088		0.59	2.53			Pownal	ST RTE 0009		1.76	2.78		
	US 1				1.14	1.22	Raymond	US 302		0.15	0.30	2.88	0.48
Falmouth	INT 95 NB					0.99	Scarborough	INT 295 NB					0.27
	INT 95 SB					0.56		INT 295 SB					0.22
	ST RTE 0009			0.02	0.94			ST RTE 0022				1.48	0.03
	ST RTE 0026		0.30	0.97				ST RTE 0077		0.75	0.37		
Freeport	INT 95 NB				0.08	7.52		ST RTE 0114		0.57	0.05		0.44
	INT 95 SB				0.15	7.05	Sebago	ST RTE 0011		0.71	3.89	0.02	0.53
	ST RTE 0125		0.21	0.39	0.35			ST RTE 0114		0.04	0.91	0.20	0.26
	ST RTE 0136		2.32				South Portland	INT 295 NB					0.55
	US 1		0.02	0.32	3.16	1.01		INT 295 SB					0.61
Gorham	ST RTE 0022				0.05	2.06		ST RTE 8239W			0.07		1.09
	ST RTE 0025			0.07	1.71	2.52	Standish	ST RTE 0011			0.71	0.30	
	ST RTE 0114		0.25	0.44	2.67	2.83		ST RTE 0025		0.08	1.62	1.27	2.27
	ST RTE 0237		0.78	0.84	1.15	0.47		ST RTE 0035		0.91	3.00	3.06	5.07
	US 202			0.12	0.88	0.78		ST RTE 0113		0.65	0.07	4.87	
Gray	ST RTE 0026		0.84	2.22	2.59	2.71		ST RTE 0114			0.95	0.06	7.52
	ST RTE 0115		0.17	0.51	0.76	1.58		ST RTE 0237		0.45			
	US 202		0.01	0.91	1.53	4.30	Westbrook	US 302			0.49	0.22	0.56
Harrison	ST RTE 0035	0.07	1.61	4.37	2.23	0.23	Windham	ST RTE 0115				0.24	1.02
	ST RTE 0117	0.07	0.28	0.36	1.96	2.93		US 202			0.81	1.55	2.32
Mechanic Falls	ST RTE 0011		0.05	0.65	2.60	1.10		US 302			0.87	2.95	0.97
	ST RTE 0026				0.29	2.29	Yarmouth	INT 95 NB				0.10	1.21
	ST RTE 0121			0.22	0.59	0.82		INT 95 SB			0.09		1.51
Naples	ST RTE 0011		2.07	2.05	1.43	0.67		ST RTE 0088		0.08	0.74		

HIGHWAY ADEQUACY INDEX

Division 6 North



Division 6 - South

Routed, Rural, Major Collector and Arterial Highways

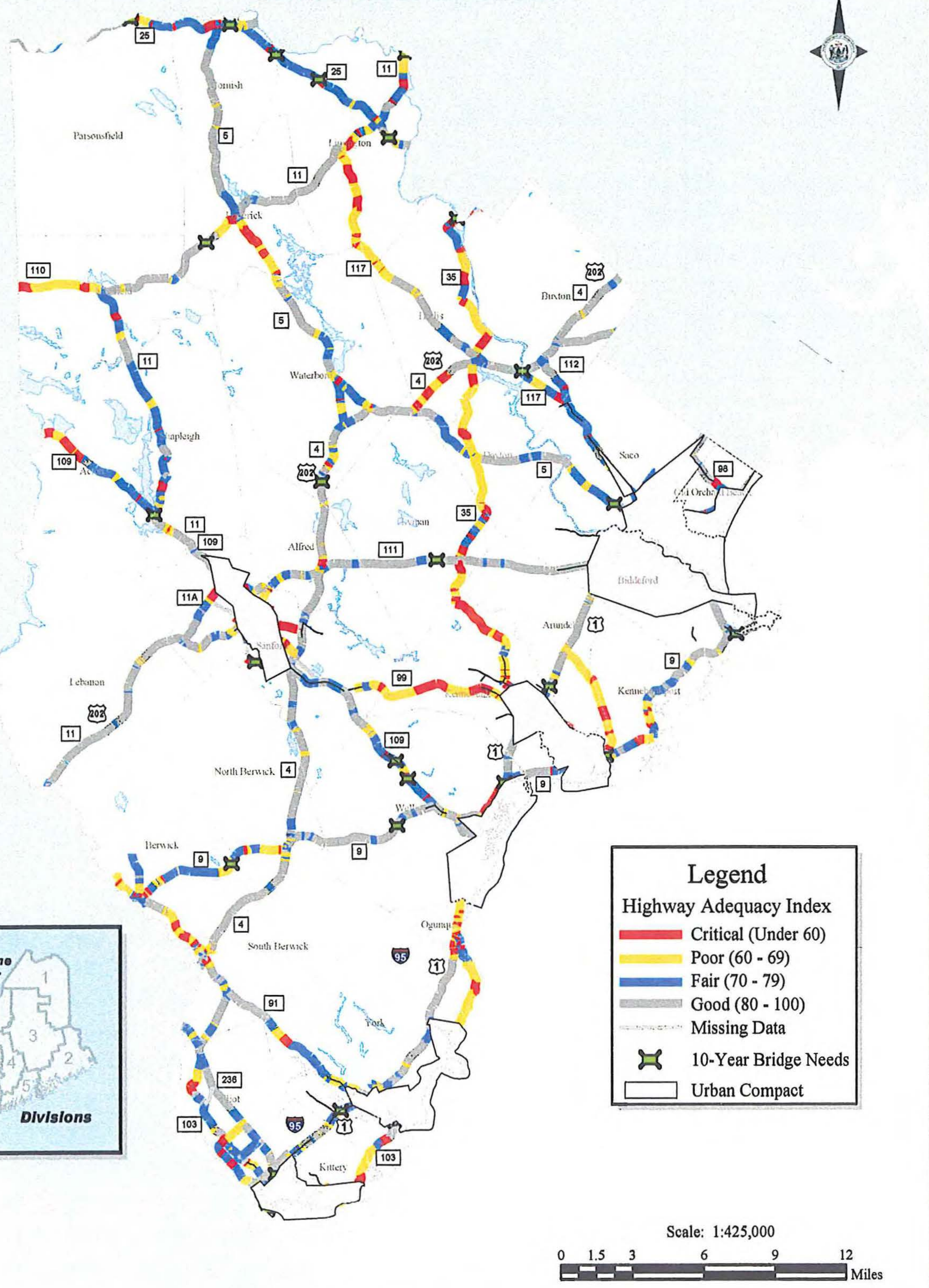
A Summary of Highway Adequacy Index

Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100	Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Acton	ST RTE 0109		1.67	0.8	3.23	0.29	Limerick	ST RTE 0005		1.72	1.32	1.28	1.06
Alfred	ST RTE 0004				0.14	1.98		ST RTE 0011		0.34	0.83	0.41	4.68
	ST RTE 0111				0.72	1.05	Limington	ST RTE 0011		1.10	1.50	2.07	3.42
	US 202		0.28	0.81	0.94	3.02		ST RTE 0025		0.35	0.94	4.86	0.91
Arundel	ST RTE 0111				0.33	2.56		ST RTE 0117		1.76	3.40		
	US 1		0.02	0.63	0.24	3.38	Lyman	ST RTE 0005			0.06	0.20	0.16
Berwick	ST RTE 0004					2.56		ST RTE 0035		1.49	1.59	1.16	
	ST RTE 0009		0.41	1.58	2.68	0.15		ST RTE 0111				0.43	4.55
	ST RTE 0236		0.9	1.17	0.08	1.12		US 202		0.10	0.12		0.78
Biddeford	ST RTE 0005					0.27	Newfield	ST RTE 0011		0.35	0.60	2.02	3.92
	ST RTE 0009			0.12	0.01	3.56		ST RTE 0110		0.96	2.64		
Buxton	ST RTE 0022				0.03		North Berwick	ST RTE 0004		0.03	0.35	1.26	3.83
	ST RTE 0035	0.45						ST RTE 0009		0.26	1.17	1.13	1.25
	ST RTE 0112		0.19		1.07	0.76	Ogunquit	US 1		1.05	1.24		
	ST RTE 0117		0.37	0.6	1.2		Old Orchard Beach	ST RTE 0098		0.34		0.06	
	US 202			0.13	0.94	4.8	Parsonsfield	ST RTE 0025		0.41	0.46	0.97	
Cornish	ST RTE 0005		0.19	0.71	1.67	5.27	Saco	ST RTE 0005			0.39	2.13	0.15
	ST RTE 0025		0.47	0.21	3.2			ST RTE 0098			0.17	0.13	0.36
Dayton	ST RTE 0005			0.4	2.6	2.75		ST RTE 0112		0.01		0.89	
	ST RTE 0035		0.86	3.97			Sanford	ST RTE 0004			0.44	1.38	4.33
Eliot	ST RTE 0101				0.16			ST RTE 0011				0.09	0.62
	ST RTE 0103		1.36	0.92	3.26	1.03		ST RTE 0011A		0.35	0.14	0.79	1.15
	ST RTE 0236			0.21	1.48	3.41		ST RTE 0099	0.23	0.21	0.42	0.30	
Hollis	ST RTE 0004A					0.2		ST RTE 0109				0.13	1.44
	ST RTE 0005				0.52	0.55		ST RTE 0224			0.28	0.44	0.46
	ST RTE 0035		3.12	4.21	1.58			US 202		0.03	0.90	0.72	2.26
	ST RTE 0117		0.01	0.86	1.11	4.05	Shapleigh	ST RTE 0011		0.75	1.02	5.05	2.63
	US 202		1.04	0.85	0.53	2.79		ST RTE 0109				0.07	
Kennebunk	ST RTE 0009		0.07		0.45	1.07	South Berwick	ST RTE 0004			0.26	0.16	0.87
	ST RTE 0035		2.53	0.94	0.21	0.07		ST RTE 0091				0.05	1.99
	ST RTE 0099		1.92	2.42				ST RTE 0101			0.24	0.47	0.04
	US 1					0.46		ST RTE 0236		0.12	0.70	1.37	2.23
Kennebunkport	ST RTE 0009		0.6	1.51	2.96	1.51	Waterboro	ST RTE 0005		0.24	1.64	2.62	2.74
Kittery	INT 95 NB				0.13	1.97		ST RTE 0117		0.12	0.17		
	INT 95 SB					2.15		US 202		0.30	0.74	1.31	3.46
	ST RTE 0103			0.73		0.16	Wells	ST RTE 0009				0.57	3.85
	ST RTE 0236	0.01	0.1	0.26	0.54	0.66		ST RTE 0109		0.21	0.60	2.29	0.47
	ST RTE 0236S	0.43						US 1		0.05	0.02	0.43	0.56
	US 1			0.03	0.09	0.77	York	ST RTE 0091		0.46	0.46	2.57	
	US 1 SB	0.84						ST RTE 0103		0.47	0.42	0.37	0.27
Lebanon	US 202			0.14	0.34	7.63		US 1			0.61	1.36	4.58

HIGHWAY ADEQUACY INDEX

Division 6 South



Division 7 - North

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

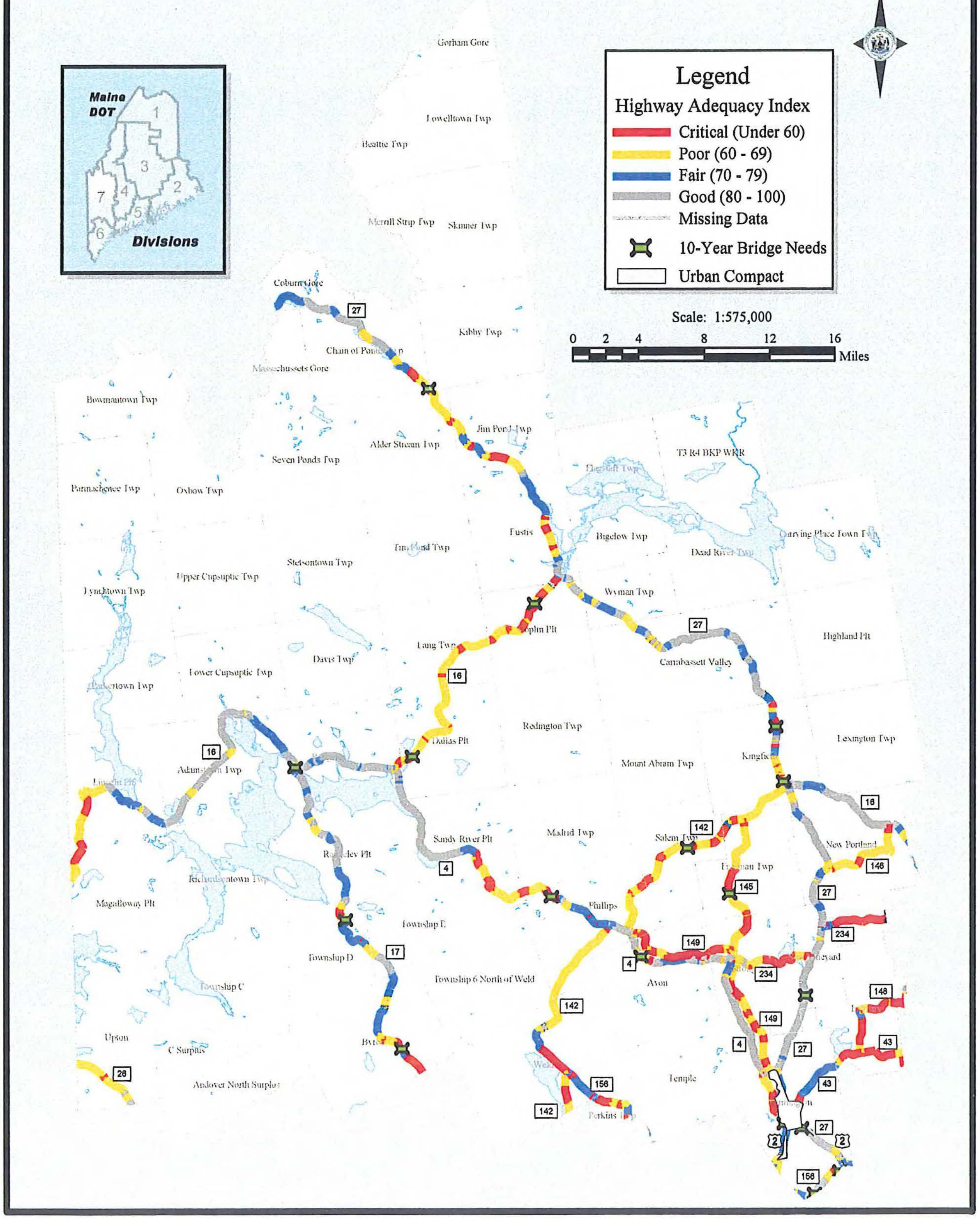
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Adamstown Twp	ST RTE 0016			1.12		7.55
Alder Stream Twp	ST RTE 0027		0.15	2.27		
Avon	ST RTE 0004		0.31	0.51	1.36	3.09
	ST RTE 0149		3.97	0.65		
Byron	ST RTE 0017		2.23	1.63	3.84	0.16
Carrabassett Valley	ST RTE 0016			1.24	3.37	7.81
Chain Of Ponds Tw	ST RTE 0027		0.90	2.58	1.87	4.36
Coburn Gore Twp	ST RTE 0027				2.25	0.57
Coplin Plt	ST RTE 0016		2.86	3.24		1.16
Dallas Plt	ST RTE 0016		0.77	5.88		
Eustis	ST RTE 0016		0.42		0.22	0.61
	ST RTE 0027		0.96	1.81	3.26	0.91
Farmington	ST RTE 0004		0.03	0.18		2.43
	ST RTE 0027				0.28	2.71
	ST RTE 0043		0.12		3.27	
	ST RTE 0133			0.57	0.02	
	ST RTE 0149		0.48	1.52		
	ST RTE 0156		0.18	0.58	0.43	1.14
	US 2			1.27	0.27	1.89
Freeman Twp	ST RTE 0142		0.78	1.43	0.13	0.02
	ST RTE 0145		2.55	4.44		
Industry	ST RTE 0043		4.51	0.96	0.11	
	ST RTE 0148		3.74	1.31	0.53	0.18
Jim Pond Twp	ST RTE 0027		1.40	2.90	1.37	0.42
Kingfield	ST RTE 0016		1.57	1.66	2.57	1.55
	ST RTE 0027			0.48	0.34	0.27
	ST RTE 0142			2.36		0.09
Lang Twp	ST RTE 0016		0.55	3.70		
Lexington Twp	ST RTE 0016				0.30	0.60
Lincoln Plt	ST RTE 0016		1.14	3.37	3.27	1.29

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Lower Cupsuptic Tw	ST RTE 0016			0.15		1.44
Madrid	ST RTE 0004		0.50	2.92		
Magalloway Plt	ST RTE 0016		1.68	1.14		
New Portland	ST RTE 0016			0.59	0.41	4.81
	ST RTE 0027			0.84	1.14	4.53
	ST RTE 0146		1.21	5.12		
New Vineyard	ST RTE 0027		0.04	0.23	0.62	7.13
	ST RTE 0234		5.48	0.70	0.69	
Perkins Twp	ST RTE 0156		1.37	0.83	0.68	
Phillips	ST RTE 0004		1.26	0.74	2.87	1.68
	ST RTE 0142		1.04	8.59		0.09
	ST RTE 0149		0.45	0.50		0.02
Rangeley	ST RTE 0004			0.31	1.00	7.11
	ST RTE 0016		0.03	0.47	2.88	1.14
	ST RTE 0017				0.97	2.03
Rangeley Plt	ST RTE 0004					0.51
	ST RTE 0017			0.68	3.00	2.88
Salem Twp	ST RTE 0142		2.62	3.92		
Sandy River Plt	ST RTE 0004		1.36	0.98	0.96	5.55
Strong	ST RTE 0004		0.15	0.36	0.74	5.36
	ST RTE 0145		1.23	1.52		0.41
	ST RTE 0149		2.76	4.13		0.19
	ST RTE 0234		0.83	1.52		0.27
Twp D	ST RTE 0017		0.68	0.79	2.68	
Twp E	ST RTE 0004		0.79	0.14		
	ST RTE 0017			0.40		1.57
Upton	ST RTE 0026		0.11	3.51		0.33
Weld	ST RTE 0142		3.42	3.35	1.16	0.35
	ST RTE 0156		0.48		1.67	
Wyman Twp	ST RTE 0016			0.91	1.67	0.77

HIGHWAY ADEQUACY INDEX

Division 7 North



Division 7 - South

Routed, Rural, Major Collector and Arterial Highways

A Summary of Highway Adequacy Index

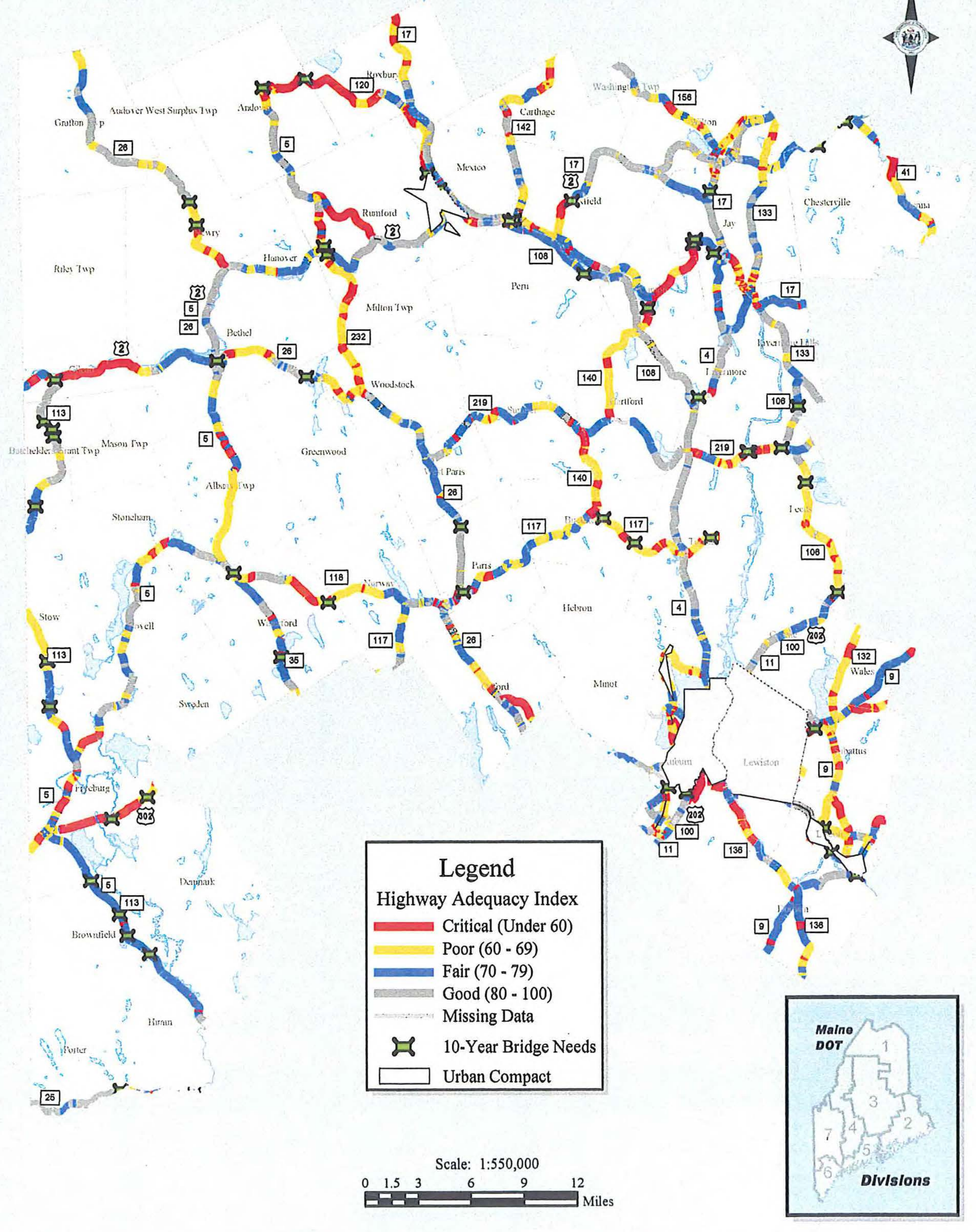
Based on Year 2001 Data

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Albany Twp	ST RTE 0005		1.29	6.21	2.39	0.67
	ST RTE 0035					0.58
Andover	ST RTE 0005		0.57	1.17	1.00	2.61
	ST RTE 0120		2.74	0.22	0.15	0.03
Auburn	ST RTE 0004		0.09	0.20	2.53	
	ST RTE 0011			0.10	0.43	0.67
	ST RTE 0122		0.16	0.61		0.39
	ST RTE 0136		2.23	0.56	1.24	0.10
	US 202			0.25	1.43	1.84
	US 202 SB	2.18				
Batchelders Grant	ST RTE 0113			1.07	1.68	5.20
Bethel	ST RTE 0002C	0.06			0.11	
	ST RTE 0005	0.08		0.94	1.01	1.10
	ST RTE 0026		0.99	1.99	0.90	1.10
	ST RTE 0035				0.16	
	ST RTE 0232			0.59		
	US 2		0.19	0.41	3.99	5.43
Brownfield	ST RTE 0005		0.24		6.30	
Buckfield	ST RTE 0117		1.21	5.17	1.99	
	ST RTE 0140		0.77	0.87		
Canton	ST RTE 0108			0.13	0.79	6.08
	ST RTE 0140		4.62	1.85	0.05	0.28
Carthage	ST RTE 0142		1.71	2.64	1.07	1.30
	US 2					1.38
Chesterville	ST RTE 0041		0.18	0.79	1.20	
	ST RTE 0156				0.70	0.76
Dixfield	ST RTE 0017			0.26		0.59
	ST RTE 0142		0.18	1.29	1.71	1.40
	US 2		2.22	3.17	1.10	1.92
Durham	ST RTE 0009		0.59	0.19	4.91	2.31
	ST RTE 0136		0.77	2.53	4.49	0.56
Fryeburg	ST RTE 0005		3.09	1.86	5.96	1.31
	ST RTE 0113		0.10		1.23	
	US 302		5.07	2.43	0.71	
Gilead	ST RTE 0113					1.60
	US 2		5.91	0.78	1.10	
Grafton Twp	ST RTE 0026			1.95	2.27	5.14
Greene	US 202		0.03	0.96	2.71	2.56
Greenwood	ST RTE 0026					1.35
Hanover	US 2		0.10	1.14	3.28	0.65
Hartford	ST RTE 0140		1.17	5.58	1.68	
	ST RTE 0219	1.20			2.40	0.61
Hiram	ST RTE 0005		0.22		3.14	
Jay	ST RTE 0004		1.18	1.22	0.97	4.17
	ST RTE 0017		0.04		2.07	
	ST RTE 0133		0.54	2.17	1.94	3.21
	ST RTE 0140		0.85	0.37	1.35	0.72
	ST RTE 0156		0.14	0.79	1.92	
Leeds	ST RTE 0106		0.70	7.78	0.67	2.69
	ST RTE 0219		1.08	1.22	0.53	0.34
	US 202		0.24	0.22	0.71	
Lisbon	ST RTE 0009		2.47	1.33		
	ST RTE 0125		1.04		0.57	0.06
Livermore	ST RTE 0004		0.40	0.70	3.69	4.74
	ST RTE 0108				0.12	2.18

Municipality	Primary Route	Missing Data	Under 60	60 - 69	70 - 79	80 - 100
Livermore Falls	ST RTE 0004		0.32	0.18	0.08	
	ST RTE 0017		0.77	0.43	2.93	
	ST RTE 0106				1.06	1.23
	ST RTE 0133		0.26	0.71	1.39	5.09
Lovell	ST RTE 0005		0.58	2.62	3.11	4.28
Mexico	ST RTE 0017		0.14	0.22	1.72	2.31
	ST RTE 0120		0.56	1.95		
	US 2		0.15	0.24	1.01	3.62
Milton Twp	ST RTE 0232		0.31	0.59		
Minot	ST RTE 0011		0.03	0.01	1.09	0.09
Newry	ST RTE 0026		1.79	3.67		2.84
	US 2			0.17	0.09	
Norway	ST RTE 0026			0.19	0.30	0.57
	ST RTE 0117		0.56	1.50	2.57	1.02
	ST RTE 0118		0.19	2.79	1.46	
Oxford	ST RTE 0026		0.69	2.28	2.78	1.78
	ST RTE 0121		1.47	0.46		
Paris	ST RTE 0026		0.55	0.29	0.99	3.87
	ST RTE 0117		0.74	1.51	2.57	0.38
Peru	ST RTE 0108		0.22	0.52	6.15	0.92
Porter	ST RTE 0025				0.88	4.84
Roxbury	ST RTE 0017		1.31	2.85	1.66	0.79
	ST RTE 0120		4.01	1.23	0.97	0.50
Rumford	ST RTE 0005		1.05	1.15	0.79	2.39
	ST RTE 0108		0.31	0.27	0.51	0.32
	ST RTE 0120		0.60		0.22	
	ST RTE 0232		1.31	2.30		
	US 2		0.03	0.98	3.45	4.86
Sabattus	ST RTE 0009		1.66	2.72	2.12	0.22
	ST RTE 0126		0.14	0.18	0.18	
	ST RTE 0132		0.24	0.52		
	ST RTE 0197		0.70			
Stoneham	ST RTE 0005		0.45	0.24	1.68	0.41
Stow	ST RTE 0113		0.01	3.83	1.25	
Sumner	ST RTE 0140		1.28	0.18		
	ST RTE 0219		1.08	2.08	4.19	0.52
Turner	ST RTE 0004		0.04	0.60	2.52	9.50
	ST RTE 0117		1.48	3.30	0.05	
	ST RTE 0219		1.56	1.64	0.76	1.52
Vienna	ST RTE 0041		0.95	2.00	1.81	0.11
Wales	ST RTE 0009		0.77		4.20	
	ST RTE 0132		1.07	3.06		
	ST RTE 0197		0.70	0.67		
Washington Twp	ST RTE 0156			0.31	0.46	1.36
Waterford	ST RTE 0035		0.55	1.00	4.86	1.23
	ST RTE 0118		2.59	2.00	0.05	1.72
Weld	ST RTE 0142			0.02		
West Paris	ST RTE 0026		0.12	0.27	4.08	
	ST RTE 0219		0.30	0.23	1.66	1.51
Wilton	ST RTE 0004					0.20
	ST RTE 0133		0.44	1.39		
	ST RTE 0156		1.48	2.63	2.58	1.27
	US 2			1.32	1.97	7.15
Woodstock	ST RTE 0026		0.66	3.37	2.15	1.82
	ST RTE 0232		1.33	1.85		

HIGHWAY ADEQUACY INDEX

Division 7 South



Division 1 - North

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
3734	Bridgewater	RD INV 00713 03	BOUNDRY
5572	Caribou	ST RTE 0161	AROOSTOOK RIVER
2691	Fort Fairfield	ST RTE 0167	PUDDLE DOCK
3706		ST RTE 0167	MAIN STREET
2024		US 1A	AROOSTOOK BRIDGE
2500	Fort Kent	US 1	MAIN STREET
2398		US 1	INTERNATIONAL
2399	Madawaska	RD INV 02603 03	INTERNATIONAL
5898		US 1	NEW BEAULIEU
2798		US 1	STARCH FACTORY
5025	Masardis	ST RTE 0011	SQUA PAN
3766		ST RTE 0011	ST CROIX
3110	New Sweden	ST RTE 0161	BEARSLEY BROOK
3259	Presque Isle	ST RTE 0010	PHAIR CROSSING
2352		ST RTE 0163	HANSON
3233	St Francis	ST RTE 0161	ST. FRANCIS
3767	Twp 08 R 05 Wels	ST RTE 0011	BOODY
2909	Wallagrass	ST RTE 0011	WALLAGRASS
3630	Washburn	ST RTE 0164	CHURCHILL BROOK
5250		ST RTE 0164	KENNARD BROOK
2970	Westfield	US 1	YOUNGS BROOK

Division 1 - South

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
2330	Amity	US 1	GREENLEAF BROOK
3975	Crystal	ST RTE 0159	FISH STREAM
3457	Haynesville	US 2A	MILL
3874	Houlton	RD INV 20038 03	HIGHLAND AVENUE
3458		US 2A	HODGDON STREAM
2071	Littleton	US 1	BIG BROOK CULVERT
2388	New Limerick	US 2	HUNTER BROOK
5837	Smyrna	US 2	DUNN BROOK

Division 2 - East

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
3081	Calais	RD INV 01483 29	MILLTOWN
2279		ST RTE 0009	FERRY POINT
3649	Cherryfield	ST RTE 0193	SCHOODIC
2095	Columbia	US 1	BRANCH BROOK
6240	Cutler	ST RTE 0191	ANDREWS MEADOW BROOK
6241		ST RTE 0191	SCHOONER BROOK 2
2260	Danforth	US 1	EATON STATION
1154	Deblois	ST RTE 0193	FALLS BRANCH
3219	East Machias	ST RTE 0191	JACKSONVILLE
3171	Edmunds Twp	US 1	TIDE MILL NO. 2
2149	Jonesboro	US 1	CHANDLER RIVER
2207		ST RTE 0187	CROSS COVE
5978	Lubec	ST RTE 0189	FDR MEMORIAL
1469	Machias	US 1	COVERED CENTER
5158	Marshfield	ST RTE 0192	MARK LONGFELLOW
3736	Meddybemps	ST RTE 0191	MEDDYBEMPS
5555	Milbridge	US 1	WYMAN
1475		US 1A	GREAT SOUTH
3280		US 1A	GREAT NORTH
3719	Northfield	ST RTE 0192	BOG STREAM
2385	Passamaquoddy (Ind T	US 1	HUNTLEY BROOK
5501	Pembroke	US 1	UPPER CROW BROOK
5326		US 1	PENNAMAQUAN
5502	Perry	US 1	UPPER SIPPS BROOK
2688	Princeton	US 1	PRINCETON
5378	Topsfield	ST RTE 0006	FARROW LAKE STREAM
2258	Trescott Twp	ST RTE 0189	EAST STREAM
5375	Twp 18 Ed	ST RTE 0191	SOUTHERN INLET
2217	Whitneyville	US 1A	DAN HILL
1515		US 1A	MACHIAS RIVER RACEWAY #2
3462		US 1A	MACHIAS RIVER

Division 2 - West

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
6247	Amherst	ST RTE 0009	WEST BRANCH
5381	Bar Harbor	ST RTE 0003	OTTER CREEK BRIDGE
5945		ST RTE 0003	DUCK BROOK
3161		ST RTE 0102	KITTREDGE BRIDGE
5239	Bucksport	ST RTE 0015	STA 63&00
3561		ST RTE 0046	STUBBS BROOK #2
3279		ST RTE 0046	MOOSEHORN
3257	Deer Isle	ST RTE 0015	DEER ISLE SEDGWICK
5728	Franklin	ST RTE 0182	ALDER BROOK
2783	Gouldsboro	US 1	SOULES
5042	Mt Desert	ST RTE 0003	RICHARDSON BROOK
2632	Orland	ST RTE 0175	ORLAND RIVER
5892		US 1	NARRAMISSIC
5896	Sullivan	US 1	VILLAGE
2285		US 1	FLANDERS STREAM
3812	Twp 10 Sd	ST RTE 0182	FISH HATCHERY

Division 3 - East

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
2521	Carroll Plt	ST RTE 0006	MATTAGODUS
3790	Chester	RD INV 00965 19	PENOBSCOT RIVER
2522	Mattawamkeag	US 2	MATTAWAMKEAG
3009	Medway	ST RTE 0116	PENOBSCOT
0902	Millinocket	RD INV 30026 19	GRANITE STREET BRIDGE
2570		ST RTE 0011	MILLINOCKET
3666	T 3 Indian Purchase	ST RTE 0011	WEST BRANCH BRIDGE
5116	Webster Plt	ST RTE 0170	MATTAGODUS
5595	Woodville	ST RTE 0116	BIG EBHORSE

Division 3 - South

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
5419	Alton	ST RTE 0016	BROWN
5099		ST RTE 0043	MILL
5098		ST RTE 0043	FERNALD
5822	Bangor	RD INV 10089 19	ESSEX ST
2755	Brewer	ST RTE 0015	SEDGEUNKEDUNK
3985	Carmel	ST RTE 0069	RUGGLES
5191		ST RTE 0069	TRACY
2976		US 2	MCRR CROSSING
2356		US 2	HARVEY
3972	Charleston	ST RTE 0011	RICHARDS
2196		ST RTE 0011	CREAMERY
2177	Corinna	ST RTE 0007	CORINNA
3559	Corinth	ST RTE 0011	CHAPMAN
3127	Dixmont	ST RTE 0007	NORTH DIXMONT
5414	Eddington	ST RTE 0178	GRANT BRIDGE
5824	Exeter	ST RTE 0011	ORDWAY
2379	Garland	ST RTE 0094	HOLTS MILL
3587	Greenbush	US 2	BOOM
2334	Hampden	US 1A	GRIST MILL
2205	Hermon	US 2	CROSS
2660	Howland	ST RTE 0006	PENOBSCOT RIVER
3040		ST RTE 0116	PISCATAQUIS
2073	Lagrange	ST RTE 0006	BIRCH STREAM
3594	Levant	ST RTE 0222	HARVEY MILL
5489		ST RTE 0222	HARDING
2170	Lincoln	US 2	COMBELLASSIE
2128		US 2	CARDING MILL
2680		US 2	POLLACK BRK.
3863	Newburgh	US 202	WARD
1472	Old Town	RD INV 40078 19	STILLWATER #1
2806		RD INV 40078 19	STILLWATER #2
2405		ST RTE 0016	IRVING
2630		US 2	OLD TOWN,MILFORD
5629	Stetson	ST RTE 0222	HILL MILL

Division 3 - West
Major Collector and Arterial Highways
10 Year Bridge Needs
Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
5560	Beaver Cove	RD INV 00306 21	MUD BROOK
3824	Big Squaw Twp	ST RTE 0006	UPPER SQUAW BROOK
3222	Brownville	ST RTE 0011	BROWNVILLE JUNCTION
2808	Dover-Foxcroft	ST RTE 0007	STINCHFIELD BROOK
3728		ST RTE 0153	FIRST
3752	Greenville	ST RTE 0006	WEST COVE
3247		ST RTE 0006	CPRR CROSSING
2337	Guilford	ST RTE 0006	GUILFORD MEMORIAL
2867	Milo	ST RTE 0006	TOLL
2573		ST RTE 0006	MILO WEST OPENING
3256	Sapling Twp	ST RTE 0006	CPR CROSSING

Division 4 - North
Major Collector and Arterial Highways
10 Year Bridge Needs
Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
2583	Jackman	US 201	MOOSE RIVER
2876	Johnson Mt Twp	US 201	MOUNTAIN BRK
2133	Moscow	US 201	CARNEY
2993	Parlin Pond Twp	US 201	PIEL BRIDGE
2428	Sandy Bay Twp	US 201	KELLY
5233		US 201	KELLEY BROOK 2

Division 4 - Central

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
3920	Anson	ST RTE 0234	OLIVER STREAM
3726		US 201A	ICE HOUSE
3106	Benton	ST RTE 0011	KENNEBEC RIVER EAST
5246		ST RTE 0139	JEWETT
2276	Cambridge	ST RTE 0150	PARKMAN RD / FERGUSON STR
2602	Canaan	ST RTE 0023	NEW
2120		US 2	CANAAN
2767		US 2	SIBLEY POND
3309	Detroit	ST RTE 0069	VILLAGE
1523	Fairfield	ST RTE 0011	KENNEBEC RIVER WEST
1522		ST RTE 0011	KENNEBEC RIVER CENTER
5819		ST RTE 0139	WESTERN AVE.
3603	Harmony	ST RTE 0154	FERGUSON RIPLEY ROAD
2295	New Sharon	ST RTE 0027	FRENCH
5723		US 2	NEW MUDDY BROOK
5810	Norridgewock	US 201A	MOORE
2814		US 201A	STORER BROOK
2187		US 201A	COVERED
1035	Palmyra	RD INV 00451 25	HANSON BR.
2600	Pittsfield	ST RTE 0011	NEAL
2784		ST RTE 0011	SOUTH OF VILLAGE
6106	Skowhegan	ST RTE 0104	CURRIER BROOK
2444		US 2	LAMBERT BROOK
2965		US 201	WOOLEN MILL

Division 4 - South

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
0563	Augusta	ST RTE 0104	WATER STREET
2719		US 201	RIGGS
3934	Belgrade	ST RTE 0008	MILL
2605	Gardiner	ST RTE 0009	NEW MILLS
2101		US 201	BRIDGE STREET
0490	Hallowell	RD INV 00324 11	VAUGHAN MEM. BR.
0565		RD INV 40027 11	SECOND ST BR
2862	Pittston	ST RTE 0027	TOGUS BRIDGE
3392	Readfield	ST RTE 0017	INTERVALE
5882		ST RTE 0017	MILL STREAM
5073	Sidney	ST RTE 0104	TOWN FARM
3836	Waterville	RD INV 50260 11	WESTERN AVENUE

Division 5 - East

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
6011	Belfast	RD INV 10039 27	HIGH ST.
2937		ST RTE 0007	WHITE
5263		ST RTE 0141	KELLEY
5750		US 1	VETERANS MEMORIAL
2794	Camden	US 1	SPRING BROOK
2326		US 1	GREAT BROOK
3493	Liberty	ST RTE 0173	STEVENS
3156		ST RTE 0220	SOUTH LIBERTY
3194	Lincolnville	ST RTE 0052	KNIGHTS HILL
3193		ST RTE 0052	POND
2458		US 1	LINCOLNVILLE BEACH
2775	Monroe	ST RTE 0139	SMITH
3008	Prospect	US 1	WALDO HANCOCK
3721	Searsmont	ST RTE 0131	SCHOOL HOUSE
2912	Thomaston	ST RTE 0131	OYSTER RIVER
2562		US 1	MILL CREEK
5665	Union	ST RTE 0131	STUART BRIDGE
0572		ST RTE 0131	MESSER
5811	Unity	US 202	FOWLER BROOK
5384		US 202	BACON
2768	Washington	ST RTE 0017	SIDMILL
3344	Winterport	RD INV 00654 27	TIBBETTS
3342		ST RTE 0139	LEWIS WHITE
2606		ST RTE 0139	NEW ROAD

Division 5 - West

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
3016	Arrowsic	ST RTE 0127	BACK RIVER
2026		ST RTE 0127	MAX L. WILDER MEMORIAL
0996	Bath	RD INV 10072 23	HIGH ST. BR
3838		US 1	WEST APPROACH
2376	Boothbay	ST RTE 0096	HODGDON
5396	Bowdoin	ST RTE 0125	LEWIS
5397	Bowdoinham	ST RTE 0024	CREEK
5493		ST RTE 0024	ABAGADASSET
3991		ST RTE 0138	RANDALL
2016	Brunswick	US 201	FRANK J. WOOD (ANDROSCOG)
2506	Dresden	ST RTE 0197	MAINE KENNEBEC
3341		ST RTE 0197	MIDDLE BRIDGE
2927	Georgetown	ST RTE 0127	WEST BRIDGE
2248		ST RTE 0127	EAST
0445	Harpswell	RD INV 01416 05	STRAWBERRY COVE
2033		ST RTE 0024	BAILEY ISLAND BRIDGE
3144		ST RTE 0024	ORRS ISLAND
3923	Nobleboro	ST RTE 0215	HEAD GATE
3556	Richmond	ST RTE 0024	HALEYS
2339	South Bristol	ST RTE 0129	THE GUT
2789	Southport	ST RTE 0027	SOUTHPORT
2505	Waldoboro	RD INV 00536 15	MAIN STREET
2905		ST RTE 0032	WAGNER #2
2650	Whitefield	ST RTE 0126	PARTRIDGE
5197		ST RTE 0194	ALBEE SCHOOLHOUSE
3831		ST RTE 0194	ALBEE
2577	Wiscasset	US 1	MONTSWEAG FARM
2639	Woolwich	US 1	MONTSWEAG OVERHEAD

Division 6 - North
Major Collector and Arterial Highways
10 Year Bridge Needs
Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
2233	Cumberland	ST RTE 0026	DOUGHTY
2782	Falmouth	ST RTE 0026	SOULE
2702		ST RTE 0026	RR CROSSING
5237		US 1	MILL CREEK NO. 2
5768	Gorham	ST RTE 0022	CURTIS
5303		ST RTE 0114	SHAWS
2190	Hollis	ST RTE 0035	BONNY EAGLE COVERED
3328	Limington	ST RTE 0011	STEEP FALLS
2540	Mechanic Falls	ST RTE 0011	MECHANIC FALLS
2047	Naples	US 302	NAPLES BAY
5535	North Yarmouth	ST RTE 0009	DUNNS
5048		ST RTE 0231	HAYS
0371	Portland	INT 295 NB	BRIDGE AT STA. 98&88
5052		RD INV 60753 05	VERANDA ST. OVERPASS
2515		US 1	MARTIN POINT
0193	Pownal	RD INV 00308 05	KUSHMAN BRIDGE
5260	Scarborough	ST RTE 0009	PINE POINT CROSSING
2614		ST RTE 0114	NONESUCH RIVER
2240		US 1	DUNSTAN
6282	South Portland	INT 295 SB	I-295 SB/ RED BROOK
0341		RD INV 80101 05	MILL CREEK
6200		RD INV 80285 05	PAYNE RD BRIDGE NB
6284		RD INV B0425 05	I-295 RAMP 5 / RED BK
3093	Standish	ST RTE 0011	TUCKER BROOK
5926		ST RTE 0114	STATION 135
1519	Westbrook	RD INV 90035 05	CUMBERLAND MILLS WEST
3467		US 302	MILL BROOK
2787	Windham	US 202	SOUTH WINDHAM
5339	Yarmouth	ST RTE 0115	RT115 OV LEW BRANCH MCRR
3313		ST RTE 0115	MCRR CROSSING

Division 6 - South
Major Collector and Arterial Highways
10 Year Bridge Needs
Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
2060	Berwick	ST RTE 0009	BEAVER DAM
3423	Biddeford	ST RTE 0009	MAIN STREET
3908		ST RTE 0111	ALFRED ROAD CROSSING
3910		ST RTE 0208	SNAKE RIVER
2465	Cornish	ST RTE 0005	LITTLE RIVER
3708	Hollis	US 202	SALMON FALLS
2230	Kennebunk	ST RTE 0009	DOCK SQUARE
3597		ST RTE 0009A	OVERPASS-SUMMER ST.
2041		US 1	BARTLETT
5276	Kittery	US 1	VIADUCT
2546		US 1	MEMORIAL BRIDGE
3860		US 1A	KITTERY OVERPASS
1361		US 1A	B&M RR TUNNEL
5857	Limerick	ST RTE 0011	PENDEXTER
2348		ST RTE 0025	HAMLIN BROOK
3026		ST RTE 0025	WHALEBACK
3024		ST RTE 0025	TANNERY
5825	Lyman	ST RTE 0111	KENNEBUNK RIVER
2419	Saco	ST RTE 0005	JORDAN
3643		ST RTE 0009	GOOSE FARE
3747	Sanford	RD INV 60285 31	GREAT WORKS BROOK
1358		ST RTE 0224	BRIDGE ST BR
3958	Shapleigh	ST RTE 0109	RODGERS
3829	Waterboro	US 202	CARPENTER
5338	Wells	ST RTE 0009	MERRILAND RIDGE BRIDGE
2263		ST RTE 0109	EDWARD HILL
3199		ST RTE 0109	HIGH PINE CROSSING
2126		US 1	CAPELL
3202	York	ST RTE 0103	NEW
2715		US 1	RICES

Division 7 - North
Major Collector and Arterial Highways
10 Year Bridge Needs
Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
2890	Avon	ST RTE 0004	VALLEY BROOK
5847	Byron	ST RTE 0017	NEW COOS
3135	Chain Of Ponds Twp	ST RTE 0027	DEAD RIVER
3070	Coplin Plt	ST RTE 0016	NASH
3260	Dallas Plt	ST RTE 0016	GULL POND
2705	Farmington	US 2	RED
2311		US 2	GILBERT BROOK
3677	Freeman Twp	ST RTE 0145	BURBANK
5351	Kingfield	ST RTE 0016	REED BROOK
5053		ST RTE 0016	NORTON
5356	New Vineyard	ST RTE 0027	BARKER STREAM
2955	Phillips	ST RTE 0004	WING
2631	Rangeley	ST RTE 0004	OQUASSOC
2565	Salem Twp	ST RTE 0142	MILL POND
3615	Twp D	ST RTE 0017	BEMIS

Division 7 - South

Major Collector and Arterial Highways

10 Year Bridge Needs

Based on Year 2001 Data

Bridge No	Municipality	Route	Bridge Name
3215	Andover	ST RTE 0120	MERRILL
3336		ST RTE 0120	ANDOVER FALLS
3338	Auburn	RD INV 10190 01	LITTLEFIELDS
0057		ST RTE 0136	MAIN ST. BRIDGE
2209		US 202	CRYSTAL SPRING
2625		US 202	OAKDALE NB/RT 100,4,202
5508	Batchelders Grant	ST RTE 0113	MORRISON BROOK
5506		ST RTE 0113	EVANS BROOK
5511		ST RTE 0113	SPRUCE HILL
5507		ST RTE 0113	HASTINGS BRIDGE
3791	Bethel	US 2	CNR X-ING
2759	Brownfield	ST RTE 0005	SHEPARDS RIVER
5859		ST RTE 0005	NEW BURNT
5860		ST RTE 0005	NEW TEN MILE BROOK
5409	Buckfield	ST RTE 0117	IRISH
3287		ST RTE 0117	HALL
2312	Canton	ST RTE 0140	GILBERTVILLE
3181	Chesterville	ST RTE 0156	WILLIAMS #2
2350	Dixfield	US 2	HANNAFORD
3334	Durham	ST RTE 0009	DURHAM
3066	Farmington	ST RTE 0156	NO CHESTERVILLE
2470	Fryeburg	ST RTE 0005	LITTLE SACO
5573		ST RTE 0113	KIMBALL BROOK
2261		US 302	EDDY FLATS
2464		US 302	LITTLE POND
2948	Gilead	US 2	WILD RIVER
2413	Greenwood	ST RTE 0026	JOHNNIES
6125	Jay	RD INV 00743 07	ALLEN BROOK
2476		ST RTE 0004	LOOK BROOK
3510		ST RTE 0140	RIDLEY BROOK
3801		ST RTE 0140	SEVEN MILE STREAM
5002	Leeds	ST RTE 0106	STINCHFIELD
3214		ST RTE 0219	NORTH TURNER EAST
2290		ST RTE 0219	FOSS
5001		US 202	JOHNSON 00
5003	Lewiston	RD INV 20076 01	CHESTNUT STREET
0087		RD INV 20092 01	CROWLEYS ROAD BRIDGE
0054		RD INV 20369 01	RIVERSIDE ST BRIDGE
2803		US 202	STETSON BRIDGE
5004	Lisbon	RD INV 30122 01	BARKER BROOK NO. 1
0063		RD INV 30129 01	LISBON VETERANS' MEMORIAL
2733		ST RTE 0196	SABATTUS STREAM
2103	Livermore	ST RTE 0004	BRETTUNS POND
2923	Livermore Falls	ST RTE 0106	WENTWORTH
2917	Mexico	US 2	WEBB RIVER
2094	Newry	ST RTE 0026	BRANCH BROOK
2327		ST RTE 0026	GREAT BROOK
2745	Paris	ST RTE 0026	SAW MILL
2979		ST RTE 0117	BILLINGS BRIDGE
2432	Parsonsfield	ST RTE 0025	KEZAR FALLS
2019	Peru	RD INV 00416 17	ANDROSCOGGIN RIVER
2554		ST RTE 0108	WORTHLEY BROOK
5931	Rumford	RD INV 10008 17	HAVERHILL
3638		RD INV 10051 17	HARTFORD ST. BRIDGE
2585		ST RTE 0108	MORSE
5310		ST RTE 0120	SCOTTY RICHARDSON
3248		ST RTE 0232	MARTIN MEMORIAL (RUMF.PT)
2514		US 2	MARTINS
2707		US 2	RED
5393	Sabattus	ST RTE 0126	SABATTUS RIVER
3581	Stow	ST RTE 0113	LITTLE COLD RIVER
3886	Turner	ST RTE 0117	TURNER CENTER
1474		ST RTE 0219	NORTH TURNER WEST
5097	Waterford	ST RTE 0035	BEAR BROOK
5192		ST RTE 0035	HORRS
3797		ST RTE 0118	KNIGHTLY

APPENDIX B

A Summary of the Most Recent Highway Treatment

Division 1 - North

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

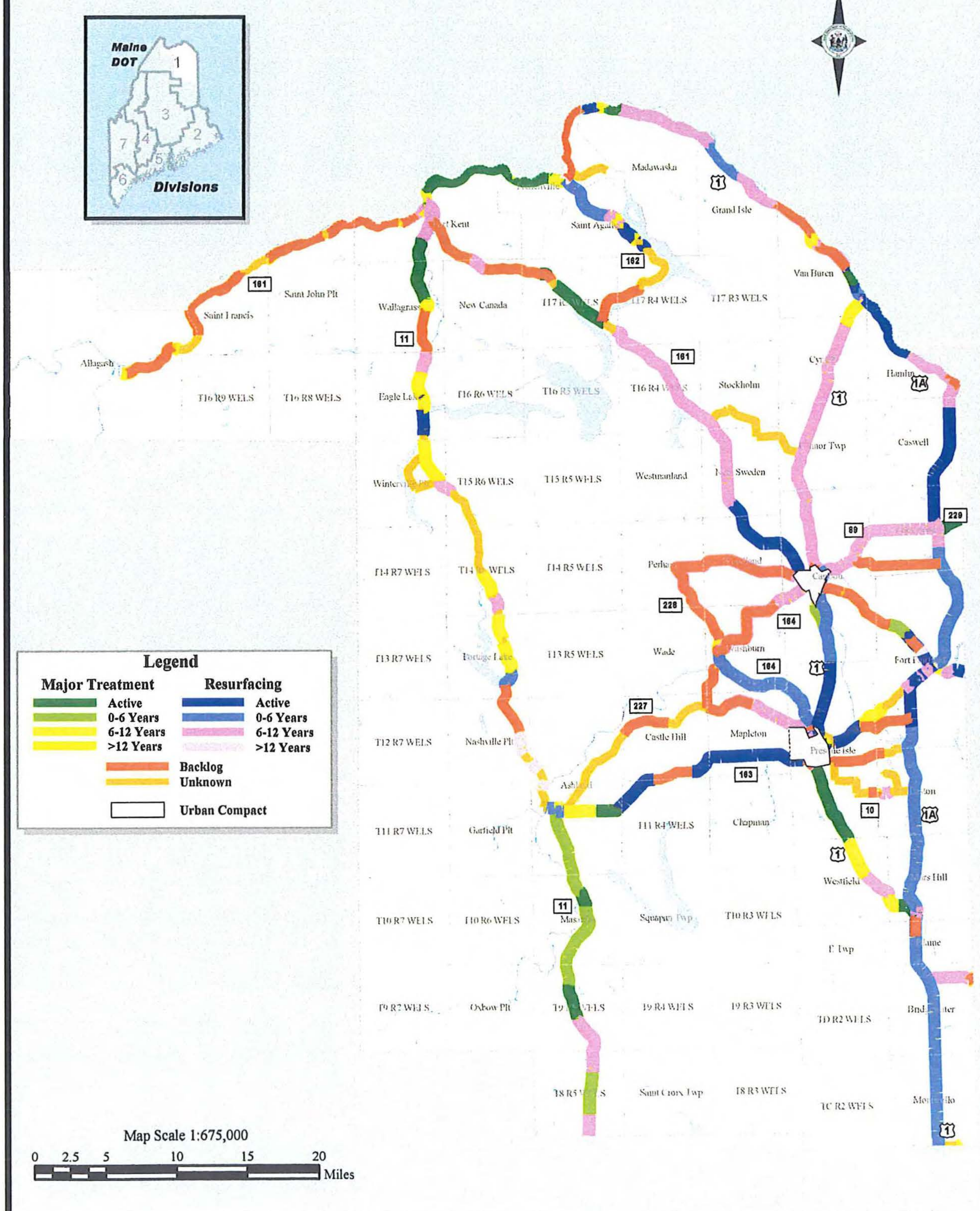
Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
US 1	110.82	20.50	5.29	0.52	6.15	2.45	7.18	23.60	28.95	0.16	16.02
US 1A	50.01	0.00	0.00	0.00	0.00	0.00	18.07	20.75	8.89	0.02	2.28
ST RTE 0010	9.33	0.62	0.00	0.00	0.00	0.00	0.00	0.00	0.59	0.00	8.12
ST RTE 0011	73.43	6.34	8.06	15.02	5.29	6.79	1.83	2.06	11.53	3.45	13.06
ST RTE 0089	10.21	0.00	0.00	0.00	0.00	0.00	0.15	0.00	8.69	0.00	1.37
ST RTE 0161	82.15	40.82	0.00	1.27	0.82	0.10	10.50	0.00	19.38	0.43	8.83
ST RTE 0162	16.97	4.03	0.00	0.00	0.00	0.34	0.26	4.19	0.97	0.00	7.18
ST RTE 0163	29.31	6.79	1.96	0.00	1.98	0.00	14.55	0.59	0.74	0.00	2.70
ST RTE 0164	23.01	6.29	0.00	1.74	0.00	0.00	0.00	9.62	2.63	0.00	2.73
ST RTE 0167	8.18	0.00	0.00	0.00	0.00	3.15	1.53	0.00	1.10	0.00	2.40
ST RTE 0210	1.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01
ST RTE 0223	6.45	5.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46
ST RTE 0227	23.61	7.09	0.00	0.00	0.64	0.00	0.70	0.00	4.60	0.00	10.58
ST RTE 0228	16.93	15.49	0.00	0.00	0.69	0.00	0.00	0.00	0.19	0.00	0.56
ST RTE 0229	1.96	0.00	1.70	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.14

This summary includes only numbered routes federally functionally classed major collector or higher.

* Unknown mileage is in large part made up of roadways that are built to standard but have not received treatment other than Hot Maintenance Mulch in the past 15 years.

MOST RECENT TREATMENTS

Division 1 North



Division 1 - South

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
INT 95 NB	50.28	0.00	0.00	16.76	0.00	0.07	0.49	2.77	19.48	9.51	1.20
INT 95 SB	51.37	0.00	0.00	16.45	0.00	0.09	21.64	12.60	0.00	0.56	0.03
US 1	44.38	0.00	0.19	5.00	0.60	0.40	14.74	16.19	5.55	0.00	1.71
US 2	61.58	19.29	0.00	0.00	0.00	0.13	0.58	15.02	12.75	0.57	13.24
US 2A	43.46	1.38	0.56	0.00	0.00	0.00	6.00	16.84	17.56	0.00	1.12
ST RTE 0011	31.74	0.00	14.13	5.78	0.00	0.00	0.00	0.00	11.83	0.00	0.00
ST RTE 0158	4.68	0.00	0.00	0.00	0.00	0.00	4.68	0.00	0.00	0.00	0.00
ST RTE 0159	20.48	4.50	9.92	0.02	0.00	0.00	0.00	1.83	0.00	0.00	4.21
ST RTE 0170	1.73	1.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0212	10.30	0.00	0.00	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00

This summary includes only numbered routes federally functionally classed major collector or higher.

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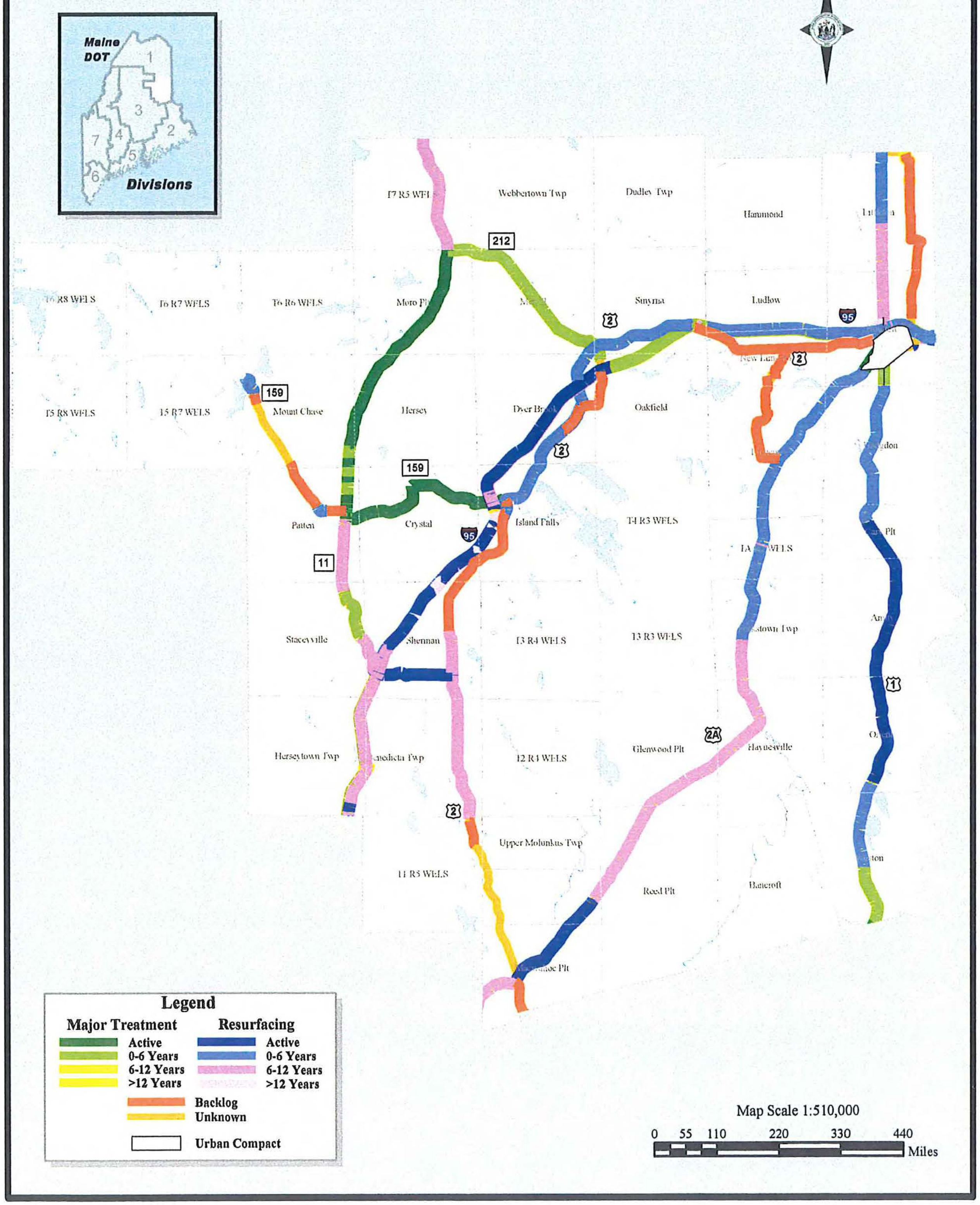
MOST RECENT TREATMENTS

Division 1 South



Division 2 - East

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
US 1	154.26	21.92	27.34	0.64	2.91	5.98	23.21	28.85	35.84	1.46	6.11
US 1A	15.77	10.18	0.00	0.00	0.00	0.00	0.00	0.79	1.80	0.00	3.00
ST RTE 0006	34.00	19.18	1.70	7.44	0.01	0.00	0.00	0.00	1.96	0.00	3.71
ST RTE 0009	48.17	0.00	2.66	7.88	20.87	4.47	0.00	9.31	0.80	0.15	2.03
ST RTE 0092	4.19	4.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0182	3.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80	0.00	0.00
ST RTE 0187	22.85	7.72	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.00	15.07
ST RTE 0189	11.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.19
ST RTE 0190	7.09	1.62	0.00	0.00	0.00	0.00	5.24	0.00	0.00	0.00	0.23
ST RTE 0191	61.49	47.60	1.84	0.00	0.85	0.00	3.99	0.00	0.00	0.00	7.21
ST RTE 0192	20.39	19.60	0.69	0.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00
ST RTE 0193	18.40	11.89	0.00	0.00	6.51	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0214	10.02	0.00	0.00	0.00	0.00	0.00	10.02	0.00	0.00	0.00	0.00

This summary includes only numbered routes federally functionally classed major collector or higher.

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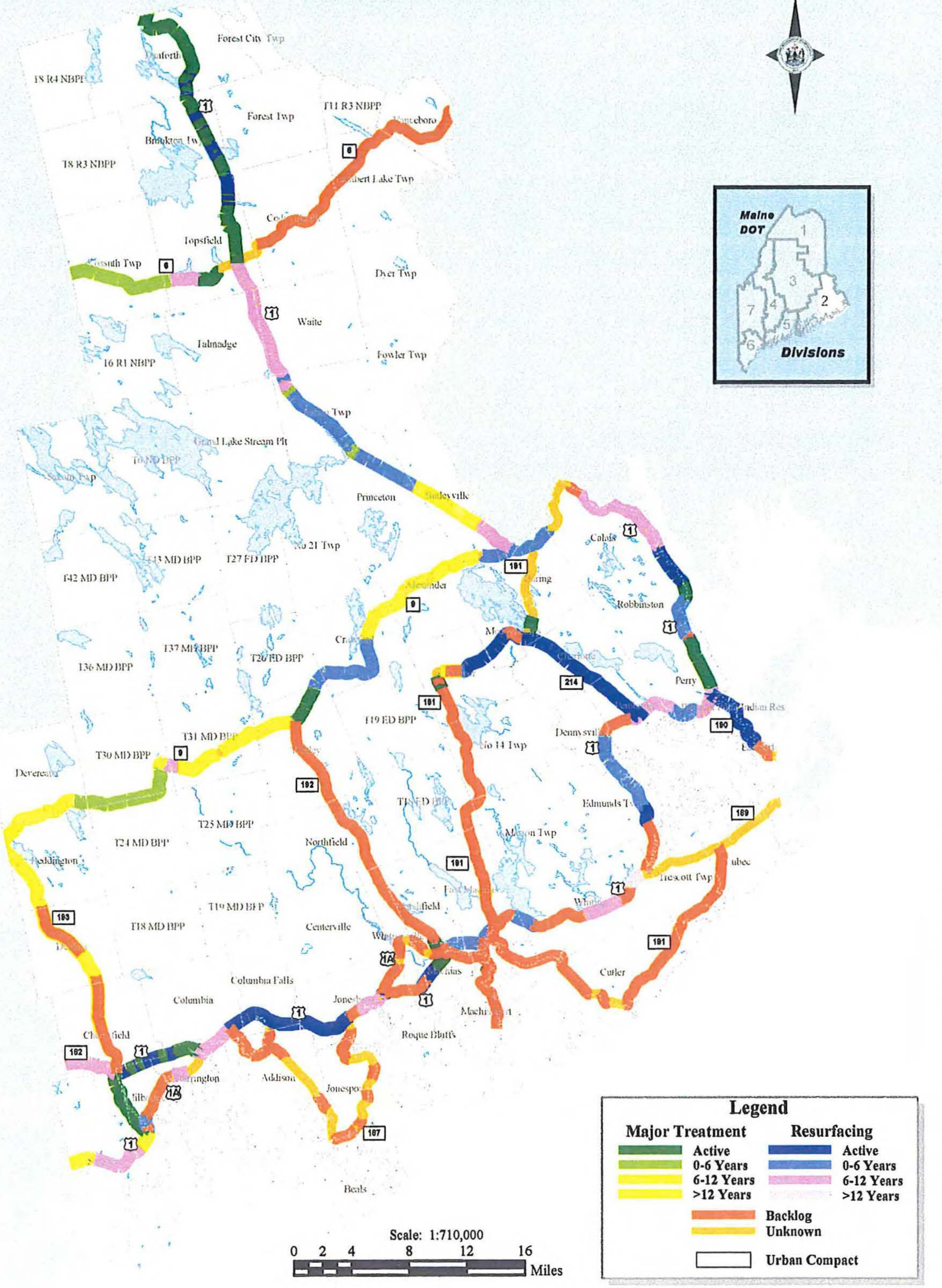
MOST RECENT TREATMENTS

Division 2 East



Division 2 - West

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
US 1	45.47	3.19	2.16	1.04	0.89	2.18	0.00	4.57	25.06	1.85	4.53
US 1A	17.13	7.88	3.30	0.27	0.00	0.02	0.00	0.00	5.21	0.00	0.45
ST RTE 0003	36.11	11.01	1.35	2.18	0.00	0.90	0.03	3.10	1.42	2.69	13.43
ST RTE 0009	22.53	0.00	8.14	0.00	4.45	0.00	4.58	2.85	2.41	0.00	0.10
ST RTE 0015	45.74	12.68	19.86	1.58	1.50	0.44	9.04	0.00	0.00	0.00	0.64
ST RTE 0046	11.29	10.48	0.00	0.00	0.81	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0102	12.99	1.29	0.00	0.00	0.00	0.00	0.00	4.79	4.21	0.00	2.70
ST RTE 0166	3.19	3.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0166A	3.77	3.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0172	13.40	2.37	0.00	0.00	0.00	0.00	0.00	6.01	4.94	0.00	0.08
ST RTE 0175	8.05	8.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0179	22.34	19.51	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	2.00
ST RTE 0182	19.70	12.77	0.01	0.00	0.00	0.00	0.00	2.07	4.01	0.00	0.84
ST RTE 0184	8.64	3.65	0.00	0.00	0.00	0.00	3.44	0.00	0.00	0.00	1.55
ST RTE 0186	16.13	12.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.36
ST RTE 0193	0.71	0.00	0.00	0.00	0.71	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0198	0.78	0.00	0.00	0.00	0.00	0.00	0.78	0.00	0.00	0.00	0.00
ST RTE 0200	5.94	5.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0230	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
ST RTE 0233	5.85	0.56	0.00	0.00	0.00	0.00	0.00	0.00	3.36	0.00	1.93

This summary includes only numbered routes federally functionally classed major collector or higher.

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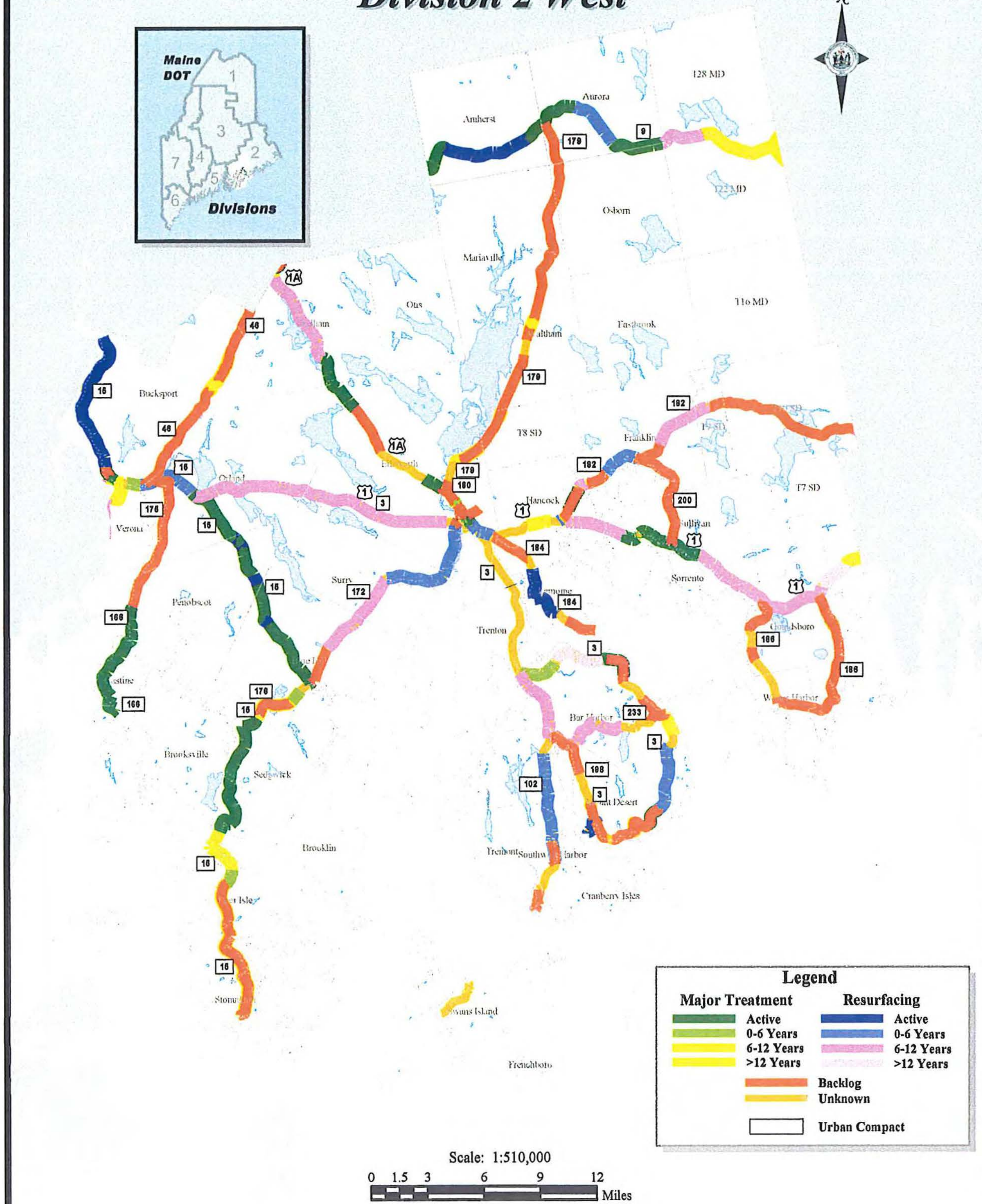
MOST RECENT TREATMENTS

Division 2 West



Division 3 - East

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
INT 95 NB	0.00	0.00	1.47	0.00	0.00	0.00	0.00	14.80	12.99	0.76	30.02
INT 95 SB	0.00	0.00	17.65	0.00	0.00	10.94	0.00	0.31	0.00	2.22	31.12
US 2	0.00	0.33	0.00	0.00	0.00	0.00	0.00	14.48	0.00	0.00	14.81
ST RTE 0006	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.06	0.00	20.06
ST RTE 0011	0.00	9.57	1.62	0.26	0.00	0.37	1.99	6.42	3.93	1.66	25.82
ST RTE 0116	0.00	18.40	0.00	0.00	0.00	0.00	4.18	0.00	0.00	0.00	22.58
ST RTE 0157	0.00	0.00	0.00	0.00	0.00	2.64	0.00	9.41	0.00	0.00	12.05
ST RTE 0168	0.00	9.33	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	10.18
ST RTE 0169	0.00	3.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.66
ST RTE 0170	0.00	14.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.98

This summary includes only numbered routes federally functionally classed major collector or higher.

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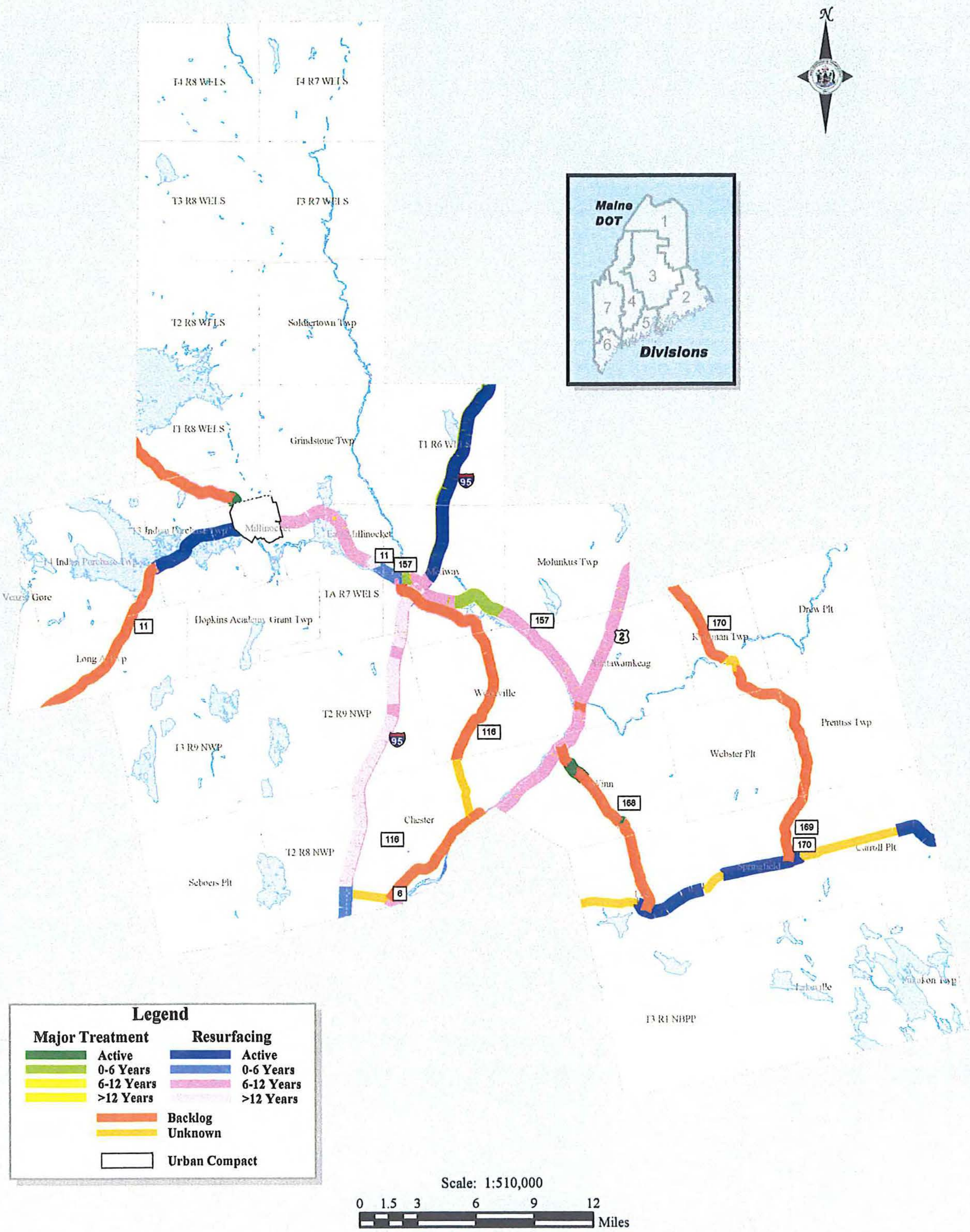
MOST RECENT TREATMENTS

Division 3 East



Division 3 - West

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
ST RTE 0006	90.22	4.92	7.39	3.69	0.31	1.77	6.55	6.37	24.75	10.83	23.64
ST RTE 0007	6.68	4.31	0.00	0.00	1.14	0.00	0.31	0.00	0.56	0.00	0.36
ST RTE 0011	31.54	16.79	0.00	0.00	0.47	0.00	0.00	0.00	0.45	11.12	2.71
ST RTE 0015	8.32	1.29	0.67	0.00	0.00	1.29	1.47	0.00	2.09	0.00	1.51
ST RTE 0016	12.62	7.02	1.01	0.00	0.53	0.00	0.00	0.00	1.05	0.00	3.01
ST RTE 0023	6.76	0.00	2.40	0.34	0.00	0.11	0.00	3.81	0.00	0.00	0.10
ST RTE 0150	9.04	0.47	0.00	0.00	0.00	0.14	2.78	4.64	0.61	0.00	0.40
ST RTE 0153	4.62	0.00	0.00	0.00	0.00	0.00	4.62	0.00	0.00	0.00	0.00
ST RTE 0155	1.42	1.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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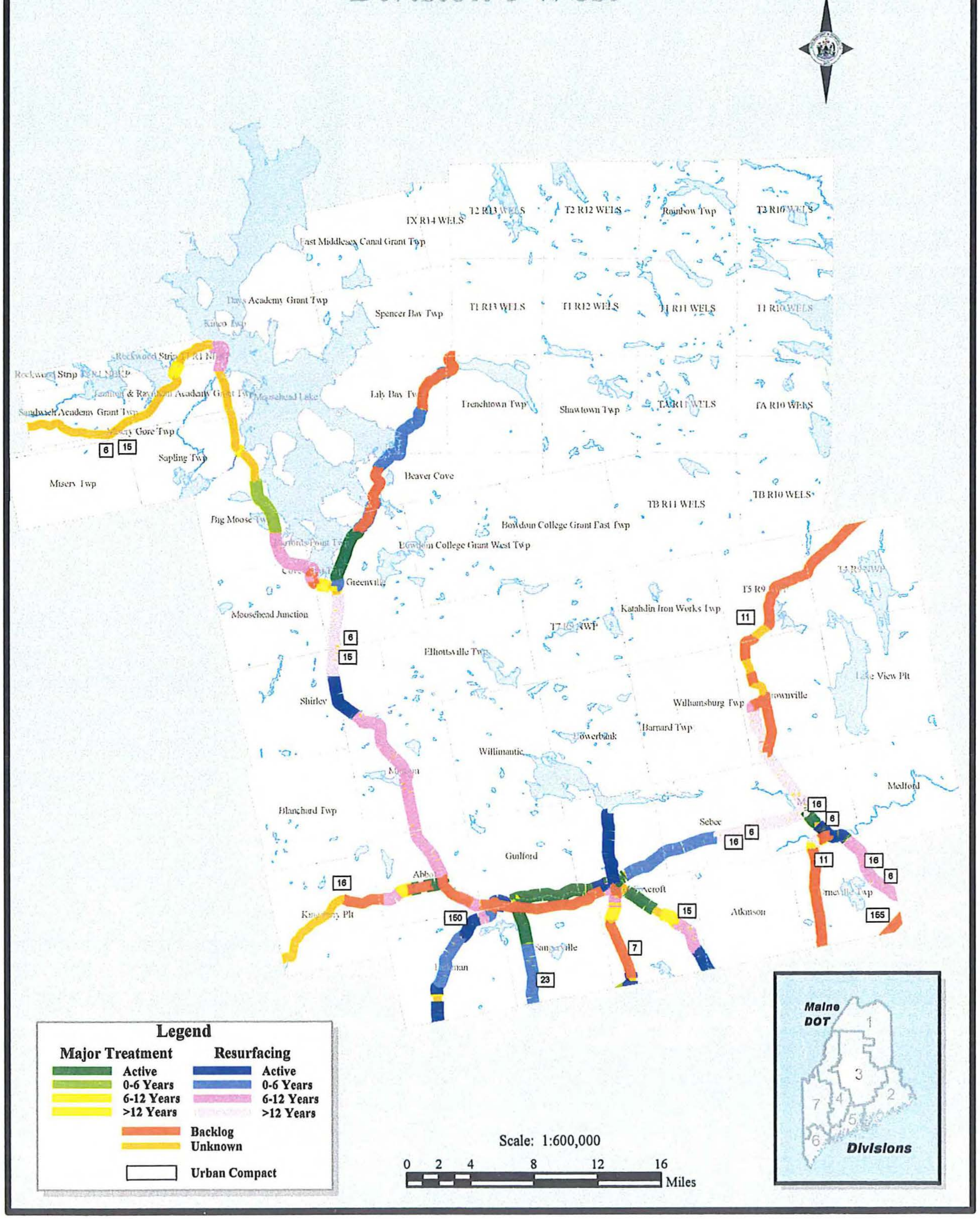
MOST RECENT TREATMENTS

Division 3 West



Division 3 - South

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
INT 95 NB	71.29	0.00	0.10	5.23	3.58	0.00	0.00	3.54	36.85	21.99	0.00
INT 95 SB	71.42	0.00	0.00	14.49	1.01	12.63	0.00	35.25	7.67	0.32	0.05
INT 395 EB	5.74	0.00	0.00	0.00	0.02	0.00	0.00	4.27	1.25	0.20	0.00
INT 395 WB	6.24	0.00	0.00	0.00	0.00	0.00	0.10	4.59	1.55	0.00	0.00
US 1A	17.51	1.84	2.70	0.00	1.18	0.87	7.93	0.83	0.94	0.34	0.88
US 2	81.25	17.12	0.92	0.32	0.00	0.00	9.93	8.58	33.36	1.34	9.68
US 202	22.40	0.00	0.10	0.00	0.00	0.00	0.60	18.52	2.90	0.23	0.05
US 2A	4.55	0.00	0.00	0.00	0.00	0.50	1.18	0.00	0.00	2.82	0.05
ST RTE 0006	22.05	11.78	0.00	0.00	0.00	0.00	7.91	0.98	0.63	0.11	0.64
ST RTE 0007	33.77	7.39	8.30	2.95	0.00	1.37	0.54	2.71	9.44	0.00	1.07
ST RTE 0009	18.60	0.00	0.54	0.00	1.68	2.83	0.30	2.09	7.28	3.73	0.15
ST RTE 0011	28.87	17.61	0.00	0.00	0.00	0.00	2.31	0.00	0.82	1.44	6.69
ST RTE 0015	34.70	2.67	3.17	2.46	1.90	1.01	4.55	0.00	10.30	2.02	6.62
ST RTE 0016	22.86	9.66	9.89	0.45	0.00	0.56	1.21	0.00	0.00	0.00	1.09
ST RTE 0023	7.33	2.18	0.00	0.00	0.00	0.63	0.00	1.76	1.98	0.00	0.78
ST RTE 0043	19.21	14.88	0.00	0.00	0.00	0.00	2.96	0.00	0.46	0.00	0.91
ST RTE 0046	7.47	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
ST RTE 0069	18.76	12.48	0.00	0.00	0.00	0.00	2.65	0.00	0.00	0.00	3.63
ST RTE 0094	13.29	8.20	0.00	0.00	0.60	0.00	0.00	0.00	0.00	0.00	4.49
ST RTE 0116	2.34	1.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02
ST RTE 0143	9.26	9.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0155	8.15	7.10	0.00	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ST RTE 0178	9.22	0.00	0.00	0.00	2.03	0.00	5.44	0.00	0.73	0.00	1.02
ST RTE 0221	13.73	11.61	0.00	0.00	0.00	0.00	0.00	0.00	2.12	0.00	0.00
ST RTE 0222	27.99	6.93	15.14	0.00	0.00	0.00	4.29	0.00	0.73	0.00	0.90

This summary includes only numbered routes federally functionally classed major collector or higher.

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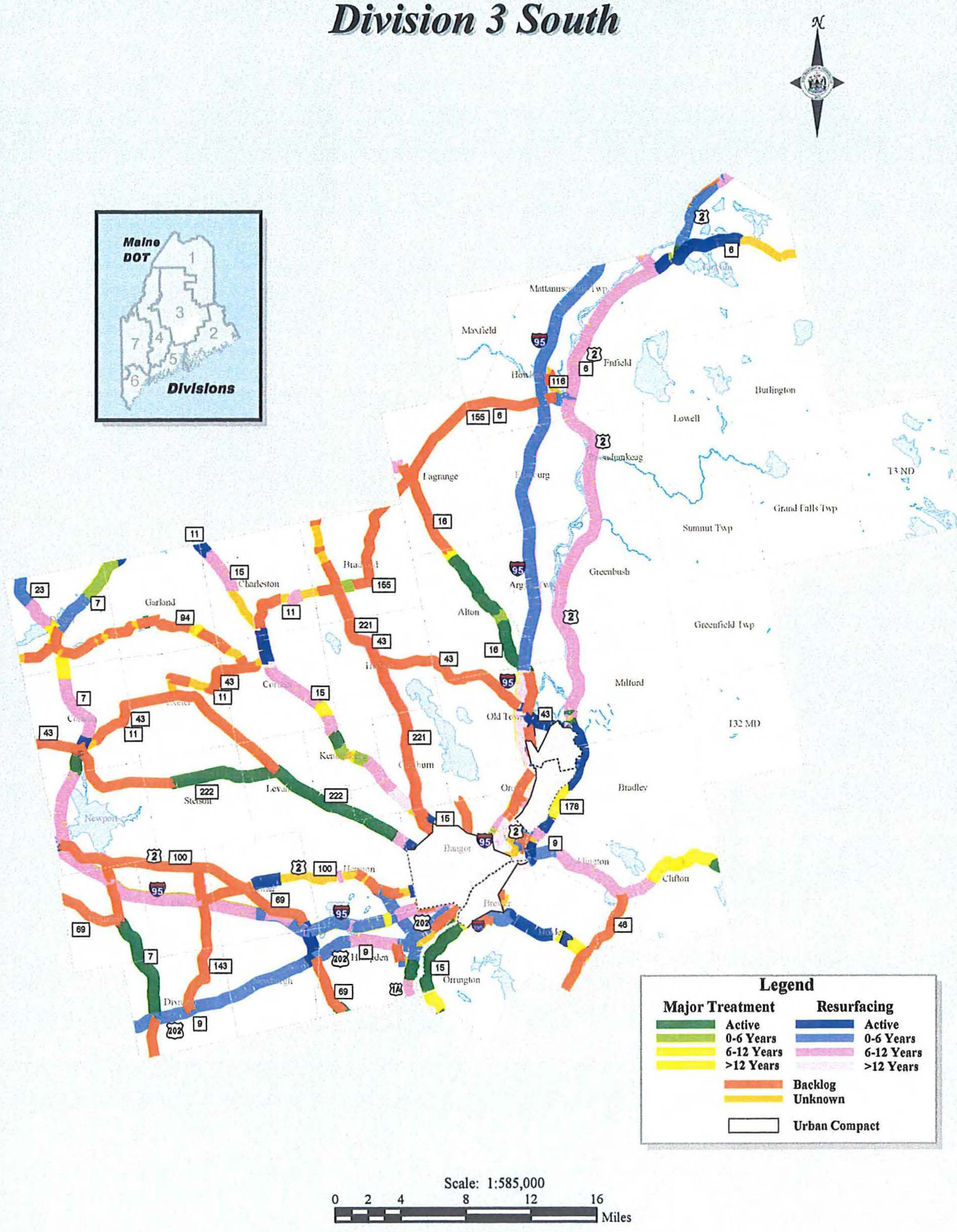
MOST RECENT TREATMENTS

Division 3 South



Division 4 - North

State of the Routed Highway System

A Summary of the Most Recent Highway Treatment

(Base year is 2003)

Route	Total Mileage	Backlog Mileage	Major Treatment Active	Major Treatment 2-6 Years	Major Treatment 6-12 Years	Major Treatment 12 Years & Older	Resurfacing Active	Resurfacing 2-6 Years	Resurfacing 6-12 Years	Resurfacing 12 Years & Older	Unknown*
US 201	64.34	3.13	6.29	0.00	3.39	1.25	40.85	2.81	0.00	3.32	3.30
ST RTE 0006	12.96	3.15	0.00	0.00	0.00	0.00	2.17	0.00	0.00	0.00	7.64
ST RTE 0016	11.87	1.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.11

This summary includes only numbered routes federally functionally classed major collector or higher.

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Systems Management Division

The mission of the Systems Management Division is to analyze and report the condition and performance of Maine's transportation system and recommend optimal transportation investments to guide decision makers.

Principles:

- Protect public safety
- Promote economic health
- Maximize benefits from available resources
- Be proactive, objective, and systematic
- Respond to customer needs

BUREAU OF PLANNING
MAINEDOT

www.maine.gov/mdot/planning/smd/smd.htm