STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION **BUREAU OF HIGHWAY DESIGN**

MEETING SUMMARY

PROJECT: BOW-CONCORD 13742 Interstate 93 Improvements – Part B

DATE OF MEETINGS:	February 14, 2018, Bow
	February 15, 2018, Concord

LOCATION OF CONFERENCE:	Bow Memorial School, Bow, NH
	NH Department of Transportation, Concord, NH

ATTENDED BY PROJECT TEAM:

<u>NHDOT</u>	McFarland Johnson (MJ)
Don Lyford	Gene McCarthy
John Butler	Brian Colburn
Rebecca Martin	Jeff Santacruce
Linda Schoffield	Scott Ozana
Dena Rae	Jennifer Zorn
Steve LaBonte	Cindi Bourrie

GENERAL PUBLIC:

Bow: Approx. 60 attendees (see attached sign-in sheets) Concord: Approx. 50 attendees (see attached sign-in sheets)

SUBJECT: **Public Informational Meetings**

NOTES ON MEETINGS:

Part B of the Interstate 93 (I-93) Bow-Concord project includes Preliminary Engineering and environmental documentation with the goal of selecting a preferred alternative and holding a Public Hearing. The project covers the I-93 corridor from just south of its intersection with Interstate 89 (I-89) to just north of its intersection with Interstate 393 (I-393) at Exit 15. Exits 12, 13, 14 & 15 on I-93 are included along with Exits 1 on I-89 and I-393.

Two Public Informational Meetings (PIM), one in Bow and one in Concord, were held to present the project Preferred Alternative to the public for their consideration. The meetings consisted of an Open House from 5:00 PM to 7:00 PM with a Formal Presentation at 7:00 PM. The Agenda for the meetings is attached. The presentation is also attached.

This was the second round of PIM's for the project. The first round of meetings were held on May 31 and June 1, 2017 when the alternatives under consideration were presented to the public. The Preferred Alternative was chosen based in part from the comments received at those meetings.

The presentation included the project history and a summary of the first round of PIM's. However, the project Preferred Alternative was its focus. I-93 will be widened to a basic six (6) lane interstate, three lanes in each direction, with auxiliary lanes between interchanges in most areas. At each interchange location a preferred concept was presented. Below is a brief description of the preferred concept at each of the four project areas as presented.

<u>I-89 Area</u>

Concept K: This concept eliminates the two weaves between I-89 Exit 1 and I-93. It also includes a new NB I-93 to NB I-89 directional ramp, that improves the weave on the existing NB collectordistributor road. This weave is improved because a significant portion of the traffic is removed from the weave. Concept K includes a new connector road between South Street and Bow Junction at the intersection of Route 3A and Hall Street. Direct access to and from I-89 from Bow Junction would no longer exist but would be provided via the new connector road and I-89 Exit 1.

Exit 12 Area

Concept F: This concept converts Exit 12 to a Partial Cloverleaf where two of the existing exit ramps are eliminated. The new ramp intersections with Route 3A include hybrid roundabouts.

Exit 13 Area

Concept B: This concept retains the existing single point diamond configuration at Exit 13. The NB exit ramp would be widened to 2 lanes providing 2 right turn lanes onto Manchester Street.

Exit 14/15 Area

Concept F2: This concept retains the existing diamond configuration at Exit 14 except that the NB entrance ramp is eliminated. The ramp elimination allows I-93 to be shifted east to avoid impacts along its west side. Exit 15 is converted to a cloverstack configuration that eliminates the 4 weave sections that exist within Exit 15. A collector-distributor (C-D) road is proposed for SB I-93 between Exits 14 and 15. Concept F2 includes a new connection from the northern end of Stickney Avenue to a new four-way intersection of the proposed Storrs Street Extension (City of Concord project), Constitution Avenue and South Commercial Street. I-393 Exit 1 is retained in its current configuration.

Public comments were received verbally, written, e-mailed, website and via the telephone. Below are the public comments received verbally at the meetings, those submitted electronically, and those over the telephone. Copies of written comments are attached.

February 14, Bow

General Questions/Comments on Project

- New flyover at Exit 1 will have a negative visual impact.
- Stop light a concern.
- Widening on Logging Hill Road will impact yards.
- Does not improve access to developable land?
- Old tree where stormwater treatment is proposed.
- There will be more noise from higher Highway.
- Can retaining walls be camouflaged?
- Will project be done at once or in pieces? Which piece first?
- Which properties are involved in the sound study?
- Have property impacts been evaluated?
- Are concepts too complicated?
- Has constructability been reviewed?
- State law enforcement officials should enforce law on noise.
- Stream extending from Grandview Avenue should be piped to Turkey River.
- Can ramps be moved to the north away from Valley Road?
- Toll evaders will back-up traffic at South Street lights.
- Will the loss of the direct I-89-Route 3A connection impact Bow economy?
- Has traffic from Bow development been accounted for?
- Can new local road be posted for not allowing trucks?
- Can traffic simulations be shown as 3-dimensional renderings?
- Exit 12 roundabouts may have issues with additional truck traffic since trucks typically use both lanes in a roundabout.

Will bicycle lanes be separated from the traffic? Good spot now for kids.

Comments Received from Gil Rogers (Bow resident):

In general, Mr. Rogers was supportive of the preferred alternative designs, but offered the following comments:

- Ideally, the two Interstate to Interstate interchanges should be designed to high standards, given that this project is likely to be the last significant improvement for the foreseeable future. Specifically, he favored providing higher speed directional ramps wherever possible, such as the flyover ramp in Concept P at I-89 and increasing the ramp radii in Concept F2 at the I-393 interchange, but he recognized that there are cost and property impact trade-offs.
- Questioned if the proposed two mainline lanes southbound (as opposed to three) will be adequate long-term through the Exit 14 and 15 area.
- Questioned if the I-93 northbound to I-89 northbound ramp will be adequate long-term as a single lane ramp or if it should be two lanes.

Mr. Glen Culver, representing the property at 520 Route 3A in Bow:

With the preferred alternative, the proposed new ramp from I-93 northbound to I-89 northbound will impact a portion of the property at 520 Route 3A. Mr. Culver noted that there is currently a

poorly draining area in the vicinity of the area being impacted, and did not want to see that issue exacerbated by the proposed ramp work. He also expressed concern over increased traffic noise from the new ramp.

I-89 Exit 1 / I-89 and I-93 Interchange

- There was general support for the Preferred Alternative (Concept K) due to its elimination of the weaving that exists between Exit 1 and I-93.
- Concept C would not do enough to improve safety, especially for the I-89 SB on-ramp at Exit 1.
- The elimination of the direct connection of I-89 to Bow Junction (I-89/Route 3A/Hall Street) was a concern to many due to the high truck use of Route 3A.
- There was concern over the additional traffic on Logging Hill Road/South Street due to the diversion of the traffic from Bow Junction.
- Several property owners expressed concern because the new collector distributor road that carries southbound I-89 traffic to Exit 1 and southbound I-93 will directly impact their property or will bring the highway closer to their homes.
- Concept K eliminates the recreational trail that begins at the end of Valley Street and connects to Bow Junction. Several residents prefer to retain this trail rather than combine it with the new connector road.
- One person preferred roundabouts at the Exit 1 ramp intersections.
- Mr. Foote presented a sketch of an alternate concept he developed (See attached).
- With eliminating the existing walking/ bicycle path between Rte. 3A and Logging Hill Road, multiple people expressed that accommodations for bicycles and pedestrians along the new local road connection were of high importance.
- Can bike lanes and sidewalks be added on South Street/Logging Hill all the way from new connector road through signal at I-89 southbound off ramp?
- Will the new connector road have lighting?

<u>Exit 12</u>

• There was a general consensus that roundabouts were the right configuration for Exit 12.

<u>Exit 13</u>

- There was general support for the adding the second right turn lane and signalizing it.
- One person expressed their desire to have a pedestrian crossing from Water Street to West Terrill Park. He also thought pedestrian crossing should be considered throughout the project area.

Exit 14/15

- One person believes that the interstate should be raised out of the flood plain between Exits 13 and 14.
- There were multiple questions regarding how travelers would go north on I-93 once the on- ramp at Exit 14 is eliminated.
- One question on how it would all get built?

February 15, Concord

General Questions/Comments on Project

- Are bike lanes preserved at Exit 12?
- Is there a plan for sound walls by Grandview Road due to the loud trucks?
- Can diverters on Grandview Road be reduced?
- What's the difference between a weave and auxiliary lane?
- Why are Stickney Avenue and Commercial Street linked to Exit 14 NB ramp removal?
- Will lights on I-393/Stickney Avenue cause gridlock?
- Alternative O3 has big retaining wall, F2 does not.
- How long will the project take to build if it becomes fully funded?
- How will the parts of construction be sequenced?
- Can Fort Eddy Road be improved if the northbound ramp removed?
- Anything changing at Exit 13 Intersection?
- Any thoughts to creating dedicated or separated bicycle lanes?
- Concern with still 2 lanes northbound and southbound over River bridge during Friday PM peak travel hours north of Exit 15.
- Are 2 southbound lanes OK during Sunday PM peak travel hours?
- City or NHDOT funding at Exit 13?
- Will view of State House Dome be impacted? What about the view of Downtown?
- Can the view of the Merrimack River be improved? Is it possible to lower I-93?
- What about a signal at Exit 13 northbound ramp?
- What are the city/state responsibilities at Exit 14/15.
- When is City project at Manchester Street and Old Turnpike Road going to happen?
- Any prediction of traffic past 2035, the opening year?
- Will Route 202/Commercial Street stay Rt. In/Rt. Out?
- Does the traffic model take autonomous vehicles into account?
- An individual noted that there are currently long back-ups on the I-93 southbound to US 202 westbound ramp in the morning, sometimes coming close to reaching the highway. He noted that this issue does not appear to be addressed by Concept F2, and that the back-ups might now block access to the I-93 southbound to I-393 eastbound ramp with the F2 design. He recommended that the ramp be designed to come into its own lane on US 202 westbound or at least be a yield instead of a stop condition.

I-89 Exit 1 / I-89 and I-93 Interchange

• There was general support for the Preferred Alternative (Concept K) due to its elimination of the weaving that exists between Exit 1 and I-93.

<u>Exit 12</u>

• There was a misconception that the Roundabouts were previously rejected by the Concord City Council. The Council rejected them at the time of the new bridge construction and felt the decision regarding the intersections was better left to this project.

- Some concern that there is high truck use of Exit 12 and the trucks would have to use the roundabouts.
- Several people stated preference for the roundabouts (Preferred Alternative Concept F).

<u>Exit 13</u>

- The issue of the daily back-ups on the northbound off ramp were confirmed.
- General support for widening the northbound off ramp and providing a signal for the right turn (Preferred Alternative Concept B).

Exit 14/15

- There were many questions regarding where traffic would divert once the northbound Exit 14 on-ramp was closed.
- There was general support for the cloverstack at Exit 15 as it eliminates the weaving.
- Multiple people expressed the need to include bicycle accommodations along Loudon Road.

Comments Received from Open House/E-Mail/Website/Telephone

Comments Received February 7 from Gordon McLachlan:

I believe it's important to choose options which best solve todays issues but which add weight to projected future traffic loads which will amplify todays problems.

There should be financial considerations in the decision process which minimize the probability of new traffic /safety problems appearing in the future which would cause significant future redesign & reconstruction, at costs far greater overall when re design is needed.

Do it right the first time will save money over the long term

It seems the following options are best: I-89: Option K or perhaps P Exit 12: Option F Exit 13: Option A Exit 14/15: Option O3

A previous Concord by pass ring road from I-93 south of I-89 connecting to I-89 then North to I-93 looked like a great idea. Why was it abandoned?

Comments Received February 13 from Anthony Mento:

Thank you for such an open process. Website is helpful and I attended one presentation last summer.

If we're going to undertake an I 89 reconfiguration that will undoubtedly take years to construct affecting traffic and schedules for all. Then we should fix it completely the first time and do CONCEPT P.

The I-89 / 93 exchange is too important to skimp on it.

Comments Received February 15 from Kristen Hayden:

I am a Highway Designer with over 15 years' experience and I live on Colonial Terrace off Albin Road (it's a small dead end adjacent to Wilderness Lane). I attended the Public Informational Meeting last night and I am also an Alternate member on the Bow Planning Board. I was wondering if you have a copy of the sketch that Anthony Foote was discussing? Obviously his "concept" doesn't follow design standards, or take into consideration the impacts to wetlands, etc. but I'm a bit curious of what he thinks is feasible. There is quite a bit of discussion about it on the Facebook Bow Community webpage this morning and I would love to have some input to help folks better understand. Personally, I rather liked Alternative K. My biggest concern is safety for Exit 1. Obviously the design does impact a few businesses and Bow is already lacking in a commercial tax base, but I would hope that the new design and re-zoning of the new mixed use area would help bring new businesses to the area or allow the existing businesses to relocate.

I also provided a comment last night requesting the sidewalks and pedestrian accommodations be extended through the traffic signal for the Exit 1 I-89 South Ramp. This would allow the Town to potentially extend sidewalks down Logging Hill Road in the future without having to modify anything at the signal. I just wanted to re-iterate that request via email as well. There is also a loop that encompasses, Logging Hill Road, South Street, Iron Works Road, Clinton Street, Silk Farm Road and Albin Road that is heavily used by runners, walkers and bicyclists.

Any additional information you could give would be much appreciated and Great job last night!

Comments Received February 15 from Gary:

Thank you for the meeting information and pictures. The only thing I think is stupid is the traffic light on Logging Hill. Leave the stop signs. If people going south on Logging Hill have to stop on that hill, there will be an awful backup during the winter months. Also people coming down the hill won't be able to stop on the ice and snow as they come down the hill. If they keep thinking this way perhaps they will station a plow truck and sander there permanently during the winter. This stupidity will cause the town more money just to keep this road safe and open during the winter months. The other thing I would like to see overseen is the possible Native American artifacts that maybe in the Turkey River basin be considered during construction.

Comments Received February 15 from Paul Bradshaw:

I was at the 2/15 presentation in Concord. I just wanted to give you a vote of confidence. I like the preferred alternative. I hope there aren't too many nay-sayers who don't appreciate the expertise and effort that went into it.

Comments Received February 24 from Mike Cameron:

I-89 Concepts P/C.

Why is a hybrid of I-89 concepts P and C not considered, or preferred? I like how C puts more space between northbound entrance for I-89's exit 1 and traffic entering I-89 north from I-93 south. And, I like how P creates a fly-over for southbound I-89 traffic entering I-93 northbound, eliminating the sharp cloverleaf curve.

Too expensive?

Comments Received February 26 from Stan Smith:

My name is Stan Smith; we spoke at the Concord info session (I have a house on Herbert St; after your talk we walked over to the map & you asked me some questions re: the area, just to jog your memory). First, the F2 new road in back of our houses would have a significant detrimental impact on our properties. As you mentioned, our lots are small, & the tiny amt. of space between our backyards and the current one-way road is a crucial buffer. By placing the proposed new road tight up against our properties would render them uninhabitable. At your convenience, I'd like to meet you in my yard so that I can show you what I mean. I'm told you're away this wk- perhaps next wk? If you would be so kind as to email or call me, I'd be much obliged.

As an alternative, why not extend Higgins Place up to connect with the new,(soon to be extended) Storrs Street?

Comments Received March 12 from Tim Blagden:

When modeling traffic for this project did your firm use traditional methods or were sources like used?

https://www.streetlightdata.com/creating-travel-demand-models?hsCtaTracking=d874184a-da80-4682-bbe8-69d2dcb7597e|044f8849-5659-45f9-8d12-36ea5a37d4b8

I don't know what they charge, but the results seem to be available fast. I am curious about this method because they claim to capture many more short trips than traditional modeling methods.

ATTACHMENTS:

Pubic Informational Meetings Agenda Presentation Concept Comparison Matrices Comment/Question Forms Submitted List of Attendees

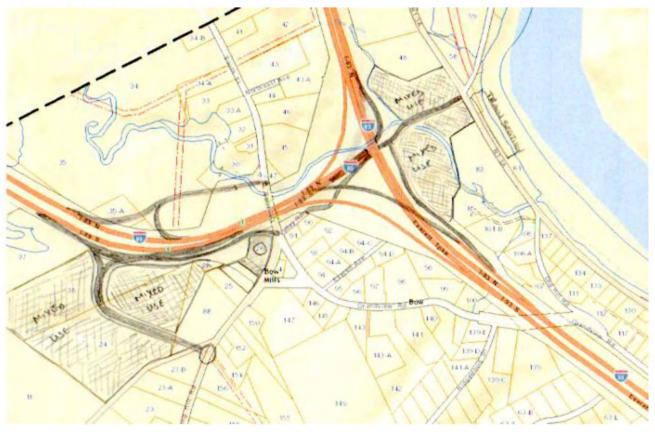
Submitted By:

Gene McCarthy, P.E.

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Mr. Foote Concept

BOW, EXIT 1 AND VALLEY STREET







Bow Concord I-93 Improvements

Public Informational Meetings

February 14, 2018

February 15, 2018





Project History/Review

 Project Development Process
 Key Resources



- Public Informational Meetings Summary
- Alternatives Development
 - I-93 Corridor
 - o I-89 Area
 - Exit 12
 - Exit 13
 - Exit 14/15
- Preferred Alternative
- Next Steps

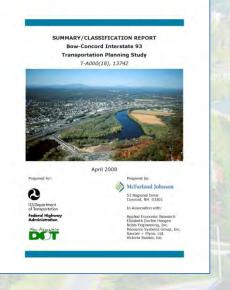








Project History/ Project Development Process



Part A – Planning (2002 - 2008)

- Problem & Goal Statements
- Range of Reasonable Alternatives
- Determine Level of Environmental Document
- Prepare Summary/Classification Report

Red List Bridges (2008 - 2016)

- Exit 14 Rehabilitation
- I-93 over I-89 Replacement
- Exit 12 Replacement

Part B - Scoping (2013 - 2018)

- Select Preferred Alternative
- Environmental Documentation (EA)
- Public Hearing
- Part C Final Design





NEPA Process

- Agency & Public "Scoping" Throughout the NEPA Process
 - Agency Consultation (DES / Corps / DHR / EPA / DHR)
 - City / Town /Planning Commission (Concord / Bow / CNHRPC)
 - Public Input (Public Meetings / website contact)
- Inventory of Resources and Socio-Economic Conditions
- Determination of Impacts (Beneficial and Adverse)
- Environmental Assessment (EA) is Published (est. May 2018)
- Public Review & Comment Period of the EA
- FHWA Decision (FONSI or prepare an EIS)





Key Resources

- Wetlands
- Floodplains
- Recreational Areas & Trails
- Conservation Land
- Farmland
- Wildlife & Fisheries
- Historic Properties
- Archaeology









Wetlands







Floodplains







Recreational Areas & Trails

Kiwanis Waterfront Park



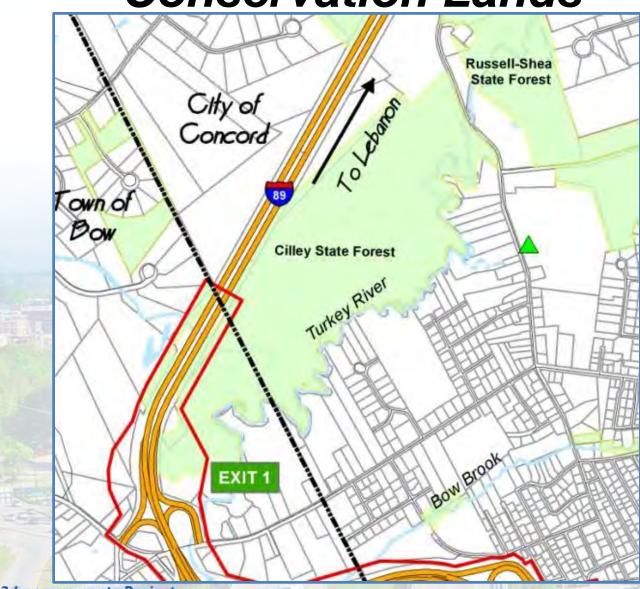


Terrill Park





Conservation Lands







Active Farmland







Wildlife & Fisheries









Historic Properties







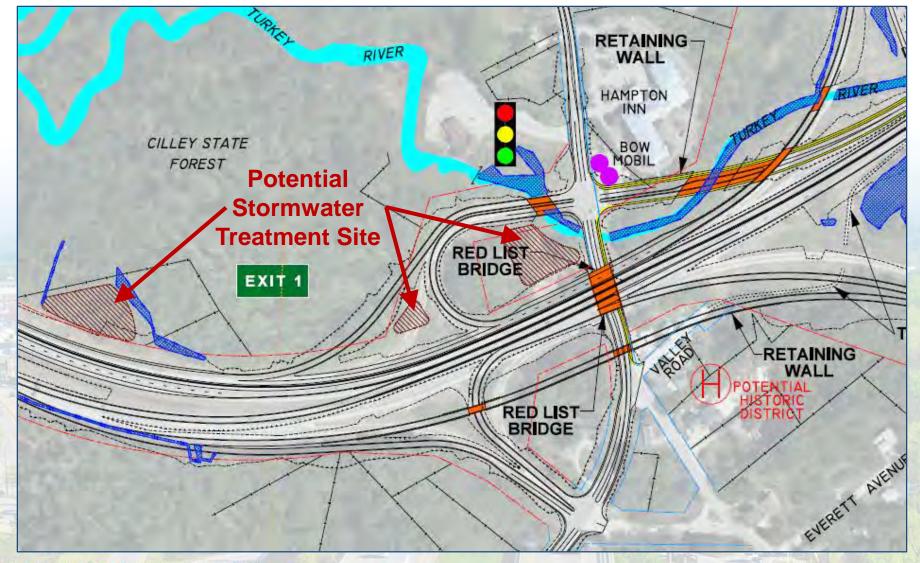
Other Resources Under Study

- Noise Study
- Air Quality Study
- Contaminated Sites including Groundwater
- Archaeology
- Groundwater Protection / Public Wells
- Socio-Economic Study
- Environmental Justice
- Visual Resources





Stormwater Treatment







Public Informational Meetings

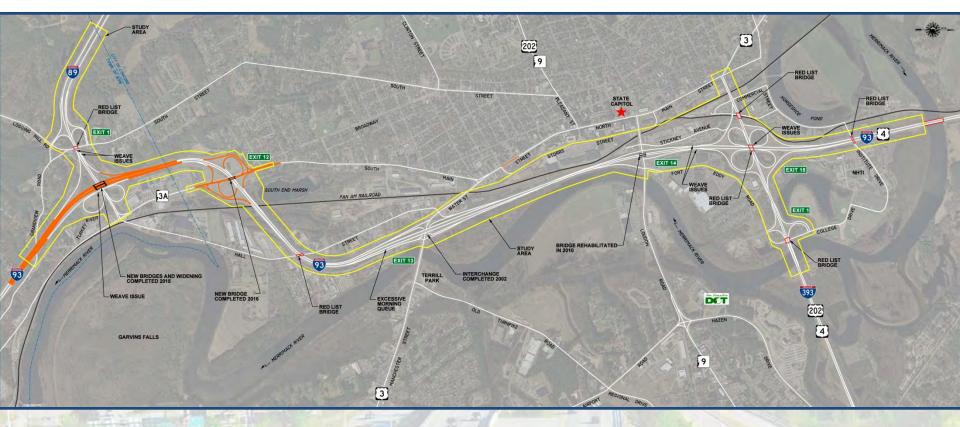
- May 31, 2017 Bow, NH 70 Attendees
- June 1, 2017 Concord, NH 40 Attendees
- Exit 14-15 Visualizations
- Verbal Comments, Written Comments, E-mail
 Comments, Website Comments







Alternatives Development



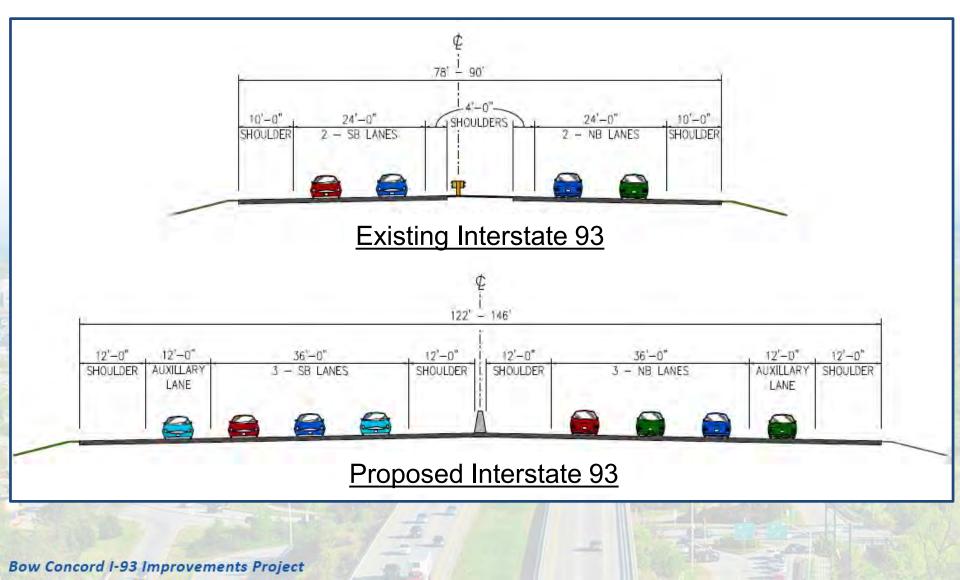








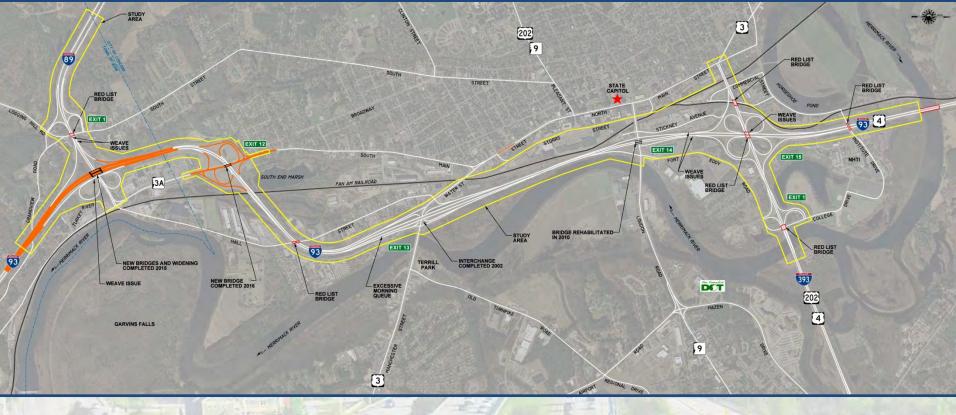
I-93 Typical Sections







Alternatives Development











Alternatives Development



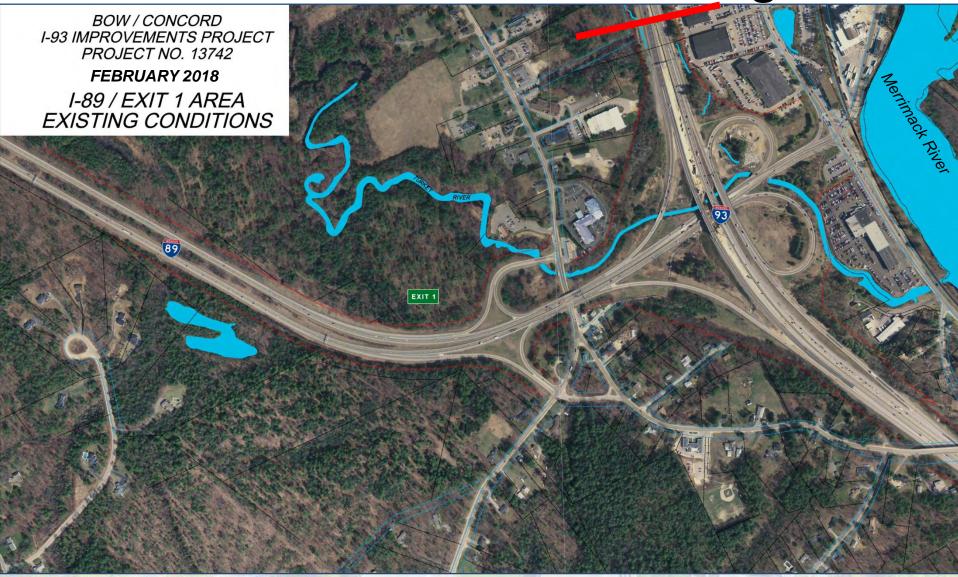








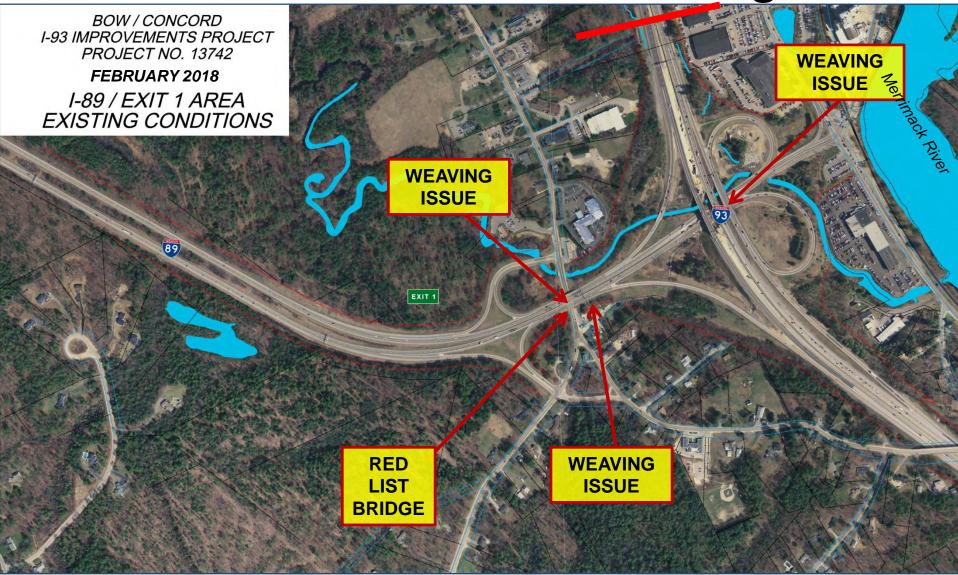
I-89 / Exit 1 Area - Existing







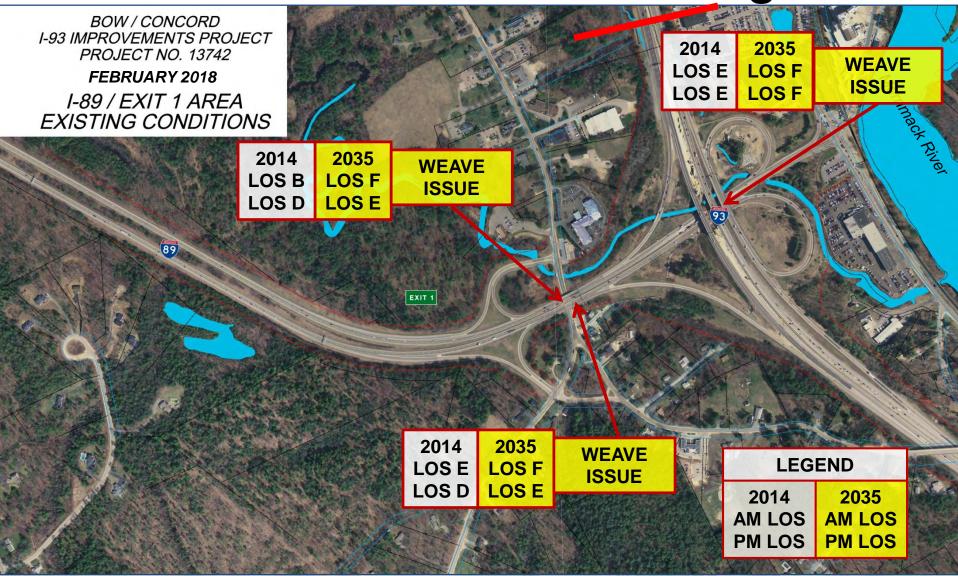
I-89 / Exit 1 Area - Existing







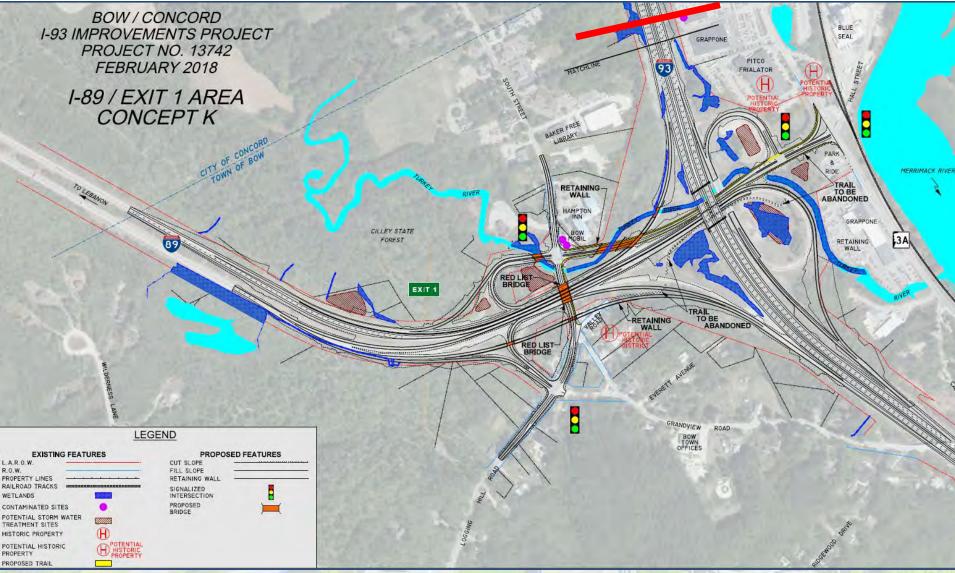
I-89 / Exit 1 Area - Existing







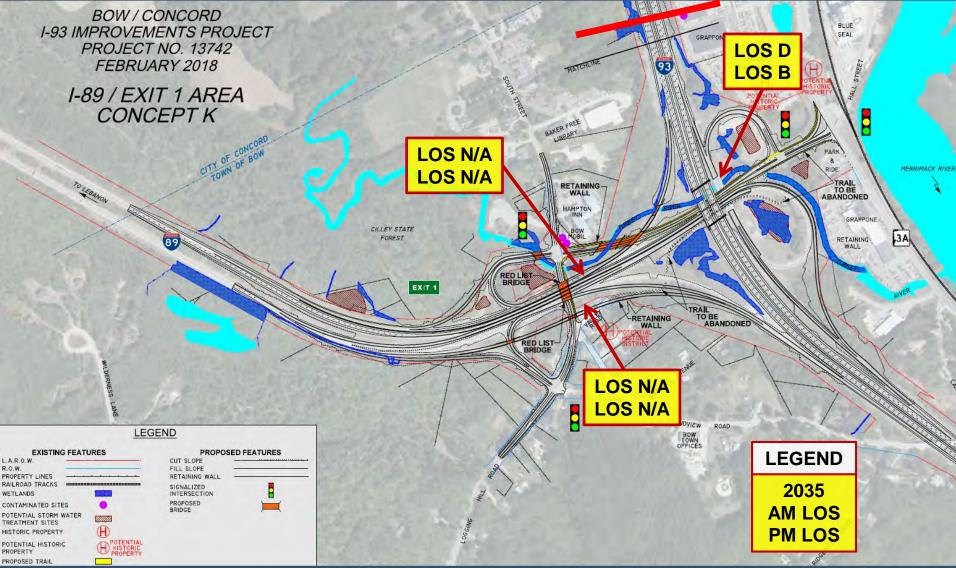
I-89 / Exit 1 Area - Preferred







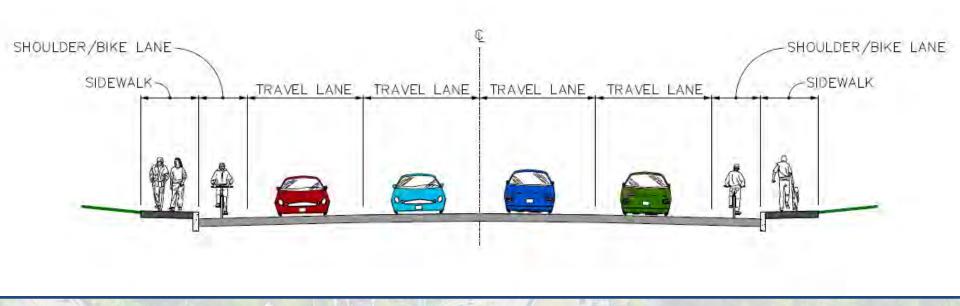
I-89 / Exit 1 Area - Preferred







Bicycle / Pedestrian Accommodation







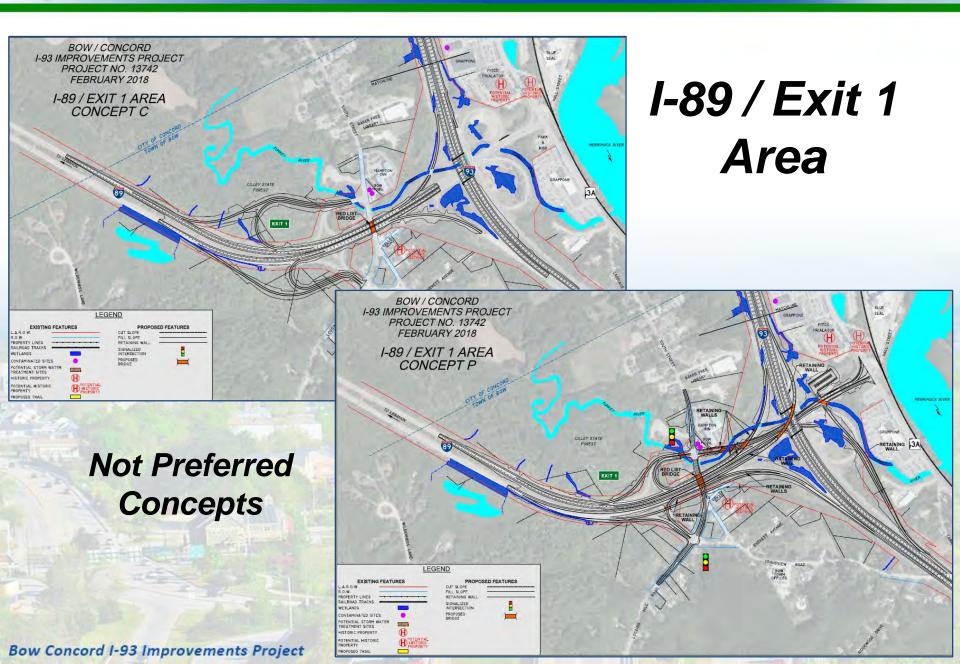


Bicycle / Pedestrian Accommodation













I-89 Area Comparison

CONSIDERATION	CONCEPT C	CONCEPT K	CONCEPT P
Exit 1 To I-93 Weaves	Improved	Eliminated	Eliminated
I-93 NB To I-89 NB Weave	No Change	Improved	Eliminated
I-89 To Route 3A Access	No Change	Via Exit 1 or Via I-93 Exit 12	Via Exit 1 or Via I-93 Exit 12
Property Impacts	Cilley State Forest & Private Parcels	Cilley State Forest, Bow Mobil & Private Parcels	Cilley State Forest, Bow Mobil & Private Parcels
# Red List Bridges	1	1	1
# New Bridges	0	4	5
Project Cost	\$34.1 M	\$65.6 M	\$92.8 M

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I-89 Area Comparison

RESOURCES	CONCEPT C	CONCEPT K	CONCEPT P
Wetlands	0.6 Acres	0.7 Acres	1.8 Acres
Conservation Land	5.3 Acres	0.7 Acres	0.7 Acres
	of Cilley State	of Cilley State	of Cilley State
	Forest (+4.3 Ac)	Forest	Forest
Wildlife	 2 State-listed	 2 State-listed	 2 State-listed
	Species 2 Species of	Species 2 Species of	Species 2 Species of
	Concern Fish Habitat	Concern Fish Habitat	Concern 2 Fish Habitat
Historic Properties	Bow Mills Historic	Bow Mills Historic	Bow Mills Historic
	Area	Area	Area





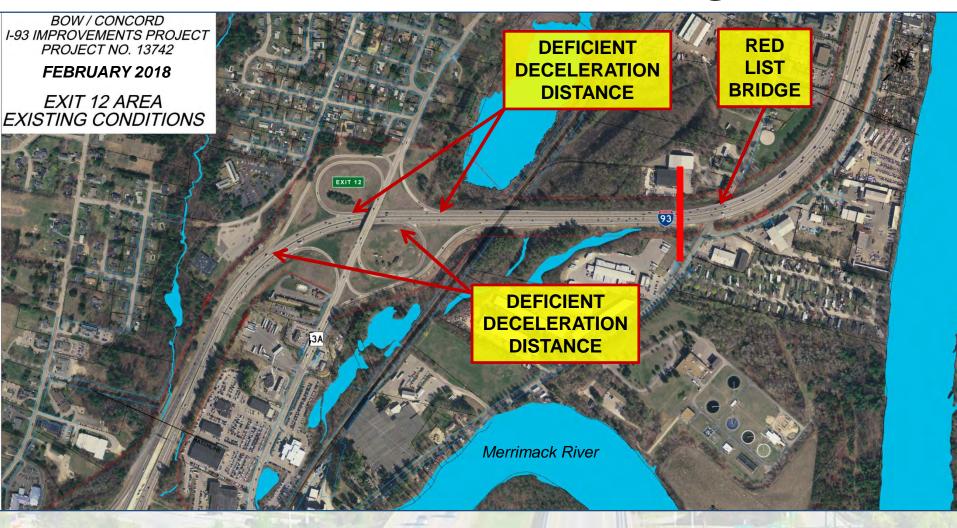
Exit 12 Area - Existing







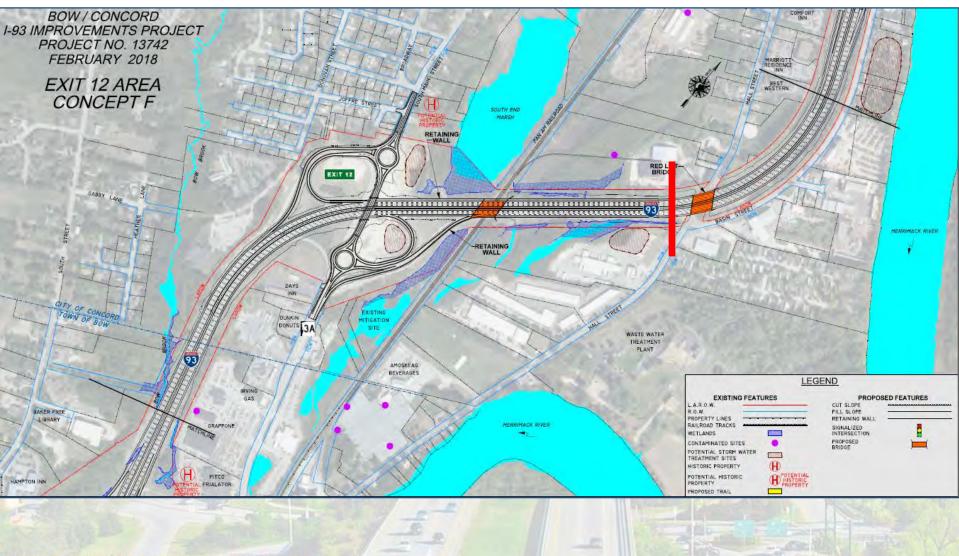
Exit 12 Area - Existing







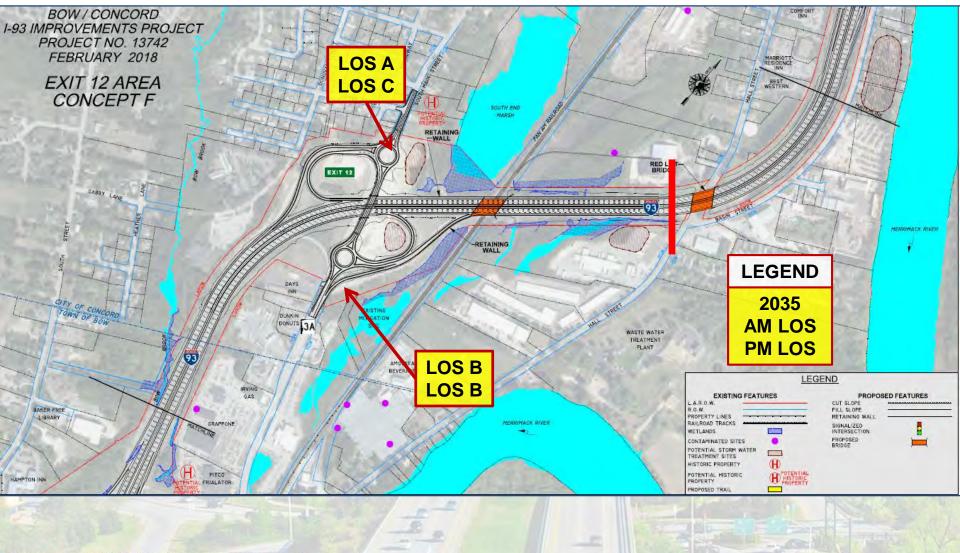
Exit 12 Area - Preferred







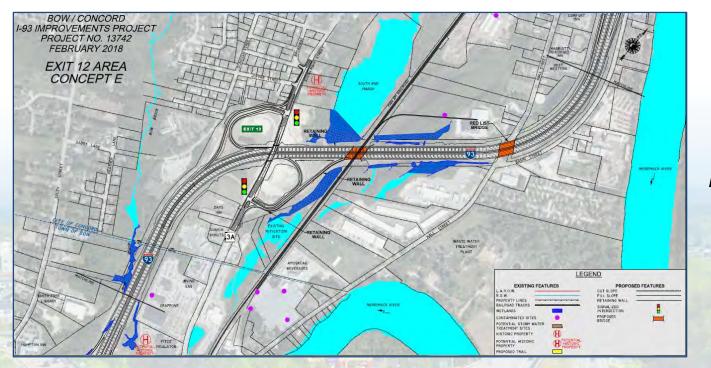
Exit 12 Area - Preferred







Exit 12 Area



Not Preferred Concept





Exit 12 Area Comparison

CONSIDERATION	CONCEPT E	CONCEPT F
Level of Service (AM/PM)	LOS C/C with Queuing	LOS A/C with little Queuing
Property Impacts	Partial Impacts along Route 3A	Partial Impacts along Route 3A
# Red List Bridges	0	0
# New Bridges	0	0
Project Cost	\$36.1 M	\$33.8 M





Exit 12 Area Comparison

RESOURCES	CONCEPT E	CONCEPT F
Wetlands	0.5 Acres	0.5 Acres
Conservation Land	0.0 Acres	0.0 Acres
Wildlife	2 State-listed Species	2 State-listed Species
Historic Properties	S. Concord / Weeks Garden District	S. Concord / Weeks Garden District





Exit 13 Area - Existing







Exit 13 Area - Existing



Bow Concord I-93 Improvements Project

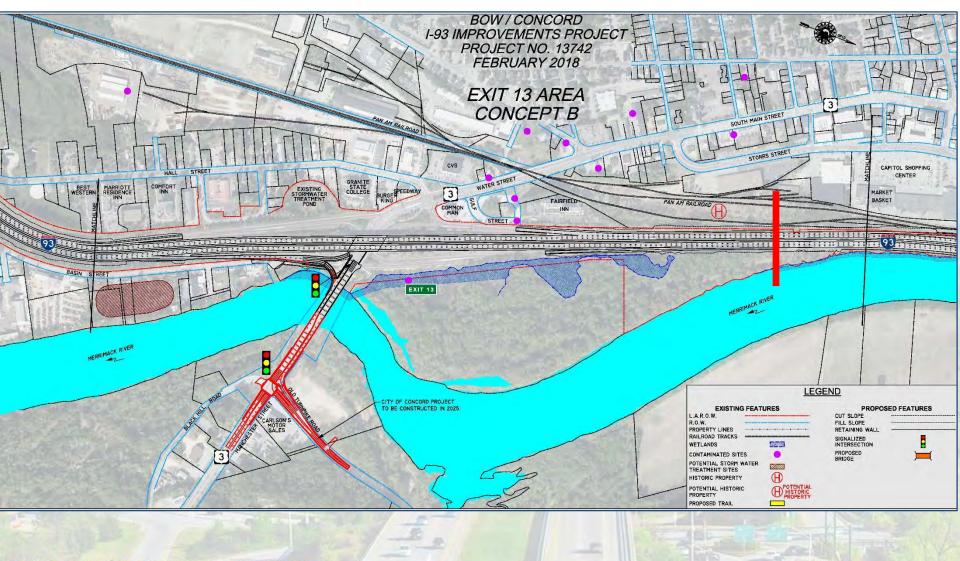


STREET,





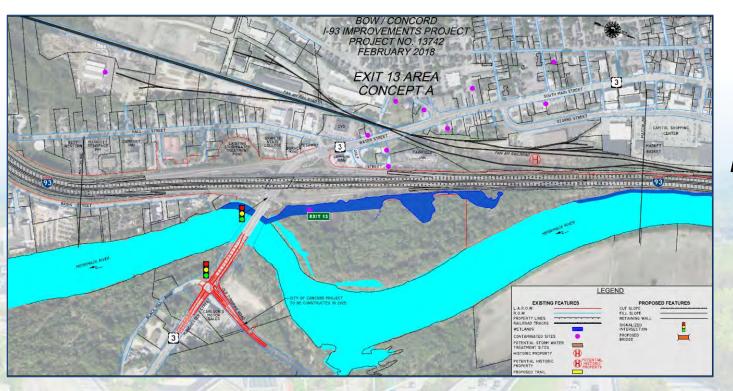
Exit 13 Area - Preferred







Exit 13 Area



Not Preferred Concept





Exit 13 Comparison

CONSIDERATION	CONCEPT A	CONCEPT B
Queuing on NB Exit Ramp	Onto I-93 by 2035	Acceptable
Property Impacts	None	1 Private Parcel
# Red List Bridges	1	1
# New Bridges	0	1
Project Cost	\$33.2 M	\$38.4 M





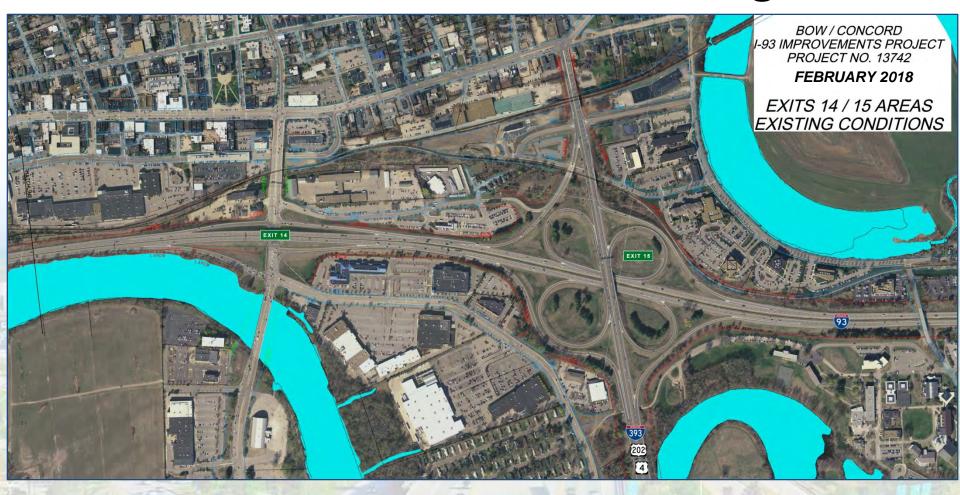
Exit 13 Comparison

Wetlands Conservation Land	0.0 Acres 0.0 Acres	0.1 Acres 0.0 Acres
Conservation Land	0.0 Acres	0.0 Acres
Wildlife •	 2 State-listed Species Fish Habitat 1 Exemplary Community 	 2 State-listed Species Fish Habitat 1 Exemplary Community
Historic Properties	N/A	N/A





Exit 14 / 15 Area - Existing







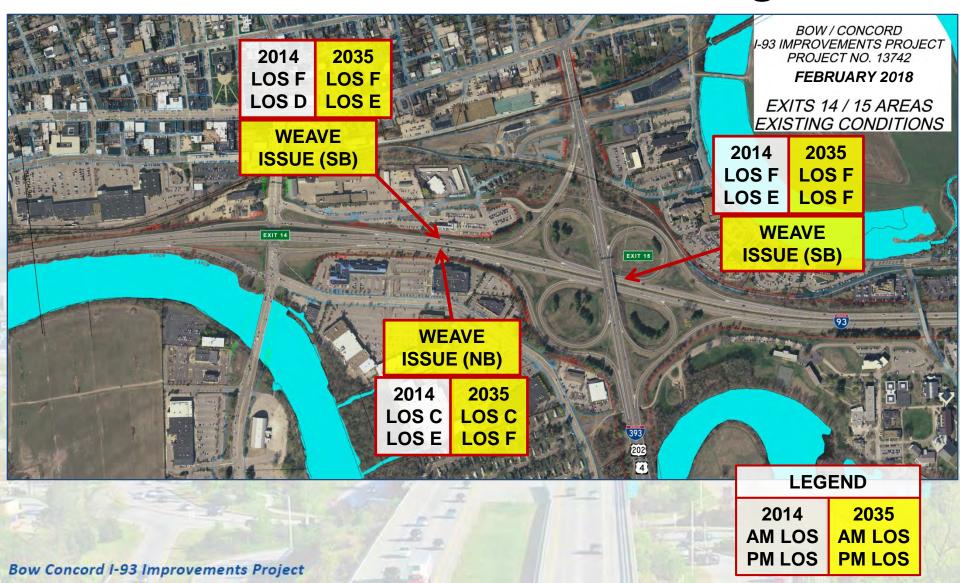
Exit 14 / 15 Area - Existing







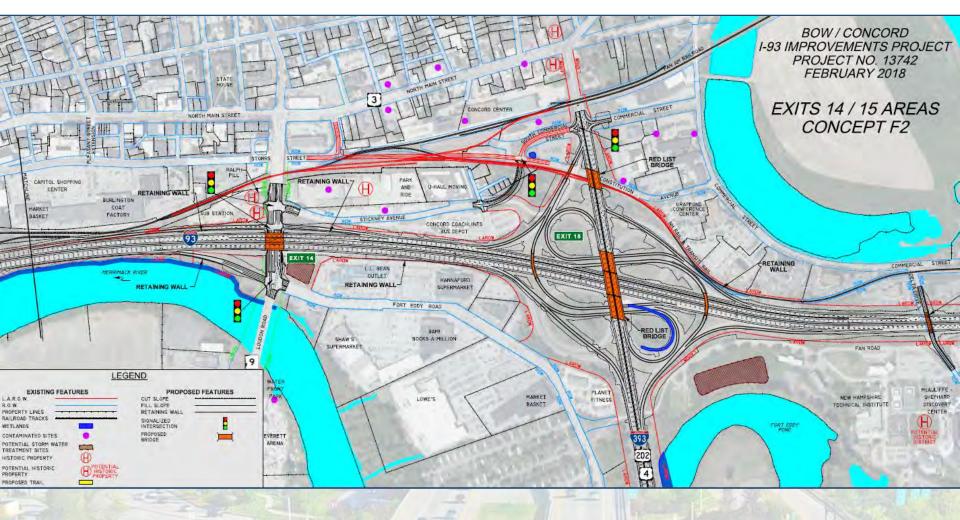
Exit 14 / 15 Area - Existing







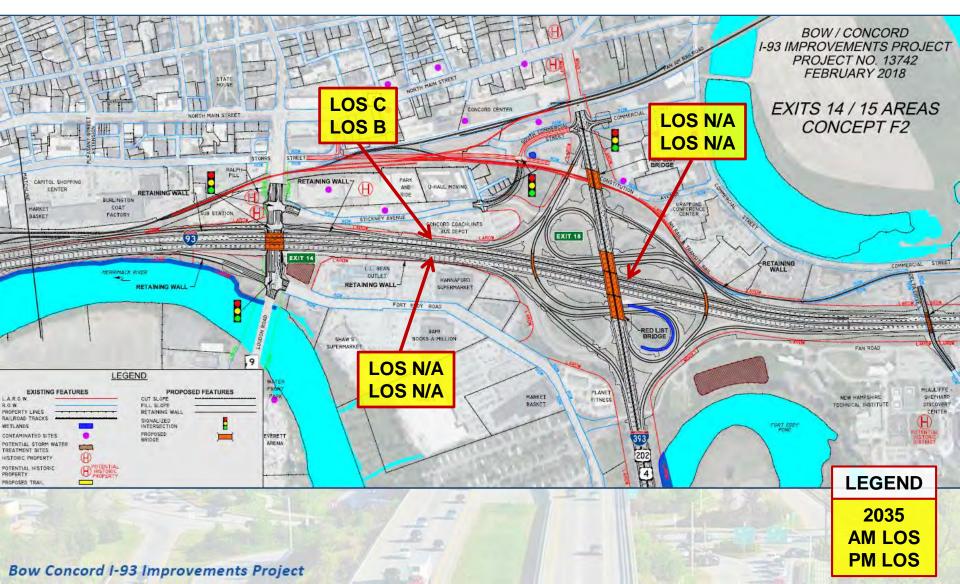
Exit 14 / 15 Area - Preferred





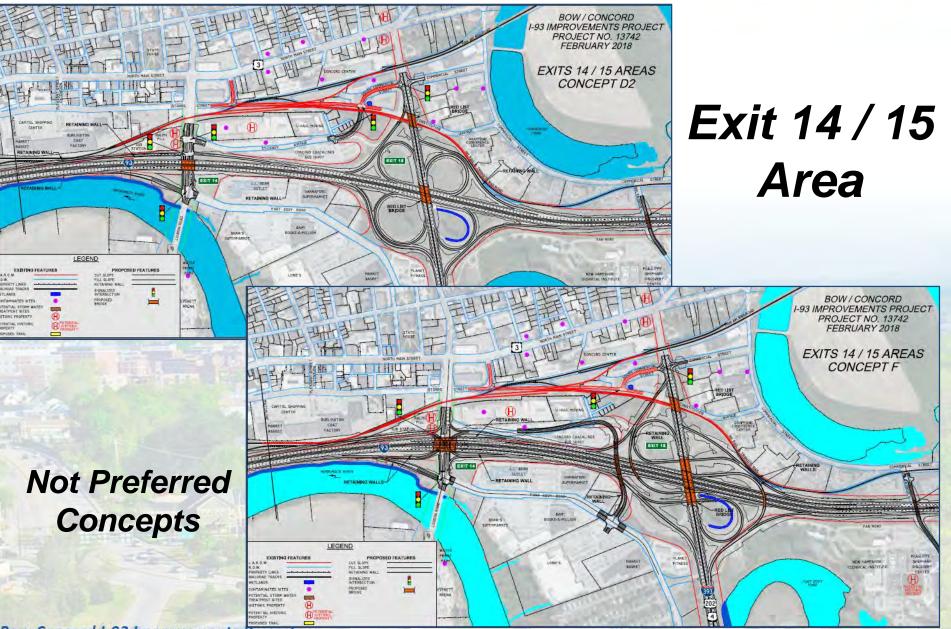


Exit 14 / 15 Area - Preferred













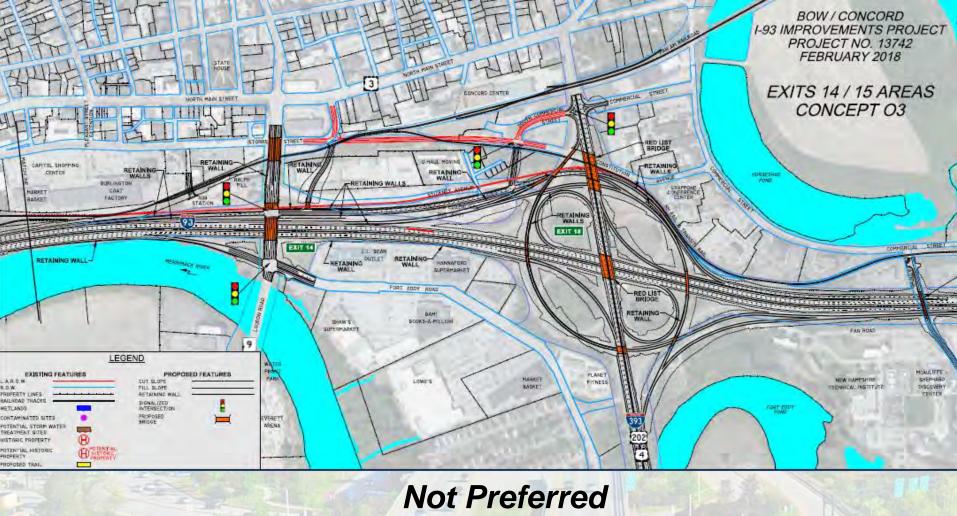
Bicycle / Pedestrian Accommodation







Exit 14 / 15 Area



Concept





Exit 14 / 15 Comparison

CONSIDERATION	CONCEPT D2	CONCEPT F	CONCEPT F2	CONCEPT O3
Exit 14 to Exit 15 Weaves	Improved	C-D Roads	C-D Road (SB) Eliminated (NB)	Eliminated
Exit 15 Weaves	Improved	Eliminated	Eliminated	Eliminated
NB Entrance Ramp at Exit 14	Eliminated	No Change	Eliminated	Eliminated
Property Impacts	None	Ralph Pill Bldg., Unitil Sub Station, & Burlington	None	Bus Station
# Red List Bridges	4	4	4	4
# New Bridges	0	4	2	7
Project Cost	\$91.5 M	\$188.9 M	\$125.0M	\$170.8 M





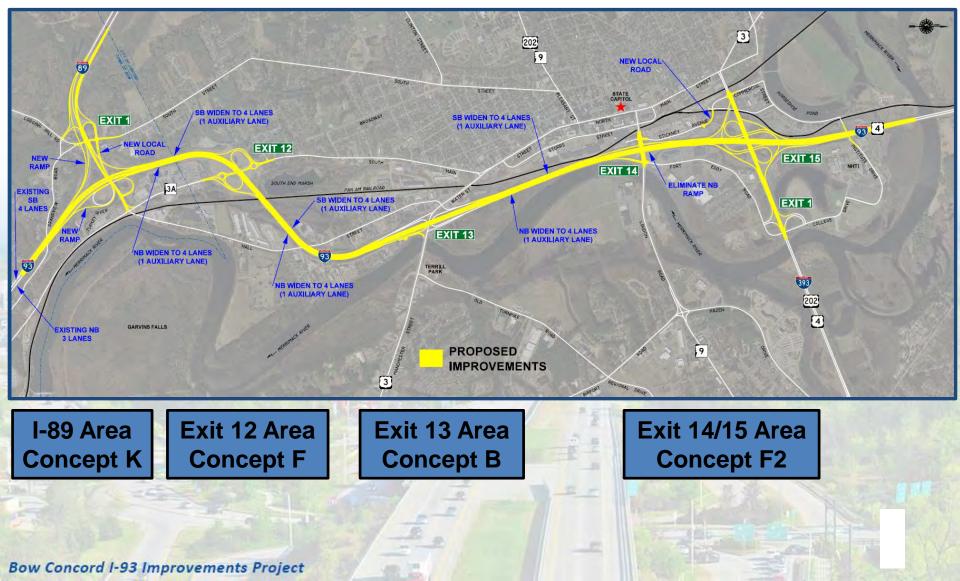
Exit 14 / 15 Comparison

RESOURCES	CONCEPT D2	CONCEPT F	CONCEPT F2	CONCEPT O3
Wetlands	0.3 Acres	0.4 Acres	0.5 Acres	0.2 Acres
Conservation Land	0.0 Acres	0.0 Acres	0.0 Acres	0.0 Acres
	•2 State-listed	 2 State-listed 	•2 State-listed	 2 State-listed
1	Species	Species	Species	Species
Wildlife	Fish Habitat	Fish Habitat	Fish Habitat	Fish Habitat
	•1 Exemplary	•1 Exemplary	•1 Exemplary	•1 Exemplary
	Community	Community	Community	Community
	Railroad,	Railroad,	Railroad,	
Historic		DOT Garage,	DOT Garage,	NHTI District
and the second sec	DOT Garage	Ralph Pill,	Ralph Pill,	INITIT DISUICI
Properties	Ralph Pill,	24 Bridge St.,	24 Bridge St.,	INT.
	24 Bridge St.	NHTI District	NHTI District	





Recommended Preferred Alternative







Project Costs

Bow Concord I-93 Improvements Project *Preferred* Alternative Cost Matrix (Millions \$)

SEGMENT	Concept	Construction \$	Right-of-Way \$	Engineering and Permitting \$	Mitigation \$	Utility \$	Total Project \$
I-89 Area	к	\$58.0	\$1.15	\$5.80	\$0.58	\$0.00	\$65.6
Exit 12	F	\$29.5	\$0.01	\$2.95	\$0.30	\$1.00	\$33.8
Exit 13	В	\$34.5	\$0.01	\$3.45	\$0.35	\$0.00	\$38.4
Exit 14/15	F2	\$111.4	\$0.27	\$11.14	\$1.11	\$1.00	\$125.0
То	tal	\$233.4	\$1.4	\$23.3	\$2.3	\$2.0	\$262.8

(Assessed Value)

(10% of Constr.)

(1% of Constr + any Major Items.)





Next Steps

- Complete Environmental Document
- Develop Corridor Plan
 - Blueprint for Corridor
 - Set Priorities
- Conduct Public Hearing
- Environmental Determination
- Construction
 - o Begin 2024
 - Not Fully Funded









Questions & Answers

www.i93bowconcord.com







I-89 Area Comparison

CONSIDERATION	CONCEPT C	CONCEPT K	CONCEPT P
Exit 1 To I-93 Weaves	Improved	Eliminated	Eliminated
I-93 NB To I-89 NB Weave	No Change	Improved	Eliminated
I-89 To Route 3A Access	No Change	Via Exit 1 or Via I-93 Exit 12	Via Exit 1 or Via I-93 Exit 12
Property Impacts	Cilley State Forest & Private Parcels	Cilley State Forest, Bow Mobil & Private Parcels	Cilley State Forest, Bow Mobil & Private Parcels
# Red List Bridges	1.1	1	1
# New Bridges	0	4	5
Project Cost	\$34.1 M	\$65.6 M	\$92.8 M

RESOURCES	CONCEPT C	CONCEPT K	CONCEPT P
Wetlands	0.6 Acres	0.7 Acres	1.8 Acres
Conservation Land	5.3 Acres	0.7 Acres	0.7 Acres
	of Cilley State	of Cilley State	of Cilley State
	Forest (+4.3 Ac)	Forest	Forest
Wildlife	 2 State-listed	 2 State-listed	 2 State-listed
	Species 2 Species of	Species 2 Species of	Species 2 Species of
	Concern Fish Habitat	Concern Fish Habitat	Concern 2 Fish Habitat
Historic Properties	Bow Mills Historic	Bow Mills Historic	Bow Mills Historic
	Area	Area	Area





Exit 12 Area Comparison

CONSIDERATION	CONCEPT E	CONCEPT F
Level of Service (AM/PM)	LOS C/C with Queuing	LOS A/C with little Queuing
Property Impacts	Partial Impacts along Route 3A	Partial Impacts along Route 3A
# Red List Bridges	0	0
# New Bridges	0	0
Project Cost	\$36.1 M	\$33.8 M

RESOURCES	CONCEPT E	CONCEPT F
Wetlands	etlands 0.5 Acres 0.5 Ac	
Conservation Land	0.0 Acres 0.0 Acres	
Wildlife	2 State-listed Species	2 State-listed Species
Historic Properties	S. Concord / Weeks Garden District	S. Concord / Weeks Garden District





Exit 13 Comparison

CONSIDERATION	CONCEPT A	CONCEPT B	
Queuing on NB Exit Ramp	Onto I-93 by 2035	Acceptable	
Property Impacts	None	1 Private Parcel	
# Red List Bridges	1	1	
# New Bridges	0	1	
Project Cost	\$33.2 M	\$38.4 M	

RESOURCES	CONCEPT A	CONCEPT B	
Wetlands	0.0 Acres	0.1 Acres	
Conservation Land	0.0 Acres	0.0 Acres 0.0 Acres	
Wildlife	 2 State-listed Species Fish Habitat 1 Exemplary Community 	 2 State-listed Species Fish Habitat 1 Exemplary Community 	
Historic Properties	N/A	N/A	





Exit 14 / 15 Comparison

CONSIDERATION	CONCEPT D2	CONCEPT F	CONCEPT F2	CONCEPT O3
Exit 14 to Exit 15 Weaves	Improved	C-D Roads	C-D Road (SB) Eliminated (NB)	Eliminated
Exit 15 Weaves	Improved	Eliminated	Eliminated	Eliminated
NB Entrance Ramp at Exit 14	Eliminated	No Change	Eliminated	Eliminated
Property Impacts	None	Ralph Pill Bldg., Unitil Sub Station, & Burlington	None	Bus Station
# Red List Bridges	4	4	4	4
# New Bridges	0	4	2	7 10
Project Cost	\$91.5 M	\$188.9 M	\$125.0M	\$170.8 M

RESOURCES	CONCEPT D2	CONCEPT F	CONCEPT F2	CONCEPT O3
Wetlands	0.3 Acres	0.4 Acres	0.5 Acres	0.2 Acres
Conservation Land	0.0 Acres	0.0 Acres	0.0 Acres	0.0 Acres
Wildlife	 2 State-listed Species Fish Habitat 1 Exemplary Community 	 2 State-listed Species Fish Habitat 1 Exemplary Community 	 2 State-listed Species Fish Habitat 1 Exemplary Community 	 2 State-listed Species Fish Habitat 1 Exemplary Community
Historic Properties	Railroad, DOT Garage Ralph Pill, 24 Bridge St.	Railroad, DOT Garage, Ralph Pill, 24 Bridge St., NHTI District	Railroad, DOT Garage, Ralph Pill, 24 Bridge St., NHTI District	NHTI District

Bow Concord I-93 Improvements Project

February 2018



Bow-Concord Interstate 93 Improvements Project

Name M. Marshall Address 9 Deer Rom RJ City State ZIP 3304 E-Mail Address com Phone Number Great job with Presentation Comment or and questrons! Question exit I concept K will be a great improvement especta for those new drivers exit 12 concept F love the eliminating round about 5 the wearing with be safer exit 13 signals for ramp needed are exit 14/15 concept F2 is a great choice for proposed eliminate the 4 wearing areas 50 ction pavement should Logging Hill Rd. at for ice storms allenge to get up the hill towards the fire station

COMMENT / QUESTION FORM



Bow-Concord Interstate 93 Improvements Project

Name Title Griffin Address 4 wilderness La Bau City Bow State NH ZIP 03304 E-Mail Address Phone Number This in Formation session, 2/14/18, Comment or Question mass very informative, I am in Favor For all of the proposed recommendations, Good work!

COMMENT / QUESTION FORM



Bow-Concord Interstate 93 Improvements Project

COMMENT / QUESTION FORM

Name	Deedra ferriceis
Address	49 Beacon
City State	Cancord NH
ZIP	
E-Mail Address	
Phone Number	
Comment or Question	Fine with remaining the exit 14 NB ramp by fteddy like the 89 solution Like the machineter st exit solution want to male sure any road work includes expansion when possible to be used fire protestrian I bingde transportection. Ideelly 6ft of space minimum for designaded bike lanes Anything that can be done to improve the new of the city as prople drive by AkA flather the prylero - gross. OK protup soud barners?

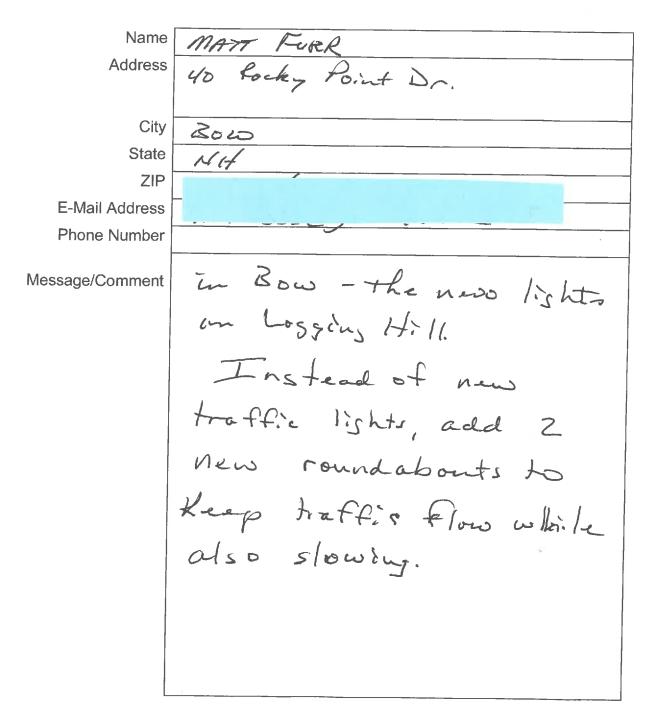


Name Rob Mack Address 39 Rocky Point Dr. City Bow State ZIP E-Mail Address Phone Number Commentor Please strongly consider roundabouts Question as opposed to traffic signals for the the two intersectionson South St. / Logging HillRa. @Exit 1. · roundabouts will handle the same volome of traffic as signals, and wont need addition of a 3rd lang for turns. · roundaboots will suppress speed in this village area, whereas two closely-spaced signeds will increase speeds as traffic hurries to cather make both lights · roundabouts have a 70% ± crash reduction vs. traffic signals. · round abouts will delay vehicles by several seconds, vs. longer delays, and quenes (24/7) from signals. · Shorter queues resulting from roundabouts will improve left-tum access to nearby businesses and properties. U



Name	Sarah Dolcino
Address	3 Jones Ave
	3 AUNES TIVE
City	Bow
State	NH
ZIP	03304
E-Mail Address	02304
Phone Number	
Comment or	I like the preferred concepts as presented. I am relieved to
Question	presented. I am relieved to
77	See a safe solution to the I-89
	Exit #I weave problem. It is
	a terrifying ramp at rush hour.







Name	505an Bird 2-14-2018
Address	9 Woodland Cir
City State ZIP E-Mail Address Phone Number	Bow NH 03304
Comment or Question	The preferred solution presented at Bow Memorial School this night for the 89-93 inter- change is tabulous. The through traffic has been separated trom local thaffic. Also the exit 14 \$ 15 designs are really good ~ eliminating the merging & crossing of traffic lanes. Much safer - much better traffic tlow.



Name Address City State ZIP E-Mail Address Phone Number The desire account to inverse the coffety	
City State ZIP E-Mail Address Phone Number	
State ZIP E-Mail Address Phone Number	12
State NH ZIP 03304 E-Mail Address Phone Number	
E-Mail Address	
Phone Number	
NT AND	
The decision appare to insprave the confetu	
Comment or Question The design appears to improve the safety Exit 1 Interchange significantly and which is a welcome change. I notice that the sidewalk on hopping Logging Hi Erds pro prior to the traffic signal. Can- sidewalks and pedestrian a comodations extended through the traffic signal? I this would be very beneficial to the To would allow the Town to extend sidewall down Logging Hill Road to the communit center in the future. Note The loop from Hill Road to South Street to Iron Works Road - Clinton Street to Silk farm Road to Albin and Logging Hill Road is a very popular recreationa and anything we can do to improve the cor would go a long way.	ed ill Road the be ill think be ill think be ill think be ill think ill think ill think ill think ill think ill think ill the ill think ill the ill think ill the ill think ill the ill think ill the ill the



Newse	
Name	MEGAN FOURNIER
Address	37 ALICE DR #129
City	CONCORD,
State	NH
ZIP	
E-Mail Address	03303
Phone Number	·Com
i nono reamber	
Message/Comment	Overall, very pleased with proposed
	improvements in the preferred alternatives
	for Exits 12-14.
	As a frequent commuter between Concord
	and Manchester, I am very much in favor
	of the proposed improvements at the
	7-89 Junction and exits 14/15.
	. I Junction un a CXits 14/15.



Name	Roy Schweiken
Address	
City	
State	,
ZIP	
E-Mail Address	M
Phone Number	
Comment or Question	Rtc. 106 to I-89 or Amport Rd - Hall St Connector
	The city of Concord has long proposed a connector in the SE of the city to open a large parcel for development. This would probably require Concept C to be selected.



Name Roy Schweiker Address City State ZIP E-Mail Address **Phone Number** No roundabouts at Exit 12 Comment or Question These would be similar to the 2-lane roundabouts at Rte. 10 in Keene which I fear for my life eveny time I go through. Traffic lights are more Priendly to elderly and new drivers.



Name Roy Schweiker **Address** City State 7iP E-Mail Address 1 M Phone Number Ent BNB yield sign Comment or Question Now if you want to exit at @13 and turn R, you need to stop at a stop sign even though one of the 3 signal phases has no traffic passing by. It a yield sign was used instead, more relicles could exit during this phase and stacking reduced. It roundabouts have only yield signs, why not ramps ?



Name	Roy Schweiker
Address	
City	
State	
ZIP	
E-Mail Address	
Phone Number	
Message/Comment	Merrimauk River Greenway That!
	The city wants a multi-use trail on both states of the Merrymack River.
	Ideally the project would either provide this posth on leave space for it.
	Minimally there should be an underpass at the Nend of Teardrop Park.



Name	Roy Schweiker
Address	
City	
State	
ZIP	
E-Mail Address	
Phone Number	
Message/Comment	Wide highway is a barrier to wildlife & pedestrians
	The path at I-89 needs to be retained, and new connectors built at N end of Teardrop Park and at I-393 to eliwonate areas of 1+ miles with no crossings



Name	Roy Schweiker
Address	
City	
State	
ZIP	
E-Mail Address	۶ (۸۲ مربع)
Phone Number	
Message/Comment	New interchanges are too complex for high proportion of eldenly and refugee drivers and hander to build without major traffic disruption. Do the simple alternative to just extend ramps at Bow exit 1, and stick with regular clovenleaf at concord exit 15

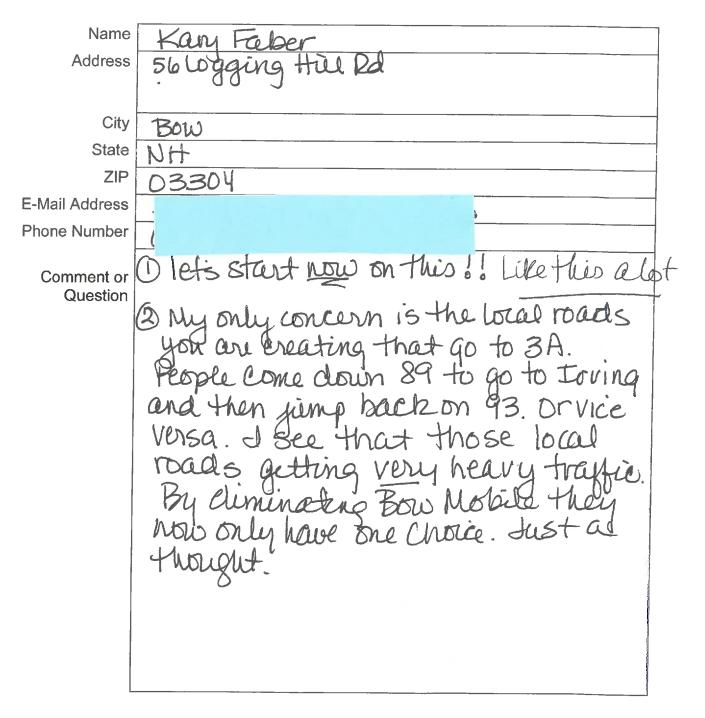


Name	Roy Schweiken
Address	
City	
State	
ZIP	
E-Mail Address	B, Contraction of the second se
Phone Number	
Message/Comment	Typical local road cross-section is not pedestrian-friendly hence not ADA-compliant
	There need to be a 6' buffer between highway curb and side walk to . provide snow storage since plowing snow onto sidewalk makes vt impassable when other unse you could walk on it. Separating bike lane from travel lane should also be considered



Name	Concern Cotrea
Address	
City	
State	
ZIP	
E-Mail Address	
Phone Number	
Message/Comment	I like all the preferced designs only concern is the East Bound traffic on 393. The proposed access from Dautour areas create the possibility of speed increasing. So EAST Bound Traffic will Cause problem for traffic entering 393 @ ext 1. Can you increase the length of ex. + 1 to help Merging?







STEPHEN Name 6ER Address 39 Wooderest Hts. Q Q . City CORS State ZIP E-Mail Address **Phone Number** Message/Comment Between Exit 13+14 a 'S way is below [Di year AUZ & ned ALALAN



Name Address REST HTS. DR. City na D State ZIP 73701 **E-Mail Address Phone Number** Message/Comment An linel aut ALOO K 1er 1. al λ



Name Address	MARY FAGAN
Address	29 BROWN HILL RD
City	Row
State	NH
ZIP	03304
E-Mail Address Phone Number	- com
Comment or Question	Are there any plans or ideas to improve access to the Marrimode River for recreational purposes? - Walking, boating, biking, etc.



Name	JAMES POITRAS]
Address		
City	CONCORD 1	
State		
ZIP	nen. n	
E-Mail Address	053-3	
Phone Number		
Comment or	CURACISTY EXIT 13 ON RANDS CAUSing huge conject	0 nj
Question	CURRENTY Exit 13 on Roups CAusing huge conject	٤
	Only remainty concern is Doing all this without big impart on traffix siring constra	to



COMMENT / QUESTION FORM

Name	Diane Dean
Address	
	9 Guay ST
City	Conard
State	NH
ZIP	03301
E-Mail Address	
Phone Number	
Comment or Question	tonight there was a suggestion to open Valley Rd to 3A. There is already a thru load to \$3A a 1/2 mile up Granditien on Old Carriege Rd - there is no need to have another.

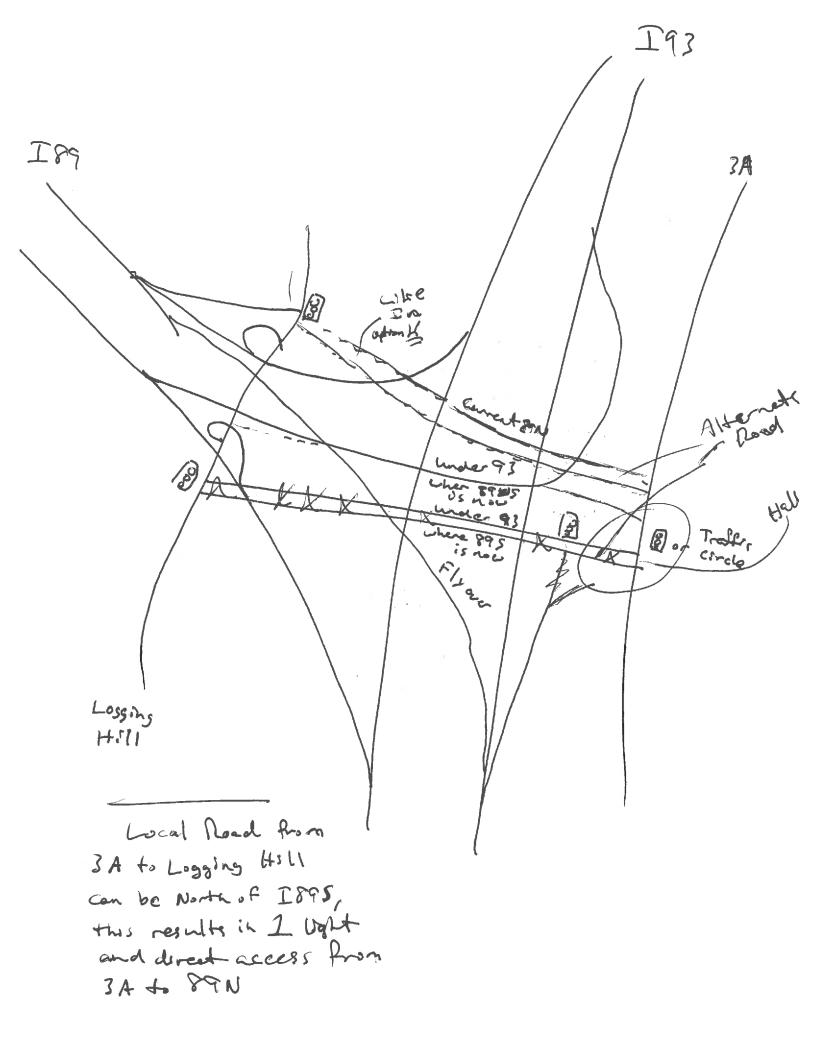
8



Name	Monica Swenson
Address	8 Logging Hill Rd
City	Bow
State	NH
ZIP	03304
E-Mail Address	
Phone Number	219-1412
Comment or Question	will land be taken more by eminent domain?
	what is the time line?



Name	Willor Slock 4 Longrow Prove	
Address	4 Longroce Prove	
	J.U., NH	*
City	Vou ···	
State	NU	
ZIP	03704	
E-Mail Address		
Phone Number		
Comment or Question	See derisn or other side	
	an ¹⁹⁶⁷ or 6 an 1	
		>





Name 6005 Address fisili City meo State ZIP E-Mail Address **Phone Number** 593 500 au. needs Comment or a merge at become Question YADFFIC ehavid 64 anh USP san le ric will 393 W should be its & lane, 3 lawes wont change the behavior of hugging the right Jane.



Name TIM BLAGDEN Address POBOX 610 City WARNER State NH ZIP 03278 E-Mail Address **Phone Number** I ENCOURAGE THE PROJECT TEAM TO PRODUCE Comment or AT LEAST I LOW STRESS LEVEL CROSSING OF Question By Bicycla I.93 FOR PEOPLE COMING ON THE ONDON RD FROM THE EAST SIDE OF THE HIGWAY TRYING TO REACH MAIN ST. I SUGGEST CONTACTING ERIK PADDLE FORD AT NHADT AND REQUEST THE STRAVA DATA SHOWING CYCLING ACTIVITY IN CONCORD. I SUGGEST CONTACTING CRAIG-TUFTS AT CENTRAL N.H. REFIWAL PLANNING COMMISSION AND ASKING FOR LEVEL OF TRAFFIC STRESS MARS WHICH SHOW THE ROADS MOST PREFERED BY CYCLISTS, LEVEL OF TRAFFIC STRESS WOULD HELP THE DESIGN TEAM BY GIVING THEM OPTIONS THEY COULD TRADE OFF TO PRODUCE INFRASTRUCTURE THAT WOULD BE USED BY THE WIDEST SEGMENT OF PEOPLE ON BINES



Name TIM BLAGDEN POBOX 610 Address City WARNE? State NH ZIP Ô3278 E-Mail Address Phone Number I ADUDCATE FOR BRINGING THE RAILROAD Comment or CORRIDOR CLOSER TO I-93 AS SHOWN IN Question EXIT 14/15 CONCEPT 3. THIS WOULD MAKE THE AREA BY U-HALL MUCH MORE ATTRACTIVE TO DEVELOPRICS LEAVING THE TRACKS IN THEIR CURRENT LOCATION EASURES THIS SECTION OF TOWN WILL REMAIN UN ATTRACTIVE TO PEDESTRIANS FOR ANOTHER 50 YEARS

Public Informational Meeting February 14, 2018

	Name	Affiliation	Phone Number	E-Mail
Contro	below & Culver	Busidees		
>	MATT FURE	RESIDENT		
	Matt Taylor	Town Planer		
	Loist Rick Howe	resident		
	PETE JASIE	Resident		
	Mark Zerba	11		
	Deanton Pernecis	CNHRC		
	JANIS Hach	TAY PAVER		
	Bue O Downere	Derier 5		
	JAMER POILARS	1035101241		
	Michelle Mr. Sweeney	Rundensk		
	Joanna Jiang	Business		
	いたる、あれてん	(BILLOR) RESERVENT		
	Niwk Frote	Resident		
	Krist Crowell	rscent		
	Tom Pilesky	Biness		

Public Informational Meeting February 14, 2018

Attiliation Phone Number E-Mail	12 Hon Toos	NELTONAN- KON	Bow resident		Office of Rep. Ann Kuster	Bow Resident	Bow Resident / Planning Zoarol		Bau Resident	PITCO FRIATOR. ILC	sclechman	Citizen	Resultant	Ras rolout
A C Sol		0.	3 1	et a	d a	30 D		horen	Sarah De Icino Bau R	V		ChrissNorthrop Citz	MARCIC WASSERT RES,	 Oli Counts Loopa Reader

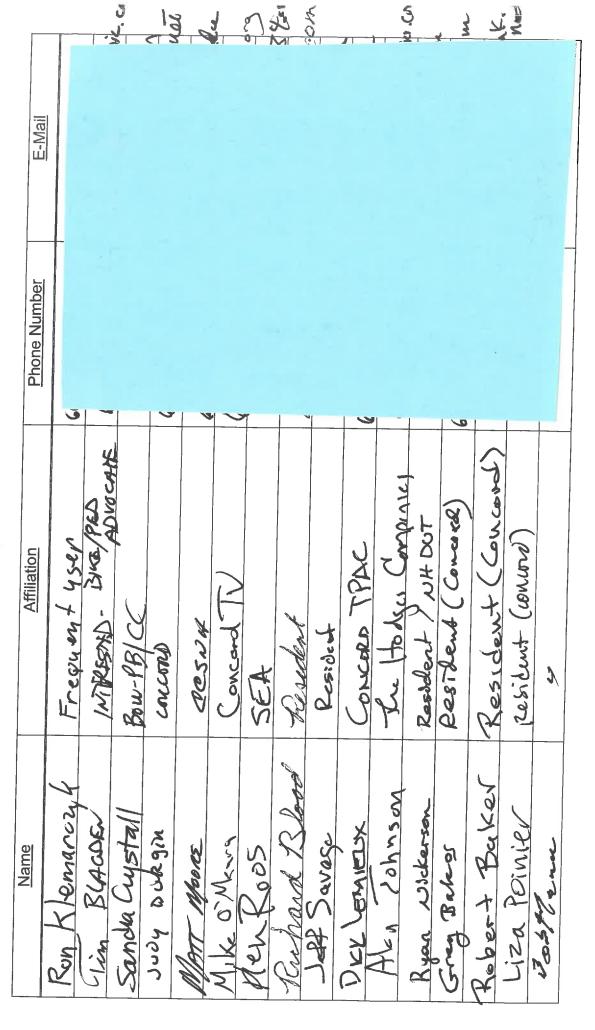
Public Informational Meeting February 14, 2018

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Public Informational Meeting February 14, 2018

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E-Mail																
Phone Number																
Affiliation	24 Page PL Resident	39 Rocky Point Dr.	Conc	4 h:/derar 55 La. Bow	J LOO	S Legging Hill Rd	5 TUREE VIEW DR	47 Dak Hill N. Consol	37 Alice Dr #129 Concord	54 Ridgewood DR Bow	2	13 Rivar Road	10 Connereial St.	3 LOGGING HILL RD, BON NI	2 Logging Hill Rd. Bow	VIB HALL ST CONCRED NEMF
Name	AAnct H. Shaw	"Rob Made	Sacie reague	Mike Griffin	GIL ROGERS	Monica Swenson	BILL GERRARD	Sue Butman	Megan Fournier	Theresa Neves	John Cabib	Jum E marcare	Kodney Signa	Antiony Foota	Linda Colby	Kobert EKLUND

Public Informational Meeting February 15, 2018



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Public Informational Meeting February 15, 2018

E-Mail																	CUMAN CUT
Phone Number																	
Affiliation	RESIDENT CONCORD		Resident Concord			t		6 Groch	Interested Party		\sim	Interested Party		Inducated Redy	Autersky of Gtrain	Atta BV BVixma	
Name	Tom LEVINS	JOANWA OTES	Jim Kinonac	Chris Bean	Allan Herschlan	PAUL CODDINGTON	Nicole Fox	John FOURIER	Very Jucker	Pavi Bradshaw	Gail Page	Evan Lowell	Bill McConadle	Darm Brad	BRIDN Kue	john Soku	

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Public Informational Meeting February 15, 2018

	`	2	1	e e				1	S. A.	Soc	Jac.	6			
E-Mail															
Phone Number															
Affiliation	NH DNCR-Parks and Rec	Resident	Resident	Resident	Kestur	Canterbury NH.	Resident of Concord	Home owner Resident	Res. Dev C	CHUIA	CNHRPC				
Name	Eric Feldbaum	Joshua Crawford	Celun Portres	Chris Robert	Chick Lload	David+ Cause Rauseo	Exegory Naigles	Hanley South	Bry Ang Brownson	Leigh Levine	Dean Will-in	,			

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Public Informational Meeting February 15, 2018

					50	Redu					 		
<u>E-Mail</u>													
Phone Number													
Affiliation	PUBAC	PUBLIC	NH DOT (Public)	Concord City Cauncillar Ward 8	FMRGT + CITIZEN	Rowley Arancy	Public	Roug	Public/markey				
Name	But HEWZ	VAUID CAUSEO	Dave Bugbee	Gail Matson	Roland Berube	TAN Church	Build Spratt	Stephen lean de	Philo Slette				