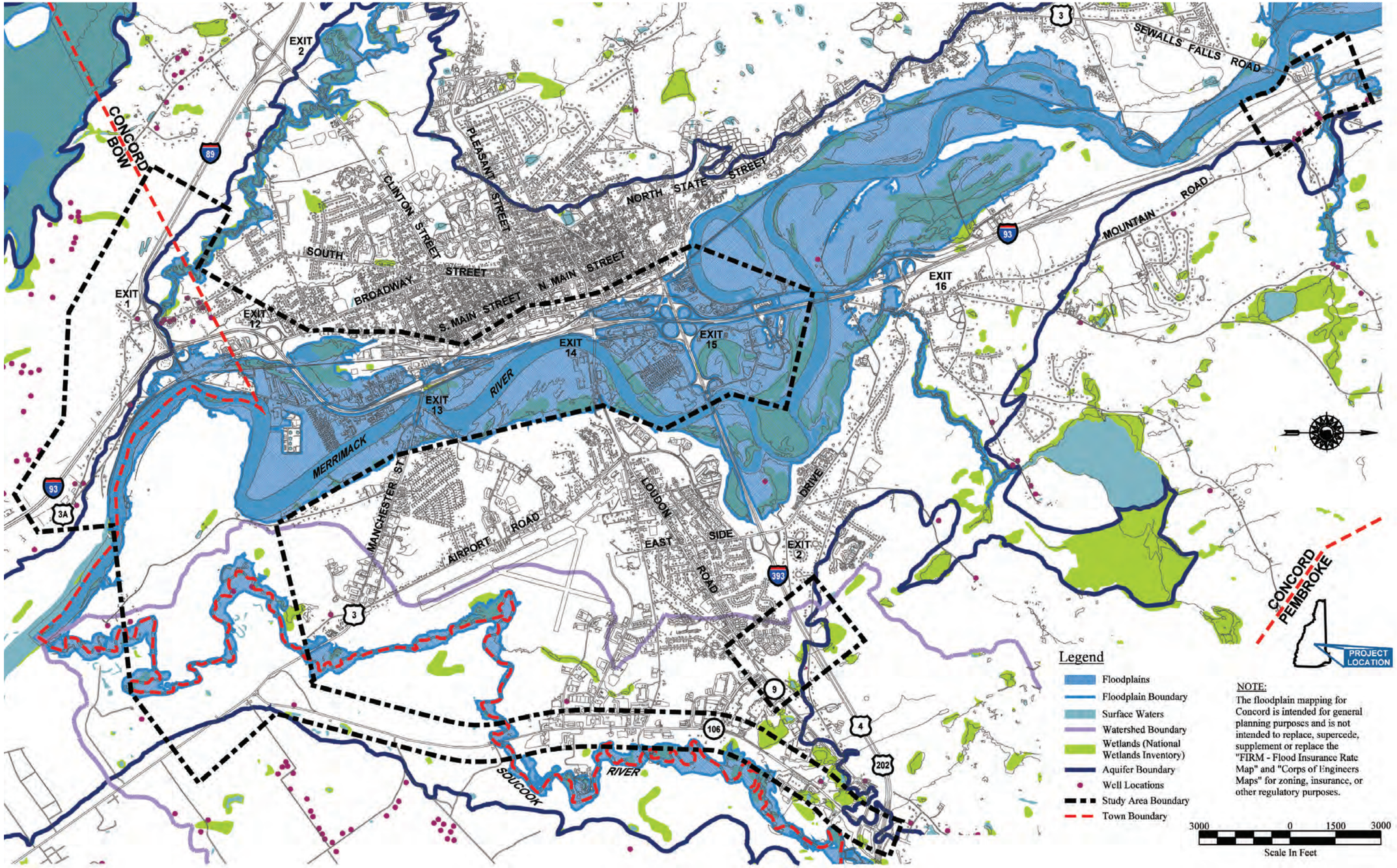
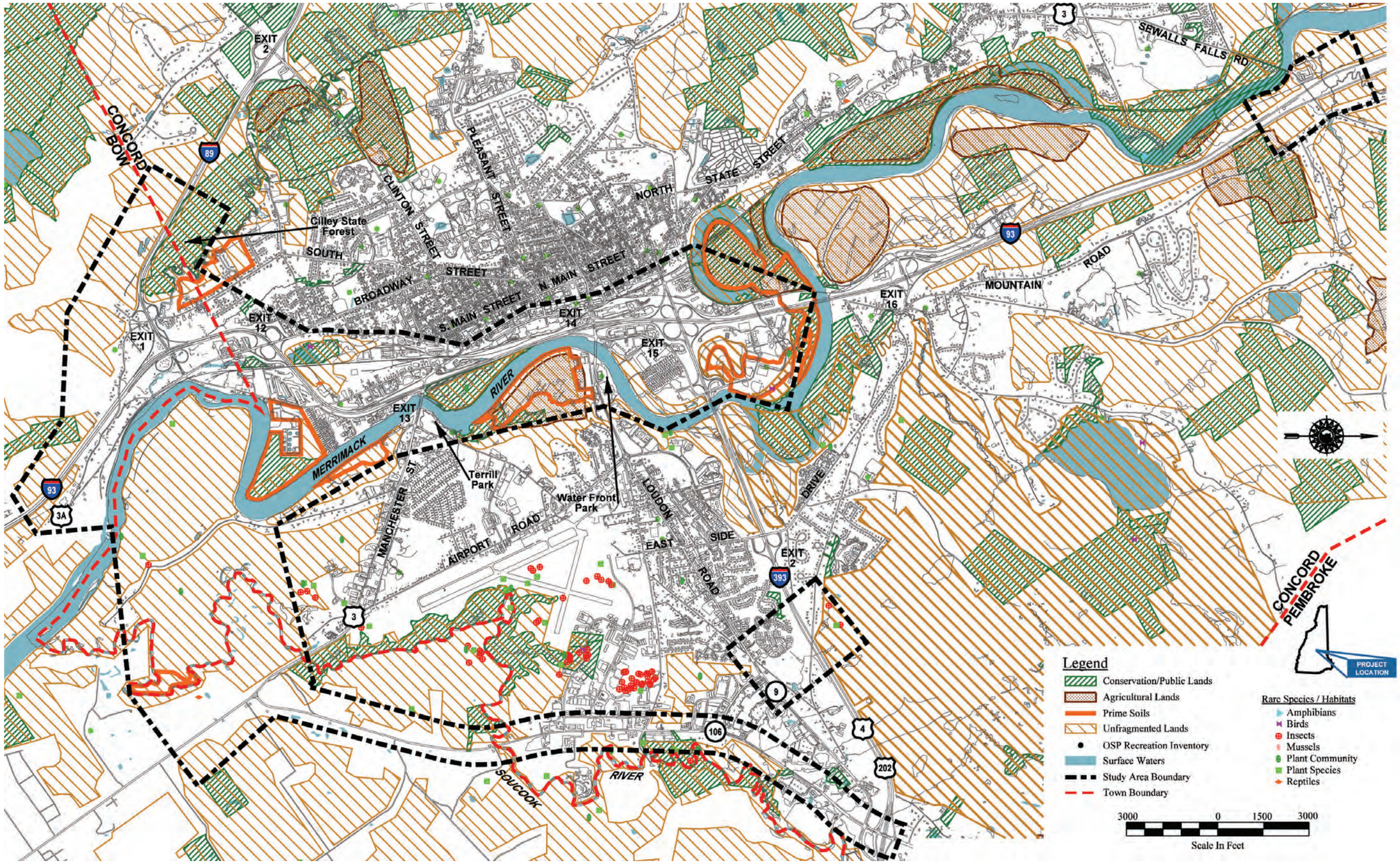
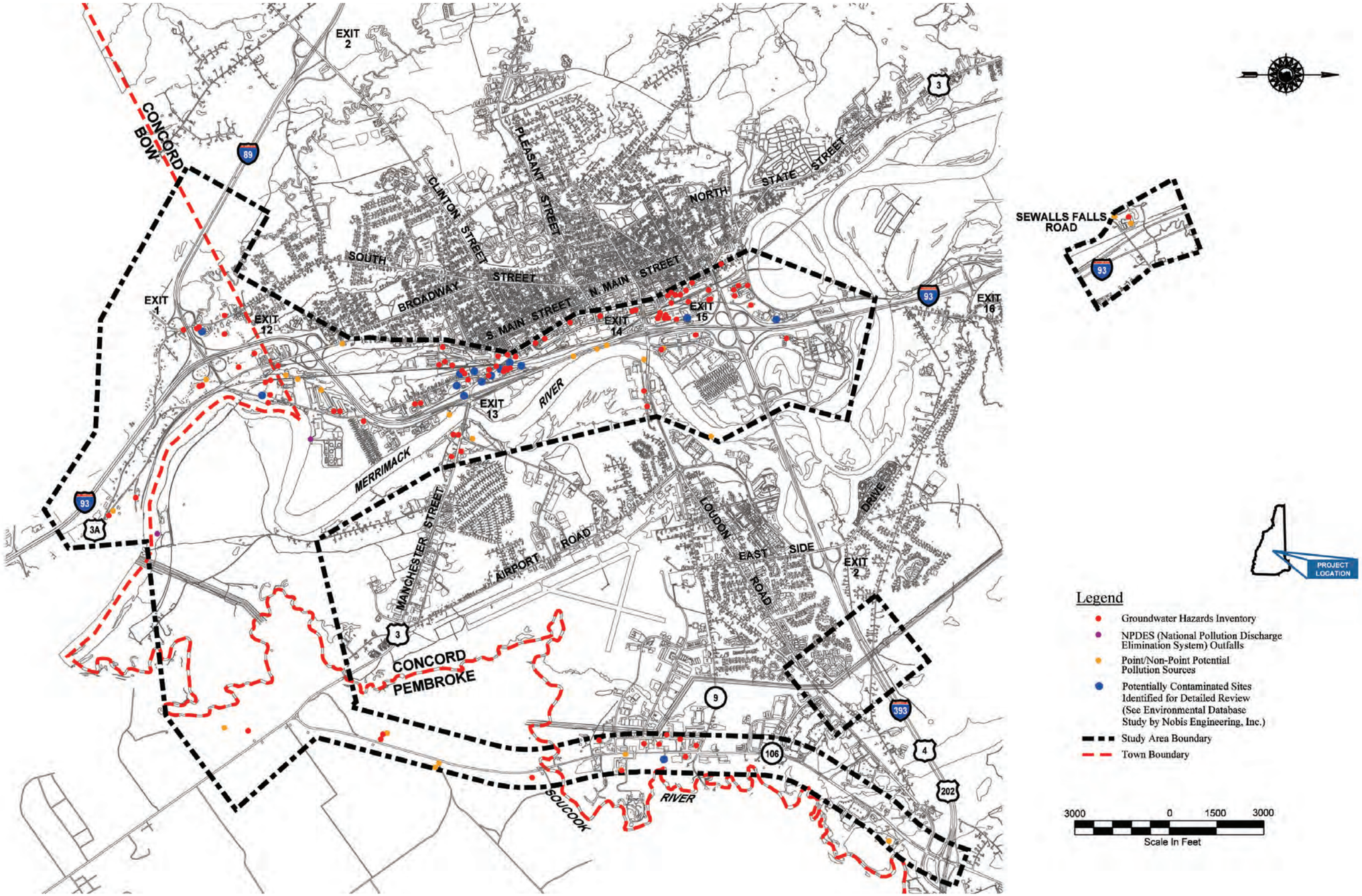
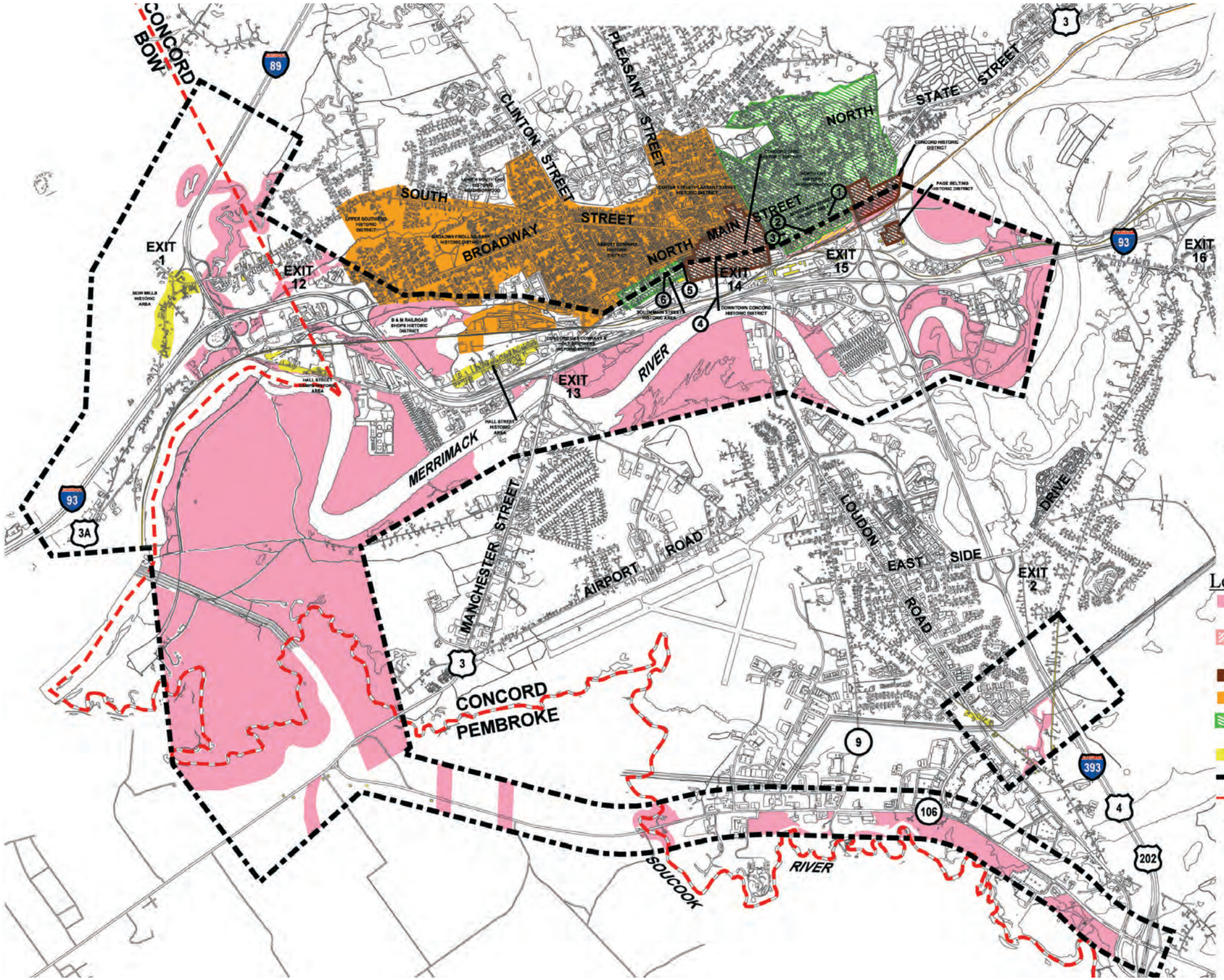
APPENDIX A

Figures 4.2 - 4.5


EXIT 2
CONCORD
BOW
89
EXIT 1
EXIT 12
SOUTH
BROADWAY
CLINTON STREET
PLEASANT STREET
STREET
NORTH STATE STREET
S. MAIN STREET
N. MAIN STREET
EXIT 14
EXIT 13
EXIT 15
EXIT 16
RIVER
MERRIMACK
93
3A
3
SEWALLS FALLS ROAD
MOUNTAIN ROAD
MANCHESTER ST
AIRPORT ROAD
LOUDON ROAD
EAST SIDE DRIVE
EXIT 2
393
9
106
4
202
SOUCOOK
RIVER
CONCORD
PEMBROKE
PROJECT LOCATION
Legend
Floodplains
Floodplain Boundary
Surface Waters
Watershed Boundary
Wetlands (National Wetlands Inventory)
Aquifer Boundary
Well Locations
Study Area Boundary
Town Boundary
NOTE:
The floodplain mapping for Concord is intended for general planning purposes and is not intended to replace, supercede, supplement or replace the "FIRM - Flood Insurance Rate Map" and "Corps of Engineers Maps" for zoning, insurance, or other regulatory purposes.
3000 0 1500 3000
Scale In Feet


EXIT 2
CONCORD
BOW
89
Cilley State Forest
SOUTH
BROADWAY
STREET
CLINTON STREET
PLEASANT STREET
NORTH
STATE STREET
N. MAIN STREET
S. MAIN STREET
EXIT 12
EXIT 1
EXIT 14
EXIT 15
EXIT 16
93
MOUNTAIN ROAD
SEWALLS FALLS RD
3
RIVER
MERRIMACK
EXIT 13
Terrill Park
Water Front Park
MANCHESTER ST
AIRPORT ROAD
LOUDON ROAD
EAST SIDE DRIVE
EXIT 2
393
3A
3
9
106
4
202
SOUCOOK
RIVER
CONCORD
PEMBROKE
PROJECT LOCATION
Legend
Conservation/Public Lands
Agricultural Lands
Prime Soils
Unfragmented Lands
OSP Recreation Inventory
Surface Waters
Study Area Boundary
Town Boundary
Rare Species / Habitats
Amphibians
Birds
Insects
Mussels
Plant Community
Plant Species
Reptiles
3000 0 1500 3000
Scale In Feet


EXIT 2
CONCORD
BOW
89
CLINTON STREET
PLEASANT STREET
NORTH
STATE STREET
3
SEWALLS FALLS ROAD
93
SOUTH
BROADWAY
STREET
N. MAIN STREET
S. MAIN STREET
EXIT 1
EXIT 12
EXIT 14
EXIT 15
EXIT 16
EXIT 13
RIVER
MERRIMACK
3A
MANCHESTER STREET
AIRPORT ROAD
LOUDON ROAD
EAST SIDE DRIVE
EXIT 2
CONCORD
PEMBROKE
9
393
106
4
202
SOUCOOK
RIVER
PROJECT LOCATION
Legend
Groundwater Hazards Inventory
NPDES (National Pollution Discharge Elimination System) Outfalls
Point/Non-Point Potential Pollution Sources
Potentially Contaminated Sites Identified for Detailed Review (See Environmental Database Study by Nobis Engineering, Inc.)
Study Area Boundary
Town Boundary
3000 0 1500 3000
Scale In Feet



Note:
The location of existing or potential cultural resources shown on this map were determined from limited research and field review and are intended for planning purposes only.

Legend

- Areas of Sensitivity For Pre-Contact Native American Archeological Resources
- Insufficient Data Available to Assign Archeological Sensitivity
- Listed On The National Register
- Determined Eligible for The National Register
- Potential Historic District (Including Resources Listed on the National Register)
- Historically Sensitive Area or Resource
- Study Area Boundary
- Town line Boundary
- (4) Historic Resource Identifier (See Historic Resources Report)

2500 0 1250 2500
Scale In Feet

APPENDIX B

Transportation Modeling

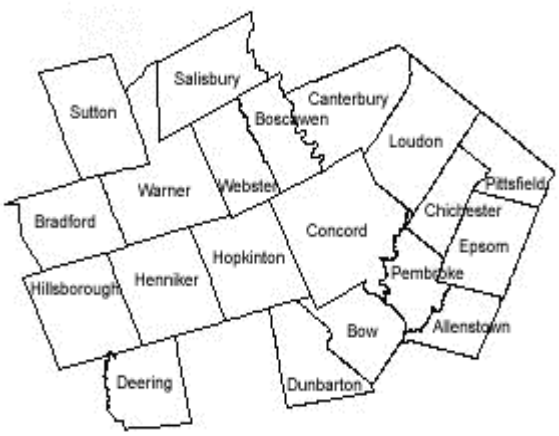
Transportation Modeling

1 Introduction

The following section describes the transportation forecasting model used in the Bow-Concord study. There is a discussion of modifications made to the existing model along with a description of the analyses performed.

2 CNHRPC Model

The travel demand model used for the Bow-Concord study was developed by Resource Systems Group (RSG) for the CNHRPC in 2004. It produces forecasts for both an AM peak hour and a PM peak hour. Only the PM peak hour model was used during the Bow-Concord Study screening process because it was closest to the design hour.



The model encompasses the entire region including the towns of Allenstown, Boscawen, Bow, Canterbury, Chichester, Concord, Dunbarton, Epsom, Hopkinton, Loudon, Pembroke, and Webster. The model geography is broken into 214 internal transportation analysis zones (TAZs) and 26 external zones which is a relatively high level of dissagregation. The model is calibrated to the 3rd Friday in July, 2000 and meets the Federal Highway Administration guidelines for model calibration.[1]

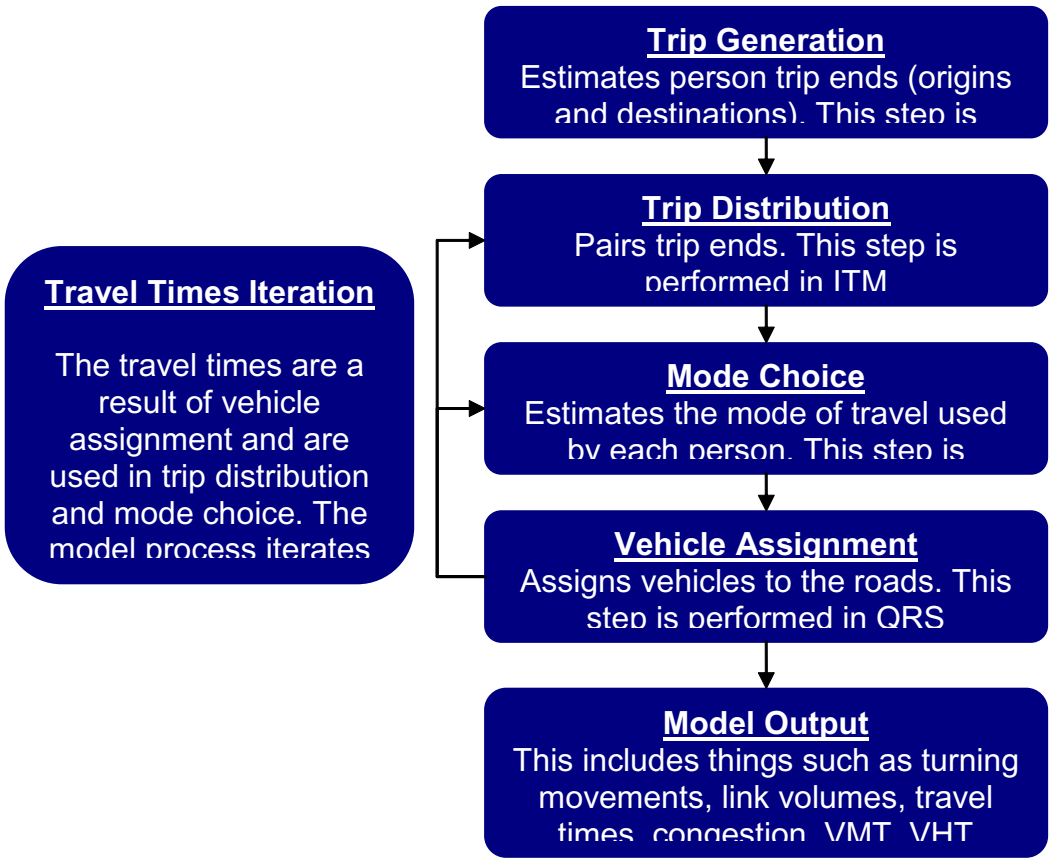
This date corresponds to the 30th highest hourly volume on the corridor. The following is a brief overview of the model. A more complete documentation is found in the July 2004 "Documentation of the Concord Travel Demand Model" available from the CNHRPC.

The travel demand model follows a conventional 4-step process: trip generation, trip distribution, mode choice, and traffic assignment. The purpose of each step is outlined below.

- Trip Generation - The trip generation step calculates the number of person-trips originating in and destined for each zone (Origins and Destinations).
- Trip Distribution - The trip distribution step combines the origins and destinations for each zone resulting in a person trip table for each of the trip purposes (home to work, work to home, home to non-work, non-home based, etc.). There are a specific number of trips from each zone to each zone for each of the trip purpose categories.
- Mode Split - The mode split step estimates the mode of transportation that will be used for each trip based on the availability and mode specific parameters such as time, cost, and availability and frequency of transit. Modes in the CNHRPC model include auto, carpool, bus, and walk/bike.
- Traffic Assignment - The traffic assignment step locates the route that a vehicle trip will take and assigns the trips to the network. This process takes congestion into account along with travel distance.

The software used in the CNHRPC model is a combination of the commercially available Quick Response System (QRS) II, software developed by Resource Systems Group called ITM (Integrated Transportation Model), and Excel. Figure B1 below shows the process:

Figure B1 – Modeling Process



The process of calibration involves comparing the model output to observed conditions for the period being modeled. The most common method of assessing calibration is to compare auto volumes to actual auto intersection or roadway counts. There are several methods for assessing calibration outlined in the FHWA guidelines. These include correlation coefficient, percent region-wide error, and sum of differences by functional class.

The coefficient of correlation, "r", is commonly used to measure the strength and direction between two sets of variables. An r value of 1.0 would indicate a perfect one to one correlation between the two variables, an r value of 0 would indicate a completely random correlation, and an r value of -1 would indicate a perfect inverse correlation. FHWA recommends a minimum r-value of 0.88. The value of r can be estimated using the following formula.

$$r = \frac{\sum(x \cdot y) - n \cdot \bar{x} \cdot \bar{y}}{\sqrt{\left(\sum(x^2) - n \cdot \bar{x}^2\right)\left(\sum(y^2) - n \cdot \bar{y}^2\right)}}$$

The region-wide absolute error is the absolute value of the average, unweighted error. It reflects the average link error in the network and is reflected in the following formula:

$$\text{Absolute Error} = \frac{\sum |y - x|}{\sum x} \times 100\%$$

The FHWA standard for region-wide error is +/- 5%. Finally, the sum of differences is the average error of the network. It is similar to FHWA's "percent error region-wide standard"[2]

$$\text{SumDif} = \sum (y - x) \quad \text{or} \quad \frac{\sum (\text{y - x})}{n} \times 100\%$$

The table below shows the FHWA recommendations for the sum of differences as well as the model performance along all metrics for both the AM and PM model.

	FHWA Guideline	Concord AM Model	Concord PM Model
Correlation Coefficient	0.88	0.96	0.98
Percent Error Region-Wide	5%	-3.61%	-1.34%
Sum of Differences By Functional Class			
Freeways	7%	-2.59%	3.46%
Principal Arterials	10%	-3.51%	1.21%
Minor Arterials	15%	-9.60%	-8.65%
Collectors	25%	-1.30%	0.39%

As is evident from the table, the model greatly exceeds the FHWA standards and is highly calibrated for the region.

---

3 Base Year 2000 Model

The CNHRPC 2000 calibrated travel demand model was slightly modified for use in the Bow-Concord Study. There were two primary alterations made. The first was a change to the external-to-external flows of traffic. This is traffic that travels through the model (and through the study area) without stopping. Since the CNHRPC model was calibrated, additional data became available from the NHDOT statewide model exercise. A trip table of trips was generated by the statewide model and used to adjust existing data in the CNHRPC model. The total external trips stayed much the same as the CNHRPC model because they were calculated based on ground counts and thus considered highly accurate. The distribution of origins and destinations, however, did change slightly.

The second change was made to the delay parameters. The CNHRPC model was calibrated to the base year but had not been widely used for future year analysis (in forecasting mode). When the 2030 land use was developed and run through the model, it was realized that some delay parameters produced excessive delays beyond what would be reasonable. RSG recalibrated the model to both represent the base year correctly and better represent reasonable future delays. The revised parameters are shown below in Table B1.

Table B1 – Modeling Parameters

Old Parameters	Freeway	Expressway	Major	Minor	Collector	Local	Other
VC Multiplier	1.65	1.65	1.00	0.40	0.30	0.40	0.40
VC Exponent	4.00	4.00	4.00	4.00	4.00	4.00	4.00

New Parameters	Freeway	Expressway	Major	Minor	Collector	Local	Other
VC Multiplier	0.83	.071	.071	.071	0.71	0.71	0.71
VC Exponen	5.50	2.10	2.10	2.10	2.10	2.10	2.10

Neither of these changes alters the calibration of the model. They both provide additional credibility to the use of the model in this study. See Figure 2.1 in the Summary/Classification Report for the Base Year 2000 design hour traffic volumes.

4 Design Year 2030 No Build

Year 2030 was used as the future design year for analyzing all scenarios. The design year is typically 20 years beyond the anticipated end of construction for the project. One of the important exercises under the NEPA requirements is to establish the "no build" condition.

This involves several steps:

- Establish the future land use
- Establish the external trip making
- Run the model and look for extreme congestion

The following text describes the methodology used for each of these steps.

4.1 2030 Land Use

The first step in this process is to establish the future land use. This can be performed in any number of ways. For the purposes of this study, a two-step strategy was used to establish the 2030 land use. The first step was to develop a reasonable estimation of the total growth that would occur throughout the region. This was developed Applied Economic Research, who evaluated project economy, and reviewed by a technical subcommittee of the Technical Review Committee. The subcommittee had members from the CNHRPC, the City of Concord, the Town of Bow, NHDOT and other resource agencies. This process established the "control totals" to be allocated throughout the region. Control Totals are the total number of jobs and housing units that will exist in the region in 2030.

The second step was to allocate these control totals to individual towns and ultimately to transportation analysis zones. Fortunately, the City of Concord was in the process of developing their master plan. City staff worked with citizen task force members to

establish and refine the housing and employment numbers for the City. The CNHRPC took responsibility for the remainder of the region. CNHRPC staff visited with planning and zoning boards from each of the towns and established a TAZ level distribution of the new housing and employment. These numbers were merged with the City data to establish one consistent 2030 land use forecast. Table B2 on the next page shows the results of this effort:Table B2 – 2030 Land Use Forecast

Table B2 - 2030 Land Use Forecast

Municipality	2000 Housing	2000	2030 Housing	2030	Housing	Employment Difference
Municipality	2000 Housing	2000				
Allenstown	1962	1040	2645	1872	683	832
Boscawen	1295	1760	1971	3092	676	1332
Bow	2330	4741	3869	10070	1539	5329
Canterbury	838	336	1518	606	680	270
Chichester	849	729	1450	1172	601	443
Concord	17043	46423	23110	87518	6067	41095
Dunbarton	864	244	1486	688	622	444
Epsom	1592	1387	2816	2273	1224	886
Hopkinton	2210	2206	3042	3537	832	1331
Loudon	1684	1826	2912	2716	1228	890
Pembroke	2734	2600	3782	3931	1048	1331
Webster	569	113	1394	138	825	25
Total	33,970	63,405	49,995	117,613	16,025	54,208

This represents a 47% increase in housing and an 85% increase in employment for the region from 2000 to 2030.

4.2 2030 External Trip-Making

The CNHRPC model, like most models of its kind, operates on a "production constrained" basis. This means that the addition of housing units will generate new trips (people in houses produce trips so houses are classified as productions). It also means that the addition of new employment locations will compete for existing trips rather than generate new trips. If the modeler feels that new trips will be generated by a newly proposed employment center then either more housing can be assumed, trip generation rates can be increased, or the difference can be made up with external trip-making.

In the case of the 2030 land use, because the regional housing total grew by 47% and the employment grew by 85%, there were a disproportionate number of opportunities (attractions) given the number of housing units (productions). RSG has a reasonably high level of confidence in these forecasts given the planning effort that went into generating these numbers. For this reason, the difference in trip-making was accounted for with trips coming from outside the region. In essence, it was assumed that there would be an increase in the number of people living outside the region, commuting into the region in the morning for work, and commuting home in the evening. In addition, these people would avail themselves of other opportunities throughout the day such as shopping or entertainment.

A 1.25% per year compounded growth rate was applied to the external trips between the year 2000 and the year 2030. In keeping with shift in external-to-internal and internal-to-external trip-making discussed above, a multiplier of 1.56 was applied to productions and a multiplier of 0.476 was applied to attractions. This has the desired effect of maintaining the year 2000 equivalent trip rates in both region wide housing and employment for the year 2030.

4.3 Run Model and Look for Congestion

After the new land use and external trip-making were established, the model was run with the 2000 transportation network (roads and intersections). It is common for the number of trips generated by the new land use to overwhelm parts of the network. RSG is currently working with a new transportation model and different housing and employment data than was available when the current list of planned roadway improvements was envisioned. This inevitably leads to different estimates of future use and possible congestion. In certain cases, it is necessary to alleviate the congestion by assuming an increase in capacity so that the flow of traffic becomes more reasonable. These assumed improvements are not in the study area but will allow us to more accurately forecast the flow of traffic in the study area.

The following improvements were assumed for the 2030 network.

- US 3 (Pembroke Street) widened to 4 lanes (doubled the capacity) between Old Turnpike Road and Airport Road.
- Route 4/US 202 East from I-393 to the eastern end of the model widened to 4 lanes (doubled the capacity).
- Intersection control was modified at the following intersections:
    - King Road onto Route 4/US 202
    - Horse Corner Road onto Route 9
    - Route 107 North onto Route 4/202
    - North Pembroke Road onto Route 28

See Figure 2.2 in the Summary/Classification Report for the No Build 2030 design hour traffic volumes.

(Footnotes)

[1]Ismart, Dane. Calibration and Adjustment of System Planning Models. U.S. Department of Transportation, Federal Highway Administration Publication FHWA-ED-90-015. Washington, DC, December 1990.

[2] "Calibration and Adjustment of System Planning Models", December 1990, FHWA ED 90-015, page 35.

APPENDIX C

Planning Group, TRC and TRC Members

Planning Group

The Planning Group is a stakeholder group comprised of representatives from transportation, planning and resource agencies and organizations. The members are as follows:

Mike Donovan	City of Concord, Mayor
Tom Aspell	City of Concord, City Manager
Nan Hagen	Main Street Concord
Philip Hastings	City of Concord Citizen Member
Bill McGonagle	City of Concord Citizen Member
Tom Raffio	City of Concord Citizen Member
Steve Buckley	CNHRPC Executive Committee
Sharon Wason	CNHRPC, Executive Director
Bill Norton	Concord 2020
Pat Sherman	Concord 2020
Mickey McIver	Concord Area Transit
Harry Blunt	Concord Trailways
Tom Irwin	Conservation Law Foundation
Bill O'Donnell	Federal Highway Administration
Michael McDonough	Pan Am Railways
Maura Adams	Jordan Institute
Terry Johnson	Livable Walkable Communities
Peter Dearness	New England Southern Railroad
Alice Desouza	NH Division of Travel and Tourism Development
Carolyn Russell	NH Department of Environmental Services
Don Lyford	NH Department of Transportation
Dan Lynch	NH Fish & Game
Jim McConaha	NH Historic Preservation Office
Chris Northrop	NH Office of Energy and Planning
Rusty McLear	Private Sector Tourism
Howard Moffett	River Connection
Will Abbott	Society for the Protection of NH Forests
Bill Klubben	Town of Bow, Director of Planning & Econ. Devel.
Eric Anderson	Town of Bow, Selectman
Laura Scott	Town of Pembroke, Director of Planning & Econ. Devel.
Brian Tufts	Town of Pembroke, Selectman
Rich Roach	US Army Corp. of Engineers
Rosemary Monahan	US Environmental Protection Agency
Bill Neidermyer	US Fish & Wildlife

Technical Review Committee

The Technical Review Committee (TRC) was comprised of staff from transportation, planning and resource agencies. The members were as follows:

NHDOT	Don Lyford, Project Manager
NHDOT	Ansel Sanborn, Bureau of Planning Administrator
NHDOT	Bill Hauser, Bureau of Environment Administrator
NHDOT	John Butler, Highway Design
NHDOT	Mark Hemmerlein, Environment
NHDOT	Subramanian Sharma, Planning
McFarland Johnson	Gene McCarthy, Project Manager
McFarland Johnson	Jed Merrow, Environmental Lead
McFarland Johnson	Chris Bowler, Traffic Engineer
City of Concord	Doug Woodward, City Planner
City of Concord	Roger Hawk, Director of Community Development
City of Concord	Stephen Henninger, Assistant City Planner
Town of Bow	Bill Klubben, Community Dev. Dir.
Town of Pembroke	Walter Norris, Public Works Director
Concord 20/20	Amy Sheridan, Executive Director
Regional Planning Commission	Kerrie Diers, Executive Director
Regional Planning Commission	Michael Tardiff, Planner
Regional Planning Commission	Nick Alexander, Planner
Federal Highway Administration	Dick Lemieux
Federal Highway Administration	William O'Donnell
Army Corps of Engineers	Richard Roach
US fish & Wildlife	William Neidermyer
Environmental Protection Agency	Rosemary Monahan
Environmental Protection Agency	Mark Kern
NH Department of Environmental Services	Gino Infascelli
NH Department of Environmental Services	Carolyn Russell
NH Fish & Game	Bill Ingham
NH State Historic Preservation Office	James McConaha
NH Office of State Planning	Joanne Cassulo
Federal Transit Administration	Peter Butler
Federal Railroad Administration	Terry Robbins
Concord Area Transit	Mickey McIver
Concord Trailways	Harry Blunt
Concord Trailways	Ken Hunter
Guilford Rail System	George Thayer
New England Southern Railroad	Peter Dearness

Citizens Advisory Task Force

The Citizen Advisory Task Force (CATF) was a citizens committee with members from Bow, Concord, Pembroke, and the Central NH Regional Planning Commission. The members were as follows:

City of Concord	Nan Hagen, Executive Director, Main Street Concord
City of Concord	Philip Hastings, Esq.
City of Concord	Thomas Raffio, President, Delta Dental
City of Concord	William McGonagle, Concord Ward 7 Councilor and Planning Board Member
City of Concord	James Bouley, Concord Ward 10 Councilor
Town of Bow	Eric Anderson, Selectman
Central NH Regional Planning Commission	Stephen Buckley
Town of Pembroke	Brian Tufts, Selectman
Concord 2020	Pat Sherman

APPENDIX D

Alternative Screening

SCREENING SUMMARY
NO BUILD ALTERNATIVE

The No Build Alternative is the do nothing option that is used for comparison to the build alternatives. The screening assumes no new facilities are constructed as part of the I-93 Project.

Category	Score					
Access		X				
Aesthetics			X			
Community Resources			X			
Community Vision		X				
Economic Vitality		X				
Historic and Archeological Resources			X			
Implementation					X	
Mobility	X					
Natural Environment		X				
Public Health		X				
Quality of Life		X				
Residential Neighborhoods		X				
Safety	X					
Support		X				
Transportation Choice		X				

The No Build Alternative is required by NEPA for comparison purposes and therefore must be carried forward.	**Required**

DETAILED SCREENING
NO BUILD ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.		X			
Evaluate the access provided to and from tourist destinations.	X				
Comments: Congestion on I-93 would reduce access. Category Score		X			

DETAILED SCREENING
NO BUILD ALTERNATIVE

Aesthetics	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.		X			
Comments: No measurable impact. Category Score			X		

Community Resources	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
NO BUILD ALTERNATIVE

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.					
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.		X			
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: The No Build is not compatible with most community plans or visions. Category Score		X			

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Concord's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.		X			
Evaluate the effects to anticipated economic initiatives in Bow.		X			
Evaluate the effects to anticipated economic initiatives in Concord.		X			
Evaluate the effects to anticipated economic initiatives in Pembroke.		X			
Evaluate the potential impacts to regional economic prospects.		X			
Comments: Congestion has a negative impact on economic vitality throughout the region. Category Score		X			

DETAILED SCREENING
NO BUILD ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.			X		
Comments: No impacts. Category Score			X		

Implementation	Score				
Evaluate the cost.					X
Evaluate the ability to implement in phases over a period of time.					X
Evaluate the ability to maintain mobility and access during construction.					X
Comments: The No Build requires no implementation. Category Score					X

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.	X				
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.	X				
Evaluate the effectiveness to provide for the movement of goods and services in the region.		X			
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.		X			
Comments: Expected growth would substantially degrade mobility throughout the region. Category Score	X				

DETAILED SCREENING
NO BUILD ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: The No Build provides no opportunity to alleviate existing negative impacts on the natural environment. Category Score		X			

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.		X			
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.		X			
Comments: Congestion would degrade air quality in the future. Category Score		X			

DETAILED SCREENING
NO BUILD ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.		X			
Evaluate the effect on the Quality of Life for those traveling through the region.	X				
Evaluate the effect on noise levels.		X			
Comments: Doing nothing would degrade the quality of life of the region by not addressing traffic congestion. Category Score		X			

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.		X			
Evaluate the effect on planned or developing residential neighborhoods.		X			
Comments: Increased congestion on local roads would have a negative impact on neighborhoods. Category Score		X			

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.	X				
Evaluate the effectiveness to improve safety on I-89.	X				
Evaluate the effectiveness to improve safety on I-393.	X				
Evaluate the effectiveness to improve safety on local streets.		X			
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.		X			
Comments: The No Build would not address existing safety issues and increased traffic and congestion would be expected to make these safety issues much worse. Category Score	X				

DETAILED SCREENING
NO BUILD ALTERNATIVE

Support	Score				
Evaluate the support from the public in Bow.		X			
Evaluate the support from the public in Pembroke.		X			
Evaluate the support from the public in Concord.	X				
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.	X				
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.		X			
Comments: There is opposition to doing nothing. Category Score		X			

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.	X				
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.		X			
Evaluate the effectiveness to integrate all modes of transportation		X			
Comments: No provisions to help promote transportation choice. Category Score		X			

SCREENING SUMMARY

TRAVEL DEMAND MANAGEMENT ALTERNATIVE

The Travel Demand Management (TDM) Alternative proposes a variety of initiatives to decrease the demand on the transportation system without expanding the roadway network, these include:

- Ride Sharing
- Alternative modes (bus rail, etc.)
- Vanpools
- Shifting work hours
- Congestion pricing of tolls
- Tele-commuting
- Increased enforcement

Category	Score					
	●	◒	●	◒	●	
Access		X				◒
Aesthetics			X			●
Community Resources			X			●
Community Vision		X				◒
Economic Vitality		X				◒
Historic and Archeological Resources			X			●
Implementation		X				◒
Mobility		X				◒
Natural Environment		X				◒
Public Health				X		◒
Quality of Life		X				◒
Residential Neighborhoods		X				◒
Safety		X				◒
Support		X				◒
Transportation Choice				X		◒

The TDM Alternative is required because it is typically an alternative or a component of an alternative in an environmental document.	**Required**

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.		X			
Evaluate the access provided to and from tourist destinations.	X				
Comments: Congestion on I-93 would reduce access. Category Score		X			

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

Aesthetics	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: No measurable impact. Category Score			X		

Community Resources	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

Community Vision	Score				
	🔴	◒	🟡	◓	🟢
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.					
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.		X			
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: TDM is not compatible with most community plans or visions. Category Score		X			

Economic Vitality	Score				
	🔴	◒	🟡	◓	🟢
Evaluate the potential impacts to Bow's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Concord's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.		X			
Evaluate the effects to anticipated economic initiatives in Bow.		X			
Evaluate the effects to anticipated economic initiatives in Concord.		X			
Evaluate the effects to anticipated economic initiatives in Pembroke.		X			
Evaluate the potential impacts to regional economic prospects.		X			
Comments: Congestion has a negative impact on economic vitality throughout the region. Category Score		X			

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.			X		
Comments: No impacts. Category Score			X		

Implementation	Score				
Evaluate the cost.		X			
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.		X			
Comments: TDM strategies could be difficult to implement because of restrictions on the use of gas tax funds for other than roadway projects. Category Score		X			

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.		X			
Evaluate the effectiveness to provide for the movement of goods and services in the region.			X		
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.			X		
Comments: Expected growth would degrade mobility throughout the region. Category Score		X			

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: TDM provides little opportunity to alleviate existing negative impacts on the natural environment. Category Score		X			

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Reduced use of single passenger vehicles could improve public health. Category Score				X	

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.		X			
Evaluate the effect on the Quality of Life for those traveling through the region.	X				
Evaluate the effect on noise levels.		X			
Comments: TDM alone would degrade the quality of life for those in the region by not addressing traffic congestion. Category Score		X			

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.		X			
Evaluate the effect on planned or developing residential neighborhoods.		X			
Comments: Increased congestion on local roads would have a negative impact on neighborhoods. Category Score		X			

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.	X				
Evaluate the effectiveness to improve safety on I-89.	X				
Evaluate the effectiveness to improve safety on I-393.	X				
Evaluate the effectiveness to improve safety on local streets.		X			
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.		X			
Comments: TDM would not correct existing safety issues and increased traffic and congestion would be expected to make these safety issues worse. Category Score		X			

DETAILED SCREENING
TRAVEL DEMAND MANAGEMENT ALTERNATIVE

Support	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the support from the public in Bow.		X			
Evaluate the support from the public in Pembroke.		X			
Evaluate the support from the public in Concord.	X				
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.	X				
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.		X			
Comments: There is opposition to implementing TDM alone. Category Score		X			

Transportation Choice	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.					X
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.					X
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.				X	
Evaluate the effectiveness to expand bus service in the region.					X
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.				X	
Evaluate the effectiveness to integrate all modes of transportation					X
Comments: TDM promotes the use of other modes of transportation. Category Score				X	

SCREENING SUMMARY

TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

The Transportation System Management (TSM) Alternative proposes a variety of short-term, low cost measures to reduce congestion and improve safety on the transportation system, these may include:

- New traffic signals
- Turn lanes
- Intelligent Transportation Systems
- Re-striping lanes
- Ramp metering
- Ramp modifications

Category	Score					
Access		X				
Aesthetics			X			
Community Resources			X			
Community Vision		X				
Economic Vitality		X				
Historic and Archeological Resources			X			
Implementation				X		
Mobility		X				
Natural Environment		X				
Public Health			X			
Quality of Life		X				
Residential Neighborhoods		X				
Safety				X		
Support			X			
Transportation Choice		X				

The TSM Alternative is required because it is typically an alternative or a component of an alternative in an environmental document.	**Required**

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.		X			
Evaluate the access provided to and from tourist destinations.	X				
Comments: Congestion on I-93 would reduce access. Category Score		X			

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Aesthetics	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: No measurable impact. Category Score			X		

Community Resources	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Community Vision	Score				
	🔴	◒	🟡	◓	🟢
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.			X		
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: TSM is not compatible with most community plans or visions. Category Score		X			

Economic Vitality	Score				
	🔴	◒	🟡	◓	🟢
Evaluate the potential impacts to Bow's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Concord's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.		X			
Evaluate the effects to anticipated economic initiatives in Bow.		X			
Evaluate the effects to anticipated economic initiatives in Concord.		X			
Evaluate the effects to anticipated economic initiatives in Pembroke.		X			
Evaluate the potential impacts to regional economic prospects.		X			
Comments: Congestion has a negative impact on economic vitality throughout the region. Category Score		X			

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.			X		
Comments: No impacts. Category Score			X		

Implementation	Score				
Evaluate the cost.				X	
Evaluate the ability to implement in phases over a period of time.				X	
Evaluate the ability to maintain mobility and access during construction.				X	
Comments: TSM strategies are relatively simple to implement and are often first phase projects for a longer term project.. Category Score				X	

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.		X			
Evaluate the effectiveness to provide for the movement of goods and services in the region.			X		
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.			X		
Comments: Expected growth would degrade mobility throughout the region. Category Score		X			

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Natural Environment	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: TSM provides little opportunity to alleviate existing negative impacts on the natural environment. Category Score		X			

Public Health	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.			X		
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: No measurable impact on public health. Category Score			X		

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.		X			
Evaluate the effect on the Quality of Life for those traveling through the region.	X				
Evaluate the effect on noise levels.		X			
Comments: TSM alone would degrade the quality of life for those in the region by not addressing traffic congestion. Category Score		X			

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.		X			
Evaluate the effect on planned or developing residential neighborhoods.		X			
Comments: Increased congestion on local roads would have a negative impact on neighborhoods. Category Score		X			

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.				X	
Evaluate the effectiveness to improve safety on I-89.				X	
Evaluate the effectiveness to improve safety on I-393.				X	
Evaluate the effectiveness to improve safety on local streets.			X		
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.		X			
Comments: TSM has the potential to address the existing safety issues. Category Score				X	

DETAILED SCREENING
TRANSPORTATION SYSTEM MANAGEMENT ALTERNATIVE

Support	Score				
Evaluate the support from the public in Bow.			X		
Evaluate the support from the public in Pembroke.			X		
Evaluate the support from the public in Concord.			X		
Evaluate the support from the public in the other communities in the Central NH Region.			X		
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.			X		
Evaluate the support from resource agencies.			X		
Evaluate the support from resource groups.			X		
Comments: Category Score			X		

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.		X			
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.		X			
Evaluate the effectiveness to integrate all modes of transportation		X			
Comments: No provisions to help promote transportation choice.. Category Score		X			

SCREENING SUMMARY

OPPORTUNITY CORRIDOR CONCEPT OPTION 1

The Opportunity Corridor Concept was developed by the City of Concord. Option 1 includes all elements of this concept, which proposes the following;

- Six Lanes on I-93
- Westerly shift of I-93
- Lower I-93 between Exits 13 & 15
- Reconfigure Exits 14 & 15
- Upgrade to Exit 12
- Upgrade to I-93/I-89 and Exit 1
- Extend Storrs Street north & south
- Local Connection to Fort Eddy Road
- Multi-modal center
- River Access

Category	Score					
	●	◒	●	◒	●	
Access				X		◒
Aesthetics				X		◒
Community Resources			X			●
Community Vision				X		◒
Economic Vitality				X		◒
Historic and Archeological Resources			X			●
Implementation		X				◒
Mobility					X	●
Natural Environment			X			●
Public Health				X		◒
Quality of Life					X	●
Residential Neighborhoods				X		◒
Safety					X	●
Support					X	●
Transportation Choice				X		◒

Opportunity Corridor Option 1 is deemed Reasonable for further consideration.	**Reasonable**

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.					X
Comments: Access is improved by this alternative. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

Aesthetics	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the views of the adjacent communities *from I-93*.		X			
Evaluate the views *of I-93* from the adjacent communities.				X	
Evaluate the views of the Merrimack River.				X	
Evaluate the views from the Merrimack River.				X	
Evaluate whether the unique character of the Capital Region is complemented.				X	
Comments: The views are improved by this alternative. Category Score				X	

Community Resources	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

Community Vision	Score				
	🔴	◒	🟡	◓	🟢
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.				X	
Comments: This alternative is compatible with most community's plans or visions. Category Score				X	

Economic Vitality	Score				
	🔴	◒	🟡	◓	🟢
Evaluate the potential impacts to Bow's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.				X	
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.					X
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.				X	
Comments: This alternative would benefit the economies of the adjacent communities. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: The improvements could impact sensitive archeological resources. Category Score			X		

Implementation	Score				
Evaluate the cost.		X			
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.		X			
Comments: Phasing of this alternative would be difficult and there would be disruption of traffic during construction. Category Score		X			

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.					X
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.					X
Evaluate the effectiveness to provide for the movement of goods and services in the region.					X
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: Mobility would be substantially enhanced by this alternative. Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.				X	
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: The shifting of I-93 would provide a buffer for the Merrimack River. Category Score			X		

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Access to the river and other proposed pedestrian trails could improve public health. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.					X
Evaluate the effect on the Quality of Life for those traveling through the region.					X
Evaluate the effect on noise levels.				X	
Comments: This alternative would improve the quality of life for those in the region by reducing traffic congestion and providing access to other community assets like the river. Category Score					X

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.				X	
Evaluate the effect on planned or developing residential neighborhoods.				X	
Comments: Neighborhoods would benefit from the reduced traffic on local streets. Category Score				X	

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: Existing deficiencies would be corrected with this alternative. Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 1

Support	Score				
Evaluate the support from the public in Bow.				X	
Evaluate the support from the public in Pembroke.					X
Evaluate the support from the public in Concord.					X
Evaluate the support from the public in the other communities in the Central NH Region.				X	
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.					X
Evaluate the support from resource agencies.					X
Evaluate the support from resource groups.				X	
Comments: There is overall support for this alternative. Category Score					X

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.				X	
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.				X	
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.				X	
Evaluate the effectiveness to expand bus service in the region.				X	
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: This alternative promotes the use of other modes of transportation. Category Score				X	

SCREENING SUMMARY

OPPORTUNITY CORRIDOR CONCEPT OPTION 2

The Opportunity Corridor Concept was developed by the City of Concord. Option 2 proposes a reversible lane on I-93 and proposes the following;

- Five Lanes on I-93 (One Reversible)
- Westerly shift of I-93
- Lower I-93 between Exits 13 & 15
- Reconfigure Exits 14 & 15
- Upgrade to Exit 12
- Upgrade to I-93/I-89 and Exit 1
- Extend Storrs Street north & south
- Local Connection to Fort Eddy Road
- Multi-modal center
- River Access

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access				X		🟢
Aesthetics				X		🟢
Community Resources			X			🟡
Community Vision				X		🟢
Economic Vitality				X		🟢
Historic and Archeological Resources			X			🟡
Implementation	X					🔴
Mobility				X		🟢
Natural Environment			X			🟡
Public Health				X		🟢
Quality of Life					X	🟢
Residential Neighborhoods				X		🟢
Safety				X		🟢
Support					X	🟢
Transportation Choice				X		🟢

Opportunity Corridor Option 2 is deemed Unreasonable because the expense to construct and operate a reversible lane is not justified for I-93 where the traffic volumes for peak and non-peak directions are not significantly different.	**Unreasonable**

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.					X
Comments: Access is improved by this alternative. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

Aesthetics	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the views of the adjacent communities *from I-93*.		X			
Evaluate the views *of I-93* from the adjacent communities.				X	
Evaluate the views of the Merrimack River.				X	
Evaluate the views from the Merrimack River.				X	
Evaluate whether the unique character of the Capital Region is complemented.				X	
Comments: The views are improved by this alternative. Category Score				X	

Community Resources	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.				X	
Comments: This alternative is compatible with most community's plans or visions. Category Score				X	

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.				X	
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.					X
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.				X	
Comments: This alternative would benefit the economies of the adjacent communities. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: The improvements could impact archeological resources. Category Score			X		

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.		X			
Comments: Phasing of this alternative would be difficult and there would be disruption of traffic during construction. There are long term operational costs that would be required. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists <u>to and</u> through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.				X	
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.				X	
Evaluate the effectiveness to provide for the movement of goods and services in the region.				X	
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: Mobility is improved for the peak traffic direction, but not for the non-peal traffic direction. I-93 has a peak/non-peak split of about 55%/45%. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.				X	
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: The shifting of I-93 would provide a buffer for the Merrimack River. Category Score			X		

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Access to the river and other proposed pedestrian trails could improve public health. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.					X
Evaluate the effect on the Quality of Life for those traveling through the region.					X
Evaluate the effect on noise levels.				X	
Comments: This alternative would improve the quality of life for those in the region by reducing traffic congestion and providing access to other community assets like the river. Category Score					X

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: No Impacts. Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.			X		
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: The reversible lanes would create a safety issue that does not presently exist. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 2

Support	Score				
Evaluate the support from the public in Bow.		X			
Evaluate the support from the public in Pembroke.		X			
Evaluate the support from the public in Concord.		X			
Evaluate the support from the public in the other communities in the Central NH Region.			X		
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.				X	
Evaluate the support from resource agencies.			X		
Evaluate the support from resource groups.			X		
Comments: There was opposition because the only difference from Option 1 was the reversible lane which does not appear applicable — Category Score			X		

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.				X	
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.				X	
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.				X	
Evaluate the effectiveness to expand bus service in the region.				X	
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: This alternative promotes the use of other modes of transportation. — Category Score				X	

SCREENING SUMMARY

OPPORTUNITY CORRIDOR CONCEPT OPTION 4

The Opportunity Corridor Concept was developed by the City of Concord. Option 4 includes all elements of this concept in addition to a Route 106 Connector with access to Garvin Falls and Exit 2 ½ on I-393. It proposes the following;

- Six or Eight Lanes on I-93
- Westerly shift of I-93
- Lower I-93 between Exits 13 & 15
- Reconfigure Exits 14 & 15
- Route 106 Connector
- Access to Garvin Falls
- Extend Storrs Street north & south
- Local Connection to Fort Eddy Road
- Multi-modal center & River Access
- Exit 2 ½ on I-393

Category	**Score**					
	🔴	🔴	🟡	🟢	🟢	
Access					X	🟢
Aesthetics				X		🟢
Community Resources			X			🟡
Community Vision				X		🟢
Economic Vitality				X		🟢
Historic and Archeological Resources	X					🔴
Implementation	X					🔴
Mobility					X	🟢
Natural Environment	X					🔴
Public Health			X			🟡
Quality of Life					X	🟢
Residential Neighborhoods			X			🟡
Safety					X	🟢
Support			X			🟡
Transportation Choice				X		🟢

Opportunity Corridor Option 4 is deemed Unreasonable because it does not meet the overall goals of the project.	**Unreasonable**

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.					X
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.					X
Evaluate the access provided to and from tourist destinations.					X
Comments: Access is substantially improved by this alternative. Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

Aesthetics	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the views of the adjacent communities *from I-93*.		X			
Evaluate the views *of I-93* from the adjacent communities.				X	
Evaluate the views of the Merrimack River.				X	
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.				X	
Comments: The views are improved by this alternative. Category Score				X	

Community Resources	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No Impacts. Category Score			X		

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.				X	
Comments: Category Score				X	

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.				X	
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.					X
Evaluate the effects to anticipated economic initiatives in Pembroke.					X
Evaluate the potential impacts to regional economic prospects.				X	
Comments: This alternative would benefit the economies of the adjacent communities. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.	X				
Comments: The improvements could impact sensitive archeological resources. Category Score	X				

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.		X			
Comments: Phasing of this alternative would be difficult and there would be disruption of traffic during construction. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.					X
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.					X
Evaluate the effectiveness to provide for the movement of goods and services in the region.					X
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: Mobility would be substantially enhanced by this alternative. Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

Natural Environment	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.		X			
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.	X				
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: This alternative would have substantial impacts to the natural resources that exist in the Garvins Falls area. Category Score	X				

Public Health	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.			X		
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Access to the river and other proposed pedestrian trails could improve public health, however, a new corridor in the region could worsen air quality. Category Score			X		

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.					X
Evaluate the effect on the Quality of Life for those traveling through the region.					X
Evaluate the effect on noise levels.				X	
Comments: This alternative would improve the quality of life for those in the region by reducing traffic congestion and providing access to other community assets like the river. Category Score					X

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: No Impacts. Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 4

Support	Score				
Evaluate the support from the public in Bow.					X
Evaluate the support from the public in Pembroke.					X
Evaluate the support from the public in Concord.					X
Evaluate the support from the public in the other communities in the Central NH Region.				X	
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.					X
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.	X				
Comments: Category Score			X		

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.				X	
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.				X	
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.				X	
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: Category Score				X	

SCREENING SUMMARY

OPPORTUNITY CORRIDOR CONCEPT OPTION 5

-The Opportunity Corridor Concept was developed by the City of Concord. Option 5 includes most of the elements of this concept except the shifting and lowering of I-93, the multi-modal center, or river access. It proposes the following improvements or provisions;

- Six Lanes on I-93
- Reconfigure Exits 14 & 15
- Extend Storrs Street north & south
- Local Connection to Fort Eddy Road

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access				X		🟢
Aesthetics		X				🔴
Community Resources			X			🟡
Community Vision	X	X				🔴
Economic Vitality				X		🟢
Historic and Archeological Resources		X				🔴
Implementation			X			🟡
Mobility					X	🟢
Natural Environment			X			🟡
Public Health			X			🟡
Quality of Life				X		🟢
Residential Neighborhoods				X		🟢
Safety					X	🟢
Support		X	X			🟡
Transportation Choice		X				🔴

Opportunity Corridor Option 5 is deemed Unreasonable because it does not provide the community with the type of transportation system it desires.	**Unreasonable**

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.					X
Comments: Access is improved by this alternative. Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

Aesthetics	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the views of the adjacent communities *from I-93*.		X			
Evaluate the views *of I-93* from the adjacent communities.		X			
Evaluate the views of the Merrimack River.		X			
Evaluate the views from the Merrimack River.		X			
Evaluate whether the unique character of the Capital Region is complemented.		X			
Comments: Category Score		X			

Community Resources	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: Category Score			X		

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.	X				
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: Category Score	X	X			

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.				X	
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.					X
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.				X	
Comments: Category Score				X	

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: Category Score		X			

Implementation	Score				
Evaluate the cost.		X			
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.			X		
Comments: Category Score			X		

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.					X
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.					X
Evaluate the effectiveness to provide for the movement of goods and services in the region.					X
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.				X	
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: Category Score			X		

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Category Score			X		

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.				X	
Evaluate the effect on the Quality of Life for those traveling through the region.					X
Evaluate the effect on noise levels.			X		
Comments: Category Score				X	

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.				X	
Evaluate the effect on planned or developing residential neighborhoods.				X	
Comments: Category Score				X	

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: Category Score					X

DETAILED SCREENING
OPPORTUNITY CORRIDOR CONCEPT OPTION 5

Support	Score				
Evaluate the support from the public in Bow.				X	
Evaluate the support from the public in Pembroke.				X	
Evaluate the support from the public in Concord.	X				
Evaluate the support from the public in the other communities in the Central NH Region.				X	
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.					X
Evaluate the support from resource agencies.				X	
Evaluate the support from resource groups.				X	
Comments: Category Score		X	X		

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.				X	
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.				X	
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.				X	
Evaluate the effectiveness to expand bus service in the region.		X			
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.		X			
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.		X			
Evaluate the effectiveness to integrate all modes of transportation		X			
Comments: Category Score		X			

SCREENING SUMMARY

ROUTE 106 CONNECTOR OPTION 1

The Route 106 Connector Option 1 proposes a limited access connector roadway from I-89 to the Route 3/106 Intersection. I-93 would remain four lanes north of I-89 under this alternative.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access				X		🟢
Aesthetics			X			🟡
Community Resources			X			🟡
Community Vision				X		🟢
Economic Vitality			X			🟡
Historic and Archeological Resources	X					🔴
Implementation		X				🔴
Mobility		X				🔴
Natural Environment	X					🔴
Public Health			X			🟡
Quality of Life			X			🟡
Residential Neighborhoods			X			🟡
Safety		X				🔴
Support		X				🔴
Transportation Choice				X		🟢

The Route 106 Connector Option 1 is deemed Unreasonable due to its inability to address the future mobility needs of I-93.	**Unreasonable**

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.					X
Evaluate the access provided to and from tourist destinations.				X	
Comments: Access to Pembroke and tourist destinations would be improved. Category Score				X	

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

Aesthetics	Score				
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.		X			
Evaluate the views from the Merrimack River.				X	
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: The views of I-93 would not be affected while the bridge over the river would improve the views of the river and degrade the views from the river. Category Score			X		

Community Resources	Score				
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No Impacts Category Score			X		

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: The adjacent communities strongly support this new connection. Category Score				X	

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.			X		
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.			X		
Comments: Overall the economies of the local communities and region would not be improved by this alternative. Category Score			X		

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.	X				
Comments: The improvements could seriously impact sensitive archeological resources. Category Score	X				

Implementation	Score				
Evaluate the cost.		X			
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.				X	
Comments: Relatively high cost due to bridging two rivers. Category Score		X			

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.				X	
Evaluate the effectiveness to provide for the movement of goods and services in the region.				X	
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.		X			
Comments: This alternative does not address the mobility needs of I-93. Category Score		X			

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

Natural Environment	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.		X			
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.	X				
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: This alternative would have substantial impacts to the natural resources that exist in the Garvins Falls area. Category Score	X				

Public Health	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Does not affect public health in any measurable way Category Score			X		

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.			X		
Evaluate the effect on the Quality of Life for those working in the region.			X		
Evaluate the effect on the Quality of Life for those traveling through the region.			X		
Evaluate the effect on noise levels.			X		
Comments: Quality of Life is not affected by this alternative. Category Score			X		

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: No Impacts Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.		X			
Evaluate the effectiveness to improve safety on I-89.		X			
Evaluate the effectiveness to improve safety on I-393.		X			
Evaluate the effectiveness to improve safety on local streets.		X			
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.		X			
Comments: This alternative would not correct existing safety issues and increased traffic and congestion along I-93 would be expected to make these safety issues worse. Category Score		X			

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 1

Support	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the support from the public in Bow.					X
Evaluate the support from the public in Pembroke.					X
Evaluate the support from the public in Concord.					X
Evaluate the support from the public in the other communities in the Central NH Region.				X	
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.			X		
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.	X				
Comments: There was support from the local communities for this alternative but resource groups and agencies see fatal environmental impacts. Category Score		X			

Transportation Choice	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.			X		
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation			X		
Comments: No provisions to help promote choice Category Score			X		

SCREENING SUMMARY

ROUTE 106 CONNECTOR OPTION 2

The Route 106 Connector Option 2 proposes a limited access connector roadway from a new Exit 11 ½ on I-93 to the Route 3/106 Intersection. I-93 would remain four lanes north of I-89 under this alternative.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access				X		🟢
Aesthetics			X			🟡
Community Resources			X			🟡
Community Vision				X		🟢
Economic Vitality			X			🟡
Historic and Archeological Resources		X				🔴
Implementation		X				🔴
Mobility		X				🔴
Natural Environment		X				🔴
Public Health			X			🟡
Quality of Life			X			🟡
Residential Neighborhoods			X			🟡
Safety		X				🔴
Support		X				🔴
Transportation Choice				X		🟢

The Route 106 Connector Option 2 is deemed Unreasonable due to its inability to address the future mobility needs of I-93.	**Unreasonable**

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.					X
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.					X
Evaluate the access provided to and from tourist destinations.				X	
Comments: Access to Pembroke, Bow and tourist destinations would be improved. Category Score				X	

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

Aesthetics	Score				
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.		X			
Evaluate the views from the Merrimack River.				X	
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: The views of I-93 would not be affected while the bridge over the river would improve the views of the river and degrade the views from the river. Category Score			X		

Community Resources	Score				
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No Impacts. Category Score			X		

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: The adjacent communities support this new connection. Category Score				X	

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.					X
Evaluate the effects to anticipated economic initiatives in Concord.			X		
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.			X		
Comments: Overall the economies of the local communities and region would not be improved by this alternative. Category Score			X		

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: The improvements could impact sensitive archeological resources. Category Score		X			

Implementation	Score				
Evaluate the cost.		X			
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.				X	
Comments: Relatively high cost due to bridging the Merrimack River. Category Score		X			

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.				X	
Evaluate the effectiveness to provide for the movement of goods and services in the region.				X	
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.		X			
Comments: This alternative does not address the mobility needs of I-93. Category Score		X			

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

Natural Environment	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.		X			
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.		X			
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: This alternative could impact sensitive natural resources. Category Score		X			

Public Health	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Does not affect public health in any measurable way Category Score			X		

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.			X		
Evaluate the effect on the Quality of Life for those working in the region.			X		
Evaluate the effect on the Quality of Life for those traveling through the region.			X		
Evaluate the effect on noise levels.			X		
Comments: Quality of Life is not affected by this alternative. Category Score			X		

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: No Impacts. Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.		X			
Evaluate the effectiveness to improve safety on I-89.		X			
Evaluate the effectiveness to improve safety on I-393.		X			
Evaluate the effectiveness to improve safety on local streets.		X			
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.		X			
Comments: This alternative would not correct existing safety issues and increased traffic and congestion along I-93 would be expected to make these safety issues worse. Category Score		X			

DETAILED SCREENING
ROUTE 106 CONNECTOR OPTION 2

Support	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the support from the public in Bow.					X
Evaluate the support from the public in Pembroke.					X
Evaluate the support from the public in Concord.					X
Evaluate the support from the public in the other communities in the Central NH Region.				X	
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.			X		
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.	X				
Comments: There was support from the local communities for this alternative but resource groups and agencies see fatal environmental impacts. Category Score		X			

Transportation Choice	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.			X		
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation			X		
Comments: No provisions to help promote choice Category Score			X		

SCREENING SUMMARY

INTERSTATE 93 TUNNEL ALTERNATIVE

This Alternative would place I-93 in a tunnel as it passed Downtown Concord. The tunnel would be a component of another build alternative.

Category	Score					
Access				X		
Aesthetics				X		
Community Resources			X			
Community Vision					X	
Economic Vitality				X		
Historic and Archeological Resources			X			
Implementation	X					
Mobility					X	
Natural Environment			X			
Public Health				X		
Quality of Life					X	
Residential Neighborhoods					X	
Safety				X		
Support				X		
Transportation Choice			X			

The I-93 Tunnel is deemed a reasonable component for further consideration.	**Reasonable**

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.					X
Comments: Access is improved by this alternative. Category Score				X	

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

Aesthetics	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the views of the adjacent communities *from I-93*.	X				
Evaluate the views *of I-93* from the adjacent communities.					X
Evaluate the views of the Merrimack River.		X			
Evaluate the views from the Merrimack River.				X	
Evaluate whether the unique character of the Capital Region is complemented.				X	
Comments: The views are improved by this alternative. Category Score				X	

Community Resources	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.				X	
Comments: This alternative is compatible with most community's plans or visions. Category Score					X

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.				X	
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.					X
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.				X	
Comments: This alternative would benefit the economies of the adjacent communities. Category Score				X	

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: The improvements could impact sensitive archeological resources. Category Score			X		

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.	X				
Evaluate the ability to maintain mobility and access during construction.	X				
Comments: Implementing this alternative would be very difficult. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.					X
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.					X
Evaluate the effectiveness to provide for the movement of goods and services in the region.					X
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: Mobility would be substantially enhanced by this alternative. Category Score					X

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

Natural Environment	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.				X	
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: . Category Score			X		

Public Health	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Access to the river and other proposed pedestrian trails could improve public health. Category Score				X	

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.					X
Evaluate the effect on the Quality of Life for those traveling through the region.					X
Evaluate the effect on noise levels.				X	
Comments: This alternative would improve the quality of life for those in the region by reducing traffic congestion and providing access to other community assets like the river. Category Score					X

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.					X
Evaluate the effect on planned or developing residential neighborhoods.					X
Comments: Neighborhoods would benefit from the reduced traffic on local streets. Category Score					X

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: Existing deficiencies would be corrected but other issues are created. Category Score				X	

DETAILED SCREENING
INTERSTATE 93 TUNNEL ALTERNATIVE

Support	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the support from the public in Bow.					X
Evaluate the support from the public in Pembroke.			X		
Evaluate the support from the public in Concord.			X		
Evaluate the support from the public in the other communities in the Central NH Region.			X		
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.			X		
Evaluate the support from resource agencies.			X		
Evaluate the support from resource groups.			X		
Comments: There was general support for considering a tunnel on I-93. Category Score				X	

Transportation Choice	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.			X		
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation			X		
Comments: Category Score			X		

SCREENING SUMMARY

RAIL TRANSIT IN I-93 MEDIAN

This option proposes accommodating a rail transit system in the median of I-93. The transit system would be a component of another build alternative.

Category	Score					
	🔴	◓	🟡	◒	🟢	
Access			X			🟡
Aesthetics			X			🟡
Community Resources			X			🟡
Community Vision			X			🟡
Economic Vitality			X			🟡
Historic and Archeological Resources			X			🟡
Implementation	X					🔴
Mobility		X				◓
Natural Environment		X				◓
Public Health				X		◒
Quality of Life				X		◒
Residential Neighborhoods			X			🟡
Safety			X			🟡
Support				X		◒
Transportation Choice					X	🟢

Rail Transit in the I-93 median is deemed a Reasonable component for further consideration.	**Reasonable**

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.			X		
Comments: This alternative does not change access. Category Score			X		

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

Aesthetics	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: No changes to views as a result of this alternative. Category Score			X		

Community Resources	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: Category Score			X		

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.			X		
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: Category Score			X		

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.			X		
Evaluate the effects to anticipated economic initiatives in Concord.			X		
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.			X		
Comments: Category Score			X		

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.			X		
Comments: No impacts. Category Score			X		

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.		X			
Comments Extremely difficult to implement because there is currently no light rail service in New Hampshire. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.			X		
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.				X	
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.				X	
Evaluate the effectiveness to provide for the movement of goods and services in the region.		X			
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.		X			
Comments: Does not address the future mobility needs of the area. Category Score		X			

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: Category Score		X			

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Some improvement to public health due to reduction of auto use. Category Score				X	

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.				X	
Evaluate the effect on the Quality of Life for those traveling through the region.			X		
Evaluate the effect on noise levels.			X		
Comments: Category Score				X	

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments. No impacts. Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.			X		
Evaluate the effectiveness to improve safety on I-89.			X		
Evaluate the effectiveness to improve safety on I-393.			X		
Evaluate the effectiveness to improve safety on local streets.			X		
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.			X		
Comments: Existing deficiencies are not addressed. Category Score			X		

SCREENING SUMMARY
LIGHT RAIL IN I-93 MEDIAN

Support	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the support from the public in Bow.				X	
Evaluate the support from the public in Pembroke.				X	
Evaluate the support from the public in Concord.				X	
Evaluate the support from the public in the other communities in the Central NH Region.				X	
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.				X	
Evaluate the support from resource agencies.				X	
Evaluate the support from resource groups.				X	
Comments: There was general support for this as a component. Category Score				X	

Transportation Choice	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.					X
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.					X
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.					X
Evaluate the effectiveness to expand bus service in the region.				X	
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.				X	
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: Promotes the use of alternate modes. Category Score					X

SCREENING SUMMARY

LOCAL ROAD IMPROVEMENTS ALTERNATIVE

The Local Road Improvements Alternative proposes improvements to or construction of new of local roads. I-93 would remain four lanes north of I-89 under this alternative and would include the following:

- Langley Parkway (NW Bypass)
- Exit 16 1/2
- Connector from Exit 16 to US 3
- Extend Storrs Street

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access			X			🟡
Aesthetics			X			🟡
Community Resources		X				🔴
Community Vision		X				🔴
Economic Vitality			X			🟡
Historic and Archeological Resources	X					🔴
Implementation		X				🔴
Mobility		X				🔴
Natural Environment	X					🔴
Public Health			X			🟡
Quality of Life		X				🔴
Residential Neighborhoods		X				🔴
Safety		X				🔴
Support		X				🔴
Transportation Choice			X			🟡

The Local Road Improvements Alternative is deemed Unreasonable due to its inability to address future mobility needs of I-93	**Unreasonable**

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.			X		
Comments: No change in access Category Score			X		

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

Aesthetics	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: No measurable effect to river of I-93. Category Score			X		

Community Resources	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on parks.		X			
Evaluate the effect on schools.		X			
Comments: The new corridors could impact parks and/or schools. Category Score		X			

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.			X		
Evaluate the potential impacts on population and employment growth in the region.		X			
Comments: These improvements are not compatible with Concord's plans. Category Score		X			

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.			X		
Evaluate the effects to anticipated economic initiatives in Concord.		X			
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.			X		
Comments: The economy of the local communities and region would not be improved by these local roads. Category Score			X		

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.	X				
Evaluate the effect on archeological resources.		X			
Comments: These local roads pass through historic districts and could impact this resource. Category Score	X				

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.				X	
Evaluate the ability to maintain mobility and access during construction.				X	
Comments There would considerable cost to construct these new corridors either from bridging the river or impacts to private property. Category Score		X			

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.				X	
Evaluate the effectiveness to provide for the movement of goods and services in the region.		X			
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: There local roads do not address the mobility needs of I-93. Category Score		X			

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.		X			
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.	X				
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: The connection from Exit 16 would cross sensitive wetlands and floodplains. Category Score	X				

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: No overall change would be expected. Category Score			X		

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.				X	
Evaluate the effect on the Quality of Life for those traveling through the region.			X		
Evaluate the effect on noise levels.		X			
Comments: The Langley Parkway would bring more traffic to the center of Concord. Category Score		X			

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.		X			
Evaluate the effect on planned or developing residential neighborhoods.		X			
Comments: The Langley Parkway would bring more traffic to the center of Concord Category Score		X			

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.		X			
Evaluate the effectiveness to improve safety on I-89.		X			
Evaluate the effectiveness to improve safety on I-393.		X			
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: The existing safety issues along I-93 are not addressed. Category Score		X			

SCREENING SUMMARY
LOCAL ROAD IMPROVEMENTS ALTERNATIVE

Support	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the support from the public in Bow.			X		
Evaluate the support from the public in Pembroke.					
Evaluate the support from the public in Concord.			X		
Evaluate the support from the public in the other communities in the Central NH Region.			X		
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.	X				
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.					
Comments: Category Score		X			

Transportation Choice	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: Category Score			X		

SCREENING SUMMARY

SAFETY IMPROVEMENTS ALTERNATIVE

The Safety Improvements Alternative proposes to address the existing safety issues along I-93, I-89 and I-393. I-93 would remain four lanes north of I-89 under this alternative.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access			X			🟡
Aesthetics			X			🟡
Community Resources			X			🟡
Community Vision		X				🔴
Economic Vitality			X			🟡
Historic and Archeological Resources			X			🟡
Implementation				X		🟢
Mobility	X					🔴
Natural Environment			X			🟡
Public Health			X			🟡
Quality of Life		X				🔴
Residential Neighborhoods			X			🟡
Safety					X	🟢
Support		X				🔴
Transportation Choice			X			🟡

The Safety Improvements Alternative is deemed Unreasonable due to its inability to address future mobility needs of I-93.	**Unreasonable**

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.			X		
Comments: Category Score			X		

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

Aesthetics	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: Category Score			X		

Community Resources	Score				
	🔴	🟥	🟡	🟩	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: Category Score			X		

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.			X		
Evaluate the potential impacts on population and employment growth in the region.		X			
Comments: Category Score		X			

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.			X		
Evaluate the effects to anticipated economic initiatives in Concord.			X		
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.			X		
Comments: Category Score			X		

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: Category Score			X		

Implementation	Score				
Evaluate the cost.			X		
Evaluate the ability to implement in phases over a period of time.				X	
Evaluate the ability to maintain mobility and access during construction.				X	
Comments: Category Score				X	

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.	X				
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.	X				
Evaluate the effectiveness to provide for the movement of goods and services in the region.		X			
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.		X			
Comments: Category Score	X				

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: Category Score			X		

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.			X		
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Category Score			X		

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

Quality of Life	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.		X			
Evaluate the effect on the Quality of Life for those traveling through the region.	X				
Evaluate the effect on noise levels.		X			
Comments: Category Score		X			

Residential Neighborhoods	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: Category Score			X		

Safety	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.			X		
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.					X
Comments: Category Score					X

DETAILED SCREENING
SAFETY IMPROVEMENTS ALTERNATIVE

Support	Score				
Evaluate the support from the public in Bow.			X		
Evaluate the support from the public in Pembroke.			X		
Evaluate the support from the public in Concord.		X			
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.		X			
Evaluate the support from resource agencies.				X	
Evaluate the support from resource groups.				X	
Comments: Category Score		X			

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.		X			
Evaluate the effectiveness to integrate all modes of transportation		X			
Comments: Category Score			X		

SCREENING SUMMARY

1992 FEASIBILITY STUDY ALTERNATIVE

The 1992 Feasibility Study proposed a significant reconstruction of I-93 that included an eight lane I-93. The proposed improvements included reconstruction of all exits on I-93 and Exit 1 on I-89.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access					X	🟢
Aesthetics	X					🔴
Community Resources			X			🟡
Community Vision	X					🔴
Economic Vitality				X		🟢
Historic and Archeological Resources		X				🔴
Implementation	X					🔴
Mobility					X	🟢
Natural Environment			X			🟡
Public Health		X				🔴
Quality of Life		X				🔴
Residential Neighborhoods			X			🟡
Safety					X	🟢
Support	X					🔴
Transportation Choice			X			🟡

The 1992 Feasibility Study is deemed Unreasonable due to the impacts to the corridor and its focus on automobile traffic.	**Unreasonable**

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.					X
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.					X
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.					X
Comments: This alternative substantially improves access. Category Score					X

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

Aesthetics	Score				
Evaluate the views of the adjacent communities *from I-93*.		X			
Evaluate the views *of I-93* from the adjacent communities.	X				
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.	X				
Comments: The wide corridor and elevated ramps degrade the views. Category Score	X				

Community Resources	Score				
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

Community Vision	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.	X				
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.	X				
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.		X			
Evaluate the potential impacts on population and employment growth in the region.					X
Comments: This alternative is not compatible with the visions of the communities. Category Score	X				

Economic Vitality	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the potential impacts to Bow's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Concord's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.				X	
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.				X	
Comments: Existing businesses would be impacted but the increased access and mobility could improve future business. Category Score				X	

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: The improvements could impact sensitive archeological resources. Category Score		X			

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.			X		
Evaluate the ability to maintain mobility and access during construction.		X			
Comments: This alternative would be unreasonably expensive and construction would be extremely disruptive. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.					X
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.					X
Evaluate the effectiveness to provide for the movement of goods and services in the region.					X
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.					X
Comments: Mobility would be substantially improved by this alternative. Category Score					X

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.		X			
Comments: The extensive improvements would impact the natural environment. Category Score			X		

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.		X			
Evaluate the effect on drinking water quality and quantity.			X		
Comments: This alternative would promote automotive travel and could have a negative effect on air quality. Category Score		X			

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.		X			
Evaluate the effect on the Quality of Life for those traveling through the region.				X	
Evaluate the effect on noise levels.		X			
Comments: Traveling through the region would be improved but the expansive corridor would negatively impact those living and working in the area. Category Score		X			

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: No impacts. Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: Existing deficiencies would be corrected with this alternative. Category Score					X

DETAILED SCREENING
1992 FEASIBILITY STUDY ALTERNATIVE

Support	Score				
Evaluate the support from the public in Bow.	X				
Evaluate the support from the public in Pembroke.	X				
Evaluate the support from the public in Concord.	X				
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.			X		
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.	X				
Comments: Strong opposition for this alternative. Category Score	X				

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.				X	
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.		X			
Evaluate the effectiveness to integrate all modes of transportation			X		
Comments: This alternative is focused on improving automobile travel. Category Score			X		

SCREENING SUMMARY

PASSENGER RAIL SERVICE ALTERNATIVE

Passenger Rail Service proposes implementing rail service from the south into Concord. I-93 would remain four lanes north of I-89.

Category	Score					
Access			X			
Aesthetics			X			
Community Resources			X			
Community Vision				X		
Economic Vitality				X		
Historic and Archeological Resources			X			
Implementation	X					
Mobility		X				
Natural Environment			X			
Public Health				X		
Quality of Life				X		
Residential Neighborhoods			X			
Safety			X			
Support		X				
Transportation Choice					X	

The Passenger Rail Service Alternative is deemed Unreasonable due to its inability to address the project goals such as improved Mobility and increased safety.	**Unreasonable**

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.			X		
Comments: This alternative does not change access. Category Score			X		

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

Aesthetics	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: No changes to views as a result of this alternative. Category Score			X		

Community Resources	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.					X
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.				X	
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: Rail service is compatible with local plans. Category Score				X	

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.			X		
Evaluate the effects to anticipated economic initiatives in Concord.				X	
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.				X	
Comments: Some improvement t business could be expected from passenger rail service. Category Score				X	

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.			X		
Comments: No impacts. Category Score			X		

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.		X			
Comments Extremely difficult to implement because there is currently no passenger rail service in New Hampshire. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.		X			
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.		X			
Evaluate the effectiveness to provide for the movement of goods and services in the region.		X			
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.		X			
Comments: Does not address the future mobility needs of the area. Category Score		X			

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.			X		
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.			X		
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.			X		
Comments: No impacts since the rail corridor already exists. Category Score			X		

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Some improvement to public health due to reduction of auto use. Category Score				X	

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.			X		
Evaluate the effect on the Quality of Life for those working in the region.				X	
Evaluate the effect on the Quality of Life for those traveling through the region.				X	
Evaluate the effect on noise levels.					X
Comments: Improved quality of life for those traveling longer distances. Category Score				X	

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments. No impacts. Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.			X		
Evaluate the effectiveness to improve safety on I-89.			X		
Evaluate the effectiveness to improve safety on I-393.			X		
Evaluate the effectiveness to improve safety on local streets.			X		
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.			X		
Comments: Existing deficiencies are not addressed. Category Score			X		

SCREENING SUMMARY
PASSENGER RAIL SERVICE ALTERNATIVE

Support	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the support from the public in Bow.		X			
Evaluate the support from the public in Pembroke.		X			
Evaluate the support from the public in Concord.		X			
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.	X				
Evaluate the support from resource agencies.					X
Evaluate the support from resource groups.					X
Comments: The communities support passenger rail service but not as a stand alone alternative. Category Score		X			

Transportation Choice	Score				
	🔴	🔴	🟡	🟢	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.					X
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.					X
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.					X
Evaluate the effectiveness to expand bus service in the region.				X	
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.				X	
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: Promotes the use of alternate modes. Category Score					X

SCREENING SUMMARY

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

This Alternative would shift I-93 to the East side of the Merrimack River from north of Exit 12 to Exit 15. I-93 would have six lanes with upgraded exits.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access			X			🟡
Aesthetics		X				🔴
Community Resources			X			🟡
Community Vision		X				🔴
Economic Vitality				X		🟢
Historic and Archeological Resources			X			🟡
Implementation	X					🔴
Mobility					X	🟢
Natural Environment	X					🔴
Public Health				X		🟢
Quality of Life					X	🟢
Residential Neighborhoods				X		🟢
Safety				X		🟢
Support		X				🔴
Transportation Choice			X			🟡

Shifting I-93 to the East side of the Merrimack River is deemed Unreasonable due to environmental obstacles.	**Unreasonable**

DETAILED SCREENING

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.		X			
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.					X
Comments: Access to Downtown Concord would be degraded because vehicles would have to cross the river to get to I-93. Category Score			X		

DETAILED SCREENING
SHIFT I- 93 TO EAST OF MERRIMACK RIVER

Aesthetics	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the views of the adjacent communities *from I-93*.				X	
Evaluate the views *of I-93* from the adjacent communities.		X			
Evaluate the views of the Merrimack River.				X	
Evaluate the views from the Merrimack River.	X				
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: Category Score		X			

Community Resources	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.		X			
Evaluate the potential impacts on population and employment growth in the region.				X	
Comments: This alternative is not compatible with most community's plans or visions. Category Score		X			

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Concord's existing businesses and commercial districts.				X	
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.				X	
Evaluate the effects to anticipated economic initiatives in Bow.				X	
Evaluate the effects to anticipated economic initiatives in Concord.					X
Evaluate the effects to anticipated economic initiatives in Pembroke.				X	
Evaluate the potential impacts to regional economic prospects.				X	
Comments: This alternative would benefit the economies of the adjacent communities. Category Score				X	

DETAILED SCREENING

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.		X			
Comments: The improvements could impact sensitive archeological resources. Category Score			X		

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.	X				
Evaluate the ability to maintain mobility and access during construction.	X				
Comments: Implementing this alternative would be very difficult. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.					X
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.					X
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.					X
Evaluate the effectiveness to provide for the movement of goods and services in the region.					X
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.				X	
Comments: Mobility would be substantially enhanced by this alternative. Category Score					X

DETAILED SCREENING

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.			X		
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.	X				
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: . Category Score	X				

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.				X	
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Access to the river and other proposed pedestrian trails could improve public health. Category Score				X	

DETAILED SCREENING

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.				X	
Evaluate the effect on the Quality of Life for those working in the region.					X
Evaluate the effect on the Quality of Life for those traveling through the region.					X
Evaluate the effect on noise levels.				X	
Comments: This alternative would improve the quality of life for those in the region by reducing traffic congestion and providing access to other community assets like the river. Category Score					X

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.				X	
Evaluate the effect on planned or developing residential neighborhoods.				X	
Comments: Neighborhoods would benefit from the reduced traffic on local streets. Category Score				X	

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.					X
Evaluate the effectiveness to improve safety on I-89.					X
Evaluate the effectiveness to improve safety on I-393.					X
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: Existing deficiencies would be corrected but other issues are created. Category Score				X	

DETAILED SCREENING

SHIFT I- 93 TO EAST OF MERRIMACK RIVER

Support	Score				
Evaluate the support from the public in Bow.		X			
Evaluate the support from the public in Pembroke.		X			
Evaluate the support from the public in Concord.		X			
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.		X			
Evaluate the support from resource agencies.		X			
Evaluate the support from resource groups.		X			
Comments: There was general opposition to this alternative. Category Score		X			

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.			X		
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation			X		
Comments: Category Score			X		

SCREENING SUMMARY

MOVE MERRIMACK RIVER AWAY FROM I-93

This alternative proposes moving the Merrimack River away from Interstate 93 as it passes through Downtown Concord.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access			X			🟡
Aesthetics			X			🟡
Community Resources			X			🟡
Community Vision				X		🟢
Economic Vitality			X			🟡
Historic and Archeological Resources			X			🟡
Implementation	X					🔴
Mobility			X			🟡
Natural Environment	X					🔴
Public Health			X			🟡
Quality of Life			X			🟡
Residential Neighborhoods			X			🟡
Safety			X			🟡
Support	X					🔴
Transportation Choice			X			🟡

Moving the Merrimack River is deemed Unreasonable due to environmental obstacles.	**Unreasonable**

DETAILED SCREENING

MOVE MERRIMACK RIVER AWAY FROM I-93

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.			X		
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.			X		
Comments: No change. Category Score			X		

DETAILED SCREENING

MOVE MERRIMACK RIVER AWAY FROM I-93

Aesthetics	Score				
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.			X		
Comments: No measurable impact. Category Score			X		

Community Resources	Score				
Evaluate the effect on parks.			X		
Evaluate the effect on schools.			X		
Comments: No impacts. Category Score			X		

DETAILED SCREENING

MOVE MERRIMACK RIVER AWAY FROM I-93

Community Vision	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.				X	
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.			X		
Evaluate the potential impacts on population and employment growth in the region.			X		
Comments: Category Score				X	

Economic Vitality	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.			X		
Evaluate the effects to anticipated economic initiatives in Concord.			X		
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.			X		
Comments: No impacts. Category Score					

DETAILED SCREENING

MOVE MERRIMACK RIVER AWAY FROM I-93

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.			X		
Evaluate the effect on archeological resources.			X		
Comments: No impacts. Category Score			X		

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.	X				
Evaluate the ability to maintain mobility and access during construction.			X		
Comments: High cost and difficult to construct. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.			X		
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.			X		
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.			X		
Evaluate the effectiveness to provide for the movement of goods and services in the region.			X		
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.			X		
Comments: Category Score			X		

DETAILED SCREENING

MOVE MERRIMACK RIVER AWAY FROM I-93

Natural Environment	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.		X			
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.		X			
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.	X				
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: Two brides over the Merrimack River and significant floodplain impacts. Category Score	X				

Public Health	Score				
	🔴	◓	🟡	◒	🟢
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.			X		
Evaluate the effect on air quality post construction including mobile-source air toxins.			X		
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: Category Score			X		

DETAILED SCREENING
MOVE MERRIMACK RIVER AWAY FROM I-93

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.			X		
Evaluate the effect on the Quality of Life for those working in the region.			X		
Evaluate the effect on the Quality of Life for those traveling through the region.			X		
Evaluate the effect on noise levels.			X		
Comments: Category Score			X		

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.			X		
Evaluate the effect on planned or developing residential neighborhoods.			X		
Comments: Category Score			X		

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.			X		
Evaluate the effectiveness to improve safety on I-89.			X		
Evaluate the effectiveness to improve safety on I-393.			X		
Evaluate the effectiveness to improve safety on local streets.			X		
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.			X		
Comments: Category Score			X		

DETAILED SCREENING

MOVE MERRIMACK RIVER AWAY FROM I-93

Support	Score				
Evaluate the support from the public in Bow.		X			
Evaluate the support from the public in Pembroke.		X			
Evaluate the support from the public in Concord.	X				
Evaluate the support from the public in the other communities in the Central NH Region.		X			
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.			X		
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.	X				
Comments: There was strong opposition to this alternative. Category Score	X				

Transportation Choice	Score				
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.			X		
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation			X		
Comments: Category Score			X		

Bow-Concord I-93 Transportation Planning Study

SCREENING SUMMARY

WESTERN BELTWAY ALTERNATIVE

This alternative proposes a new corridor connecting I-89 near Exit 2 to I-93 near Exit 16 around the western side of Downtown Concord. I-93 would remain four lanes north of I-89.

Category	Score					
	🔴	🔴	🟡	🟢	🟢	
Access				X		🟢
Aesthetics		X				🔴
Community Resources	X					🔴
Community Vision		X				🔴
Economic Vitality			X			🟡
Historic and Archeological Resources	X					🔴
Implementation	X					🔴
Mobility				X		🟢
Natural Environment	X					🔴
Public Health			X			🟡
Quality of Life		X				🔴
Residential Neighborhoods	X					🔴
Safety		X				🔴
Support	X					🔴
Transportation Choice			X			🟡

The Western Beltway is deemed Unreasonable due its impacts to neighborhoods, historic properties and natural resources.	**Unreasonable**

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

The purpose of screening is to evaluate whether a concept is effective in addressing the problems and goals defined for this project. The criterion on the following pages determines if a concept is reasonable and should be included in the range of reasonable alternatives. The criteria are arranged into fifteen categories that are summarized on the previous page. The Scoring System outlined below is a qualitative measure of a concepts ability to meet the criteria. The Category Score is an overall score for the particular category that is not just the sum of the detailed scoring.

Scoring System

Fatal Flaw Impact Serious Degradation Unreasonable Strong Opposition	Negative Impact Degradation Opposition	Neutral Not Applicable No Impact	Benefit Improvement Enhancement Support	Substantial Benefit Substantial Improvement Reasonable Strong Support

Detailed Screening Criteria

Access	Score				
Evaluate the access provided to and from I-93, I-89 & I-393 in Bow.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Concord.				X	
Evaluate the access provided to and from I-93, I-89 & I-393 in Pembroke.			X		
Evaluate the access provided to and from tourist destinations.				X	
Comments: Category Score				X	

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

Aesthetics	Score				
Evaluate the views of the adjacent communities *from I-93*.			X		
Evaluate the views *of I-93* from the adjacent communities.			X		
Evaluate the views of the Merrimack River.			X		
Evaluate the views from the Merrimack River.			X		
Evaluate whether the unique character of the Capital Region is complemented.		X			
Comments: Category Score		X			

Community Resources	Score				
Evaluate the effect on parks.	X				
Evaluate the effect on schools.	X				
Comments: The new corridors could impact parks and/or schools. Category Score	X				

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

Community Vision	Score				
Evaluate the compatibility with the visions, land use plan, and major elements of the Bow Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the Concord Master Plan, the Opportunity Corridor Master Plan, and/or other current planning documents.	X				
Evaluate the compatibility with the visions, land use plan, and major elements of the Pembroke Master Plan and/or other current planning documents.			X		
Evaluate the compatibility with the visions, land use plan, and major elements of the master plans and/or other planning documents from the other communities in the region.		X			
Evaluate the compatibility with the visions, land use plan, and major elements of the CNHRPC Regional Master Plan.		X			
Evaluate the potential impacts on population and employment growth in the region.				X	
Comments: These improvements are not compatible with Concord's plans. Category Score		X			

Economic Vitality	Score				
Evaluate the potential impacts to Bow's existing businesses and commercial districts.			X		
Evaluate the potential impacts to Concord's existing businesses and commercial districts.		X			
Evaluate the potential impacts to Pembroke's existing businesses and commercial districts.			X		
Evaluate the effects to anticipated economic initiatives in Bow.			X		
Evaluate the effects to anticipated economic initiatives in Concord.		X			
Evaluate the effects to anticipated economic initiatives in Pembroke.			X		
Evaluate the potential impacts to regional economic prospects.			X		
Comments: The economy of the local communities and region would not be improved. Category Score			X		

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

Historic and Archeological Resources	Score				
Evaluate the effect on historic resources.	X				
Evaluate the effect on archeological resources.		X			
Comments: This alternative passes through historic districts and could impact this resource. Category Score	X				

Implementation	Score				
Evaluate the cost.	X				
Evaluate the ability to implement in phases over a period of time.		X			
Evaluate the ability to maintain mobility and access during construction.			X		
Comments There would considerable cost to construct this new corridor. Category Score	X				

Mobility	Score				
Evaluate the effectiveness to provide mobility for tourists to and through the region during peak periods.				X	
Evaluate the effectiveness to provide mobility for commuters to and from the region during peak periods.				X	
Evaluate the effectiveness to provide mobility for local traffic movement during peak periods.			X		
Evaluate the effectiveness to provide for the movement of goods and services in the region.				X	
Evaluate the effectiveness to provide mobility for pedestrians and bicyclists.			X		
Comments: Category Score				X	

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

Natural Environment	Score				
Evaluate the effect on wildlife habitat and fisheries based upon the NH Fish and Game Wildlife Action Plan priorities, for example, the floodplain forest of the Merrimack River and its tributaries and upland vegetated buffers around wetlands and surface waters.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern wildlife species based upon NH Natural Heritage Bureau mapping and the NH Fish and Game Wildlife Action Plan.	X				
Evaluate the effect on known or potential habitat for endangered, threatened or special concern plant species based upon NH Natural Heritage Bureau mapping.	X				
Evaluate the effect on large forest blocks, existing agricultural farms and prime soils for forest land and agriculture.	X				
Evaluate the effect on surface waters, aquifers, wetlands, floodplains, and riparian areas.	X				
Comments: The connection from Exit 16 would cross sensitive wetlands and floodplains. Category Score	X				

Public Health	Score				
Evaluate the effect on air quality during construction (i.e., traffic jams, construction equipment, detours, etc) including mobile-source air toxins.		X			
Evaluate the effect on air quality post construction including mobile-source air toxins.				X	
Evaluate the effect on walkable communities.			X		
Evaluate the effect on drinking water quality and quantity.			X		
Comments: No overall change would be expected. Category Score			X		

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

Quality of Life	Score				
Evaluate the effect on the Quality of Life for those living in the region.		X			
Evaluate the effect on the Quality of Life for those working in the region.				X	
Evaluate the effect on the Quality of Life for those traveling through the region.			X		
Evaluate the effect on noise levels.		X			
Comments: Category Score		X			

Residential Neighborhoods	Score				
Evaluate the effect on existing residential neighborhoods.	X				
Evaluate the effect on planned or developing residential neighborhoods.	X				
Comments: Category Score	X				

Safety	Score				
Evaluate the effectiveness to improve safety on I-93.		X			
Evaluate the effectiveness to improve safety on I-89.		X			
Evaluate the effectiveness to improve safety on I-393.		X			
Evaluate the effectiveness to improve safety on local streets.				X	
Evaluate the effectiveness to improve safety for pedestrians and bicyclists.				X	
Comments: The existing safety issues along I-93 are not addressed. Category Score		X			

SCREENING SUMMARY
WESTERN BELTWAY ALTERNATIVE

Support	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the support from the public in Bow.	X				
Evaluate the support from the public in Pembroke.	X				
Evaluate the support from the public in Concord.	X				
Evaluate the support from the public in the other communities in the Central NH Region.	X				
Evaluate the support from those communities whose livelihood is dependent upon travel through the region.	X				
Evaluate the support from resource agencies.	X				
Evaluate the support from resource groups.	X				
Comments: Strong opposition to this alternative due to its impacts. Category Score	X				

Transportation Choice	Score				
	🔴	◒	🟡	◒	🟢
Evaluate the effectiveness to provide for future passenger rail service to the region.			X		
Evaluate the effectiveness to preserve the current freight rail service and enhance future freight rail service in the region.			X		
Evaluate the effectiveness to integrate all modes of freight transport in the region including rail, truck and air.			X		
Evaluate the effectiveness to expand bus service in the region.			X		
Evaluate the effectiveness to improve pedestrian and bicycle facilities in the region.				X	
Evaluate the effectiveness to reduce the number of single occupancy vehicles in the region.			X		
Evaluate the effectiveness to integrate all modes of transportation				X	
Comments: Category Score			X		

APPENDIX E

Findings Related to Option 4

Findings Related to Option 4

The following documentation is the view of the New Hampshire Department of Transportation and the Federal Highway Administration regarding "Option 4" of the Bow-Concord, I-93 Transportation Planning Study based on information gathered through several Planning Group meetings.

Background

During the Bow-Concord I-93 Project study, the Planning Group participants assisted with the development of a series of project alternatives. These alternatives have been screened to determine their ability to address the Bow-Concord I-93 Project's problem and goal statements. A set of screening criteria (developed by the Planning Group) have been used to ensure that all alternatives are evaluated against all of the components of the problem and goal statements before the alternatives are determined to be reasonable or unreasonable for further study by this project. Opportunity Corridor Concept Option 4 (Option 4) is one of the sixteen alternatives being screened.

Bow-Concord I-93 Project Goal Statement:

> *The Bow-Concord I-93 Corridor should balance the needs of all users and the surrounding communities by providing a safe, affordable, reliable, environmentally acceptable and community compatible transportation system. The system will offer mobility choices and complement the unique character of the Capitol Region communities. It will support their economic initiatives, preserve and/or enhance their natural and historic resources, facilitate non-vehicular access, and sustain the communities' quality of life, now and into the future.*

Option 4 is essentially a combination of two other alternatives. It includes all of the elements of the Opportunity Corridor Concept (Option 1) and the Route 106 Connector with access to Garvin Falls, plus an Exit 2½ on I-393. Option 1 includes an in-corridor widening of I-93 developed by the City of Concord to support their redevelopment of the City's Opportunity Corridor, which is west of I-93 between Exits 12 and 15. Option 1 was screened and deemed to be reasonable for further study by the Planning Group. The Route 106 Connector would be a new roadway to connect the I-93 and I-89 corridors to NH Route 106. The Route 106 Connector as a stand-alone alternative was screened and deemed unreasonable by the Planning Group, as it did not adequately address the transportation demand along I-93, the compelling purpose or goal of the project.

Input used in the Central NH Regional Transportation Demand Model for the project was revised to address the specific land use associated with Option 4. According to the traffic projections for Option 4 using the revised land use projections, as provided by the City of Concord, the following adjustments to the afternoon peak hourly traffic volumes are predicted in 2030. These traffic volume figures represent the total for both directions as compared to Option 1, if Option 4 were to be constructed:

* 2,800 total trips an hour on the Route 106 Connector;
* 400 fewer total trips an hour on I-93 between I-89 and Exit 12;
* 1,600 fewer total trips an hour on Manchester Street; and
* 800 additional total trips per hour on I-93 between Exits 13 and 14.

This data indicates that Option 4 would only provide some relief to one segment (I-89 to Exit 12) of the Bow-Concord I-93 Corridor while increasing demand on other segments of the Corridor.

Option 4 Screening

The Planning Group discussed the screening of Option 4 at four meetings in 2006 and 2007. There were generally two points of view regarding the reasonableness of Option 4. Those who considered it to be reasonable cited the following:

- Responds to the needs of surrounding communities (Concord, Bow and Pembroke all have I-93 widening and a Route 106 Connector in their respective master plans)
- Supports economic initiatives (redevelopment of the Opportunity Corridor and development of land in Garvin Falls area)
- Supports NH's Smart Growth Legislation (by coordinating multiple uses within a new node of development)
- Benefits transportation (Reduces traffic volumes on I-93 south of Exit 13)

Those who considered it to be unreasonable cited the following:

- Would increase traffic on I-93 north of Exit 13, requiring greater widening and increased "footprint" impacts
- Would impact an area with high natural resource value, which permitting agencies stated would have difficulty meeting their permit requirements
- Would increase costs to study resource impacts, with no apparent return as it is unlikely to be advanced or permitted
- Majority of development to occur after 2030
- Promotes economic development, which is not a goal of the project

After a great deal of discussion, it became apparent that the Planning Group could not reach consensus on this alternative. The Group was then asked to vote to determine if a super majority (at least 75%) could determine the fate of Option 4. A super majority was not reached because the Group was so closely divided on the merits of this alternative.

The NHDOT and the Federal Highway Administration also discussed Option 4 in separate meetings and correspondence with the City of Concord, the strongest proponent for this option.

Option 4 was presented to the public at the Public Informational Meeting held on April 17, 2007 at Concord's Rundlett Middle School. Public opinion regarding Option 4 was mixed. The public was informed of the model results that indicate a reduction of traffic south of Exit 13 but increased traffic north of Exit 13, and little change in traffic on Route 106. Members of the public who supported Option 4 still felt it could be used as an alternate route for people heading to the Lakes Region. However, there was also opposition to Option 4 because of environmental concerns.

Conclusions

After this additional review and discussion, the NHDOT and FHWA have affirmed that the principal purpose of this project is to improve transportation through the I-93 corridor. They and other Planning Group members note that Option 4 would actually be contrary to this purpose, as illustrated by the aforementioned traffic projections.

This option is also in conflict with other elements of the goal statement developed by the entire Planning Group for this specific project. For example, the phrase "…support economic initiatives…" indicates the project will accommodate economic initiatives and will take into account regional growth and planned development within the design horizon for this project. It should not be construed to mean that the project will promote and facilitate large-scale development independent of any transportation benefit. Furthermore, this alternative does not preserve and/or enhance the Capitol Region communities' natural and historic resources, and it is not viewed by many Planning Group members as an environmentally acceptable option. Therefore, this alternative does not meet the overall goals of the Bow-Concord I-93 Project, and is not considered reasonable for this project. The City of Concord or others could independently pursue a connection to Garvin Falls for development as a separate project that would have its own distinct goals and merits. The Bow-Concord I-93 Project will consider the effect of such development on future travel through the corridor.

At the conclusion of this Part A study, a Summary/Classification Report will be completed. The report will clearly note what land use has been incorporated, and what level of development has been included at Garvin Falls. It will also note that Part B of this project, which is the further refinement of alternatives and environmental documentation, will take into account all reasonable land use expected through 2030, which could include additional development at Garvin Falls.