

## Northern New England Border Corridor Application

### Project Eligibility

The States of Maine, New Hampshire, and Vermont are pleased to submit an application for funds under both Sections 1118 and 1119 of TEA-21. The projects described in this application are eligible for both the National Corridor Planning and Development Program (NCPD) and the Coordinated Border Infrastructure (CBI) Program. The States of Maine, New Hampshire, and Vermont request funding under the NCPD program for a highway corridor that is described below in Section 14a. We believe that this corridor has both national and international significance. We also request that the entire application be considered for funding under the Coordinated Border Infrastructure Program since all of the projects described in this application are within 100 km of the United States/Canadian border. The proposed activities under the CBI program include the construction of highways that will facilitate vehicle and cargo movements related to international trade.

1. States Involved In The Projects: Maine, New Hampshire, and Vermont

2. Congressional High Priority Number: None

3. Counties Involved In the Projects:

- Maine-Washington, Penobscot, Somerset, Franklin, Oxford
- New Hampshire-Coos
- Vermont-Essex, Calendonias, Washington

4. U.S. Congressional Districts and the Names Of U.S. Representatives in The Project Area

- Maine 2nd-Rep. John Baldacci
- New Hampshire 2nd-Rep. Charles Bass
- Vermont At-Large-Rep. Bernard Sanders

5.A Definition of the Northern New England Border Corridor

Maine-Starting at the Calais, Maine-St. Stephen, New Brunswick border on Route 9, continue westerly along Route 9 to the junction of Interstate 395 in Bangor. Proceed onto Interstate 395 west to Interstate 95 south to US Route 2 in Newport (Exit 39). Continue westerly along U.S. Route 2 to the New Hampshire State Line.

New Hampshire -U.S. Route 2 from the Maine State Line westerly to the Vermont State Line.

Vermont -U.S. Route 2 from the New Hampshire border to Interstate 89 north in Montpelier, Vermont. (Note: Interstate 89 to the Vermont-Quebec border is an integral part of the corridor, providing efficient access to Montreal. However, this part of the corridor is a fully functional, four-lane divided highway, and is not included as part of this application. In addition, the border crossing at Highgate Springs, Vermont has recently undergone a significant upgrade. Within Vermont, therefore, the border/corridor improvements are focused on the Route 2 segment.)

## 5.B Project Locations

This Northern New England Border Corridor Application includes:

- U.S. Route 2 reconstruction project in Gilead, Maine
- U.S. Route 2 reconstruction project in Jefferson-Randolph, New Hampshire and shoulder improvements along Route 2 in New Hampshire
- U.S. Route 2 Improvements between Miles Pond and the Lunenburg Reconstruction Project
- Construction of a Roadside CVO Facility in Lunenburg, Vermont
- See various project/corridor maps in appendix

## 6. Project Objectives and Benefits

The primary objective of this Northern New England Border Corridor application is to accommodate the increasing commercial vehicle traffic that has occurred along the corridor over the last ten years, especially since the implementation of the North American Free Trade Agreement (NAFTA) in 1994 and the U.S-Canadian Free Trade Agreement in 1989. The Route 9/Route 2/Interstate 89 corridor through Maine, New Hampshire, and Vermont is the primary east-west connection through Northern New England. It requires considerable upgrading in some areas in order to adequately and safely carry the increasing amounts of commercial vehicle traffic along this corridor and through these three states. For example, in 1982, 65% of all freight traffic (tonnage) in Maine was carried by commercial vehicles. By 1997, the percentage had increased to 89%. Additionally, truck traffic accounts for up to 38% of the rural Maine State Route 9 traffic and 33% of the rural Route 2 traffic.

The Northern New England Border Corridor is a vital trade route between the United States and Canada. It links five Canadian Provinces and three New England States. A key link to the Northern New England Border Corridor is Canadian Route 1, which connects St. Stephen, New Brunswick to Charlottetown, Prince Edward Island. A November 1998 Transport Canada report identified Canadian Route 1 as a major Canadian highway corridor with commercial vehicles comprising 13% of the corridor's total traffic volume. The New Brunswick Department of Transportation has spent over \$100 million improving the Route 1 corridor from St. John to St. Stephen. The Calais/St.Stephen border crossing is the 8th busiest border crossing on the U.S./Canadian border but offers little or no ITS technology to help facilitate the movement of people or goods due to physical and technological constraints at this site. The Maine State Route 9 portion of the corridor connects Atlantic Canada with the Interstate 95 corridor and important markets in the northeastern U.S. The Northern New England Border Corridor is also the shortest route between Halifax, Nova Scotia and Montreal and Canadian points west. On the western end of the border corridor, the Interstate 89 crossing at Highgate, Vermont was identified as being the sixth busiest border crossing for Canadian exports and the second busiest Quebec crossing. With Canadian exports projected to grow at 5.2% a year and imports projected to grow at 5.5% a year beyond 2000, continued improvements to the Northern New England Border Corridor will enhance the ability of this corridor to meet the needs of commercial vehicles as well as the traveling public.

The economic effect of the Northern New England Border Corridor is evident in areas far away from the corridor. Continued growth of the Port of Halifax due to the growing global consolidation of the ocean shipping business will give the corridor a significantly larger role in the transportation of containers and products to and from the Port of Halifax to both U.S. and Canadian markets. The effect of this corridor is felt just as far away on the United States side of the border as it is in Canada. Massachusetts vehicles were found to be the biggest user of the Calais/St. Stephen border crossing (37 percent) followed by Maine, South Carolina, and New York.

Tourism and retail shopping has always been a major factor in the regional economy of Northern New England and Canada. Canadian day and overnight travel to Maine remained at the same level in 1997 as it did in 1996, despite the drop in the exchange rate. According to Statistics Canada, an estimated 6.7 million Canadians visited Maine in 1997. Of these, 5.7 million were day visitors. Preliminary reports from the Maine State Tourism Office indicate that 1999 was also an excellent year for visits to Maine from Canadian tourists. Fifteen percent of Canadian respondents to a survey conducted for the east-west highway study indicated that their travel patterns to or through Maine could be influenced by an improved east-west transportation route within the state. All of these trends indicate that tourism traffic along this corridor will continue to increase in the coming years.

Another project objective of the Northern New England Border Corridor is to improve the economic condition of the areas through which the corridor passes. These areas have historically been economically disadvantaged compared to other areas of the Northern New England region. In Maine, for example, the statewide unemployment rate in February 1999 was 4.7%, but it was 10.8% in Washington County, 7.7% in Somerset County, and 6.8% in Oxford County. New Hampshire's November 1998 statewide unemployment rate was 3.0, while in Coos County it was 5.0. Vermont's overall unemployment rate has been very low during the past year, running between 3% and 4% from November 1997 to November 1998. However, unemployment in the section of Vermont through which most of Route 2 passes is about twice the state average, running between 6% and 7.5% during the same time period.

The counties along the corridor also had per capita incomes well below the 1996 U.S. average per capita income of \$24,169. The counties along the corridor had per capita incomes that were significantly lower than the state wide averages for the three states. Maine's 1996 average per capita income was \$20,941, but in Washington, Somerset, and Oxford Counties, it was between \$16,163 and \$17,401. The same condition holds true in the areas surrounding Route 2 in New Hampshire and Vermont. New Hampshire's average per capita income in 1996 was \$26,772, while in Coos County, it was only \$21,040. In Vermont, per capita income is lowest in the "northeast kingdom" area of the state. In 1996, per capita income was \$18,375 in Caledonia County and only \$14,641 in Essex County, as compared to \$22,545 statewide.

The higher unemployment rates and lower per capita income in these areas of Maine, New Hampshire, and Vermont are long standing. Improvements to the transportation infrastructure will help the

economy in these areas by making safe and efficient access to markets a reality. Projects similar to the ones proposed in this application have historically encouraged business creation and job growth in these areas.

While this border corridor does not have traffic volumes as large as others, this corridor and the border crossings associated with it are extremely critical to the regional economy and should be considered in such a context. Actions already taken by Maine, New Hampshire, and Vermont affirm our belief that border corridor improvements will provide a necessary stimulus to the economic health of Northern New England and Eastern Canada.

## 7. Proposed Work

### Route 2 Reconstruction Project in Gilead, Maine

As noted earlier, the U.S. Route 2 corridor is the major east-west connection through the tri-state region. A significant deficiency in the infrastructure of this corridor is located near the Maine-New Hampshire border in Gilead and Bethel, Maine. Approximately 18.5 km of Route 2 through these towns has been identified by the Maine Department of Transportation for reconstruction in order to bring this section of U.S Route 2 up to National Highway System standards. This section of road which was originally built in 1953 has inadequate geometric alignment and does not meet other NHS design standards. The pavement width is mostly 22 feet wide (the NHS standard for this type of road is 12 foot travel lanes with 6-10 feet shoulders). The average pavement condition rating for Route 2 in the Bethel-Gilead area is 2.63 on a scale of 1 to 5 (5 being a perfect road). Using this system, the average rating for a principal arterial in the State of Maine is a 3.4. This section of road also supports a significant percentage of motor carrier traffic. In 1999, approximately 19% of the AADT on this section of Route 2 was due to commercial vehicles; up slightly from 18% of the AADT in 1990.

The Maine Department of Transportation has determined that the 29.14 km section of Route 2 between Bethel, Maine and the New Hampshire State Line has experienced 172 total crashes between 1996 and 1998, resulting in a crash rate 20% above the statewide average rate for rural principal arterials. The project proposed here is located in this 29.14 km section. Commercial vehicles were involved in 8.3% of vehicle crashes on this stretch of Route 2, a rate over twice the statewide average of 3.6%. Four sections, totaling 8.99 km along this stretch of Route 2, are considered to be high accident locations. It is believed that poor horizontal and vertical geometry, coupled with insufficient pavement and shoulder width, are major contributors to these higher than average crash frequencies.

Funding has already been secured for preliminary engineering of this section of Route 2. Work associated with this proposal would include the final engineering and construction of 10.85 km starting .64 km east of the New Hampshire State Line and extending easterly. The project is estimated to cost \$6.2 million for construction and \$1.3 million for final engineering and right-of-way acquisition. The \$6 million requested is 80% of the total project cost of \$7.5 million. It is anticipated that since pre-construction engineering is already taking place, this project could easily be completed within two construction seasons.

## Route 2 Reconstruction Project in Jefferson-Randolph, New Hampshire and Shoulder Improvements Along Route 2 in New Hampshire

The proposed project in New Hampshire starts at the Route 115 intersection in Jefferson (3.52 km) west of the Jefferson/Randolph town line and ends at Lowe's crossing in Randolph (4.65 km) east of the Jefferson/Randolph town line. The length of the project is 8.17 km. The scope of the project includes safety and geometric improvements in Jefferson, the upgrade/reconstruction of portions of Route 2 in Randolph, and shoulder improvements along Route 2. This project would further support the local tourist industry and connect three newly built sections of roadway, creating an estimated 24-km of well built roadway in the area. This project would result in improved alignment of this narrow, winding section of Route 2, as well as the safer movement of goods on a roadway that supports heavy seasonal automobile traffic mixed with commercial vehicles.

The safe movement of commercial vehicles and automobiles has been a concern on this section of New Hampshire Route 2 for some time. The Ride Comfort Index (RCI) of the pavement along the proposed project stretch of 8.19 km is 2.64 (An RCI of 0-2.5 indicates a section that requires major work.). Along this proposed project stretch, over the past five years, there have been 68 reported crashes. Out of these 68 crashes, 17 were injury crashes (19 injuries), and 51 were property damage only crashes. Along the entire stretch of Route 2 in New Hampshire, over a period of 5 years, there have been 457 reported crashes. Two of these crashes were fatal, 136 were injury crashes (234 injuries) and 319 were property damage only crashes. This is a large number of crashes for a relatively short piece of road and points out the need for

improving Route 2 in New Hampshire.

This project, and the Northern New England Border Corridor as a whole, is a priority for the New Hampshire Department of Transportation. Traffic in the Jefferson, New Hampshire area has increased by 26.4% between 1988 and 1997. Since 1993, NHDOT has demonstrated its commitment to this regionally significant corridor by investing significant amounts of funds along this route. For example, in 1993 a one mile truck lane was constructed in the Jefferson area. In 1994 and 1995, reconstruction projects on Route 2 occurred in Randolph and Shelburne.

Like the proposed project in Gilead, Maine, this improvement would involve widening the road, adding a needed shoulder, replacing the base materials, improving drainage, and installing new guardrail. The total cost of the proposed Route 2 project in Jefferson-Randolph is \$3.52 million (\$2.82 million in federal funds, \$700,000 in state funds). Through a recent earmark, New Hampshire has been awarded \$1.5 million in federal funds towards this project, leaving a gap of \$1.32 million needed to complete this project. The balance of the funds requested, \$1.68 million, would be used for shoulder improvements along the Route 2 section in New Hampshire. Based on preliminary estimates, out of the total \$3 million requested for New Hampshire projects, an estimated \$2 million is for construction and \$1 million is for right-of-way and engineering.

Route 2 Projects in Vermont The sufficiency ratings and pavement condition vary substantially along the approximately 60-mile section of Route 2 between the New Hampshire border and Montpelier. The

highway section's 1996 sufficiency ratings are: good condition, 22 percent, 20.9 kilometers; fair condition, 25 percent, 24 kilometers; poor condition, 37 percent, 35.4 kilometers; and bad condition, 16 percent, 16 kilometers.

In the first round of grant funding, Vermont received \$350,000 to study corridor improvement needs along the existing Route 2 corridor between St. Johnsbury, VT, and the New Hampshire border. Although this study is just getting underway, two needs for immediate improvements have emerged.

#### a) Roadside CVO Facility

A roadside safety inspection area is needed for commercial traffic traveling along the corridor. The most likely location for this facility is in the town of Lunenburg, where the best possibility exists to find a suitable area with adequate sight distance and flat topography.

The facility will consist of two suitable marked and paved roadside areas, one for each travel direction. The sites will be large enough for impounding eight maximum size truck and tractor rigs, and will have electric and telephone access. Structures on the site will include a minimal restroom facility for enforcement personnel use, and a free standing hookup for use of laptop computers in enforcement vehicles in order to take advantage of the benefits of ITS/CVO technology. The technology that will be used on this facility will comply with the provisions of Dedicated Short Range Communication (DSRC) interoperability and will be compatible at layers 1 and 2 of the Open Systems Interconnect Reference Model. Furthermore, the information gathered from this facility could be shared with Maine and New Hampshire for improved regional enforcement capabilities (The Maine ITS/CVO Business Plan includes provisions for such cooperation).

An important component of the facility will be remotely programmable variable message signs, one in each travel direction at a suitable distance upstream of the facility. These signs will be accessible via cellular telephone.

The estimated cost for this facility is \$875,000. \$700,000, or 80% of the total project cost is requested through this grant application

#### b) Route 2 Improvements between Miles Pond and the Lunenburg Reconstruction Project

Miles Pond is a village in the town of Concord, which borders Lunenburg on the west. VTTrans has an improvement project scheduled for construction in 2002 to improve .5 km of roadway in Lunenburg, beginning approximately 1.1 km east of the Concord / Lunenburg town line. Between this scheduled project and the village of Miles Pond are several other sections of roadway where improvements along the existing alignment are needed. The total distance of this segment is approximately 4.3 kilometers. More information about the exact nature of the improvements needed will emerge from the ongoing study being undertaken with FY99 Border and Corridor funds. The estimated cost for these road improvements is \$2,500,000. \$2,000,000, or 80% of the total project cost is requested throughout this grant application.

## 8. Planning, Programming and Scheduling Status

### Maine

As stated earlier, funding for the pre-construction engineering for the 18.55 km of reconstruction of Route 2 in the Bethel-Gilead area is included in the Department's current Biennial Transportation Improvement Program (BTIP) and Statewide Transportation Improvement Plan (STIP). The project within the State of Maine has been identified in both MDOT's Twenty Year Plan (1998) and the State's first, project specific, Six Year Plan (1998). Additionally, improvements to Route 2 were cited in Maine's first Integrated Freight Plan (1998).

In 1998, the Maine State Legislature asked the Maine Department of Transportation to study the feasibility of constructing a new east-west highway across Maine, as well as possible improvements to the existing international trade corridors.

In support of this study, the Legislature directed the Maine State Planning Office, in cooperation with the Maine DOT, to conduct a study and report on the economic and trade opportunities that could potentially be realized by the State as the result of an east-west highway. The report was released to the public in October 1999.

For the purposes of the study, a number of individual corridor plans were evaluated independently in order to assess their existing conditions and level of performance. Of the five alignments reviewed (2 new alignments and 3 existing corridors), the Route 9/Route 2 corridor (the Northern New England Border Corridor) showed the best cost/benefit ratio for further investment by the State of Maine.

Route 9, between Calais at the Maine/New Brunswick border and Eddington at Route 46, is roughly 137 kilometers long. The route is a designated National Highway System (NHS) Principal Arterial highway. Upgrade of this corridor has been, and continues to be, a priority of MDOT. Much of Route 9 has already been improved to NHS Standard over the course of recent bienniums. Completion of improvements to the corridor is expected by the year 2002. As a result, the great majority of Route 9 described above will have two 12' lanes with 8' paved shoulders. Auxiliary truck climbing lanes have been built in Alexander, Crawford, Wesley, T31, Devereaux, Beddington, T28, Amherst, and Clifton. Additional climbing lanes are programmed for areas in Devereaux, T24, T30, and Wesley. Exceptions will remain in areas where natural constraints prevent cost-effective, environmentally sound improvement.

Traffic counts range from 2,100 vehicles per day in the Beddington area of the corridor to 9,600 in the Calais urban area. Truck traffic accounts for up to 38% of the rural Route 9 traffic. Current capacity of the highway is approximately 24,000 vehicles per day. Average travel speed is on this segment is 83 kilometers per hour. The number of High Accident Locations on this part of Route 9 is small, and few access/mobility conflicts exist between Baring Plantation and Eddington. The land ownership pattern lends itself well to planned and managed access points. Economic activity along the route is primarily forest products-related. Route 9 is Maine's most direct and heavily traveled east-west connection for trucks and passenger vehicles from Bangor to St. Stephen, New Brunswick and ultimately to St. John and the Port of Halifax.

Calais is experiencing strained river-crossing capacity, and discussions between MDOT and local officials have been under way for several years to address this need. A preliminary engineering and environmental documentation project to address border-crossing improvements has commenced in 1999 due to a grant under the FHWA Borders and Corridors Program.

Route 2 in Maine, between Newport near the junction of I-95 and Gilead at the New Hampshire border, is roughly 185 kilometers long. The route is designated as an NHS Principal Arterial highway. 136 kilometers of the route meet the East-West Highway Design Standard, with the remaining 48 kilometers requiring improvement to reach that standard. Roughly half of the mileage needing improvement is prioritized for completion in MDOT's current Six-Year Plan. By 2006, an additional 25.7 kilometers of Route 2 described above will have two 12' wide lanes with paved shoulders 8' wide.

Route 2 is the main travel route from Maine to Burlington, Vermont and other points to the west. Traffic counts range from roughly 24,000 per day in Skowhegan's urban area to 3,100 per day in the Rumford/Bethel area. Truck traffic accounts for as much as 33% of the rural Route 2 traffic. Current capacity of the highway is approximately 25,000 vehicles per day. Travel speeds along the route range from 35 to 55 mph.

A need for access management has been expressed in a number of communities through which Route 2 travels. Retrofitting, where feasible along the route where reconstruction is planned, and management of proposed new access points, are crucial for maintaining the mobility needs of this corridor.

#### New Hampshire

The State of New Hampshire has focused significant attention on its primary east-west corridors. NHDOT has recognized the importance of US Route 2 as a vital east/west trade corridor and has been working cooperatively with the states of Maine and Vermont to plan for the future of this corridor. The NHDOT has adjusted its construction program to accelerate the expansion of this route utilizing increased funding provided by TEA-21. With \$150,000 from the first grant award under the Borders and Corridors program, NHDOT plans to undertake a Route 2 corridor study in cooperation with the Office of State Planning and the North Country Council Regional Planning Commission. This study will be tailored along the recently completed Route 16 Corridor Protection Study and will include working group meetings, community charettes, etc.

The purpose is to develop recommendations for the Route 2 corridor for transportation improvements and complementing land use measures which will maintain and improve the existing highway capacity.

The Route 2 part of the project in Randolph, New Hampshire is included in the current New Hampshire Ten Year Transportation Program with planned construction originally scheduled for 2007. The Route 2 part of the project in Jefferson is included in the Ten Year Transportation Program with planned construction originally scheduled for 2008. The North Country Council Regional Planning Commission, as evidenced by the high priority in their past, present, and future Transportation Improvement Plans,



also supports improvements to Route 2 in New Hampshire. The New Hampshire Department of Transportation has also applied for Transportation Enhancement funds for shoulder improvements along Route 2.

## Vermont

In 1998, the Vermont General Assembly created the "International Trade Corridor Study Committee," to work with Maine and New Hampshire to "coordinate efforts concerning the feasibility of a Route 2 connector that would create an east-west highway corridor among the three states." This committee has been active and reports back to the Vermont State Legislature.

During the past ten years, Vermont has invested about \$2.5 million in the eastern segment of Route 2, mostly in the form of pavement resurfacing. An additional \$2.1 million of capital expenditures for a bridge rehabilitation in Concord and a safety project at a high accident location in Lunenburg are planned during the next five years. Some additional resurfacing is also planned for 2000 and 2001. The net outcome of the current efforts is to make two spot improvements, but otherwise simply to maintain the roadway in its current condition.

In the same time period, about \$10 million has been spent on the segment between St. Johnsbury and Montpelier. In addition, another \$6.5 million of capital expenditures are planned during the next five years. Beyond that, approximately \$31 million of improvements may be found in the capital program for this segment of roadway. However, about half of this last amount is for proposed bypasses around village centers that have been studied over the years. To address the function of this segment of Route 2 as an effective east-west highway, the bypass issues will need to be addressed. Effective traffic calming measures and other alternatives need to be developed and explored in the overall context of the function of the corridor.

In addition, there are seven high accident locations in the Vermont portion of the corridor. Four of these are found in Montpelier, the state capital, where the AADT's are highest. Two are in Lunenburg, and one in Concord. One of the Lunenburg high accident locations, at a sharp curve, is scheduled for treatment in the capital program, with completion by 2001.

In 1995, Vermont completed an ISTEA-compliant long-range transportation plan, which endorsed the project scoping process, as well as strategic capital investment in NHS corridors as important goals. These have, in turn, influenced the construction of the annual capital program and budget. This also represents a construction commitment for the succeeding five year period.

## 9. Current and Projected Traffic Information

Traffic along the corridor has risen steadily over the last ten years. Maine's major east-west U.S./Canadian border crossings have seen two trends developing over the last five years. The number of cars entering Canada from Maine has increased dramatically as compared to those entering the U.S. On the other hand, truck traffic coming into the United States from Canada has risen sharply. The main reason for these trends is the continuing decline in the value of the Canadian dollar versus the United

States dollar. The increase in the number of trucks entering the United States from Canada during the same time period is due to imports of Canadian goods to the United States. In Northern New England, the decline in the Canadian Dollar has made Canadian products more cost competitive with American-made goods. This, along with the implementation of NAFTA in 1993 and the U.S./Canadian Free Trade Agreement in 1989, has caused more Canadian products to be imported into the United States.

1999 Traffic Volumes (AADT) for Route 9 and Route 2

Route 2	Location	Total Volume	Truck Volume	Percent Trucks
<b>Maine</b>				
Route 9	Calais (urban) to Wesley	2400 - 9600	800 - 1100	11 - 33
	Wesley to Beddington	2100 - 2800	800 - 900	32 - 38
	Beddington to Amherst	2600 - 3200	800 - 900	28 - 31
	Amherst to East Eddington	2500 - 4800	800 - 900	19 - 32
Route 2	Newport at I-95 to Skowhegan	3200 - 7200	450 - 650	9 - 14
	Skowhegan (urban)	6000 - 24100	450 - 1550	6 - 8
	Skowhegan to Norridgewock	5700 - 9700	700 - 800	8 - 12
	Norridgewock to Farmington	4000 - 8600	500 - 1050	12 - 13
	Farmington (urban)	7600 - 22400	1050 - 1550	7 - 14
	Farmington to Mexico	4200 - 21600	1400 - 1550	7 - 33
	Mexico-Rumford (urban)	6700 - 14800	400 - 1400	6 - 10
	Rumford to Bethel	3100 - 10300	600 - 700	7 - 19
	Bethel to Gilead	3500 - 6600	600 - 700	11 - 17
<b>New Hampshire</b>				
Route 2	Shelburne	5200	780 - 1040	15 - 20
	Gorham	5400	1080 - 1300	20 - 24
	Jefferson	4213	674 - 842	16 - 20
	Lancaster	10000	1300 - 1600	13 - 16
<b>Vermont</b>				
Route 2	Guildhall	3400	406	12
	Lunenburg	2900	323	12

	Concord	2700	362	13
	Kirby	4000	383	10
	Danville	5500	450	8
	Cabot	3200	258	8
	Marshfield	5600	297	5
	Plainfield	6950	342	5
	E. Montpelier	7400	387	5
	Berlin	8600	320	4
	Montpelier	10400	532	5

#### 10. Financial Information and Projections and Future Funding Requests

The State of Maine has invested significant funds along the Route 9/2 corridor over the last decade. Specifically, \$46.2 million has been invested in the Route 9 corridor from Brewer to Baileyville in recent years in order to upgrade the route to National Highway Standards. On Route 9 in Maine, three projects totaling an additional \$18.9 million investment will be spent upgrading 14.83 km of this route between 1999-2002. These three projects will complete improvements to Route 9 between the Bangor and Calais. From Route 2 in Newport, Maine to the New Hampshire border, 18 reconstruction projects totaling 42.7 km out of the total 187 km have been identified to be reconstructed in order to meet NHS standards. Future state investments in this corridor have been proposed by Governor Angus King in response to the East-West Highway report. They include a new ITS-compatible border crossing in the Calais/St.Stephen area, a Skowhegan area bypass, the purchase of right-of-way along Route 9 to limit access and maintain the function of that roadway, and an extension of I-395 to connect with Route 9.

As part of MDOT's East-West Highway Study, a toll feasibility analysis to finance improvements or the addition of new capacity to Maine's East-West highways (including the Route 9/Route 2 corridor) was undertaken by Wilbur Smith Associates. A copy of the report is included.

In New Hampshire, as part of the Ten Year Statewide Transportation Improvement Program, three projects are planned within the Route 2 corridor. Two of the projects involve maintenance pavement at different locations. The third project involves the upgrade and reconstruction of approximately 4 to 5 km of Route 2. The State of New Hampshire has expended approximately \$10 million over the past two decades for improvements along the 56.9 km Route 2 corridor for projects ranging from resurfacing, to intersection improvements and major reconstruction projects.

The State of Vermont has focused a significant amount of resources on Route 2 as well. As noted previously, approximately \$12.5 million has been expended during the past ten years. Expenditures have included significant amounts of paving as well as a bridge replacement, river bank stabilization, and reconstruction projects in the Danville area. Of equal significance, the present capital program contains approximately \$31 million in capital improvements, although about half of this amount is projected for addressing village bypass issues. Significant paving efforts, in excess of \$7.4 million, are also planned during 2000 and 2001. Vermont's future capital funding requests, as found in the 5-year capital program for the corridor, are \$8.6 million, plus approximately \$31 million during the 20-year planning period.

This proposal, if successfully funded, will build upon past accomplishments and help lay the foundation for future improvements. The Northern New England Border Corridor applied for \$11.996 million in funds under the FY99 program. In May 1999, it was announced that the Corridor was successful in obtaining \$1.5 million towards our effort. \$1 million of FY99 CBI funds are going towards the NEPA process and preliminary engineering for a new ITS/CVO compatible border crossing in the Calais, Maine/St. Stephen, New Brunswick area, as described in our previous application. \$150,000 will be used for a Route 2 corridor study by the New Hampshire Department of Transportation. \$350,000 will be used by the Vermont Agency of Transportation to implement a Route 2 scoping study as outlined in the previous application. Also, the State of Maine has received \$4 million in TEA-21 Demonstration Funds for improvements along Maine's east-west highways.

#### 11. Infrastructure Condition Information

This information is included in the Route 2 project descriptions under Section 7. The average pavement condition rating for Maine State Route 9 from Brewer to Calais is approximately 3.8 on a scale from 0-5.

#### 12. Information Regarding Ownership

All roads throughout the corridor are owned and maintained by the States of Maine, New Hampshire, and Vermont.

#### 13. Maintenance Responsibility

The State Transportation Agencies of Maine, New Hampshire, and Vermont are responsible for all maintenance and operations on this corridor. Once the projects described in this application are completed, they will be included into each State's regular maintenance and operations schedule.

#### 14a. Other Information Needed to Specifically Address the Seven Selection Criteria for NCPD Program Funding

a) The extent to which the annual volume of commercial vehicle traffic at the border stations or ports of entry of each State, has increased since the date of enactment of NAFTA; and is projected to increase in the future.

Since the enactment of NAFTA in 1994, annual volumes of commercial vehicle traffic entering the U. S. at the major Maine border stations have increased as follows: Houlton, Maine 35.7%; Jackman, Maine 15.6%; Calais, Maine 7.5%. Currently, 12,800 vehicles per day cross the US/Canadian border (both directions) at these locations. Of these, 1,500 are commercial trucks. Also, in 1995, 720 trucks a day passed through the Highgate, Vermont border and 670 trucks a day passed through the Derby Line, Vermont border. These are significant amounts for states the size of Maine and Vermont. It is expected that these rates and trends will continue to increase over the next few years as NAFTA is fully implemented between the US and Canada.

According to a forecasting model developed for the Eastern Border Transportation Coalition in 1997, bilateral trade is expected to increase between 4% to 7% over the next twenty years. The impact of these trade flows is expected to cause cross-border truck traffic along the Northern New England border with New Brunswick/Quebec to grow at an average annual rate of 1.5% to 2.8% to the year 2015.

b) The extent to which commercial vehicle traffic in each State has increased since the date of enactment of NAFTA, and is projected to increase in the future.

Between 1994 and 1997, FHWA sources indicate that commercial vehicle traffic has increased in the U.S. about 6.6%. However, the rate of increase over the same period was significantly greater in Northern New England. Statewide statistics for Maine provided by Reebie Associates show that between 1991 and 1997, total tonnage moved by truck increased from 43 million tons to over 77 million tons. Data regarding Maine's major highway artery, the Maine Turnpike (Interstate 95) shows commercial vehicle traffic has increased by 10.6% over the same period.

Truck travel on Maine roads is projected to increase substantially over the next thirty years. According to the East-West Highway Report, total freight carried by truck to and from Maine will exceed 23.8 million tons in both directions by 2015, an increase of more than 8.6 million tons over 1997 levels. Total annual vehicle-hours of truck travel (VHT) on Maine highways are projected to reach 26.8 million in 2015, and grow to 32.6 million hours by 2030. Also, due to the expected rapid growth of Atlantic Canada freight movements to US markets, through truck VHT is expected to grow to 32% of the statewide total in 2030.

c) The extent to which international truck-borne commodities move through each State.

In 1997, exports to Canada from the region were as follows: Vermont-\$2.4 billion, Maine-\$818 million, and New Hampshire-\$667 million. The increase in Canadian exports has been a growing trend in the region. According to the Maine International Trade Center, Maine exports to Canada increased 38% between 1992-1996. Canadian imports to the region were also impressive in 1997. Vermont imported nearly \$4.9 billion in Canadian products, while Maine imported \$2.2 billion in Canadian products and New Hampshire imported \$903 million. For states with relatively small populations, these statistics illustrate the high value of Canadian trade to the Northern New England region.

d) The reduction in commercial and other travel time through a major international gateway or affected port of entry expected as a result of the proposed project.

According to the East-West Highway study, and upgraded Route 9/Route 2 corridor would result in a decreased travel time of 18 minutes from Calais, Maine to the New Hampshire border.

e) The extent of leveraging of Federal funds provided under this subsection, including: use of innovative financing; combination with funding provided under other sections of TEA-21 and Title 23 U.S.C; and combination with other sources of Federal, State, local or private funding including State, local and private matching funds.

This application, if funded, also continues to close the gap on repairs and reconstruction to the Route 9/Route 2 corridor as described above. Also, the three states, comparatively, have lower per-capita incomes and federal highway allocations than the great majority of other states. These factors should be taken into consideration when evaluating this application.

This grant application is a logical extension of this effort. The States of Maine, New Hampshire, and Vermont all pledge to match the funds requested in this application by the required 20%.

f) The value of cargo carried by commercial vehicle traffic, to the extent that the value of the cargo and congestion impose economic costs on the Nation’s economy.

According to a 1996 Bureau of Transportation Statistics study, shipments from Maine to New Hampshire were valued at \$483 million while shipments to Vermont from Maine were valued at \$100 million. Although only a small fraction of total US/Canada trade flows between Northern New England and New Brunswick/Quebec, the value of this trade still totaled nearly \$3 billion in 1995. The total value of cross-border trade between these regions also grew by roughly \$480 million in real terms from 1988 to 1995. However, nearly 72% of that value consisted of Canadian exports to the United States.

g) Encourages or facilitates major multistate or regional mobility and economic growth and development in areas underserved by existing highway infrastructure.

The projects are located in areas having higher unemployment rates and lower per capita income than in other areas of the three states. Improvements to the transportation infrastructure in these areas will help the economy by promoting safer, more efficient access to markets. As stated earlier, while this border corridor does not have traffic volumes as large as some other U.S. border corridors or crossings, it is extremely critical to the regional economy and should be considered in such a context.

15. Amount of NCPD Program and CBI Program Funds Requested

The total amount requested by the States of Maine, New Hampshire, and Vermont equals \$11.7 million in funds under this program. As discussed earlier, since all of these projects are within 100 km of the Canadian border, we believe that this application is eligible under both programs. The States of Maine, New Hampshire, and Vermont have all committed the necessary match to any funds received from the NCPD & CBI programs. The breakdown on a project by project basis is as follows:

Projects	Funds Requested	Matching Funds	NCPD Request	CBI Request
Maine				
Route 2 Reconstruction Gilead	\$ 6 million	\$ 1.5 million	X	X
New Hampshire				
Route 2 Reconstruction and Shoulder Improvements Jefferson-Randolph	\$ 3 million	\$ .75 million	X	X

Vermont				
Route 2 Project	\$2 million	\$ .5 million	X	X
Between Miles Pond and the Lunenburg				
Route 2 CVO Inspection Facility	\$ . 7 million	\$ .175 million	X	X
<b>Total</b>	<b>\$11.7 million</b>	<b>\$2.925 million</b>		

#### 16. Willingness to Accept Partial Funding

Should full funding for the projects proposed in this application be unavailable, we request that financial assistance from these two programs be made available for the Northern New England Border Corridor to the greatest extent possible.

#### 17a. The Priority the States Have Assigned to This Project

The States of Maine, New Hampshire, and Vermont have made this corridor a very high priority. Recent tri-state initiatives have shown the high priority that has been given to improving this corridor by the three states. For example, for the past two years, Maine, New Hampshire, and Vermont have established an excellent working relationship in an effort to develop a cooperative Tri-State Rural Advanced Traveler Information System (RATIS). In addition to the support and participation by the three state transportation agencies, the tri-state RATIS project includes participation from the private sector as well as the state tourism agencies in all three states. The Tri-State Steering Committee will be issuing a Request for Proposals in January 2000 to select private partner(s) to implement RATIS. The committee is also working closely with ITS America & the I-95 Corridor Coalition on this effort. This project will be consistent with the National Architecture and will also be a major influence in establishing the Regional Architecture for the tri-state area, which includes the Route 9/Route 2 corridor described within this application.

#### 18. Public Endorsements

This application has the support of the state governments of all three states involved, as well as the governments of the five neighboring Canadian Provinces of New Brunswick, Newfoundland & Labrador, Nova Scotia, Prince Edward Island, and Quebec. This application is also supported by the Eastern Border Transportation Coalition, the Atlantic Provinces Transportation Commission, the Atlantic Canada Chamber of Commerce, the Alliance of Manufacturers and Exporters Newfoundland, as well as the Maine Chamber and Business Alliance, the Bethel (Maine) Area Chamber of Commerce, the Maine Better Transportation Association, the Associated Constructors of Maine, the Associated General Contractors of Vermont, the Northeast Kingdom (VT) Regional Planning Commission, the Northeastern Vermont Development Association, Vermont Rep. Janice Peasle, Vermont Sen. Robert Ide, the Association General Constructors of New Hampshire, and the North Country (NH) Council Regional Planning Commission.

There is no known opposition to this application.

#### 19. Corridor Plan

Maine's East-West Highway Study adequately addresses many of the components that a proper corridor management plan would include. The FHWA-Maine Division Office has approved using this document as a corridor management plan. A copy of the East-West Highway Study to the Maine State Legislature is attached in the . With \$150,000 in FY 99 Border and Corridor funds, New Hampshire DOT has decided to undertake a Route 2 corridor study. This study will entail improvements necessary for bringing the road up to NHS standards, potential opportunities and impediments, and environmental issues. The Vermont scoping study that was funded with FY 99 Border and Corridor funds will provide a solid baseline to compose an adequate corridor management plan for the Vermont section of Route 2. Taken together, the three reports will represent an adequate corridor management plan.

#### 20. Performance Measures

In support of FHWA and USDOT's strategic plans, such quantifiable measurements such as traffic counts, commercial vehicle counts, and safety data are continually being collected by all three state transportation agencies and can be forwarded to FHWA on a regular basis if deemed necessary

This three-state effort, as described throughout the application, clearly supports the USDOT's strategic goals of safety, mobility, economic growth and trade, and human and natural environment. It also promotes the strategic goals of FHWA: mobility, safety, productivity, and improving human and natural environment.

#### 21. Summary Sheet

A summary sheet is attached.

#### Summary Sheet

GRANTEE: The Maine Department of Transportation, the New Hampshire Department of Transportation, and the Vermont Agency of Transportation

#### U.S. REPRESENTATIVES:

Maine 2nd-Rep. John Baldacci

New Hampshire 2nd-Rep. Charles Bass

Vermont At-Large-Rep. Bernard Sanders

#### SENATORS:

Maine

Sen. Susan Collins

Sen. Olympia Snowe



New Hampshire  
Sen. Judd Gregg  
Sen. Robert Smith

Vermont  
Sen. Patrick Leahy  
Sen. James Jeffords

GOVERNORS:

Maine- Gov. Angus S. King, Jr.  
New Hampshire-Gov. Jeanne Shaheen  
Vermont-Gov. Howard Dean, M.D.

PROJECT:

This Northern New England Border Corridor Application Includes:

- U.S. Route 2 reconstruction project in Gilead, Maine
- U.S. Route 2 reconstruction project in Jefferson-Randolph, New Hampshire and shoulder improvements along Route 2 in New Hampshire
- CVO inspection facility on Route 2 in Lunenburg, Vermont
- U.S. Route 2 project between Miles Pond and Lunenburg, Vermont

FHWA FUNDS REQUESTED:

\$11.7 million total.

Breakdown:

- \$6 million for reconstruction of Route 2 in Gilead, Maine
- \$3 million for reconstruction of Route 2 in Jefferson-Randolph, New Hampshire and shoulder improvements along Route 2 in New Hampshire
- \$.7 million for a CVO inspection facility on Route 2 in Lunenburg, Vermont
- \$2 million for Route 2 project between Miles Pond and Lunenburg, Vermont

OTHER FUNDS COMMITTED:

\$1.5 million in FY 99 Border and Corridor Funds was awarded to this corridor. Maine has committed \$600,00 for preliminary engineering and right-of-way activity for Route 2 in Bethel-Gilead. In addition, New Hampshire has been awarded an earmark of \$1.5 million for a project along the Route 2 corridor. The States of Maine, New Hampshire, and Vermont all pledge to commit to the 20% match required under this application.

OTHER SUPPORT:

This application has the support of the state governments of all three states involved, as well as the governments of the five neighboring Canadian Provinces of New Brunswick, Newfoundland & Labrador, Nova Scotia, Prince Edward Island, and Quebec. This application is also supported by the Eastern Border Transportation Coalition, the Atlantic Provinces Transportation Commission, the Atlantic Canada Chamber of Commerce, and the Alliance of Manufacturers and Exporters Newfoundland. It is also supported by the Maine Chamber and Business Alliance, the Bethel (Maine) Area Chamber of Commerce, the Maine Better Transportation Association, the Northeast Kingdom (VT) Regional Planning Commission, the Northeastern Vermont Development Association, Vermont Rep. Janice Peasle, Vermont Sen. Robert Ide, and the North Country (NH) Council Regional Planning Commission.

There is no known opposition to this application.

**OTHER IMPORTANT INFORMATION:**

New Hampshire DOT recognizes the Route 2 corridor as an important corridor and is committed to promoting intermodal options along Route 2 to encourage bicycle/pedestrian travel. The NH DOT submitted a \$1 million Transportation Enhancement application for shoulder improvements in the current round of applications. The NHDOT is committed to spending the matching amount of \$200,000.