



Conway 25103 – Bridge Preservation / Scour Protection with Partially Grouted Riprap (PGR)


Conway Bridge No. 167/067 – East Side Road over the Saco River

2020 ANNUAL BRIDGE REPORT

NHDOT Bridge Condition and Bridge Program

**Based on Bridge Inspection Data through December 31, 2020
and**

Bridge Project Data for the 2020 Federal Fiscal Year (October 1, 2019 – September 30, 2020)

Approved by: 
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Chair, NHDOT Bridge Management Committee

Date: 6-17-22

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Note: Completion of this Report was delayed approximately 12 months, primarily due to the COVID-19 Pandemic.

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- Appendix "A" - State Red List and Location Map of all 2020 State Red List Bridges
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- Appendix "C" - Bridge Postings and Weight Restrictions – Definitions, Signs, and Examples
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- Appendix "E" - List and Location Map of all State Bridges Receiving Rehabilitation Work in 2020
- Appendix "F" - List and Location Map of all State Bridges Replaced in 2020

1 Executive Summary

The NHDOT Bridge Management Committee (BMC) has compiled this 2020 Annual Report on Bridge Condition and the Bridge Program. Presented herein are data regarding the condition of all bridges in New Hampshire and the goals and status of the NHDOT Bridge Program. This information is based on bridge inspection data through December 31, 2020, as reported to the Federal Highway Administration (FHWA) in March 2020, and in the bridge program expenditures for Federal Fiscal Year (FFY) 2020 (October 1, 2019 - September 30, 2020).

Bridge Program Goals

The overarching goal of the NHDOT Bridge Program is to support “transportation excellence, enhancing the quality of life in New Hampshire” by providing safe and efficient mobility for the efficient movement of people, goods, and services throughout the State by maintaining the bridge inventory in a state of good repair by accomplishing by the following goals:

1. Implement the *Recommended Investment Strategy* (RIS) to attain the maximum service life, which varies from 60 - 120 years based on bridge type, for all types of bridges in New Hampshire.
2. Inspect all state and municipal/other bridges to meet Federal and State inspection and reporting requirements.
3. Manage all posted (weight restricted) bridges to reduce or eliminate constraints affecting the safe and efficient movement of goods and services, including emergency response, on the overall State transportation system. Specifically, the goal is for all High Investment Bridges (HIBs) and all bridges on Tier 1 and 2 roadways to have no weight restrictions, for all Tier 3 bridges with weight restrictions to be included in the 10-Year Plan as projects to address their weight restrictions, and for all weight restricted Tier 4 bridges to be reviewed to ensure that the weight restriction for each bridge does not affect emergency response services. (Please refer to *Appendix C - Bridge Postings and Weight Restrictions* for additional information.)
4. Manage the State’s Red List (“poor” condition) bridges to reduce the backlog of bridge rehabilitation and replacement efforts to the maximum extent that can be addressed within the funding constraints of the State’s 10-Year Transportation Improvement Plan (10-Year Plan).
5. Apply available bridge funds to limit the total area of bridge decks in “poor” condition on the National Highway System (NHS) in New Hampshire to be less than 7% of the total deck area on this highway category. This goal is more stringent than the 10% limit stipulated by the Federal Highway Administration (FHWA).
6. Record and utilize project cost data to calculate cost estimates through all project development phases (Initial Assessment; Type, Size, & Location (TS&L); Preliminary Plans; PPS&E Plans; and PS&E Plans) to improve cost estimating practices and corresponding project cost results as the *Recommended Investment Strategy* (RIS) is efficiently and effectively implemented. The goal is for Initial Project Assessment cost estimates to be within 25% (\pm) of the PS&E estimate.

These efforts require effective application of available funds allocated to perform scheduled maintenance, preservation, rehabilitation, and replacement activities. This is accomplished by determining the ranking of all bridges based on the following considerations: Condition; Type & Size; Importance; Capacity; Risk; and Engineering Knowledge. Contract documents are then developed to perform appropriate maintenance, preservation, rehabilitation, or replacement activities on specific bridges, within the funding constraints of each fiscal year of both the State and Municipal bridge programs.

Red List Data for 2020

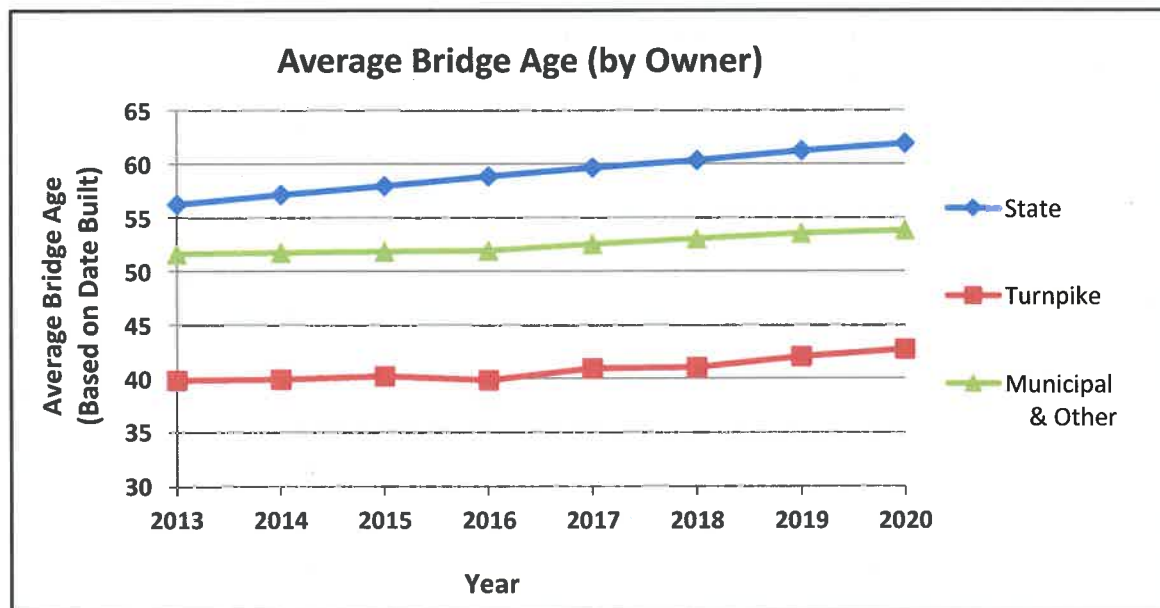
Based on bridge inspection data through December 31, 2020, there are 2,162 state owned bridges and 1,691 municipally owned bridges. Of these, 118 bridges are on the State Red List and 223 bridges are on the Municipal Red List for a total of 341 bridges that have at least one major structural element (deck, superstructure, substructure, or culvert) in “poor” condition. The NHDOT Bridge Statistics for bridge count and bridge deck area are listed below:

NHDOT Bridge Statistics for 2020 (Bridge count; Length = 10 ft. and greater)				NHDOT Bridge Statistics for 2020 (Bridge deck area (sq. ft.); Length = 10 ft. and greater)			
	State	Municipal/Other	Totals		State	Municipal/Other	Totals
Red List	118	223	341	Red List	608,319	336,755	945,074
Yellow List	893	648	1,541	Yellow List	3,840,454	966,903	4,807,357
Green List	1,124	762	1,886	Green List	6,124,128	1,241,129	7,365,257
Closed or N/A	27	58	85	Closed or N/A	71,492	90,930	162,422
Totals:	2,162	1,691	3,853	Totals:	10,644,393	2,635,717	13,280,110

See Page 9 for definitions of Red, Yellow, Green, and Closed Lists of Bridges.

Age of NH Bridges in 2020

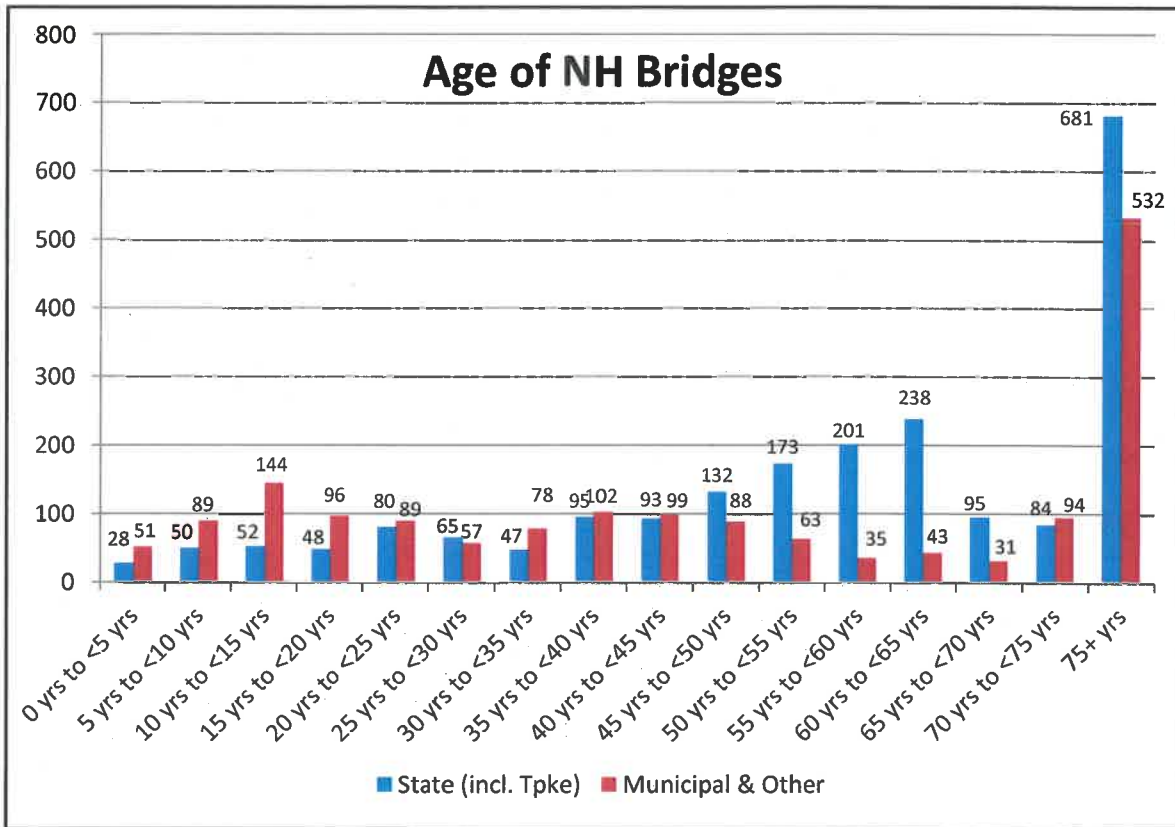
Approximately half of all bridges in New Hampshire were constructed before 1960 and were not designed to carry modern vehicle loads or traffic volumes. Since that time, traffic volumes and vehicle loads have greatly increased, placing additional and sometimes excessive stress on these bridges. Further, many bridges constructed since 1960 are also approaching the end of their originally anticipated 50-to-80-year service life, depending on bridge type. The Department has been aggressive in efforts to address State Red List bridges, with 93 bridges removed from the State Red List from 2015 through 2020. However, bridges continue to deteriorate and many have transitioned onto the Red List during this same time frame.



	Average Bridge Age (Years) by Owner							
	2013	2014	2015	2016	2017	2018	2019	2020
State (non-Turnpike)	56.2	57.1	57.9	58.8	59.6	60.3	61.2	61.9
Turnpike	39.8	39.9	40.2	39.8	40.9	41.0	42.0	42.7
Municipal & Other	51.6	51.7	51.8	51.9	52.5	53.0	53.5	53.8

During the 2015 - 2020 time period, 69 bridges were added to the State Red List and 93 bridges were removed from the State Red List, resulting in a net decrease of 24 State Red List bridges. Similar efforts regarding the Municipal Red List from 2015 through 2020 resulted in 87 bridges being added to the Municipal Red List and 137 bridges being removed from the Municipal Red List, for a net decrease of 50 Municipal Red List bridges. Many of these Municipal Red List bridges were addressed using municipal (local) funds only, due in part to the very limited funds available in the State Bridge Aid Program.

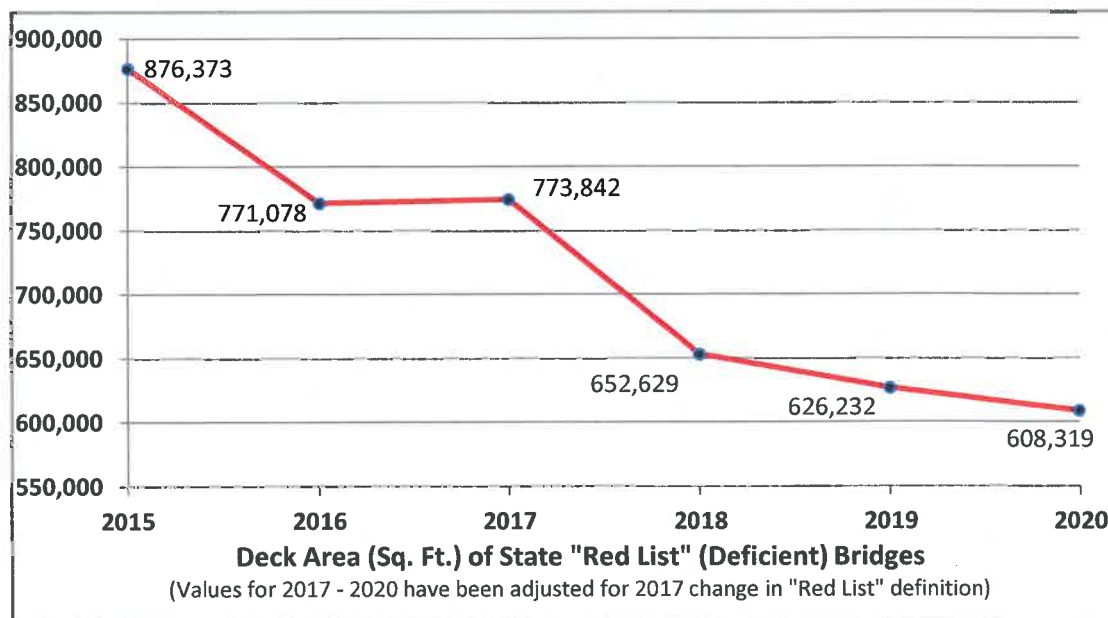
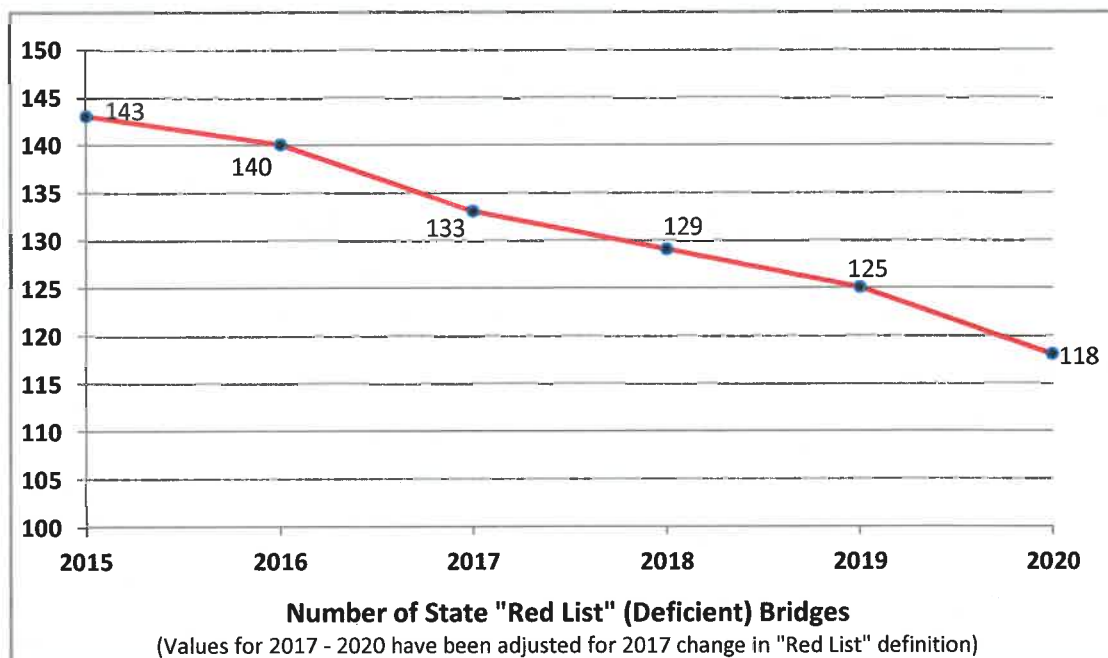
The following chart depicts the number of bridges in each age category, based on bridge data through December 31, 2020 for state bridges (including Turnpikes) and municipal/other bridges. This shows that 1,472 of 2,162 state bridges (about 68.1%) are more than 50 years old with an average age of 60.4 years for all state bridges. Similarly, 798 of 1,691 municipal bridges (about 47.2%) are more than 50 years old with an average age of 53.8 years for all municipal bridges.



The above data indicates the challenge faced by the Department to obtain and dedicate the resources needed to perform bridge preservation, rehabilitation, or replacement in a timely manner when a clear majority of state bridges have essentially exceeded their originally anticipated 50-year service life. This is especially true when considering that 1,213 state and municipal bridges (about 31.5% or nearly one-third) of bridges in the total bridge inventory are more than 75 years old.

Please refer to the NHDOT *Recommended Investment Strategy* (<https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/bridgeprogramrecommendedinvestmentstrategy.pdf>) and the NHDOT *Recommended Network Funding* (<https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/bridgeprogramrecommendednetworkfunding.pdf>) of the NHDOT Bridge Program for further information on the Department’s efforts to extend the service life of state bridges and the projected funding needed to accomplish the goals of the Bridge Program.

The graphs below depict the number and deck area of state Red List bridges based on data from 2015 through 2020.



The above graphs and information display the significant progress the Department has achieved in reducing the number and deck area of Red List bridges over the past 5 years. However, it is important to note that, in general, the number of Red List bridges over time has decreased steadily, although many bridges previously on the Yellow List have deteriorated further each year and thus transitioned to the Red List. It is the goal of the *Recommended Investment Strategy* to perform timely and appropriate preservation activities on bridges that are still in 5 = "Fair" to 7 = "Good" condition, thus keeping them off the Red List. The importance and cost effectiveness of this Strategy cannot be overstated.

Bridge Program Accomplishments for FFY 2020

Significant accomplishments have been made toward establishing criteria and strategies to apply funding and staff to address the maintenance, preservation, rehabilitation, and replacement needs of New Hampshire state bridges. The following table summarizes accomplishments by the Bridge Design and Bridge Maintenance Bureaus during the 2020 Federal Fiscal Year to meet the Bridge Program goals described above.

In this Report, data associated with bridge deck areas refer to the deck area of existing bridges, e.g., the deck area of Red List bridges that have been replaced refers to the deck area of the original (existing) bridges, and not the deck area of the new (replacement) bridges. “Deck area” is just another way to indicate the magnitude of Red List (deficient) bridges, similar to the Red List bridge count.

SUMMARY of FFY 2020 Accomplishments									
FISCAL YEAR	ACTIVITY	CATEGORY	Bridge Design		Bridge Maintenance		Totals		GRAND TOTALS
			State non-Turnpike	Turnpike	State non-Turnpike	Turnpike	State non-Turnpike	Turnpike	
2020 (Actual)	Preservation	No. of Projects	7	0	7	2	14	2	16
		No. of Bridges	15	0	7	2	22	2	24
		Deck Area	277,281	0	22,591	1,055	299,872	1,055	300,927
		Construction Cost	\$16,716,600	\$0	\$940,100	\$607,100	\$17,656,700	\$607,100	\$18,263,800
		Cost per Sq. Ft.	\$60	N/A	\$42	\$575	\$59	\$575	\$61
	Other	No. of Projects	4	0	0	0	4	0	4
		No. of Bridges	12	0	0	0	12	0	12
		Deck Area	N/A	0	0	0	N/A	N/A	N/A
		Construction Cost	\$4,539,000	\$0	\$0	\$0	\$4,539,000	\$0	\$4,539,000
		Cost per Sq. Ft.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	Rehabilitation	No. of Projects	0	0	4	0	4	0	4
		No. of Bridges	0	0	4	0	4	0	4
		Deck Area	0	0	6,068	0	6,068	0	6,068
		Construction Cost	\$0	\$0	\$320,650	\$0	\$320,650	\$0	\$320,650
	Replacement	Cost per Sq. Ft.	N/A	N/A	\$53	N/A	\$53	N/A	\$53
		No. of Projects	1	0	5	0	6	0	6
		No. of Bridges	2	0	5	0	7	0	7
		Deck Area	46,063	0	4,206	0	50,269	0	50,269
		Construction Cost	\$30,582,100	\$0	\$1,773,200	\$0	\$32,355,300	\$0	\$32,355,300
	Cost per Sq. Ft.	\$664	N/A	\$422	N/A	\$644	N/A	\$644	

Bridge Inspections, Notices, and Responses for 2020

In addition to the above data, 2,367 bridge inspections were performed and the Bridge Management Database was updated. Deficiency Notices (2), Critical Deficiency Notices (6), and Emergency Responses (10 to 20 per year) were also provided for affecting bridges in various municipalities during calendar year 2020. See *Section 5.2.3 Critical Deficiency Notices – Municipal Bridges* and *Section 5.2.5 Emergency Response for Bridges* for additional details.

Bridge Condition – Projected

With implementation of the *NHDOT Bridge Program - Recommended Investment Strategy*, it is projected that the number of State Red List bridges and deficient deck area will continue to decrease over time as the benefits of this strategy become apparent. However, when considering the number of State Yellow List bridges that are essentially one inspection away from moving to the State Red List, this projection is truly uncertain, and the numbers can change quickly.

It is also projected that the number of Yellow List bridges will increase in the coming years. By following the *Recommended Investment Strategy*, bridges will remain on the Yellow List (5=“Fair” or 6=“Satisfactory” condition) for a longer period of time, with preservation activities performed to keep them in this condition, rather than allowing them to deteriorate further without preservation and be added to the Red List more quickly, necessitating more expensive options.

It is important to again note that NHDOT Bridge Program is dependent on the amount of resources and funding for projects and staffing for this effort, provided through the 10-Year Plan as approved every two years by the NH Governor and Legislature. The Department strives to balance the funding needs of the Bridge Program and of the Paving Program (for bridge pavement crack sealing and inlays) with the funding needed to address other NHDOT infrastructure deficiencies.

For additional information, please refer to the following documents:

- NHDOT 2020 State Red List
- NHDOT 2020 Municipal Red List
- NHDOT 2020 State Rehabilitation & Replacement Priority List
- NHDOT State Preservation Priority List (Under development)
- NHDOT 2020 Bridge Summary
<https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/bridge-summary.pdf>
- NHDOT Bridge Program – Definitions of Program Strategies and Terms
https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/definitions_of_program_strategies_and_terms.pdf
- NHDOT Bridge Program – Recommended Investment Strategy
https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/bridge_program_recommended_investment_strategy.pdf
- NHDOT Bridge Program – Recommended Network Funding
https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/bridge_program_recommended_network_funding.pdf
- NHDOT Bridge Program – State Preservation List Ranking Process (Under development)
- NHDOT Bridge Program – State Rehabilitation & Replacement List and Ranking Process
(https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/stater_ranking_process_001.pdf)
- NHDOT Bridge Program – State Red List Ranking Process
(https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/stateredlist_ranking_process.pdf)
- 10-Year Transportation Improvement Plan 2021 – 2030
(<https://www.nh.gov/dot/org/projectdevelopment/planning/typ/index.htm>)

2 Bridge Condition

2.1 Summary of Bridge Inspection Process

In accordance with all pertinent state and federal laws and regulations, including the National Bridge Inspection Standards (NBIS), all publicly owned bridges associated with highway traffic and recorded in the NHDOT Bridge Inventory are inspected every two years (24 months) maximum interval. State Red List (deficient) bridges are inspected biannually (6-month interval) and Municipal Red List (deficient) bridges are inspected annually (12-month interval). For additional information on the NBIS, please go to: <https://www.fhwa.dot.gov/bridge/nbis.cfm>.

Most bridge inspections are performed by NHDOT Bridge Inspectors, although some complex bridges, such as movable bridges, are inspected utilizing consultant engineering services. Underwater inspections are performed by contract divers on specific bridges to check for scour undermining. All bridge inspection efforts are administered by the Bridge Design Bureau.

During the inspection process, a condition rating is assigned to each of the major structural elements (deck, superstructure, substructure, or culvert), according to criteria presented in the NBIS. In addition to the *State Red List* and *Municipal Red List*, a review of this inspection data allows development of “groups” of bridges, as noted below, based on the overall condition of their major structural elements. The NHDOT Bridge Management Committee updated, defined, and developed these groups as a means to continually monitor and convey the overall “health” of bridges in New Hampshire. These lists are described as follows:

Highway Bridges:

- **“Red”** – All bridges carrying highway traffic that have one or more major structural elements with an NBIS condition rating of “4 = Poor” or less. These bridges comprise the state/municipal Red Lists.
- **“Yellow”** – All bridges carrying highway traffic that have their lowest rated major structural element with an NBIS condition rating of “5 = Fair” or “6 = Satisfactory”.
- **“Green”** – All bridges carrying highway traffic that have all major structural elements with an NBIS rating equal to or greater than “7 = Good”.
- **“Closed or N/A”** – All bridges carrying highway traffic that have been closed due to one or more major structural elements with an NBIS rating equal to or less than “1 = Closed”.

Non-Highway Bridges:

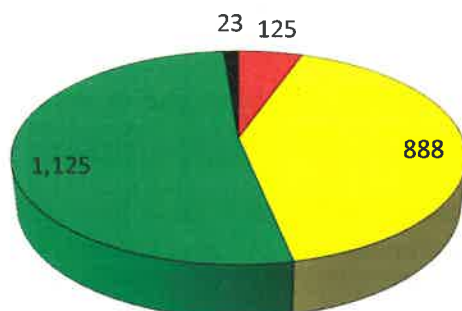
- **“Red”** – All non-highway bridges used as pedestrian, recreational, or railroad crossings that have one or more major structural elements with an NBIS rating of “4 = Poor” or less. These bridges comprise the corresponding Red List.
- **“Yellow”** – All non-highway bridges used as pedestrian, recreational, or railroad crossings that have their lowest rated major structural element with an NBIS condition rating of “5 = Fair” or “6 = Satisfactory”.
- **“Green”** – All non-highway bridges used as pedestrian, recreational, railroad, etc., crossings that have all major structural elements with an NBIS rating equal to or greater than “7 = Good”.
- **“Closed or N/A”** – All non-highway bridges used as pedestrian, recreational, or railroad crossings that have been closed due to one or more of their major structural elements with an NBIS rating equal to or less than “1 = Closed”.

2.2 Current Condition and Number of Bridges in New Hampshire

The table below presents a summary of the current number of bridges and deck area by bridge ownership in their respective condition categories through December 31, 2020, as reported to the Federal Highway Administration (FHWA) in March 2020. Please note that this data includes the entire deck area of bridges shared with adjoining states, as required by the FHWA.

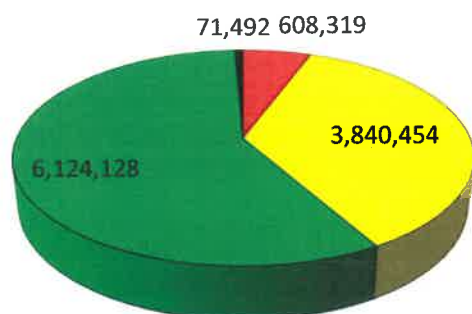
Bridge Condition	State Non-Turnpike		State Turnpike		State Totals		Municipal and Others	
	Number	Deck Area (Sq. Ft.)	Number	Deck Area (Sq. Ft.)	Number	Deck Area (Sq. Ft.)	Number	Deck Area (Sq. Ft.)
Red List ("Poor")	110	500,211	8	108,108	118	608,319	223	336,755
Yellow List ("Fair")	841	3,022,573	52	817,881	893	3,840,454	648	966,903
Green List ("Good")	1,012	4,471,338	112	1,652,790	1,124	6,124,128	762	1,241,129
Closed or N/A	27	71,492	0	0	27	71,492	58	90,930
Totals:	1,990	8,065,614	172	2,578,779	2,162	10,644,393	1,691	2,635,717

2020 Condition of State Bridges (2,162 total)

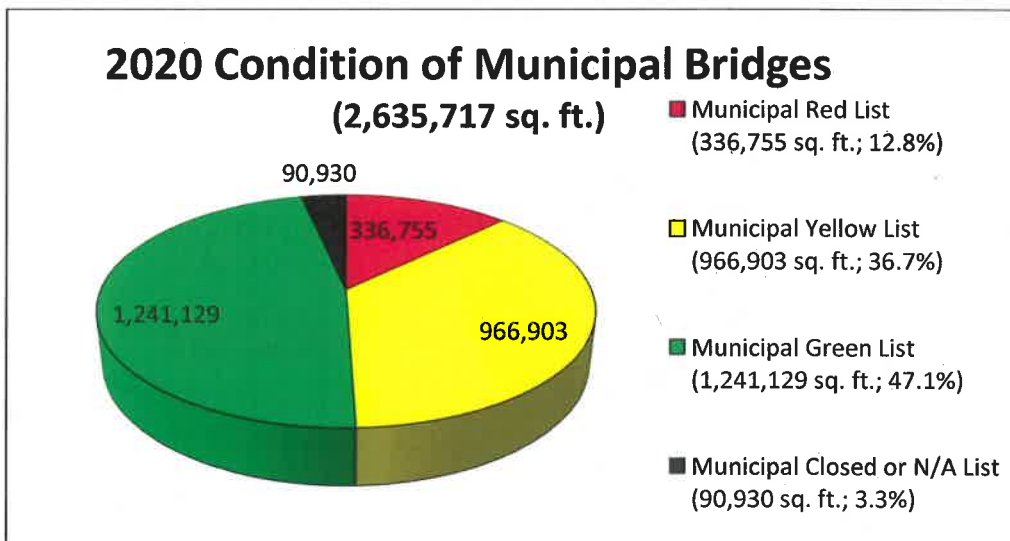
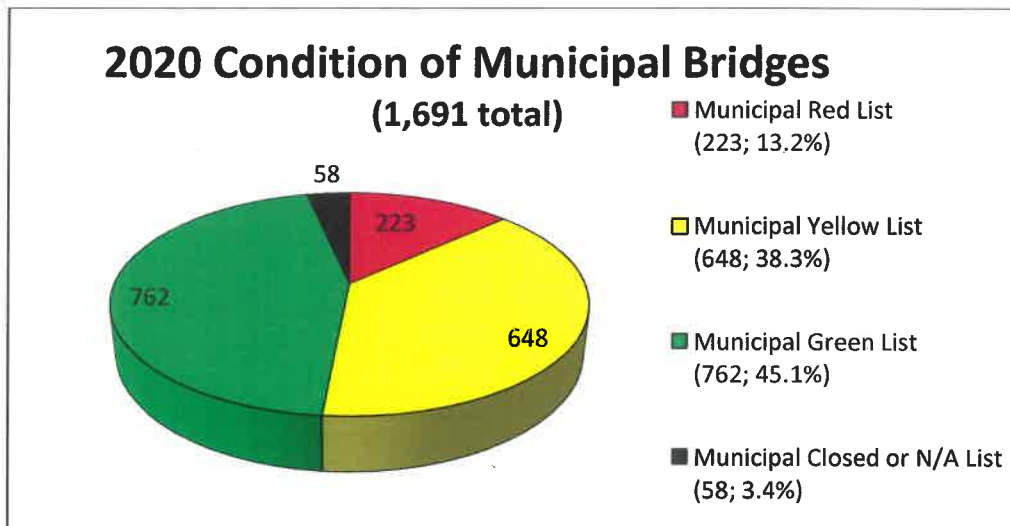


- State Red List (118; 5.5%)
(110 State, 8 Tpk)
- State Yellow List (893; 41.3%)
(841 State, 52 Tpk)
- State Green List (1,124; 52.0%)
(1,012 State, 112 Tpk)
- State Closed or N/A List (27; 1.2%)
(27 State, 0 Tpk)

2020 Condition of State Bridges (10,644,393 sq. ft.)



- State Red List
(608,319 sq. ft.; 5.7%)
(500,211 sq. ft. State; 108,108 sq. ft. Tpk)
- State Yellow List
(3,840,454 sq. ft.; 36.1%)
(3,022,573 sq. ft. State; 817,881 sq. ft. Tpk)
- State Green List
(6,124,128 sq. ft.; 57.5%)
(4,471,338 sq. ft. State; 1,652,790 sq. ft. Tpk)
- State Closed or N/A List
(71,492 sq. ft.; 0.7%)
(71,492 sq. ft. State; 0 sq. ft. Tpk)



For more information and maps regarding the data and locations of all state and municipal/other Red List bridges, please see Appendices “A” and “B”.

Appendix “A”

- **2020 State Red List** (Based on bridge inspection data through December 31, 2020)
- **Location Map of 2020 State Red List Bridges** (Based on bridge inspection data through December 31, 2020)

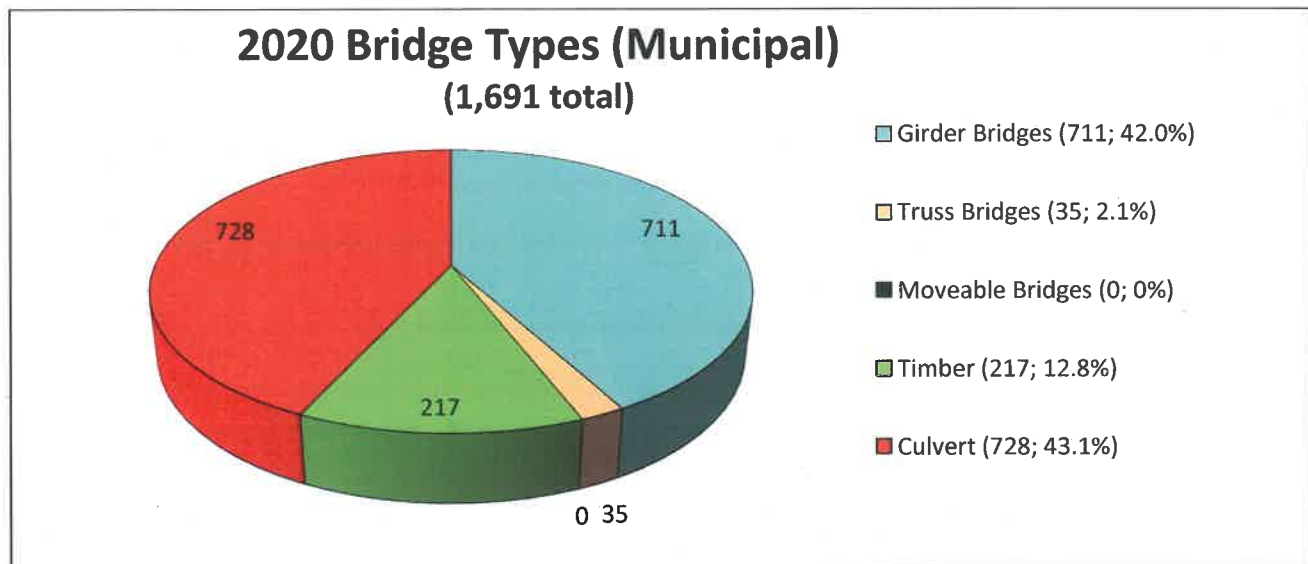
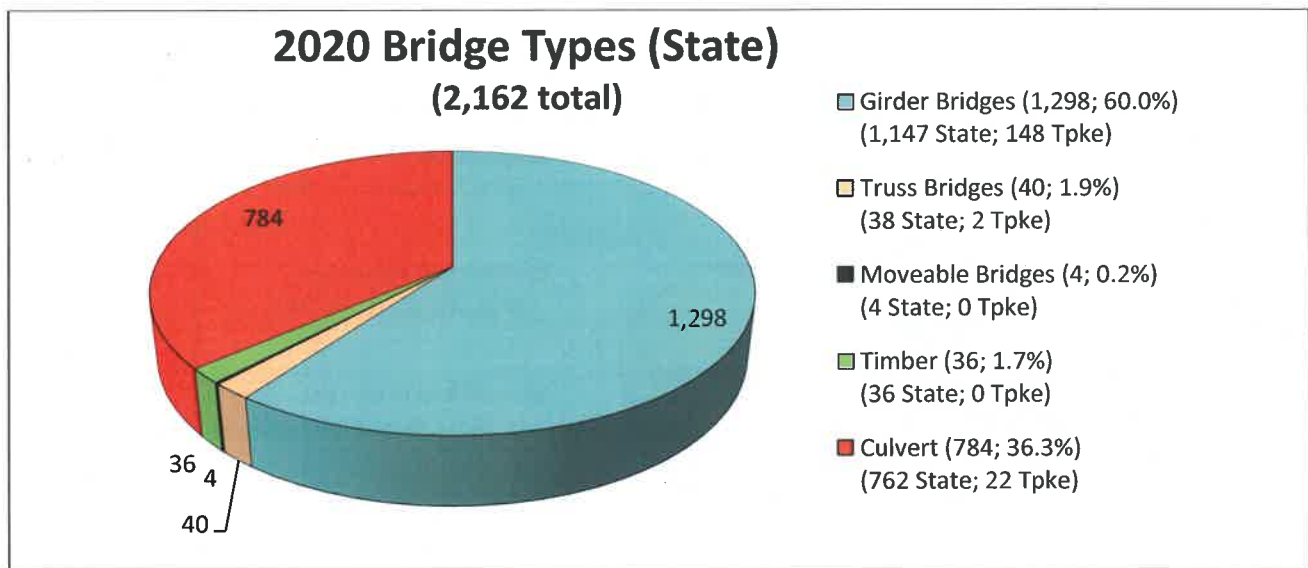
Appendix “B”

- **2020 Municipal Red List** (Based on bridge inspection data through December 31, 2020)
- **Location Map of all 2020 Municipal Red List Bridges** (Based on bridge inspection data through December 31, 2020)

The table below presents a summary of the current number of bridges and deck area according to bridge type, based on data compiled through December 31, 2020.

Bridge Type	State Non-Turnpike		State Turnpike		State Totals			Municipal and Other		
	Number	Deck Area* (Sq. Ft.)	Number	Deck Area* (Sq. Ft.)	Number	Deck Area* (Sq. Ft.)	Percentage (Number)	Number	Deck Area* (Sq. Ft.)	Percentage (Number)
Girder	1,150	6,725,862	148	2,297,107	1,298	9,022,969	60.0%	711	1,793,908	42.0%
Truss	38	239,140	2	189,060	40	428,200	1.9%	35	171,847	2.1%
Moveable	4	192,796	0	0	4	192,796	0.2%	0	0	0.0%
Timber	36	50,192	0	0	36	50,192	1.7%	217	210,998	12.8%
Culvert	762	857,624	22	92,612	784	950,236	36.3%	728	458,963	43.1%
Totals:	1,990	8,065,614	172	2,578,779	2,162	10,644,393	100.0%	1,691	2,635,716	100.0%

* These totals only include the NH portion of the deck area for bridges shared with adjoining states, which results in a total deck area slightly smaller than the totals shown in the table further above.



2.3 Bridge Postings for Weight Restrictions

The tables below present a summary of current bridge postings for weight restrictions according to the bridge type, ownership, and roadway tier on which the bridge is located, all based on data compiled through December 31, 2020. This data includes bridges whose structural condition or configuration is such that, according to current design standards, vehicle and load configurations, and/or state law, the bridge requires a load posting to indicate the reduced safe and/or legal load capacity of the structure in its current condition. It is important to note that the term “weight restriction” refers to the total load applied to the bridge, i.e., the combined weight of the vehicle and the load it carries, not just the load carried by the vehicle. (Example: “Weight Limit 20-Tons” allows a 12-ton vehicle with an 8-ton load.)

Although the “tonnage” postings are the most restrictive, all bridge weight postings restrict and redirect the movement of more heavily loaded vehicles to those roadways having bridges of sufficient load capacity to safely allow these vehicles to travel. This includes approved “permitted” vehicles carrying excessive loads (greater than legal loads) supported by multiple axles to distribute the total vehicular load.

For more information regarding bridge postings and weight restrictions for bridges, please refer to *Appendix “C” - Bridge Postings and Weight Restrictions for Certified Vehicles: Posting Definitions and Examples*; or, *RSA 266:18 Equipment of Vehicles*.

(<http://www.gencourt.state.nh.us/rsa/html/XXI/266/266-18.htm>)

NOTE: If vehicles and loads exceed the posted weight restriction on any bridge, structural damage may occur to the bridge deck and/or superstructure, up to and possibly including complete failure and collapse of the bridge. The safety issues and disruption to the transportation network, especially to emergency response vehicles, resulting from such an incident cannot be overstated.

Bridge Posting	BRIDGE OWNERSHIP				
	State non-Turnpike	State Turnpike	State Totals	Municipal and Other	Totals
E-1	39	0	39	4	43
E-2	171	0	171	596	767
C-1	5	0	5	0	5
C-2	18	0	18	3	21
C-3	5	0	5	0	5
Tonnage	21	0	21	112	133
Closed	10	1	11	63	74
No Posting	1,721	171	1,892	913	2,805
Total Posted/Closed	269	1	270	778	1,048
Total Bridges	1,990	172	2,162	1,691	3,853
Percent Posted of Total Bridges	13.5%	0.6%	12.5%	46.0%	27.2%

The above data show that Turnpike bridges have the lowest percentage (0.6%) of weight posted bridges since the only closed or weight restricted Turnpike bridge is the General Sullivan pedestrian bridge between Newington and Dover. This reflects the commitment to bond holders to appropriately and effectively maintain Turnpike infrastructure. The data also show that municipalities have the greatest percentage (46.0%) of bridges that have weight restrictions. This is due in part to the fact that municipal bridges were not load rated in the 1980s when the Department, through the Bridge Design Bureau, performed load ratings on all state bridges to ensure that certified and permitted loads could safely travel on the state transportation network.

Bridge Posting	BRIDGE TYPE (State, Turnpike, and Municipal)					Totals
	Girder	Truss	Moveable	Timber	Culvert	
E-1	28	0	0	2	13	43
E-2	384	7	1	47	328	767
C-1	5	0	0	0	0	5
C-2	20	1	0	0	0	21
C-3	5	0	0	0	0	5
Tonnage	38	8	1	65	21	133
Closed	24	12	0	23	15	74
No Posting	1,505	47	2	116	1,135	2,805
Total Posted/Closed	504	28	2	137	377	1,048
Total Bridges	2,009	75	4	253	1,512	3,853
Percent Posted of Bridge Type	25.1%	37.3%	50.0%	54.2%	24.9%	27.2%

The above data show that even though culvert and girder bridges are the most common type of bridge structure in the state, they have the lowest percentage of weight posted bridges.

Bridge Posting	ROADWAY TIER* (State, Turnpike, and Municipal)							Totals
	HIB	Tier 1	Tier 2	Tier 3	Tier 4	Tier 5	Tier 6	
E-1	0	0	6	21	12	4	0	43
E-2	1	0	38	68	63	596	1	767
C-1	0	0	2	3	0	0	0	5
C-2	0	0	3	10	5	3	0	21
C-3	0	0	0	4	1	0	0	5
Tonnage	1	0	0	1	16	112	3	133
Closed	0	0	1	0	1	63	9	74
No Posting	49	512	541	417	321	904	61	2,805
Total Posted/Closed	2	0	50	107	98	778	13	1,048
Total Bridges	51	512	591	524	419	1,682	74	3,853
Percent Posted of Bridges on Tier	3.9%	0.0%	8.5%	20.4%	23.4%	46.3%	17.6%	27.2%

*See Section 3.1, Page 19 for definitions and information regarding roadway tiers.

The above data show that Tier 1 bridges have the fewest (0.0%) bridges posted with weight restrictions, which reflects the commitment of the Department to maintain to the highest order the bridges located on major transportation corridors of the State infrastructure. The remaining data demonstrate the efforts of the Department to appropriately and effectively maintain bridges according to their importance and the roadway tier on which each bridge is located.

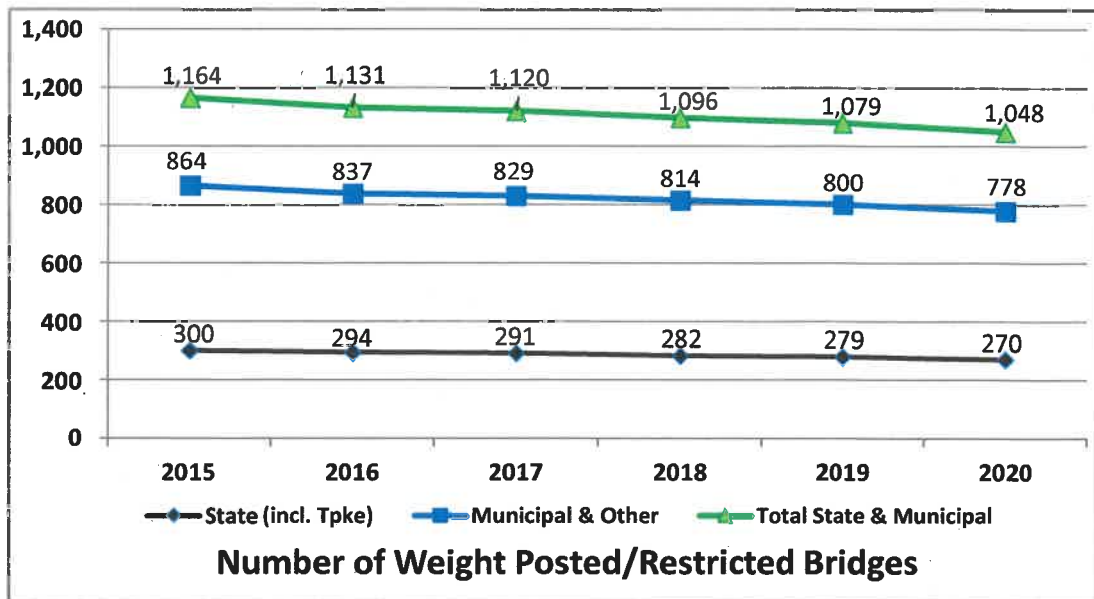
2.4 Comparison of 2020 Bridge Data with Previous 5 Years

The tables below compare state and municipal bridge data according to bridge posting (weight restriction) and bridge condition rating (“Red”, “Yellow”, and “Green”) for the current (2020) and previous five years.

2.4.1 Bridge Load Posting (Weight Restriction) List – A list of all bridges (State, Turnpike, and Municipal) whose structural condition or configuration is such that the bridge requires a load posting to indicate the reduced safe and/or legal load capacity of the structure in its current condition, according to current design standards, vehicle and load configurations, and/or state law. Please note that this list is different from the Red List since the majority of posted bridges are in acceptable condition, but their structural configuration is such that they are unable to safely support all legal loads. Clearly, however, some bridges are posted for weight restrictions due to their poor structural condition.

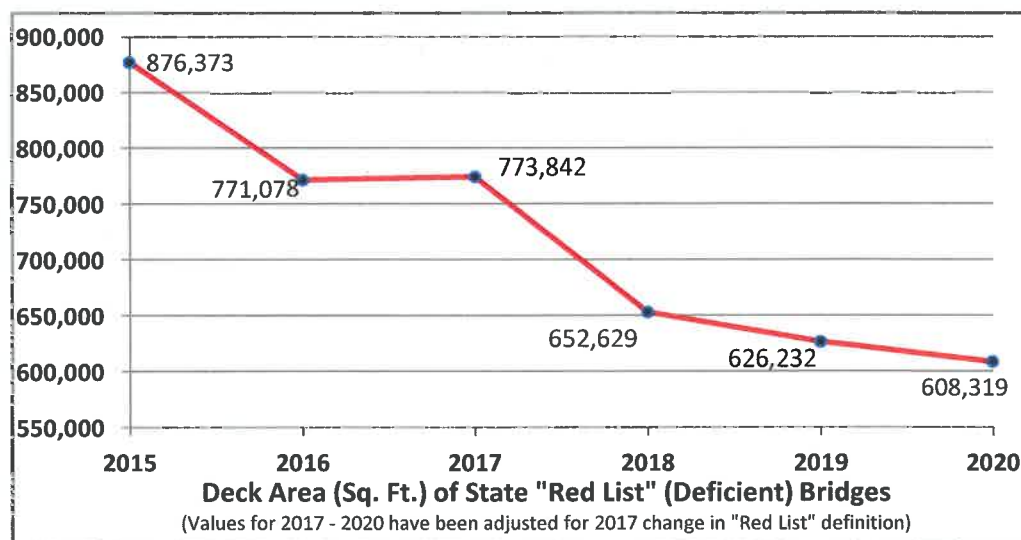
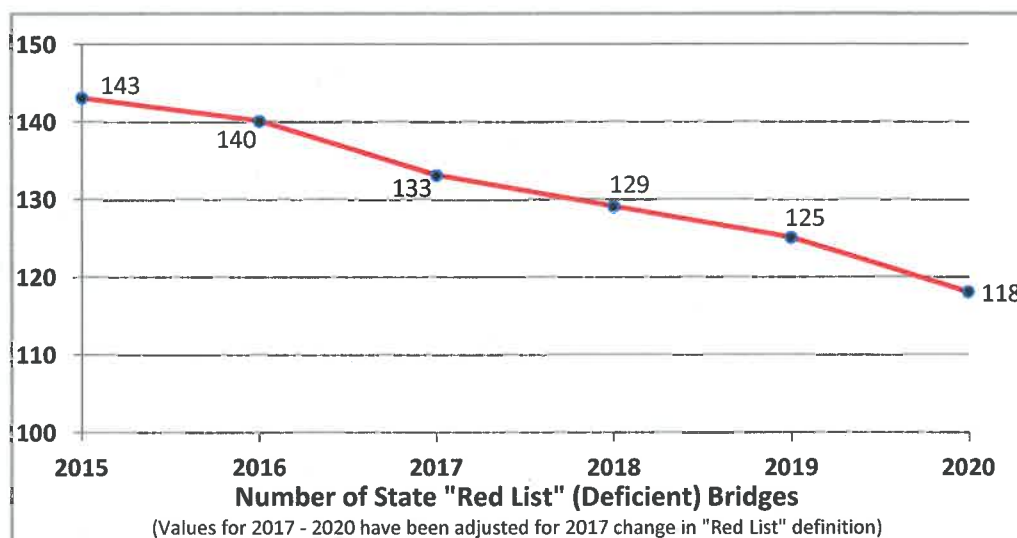
Bridge Posting	2015	2016	2017	2018	2019	2020
E-1	50	50	49	44	44	43
E-2	823	816	808	796	784	767
C-1	4	4	4	7	6	5
C-2	22	22	21	23	23	21
C-3	6	6	6	6	5	5
Tonnage	165	151	151	141	139	133
Closed	94	82	81	79	78	74
No Posting	2,684	2,711	2,729	2,754	2,771	2,805
Total Posted/Closed	1,164	1,131	1,120	1,096	1,079	1,048
Total Bridges	3,848	3,842	3,849	3,850	3,850	3,853
Percent Posted of Total Bridges per Year	30.2%	29.4%	29.1%	28.5%	28.0%	27.2%

The above data show that over the past five (5) years, there are 116 fewer bridges (state and municipal) that are posted with weight restrictions, a reduction from 30.2% to 27.2% of total bridges posted during this time period, as depicted in the graph below.



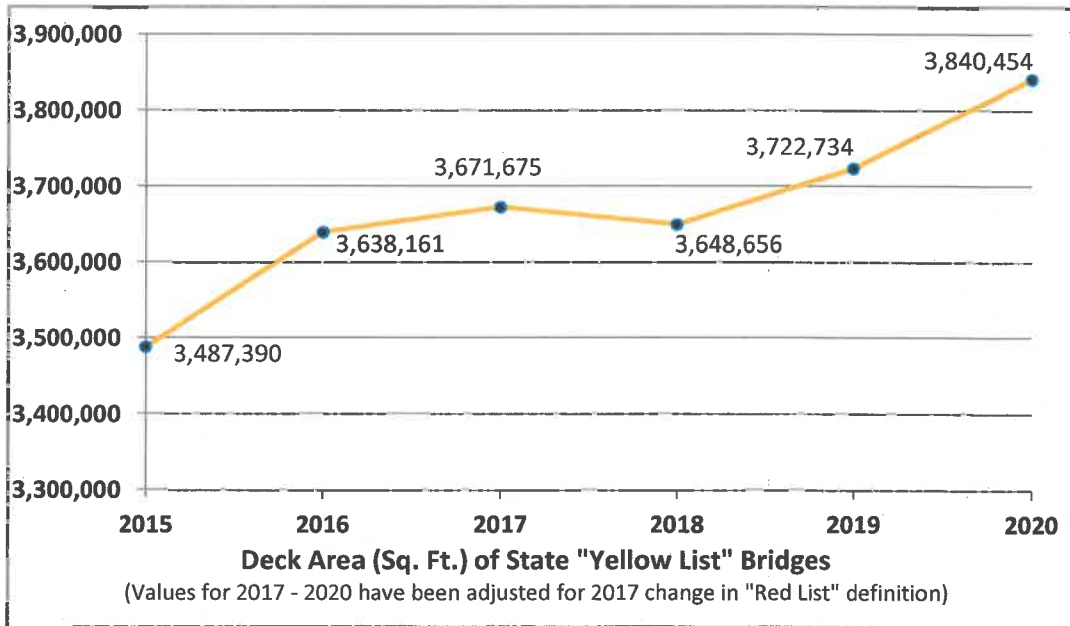
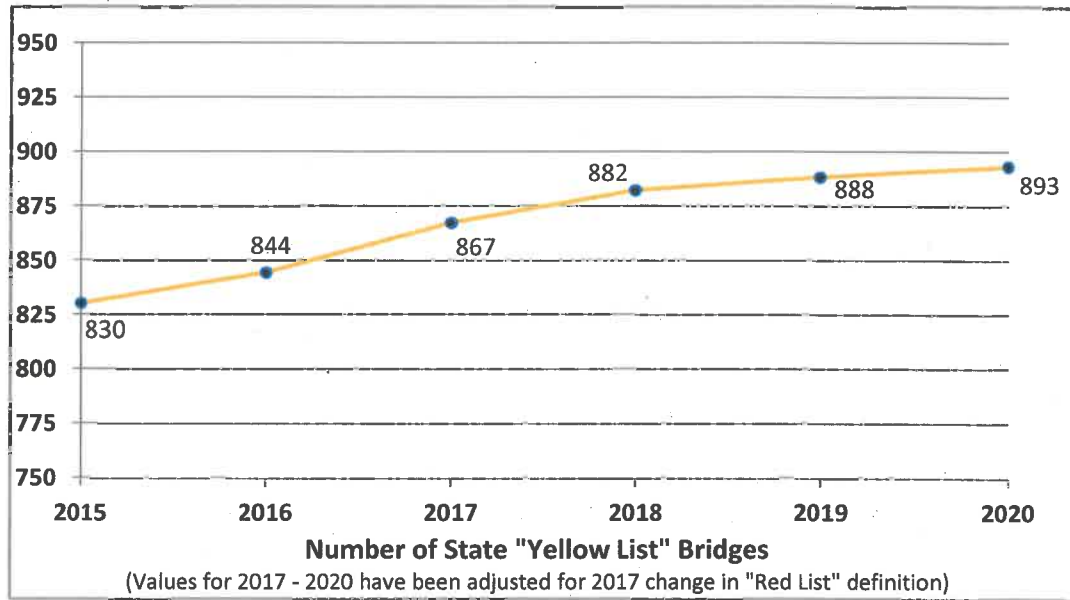
2.4.2 **“Red” List** – A list of bridges having at least one major structural element (deck, superstructure, substructure, or culvert) classified as being in “poor” condition (NBIS rating of “4 = Poor” or less), and thus are categorized as “deficient”. Bridges in “poor” condition are still considered safe for use by the public, in accordance with posted weight restrictions. The graphs below depict the number and deck area of state Red List bridges based on data from 2015 through 2020.

Change in “Red List” definition - Senate Bill 38 (effective on July 1, 2017) narrowed the definition of a “Red List Bridge” as defined in RSA 234:25-a. Due to this revision, the Red Lists now include only structurally deficient (poor) bridges (one or more major elements in poor or worse condition), thereby excluding all bridges posted with weight restrictions that are in fair or better condition that were previously included due to their weight restriction posting. State bridge counts and deck areas shown in the “Red”, “Yellow”, and “Green” Lists have been adjusted to account for the new Red List definition.



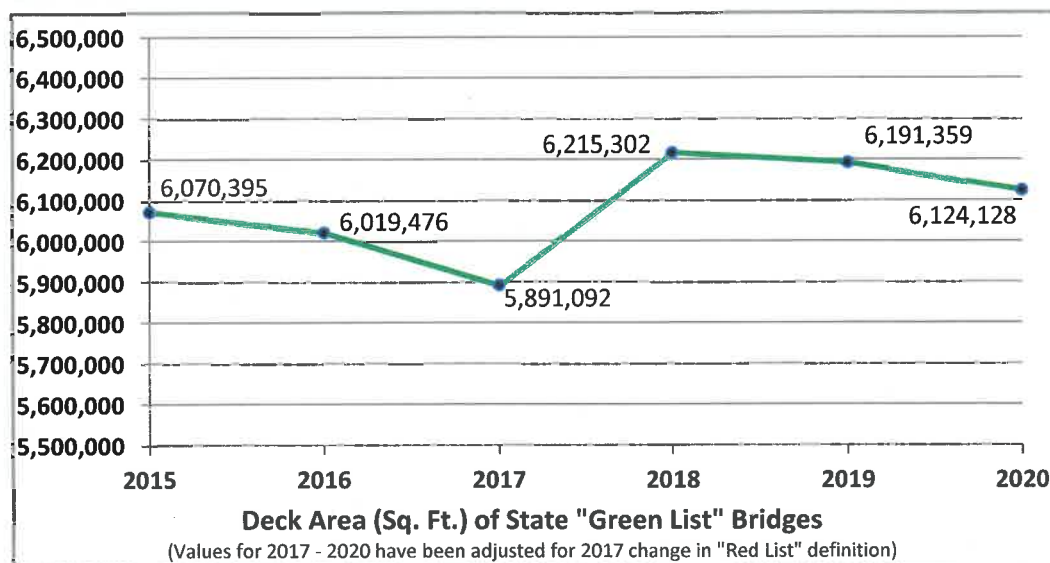
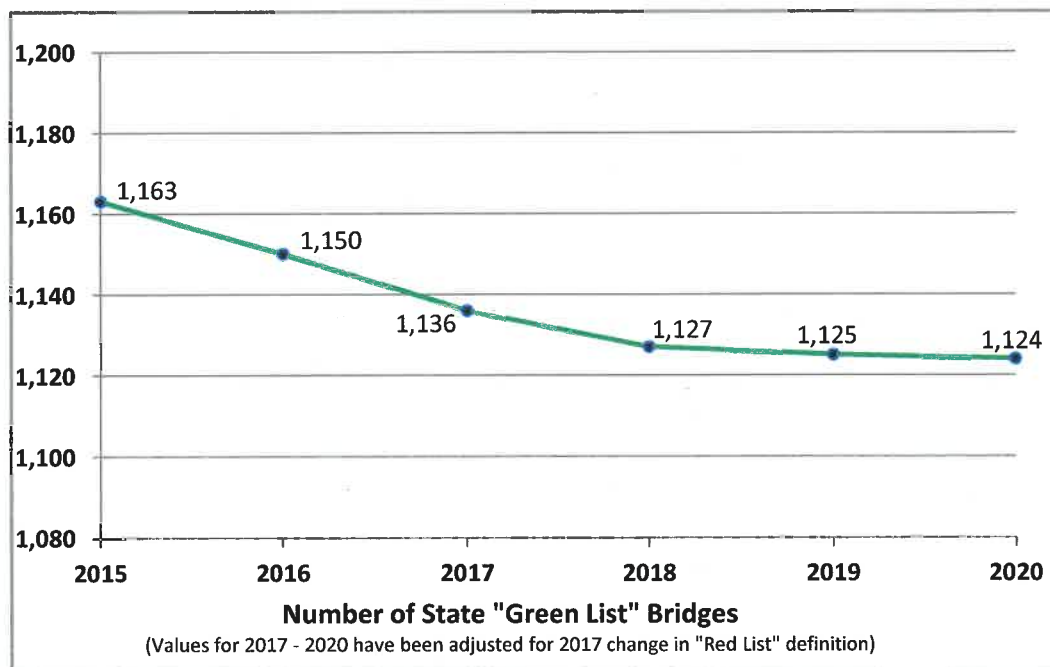
The above data show that over the past five (5) years a number of bridges have been added to and removed from the State Red List, with the overall number of Red List bridges decreasing by 25 bridges. Although the number and specific Red List bridges changed somewhat, the overall deck area of Red List bridges was reduced significantly during this time period, a 268,054 sq. ft., (30.6%) reduction. This is the result of addressing several major Red List bridges having very large deck areas during the 2015 – 2017 calendar years.

2.4.3 **“Yellow” List** – A list of bridges that have their lowest rated major structural element (deck, superstructure, substructure, or culvert) classified as being in “fair” or “satisfactory” condition (NBIS rating of “5” or “6”). The graphs below depict the number and deck area of state Yellow List bridges based on data from 2015 through 2020.



The above data show that over the past five (5) years there has been a net increase of 63 bridges added to the Yellow List and the corresponding deck area increased by 353,064 sq. ft. (10.1%) during this time period. This data also indicates that state bridges are now receiving needed preservation work. By following the *Recommended Investment Strategy*, this upward trend should continue as many bridges will remain on the Yellow List (5 = "Fair" or 6 = "Satisfactory" condition) for a longer period of time, with preservation activities performed to keep them in this condition, rather than allowing them to deteriorate further without preservation and be added to the Red List more quickly, necessitating more expensive rehabilitation or replacement options.

2.4.4 **“Green” List** – A list of bridges that have their lowest rated major structural element (deck, superstructure, substructure, or culvert) classified as being in “good”, “very good”, or “excellent” condition (NBIS rating of “7”, “8”, or “9”). The graphs below depict the number and deck area of state Green List bridges based on data from 2015 through 2020.



The above data show that over the past five (5) years, there has been a net decrease of 39 bridges moved from the Green List and shifted onto the Yellow List. Although the specific Green List bridges changed and decreased during this time period, the corresponding deck area remained nearly the same and increased overall by 53,733 sq. ft. (0.9%). This trend supports the *Recommended Investment Strategy* to perform timely maintenance and preservation activities on Green List bridges to extend their service life, rather than following a “worst bridge first” strategy. Again, this is the result of addressing several major Red List bridges having very large deck areas during calendar years 2015 – 2017.

3 Bridge and Roadway Tiers

3.1 Definition of Roadway Tiers as Applied to Bridges

Each bridge is located on a specific roadway tier, as defined below for bridges, which is an important characteristic to consider when allocating bridge funds.

<u>Roadway Tier</u>	<u>Roadway Tier Definitions - Bridges</u>
HIB	High Investment Bridges – Bridges in this group have a deck area of 30,000 sq. ft. or greater; or, a movable bridge, regardless of the type of roadway on which it is located.
1	Interstates, Turnpikes, Divided Highways – Multi-lane divided highways supporting the highest traffic volumes and speeds, and conveying the majority of commuter, tourist, and freight traffic.
2	Statewide Corridors – State numbered routes with moderate to high traffic volumes and speeds, especially during commuter hours.
3	Regional Transportation Corridors – These roadways support travel within regions, access statewide corridors, and support moderate traffic volumes and speeds.
4	Local Connectors – These secondary roadways and unnumbered routes provide local connection between and within communities, and usually support low volume and low speed traffic.
5	Local Roads – Locally owned roadways, or state-owned roadways within compact limits; provide local connections for travel between and within communities; usually support low volume and low speed traffic.
6	Off Network – These are non-highway assets of the transportation network, e.g., Park ‘n’ Rides, pedestrian or railroad bridges, patrol sheds, and Rest Stops.

3.2 Red List Bridges and Roadway Tiers (State Non-Turnpike, State Turnpike, & Municipal)

The table below shows the number of bridges by ownership for the roadway tier on which the bridge is located, all based on data compiled through December 31, 2020.

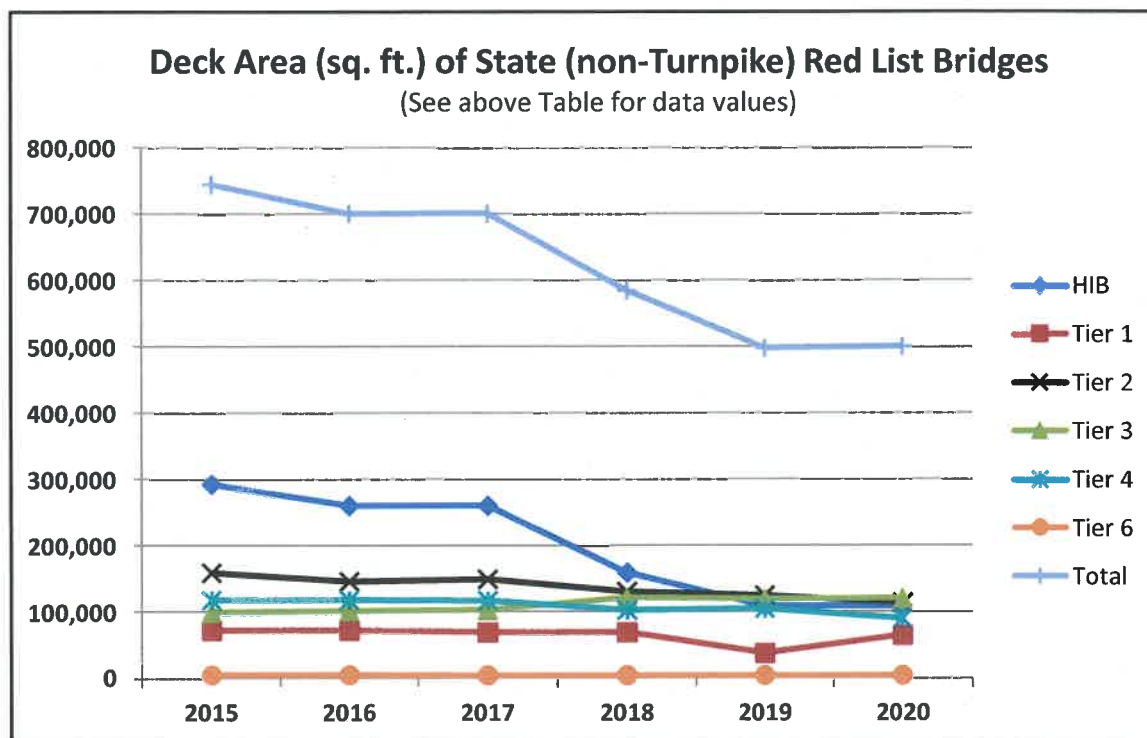
<u>Roadway Tier</u>	<u>State non-Turnpike</u>		<u>State Turnpike</u>		<u>State Totals</u>		<u>Municipal and Others</u>	
	<u>Number on Red List</u>	<u>Total State non-Turnpike Bridges on Tier</u>	<u>Number on Red List</u>	<u>Total Turnpike Bridges on Tier</u>	<u>Number on Red List</u>	<u>Total State Bridges on Tier</u>	<u>Number on Red List</u>	<u>Total Municipal Bridges on Tier</u>
HIB	4	31	1	11	5	42	3	9
Tier 1	8	402	6	110	14	512	0	0
Tier 2	35	579	0	12	35	591	0	0
Tier 3	30	512	0	12	30	524	0	0
Tier 4	26	397	1	22	27	419	0	0
Tier 5	0	0	0	0	0	0	220	1,682
Tier 6	7	69	0	5	7	74	0	0
Totals:	110	1,990	8	172	118	2,162	223	1,691

As expected, this data shows that the majority of bridges of high importance and/or located on high volume roadways are the responsibility of the NH Department of Transportation. These bridges are eligible to receive state, turnpike, and federal funds, as appropriate.

Bridges on local roadways, which typically have lower traffic volumes, are the responsibility of the municipalities and are eligible to receive state and/or federal funds to supplement local funds through the State Aid Bridge (SAB) Program and the Municipally Owned Bridge Rehabilitation and Replacement (MOBRR) Program. Funding for these programs is allocated through the State’s 10-Year Plan.

The Table and Chart below show a comparison of the **2020 State Non-Turnpike Red List bridges** by roadway Tier with those of the previous 5 years.

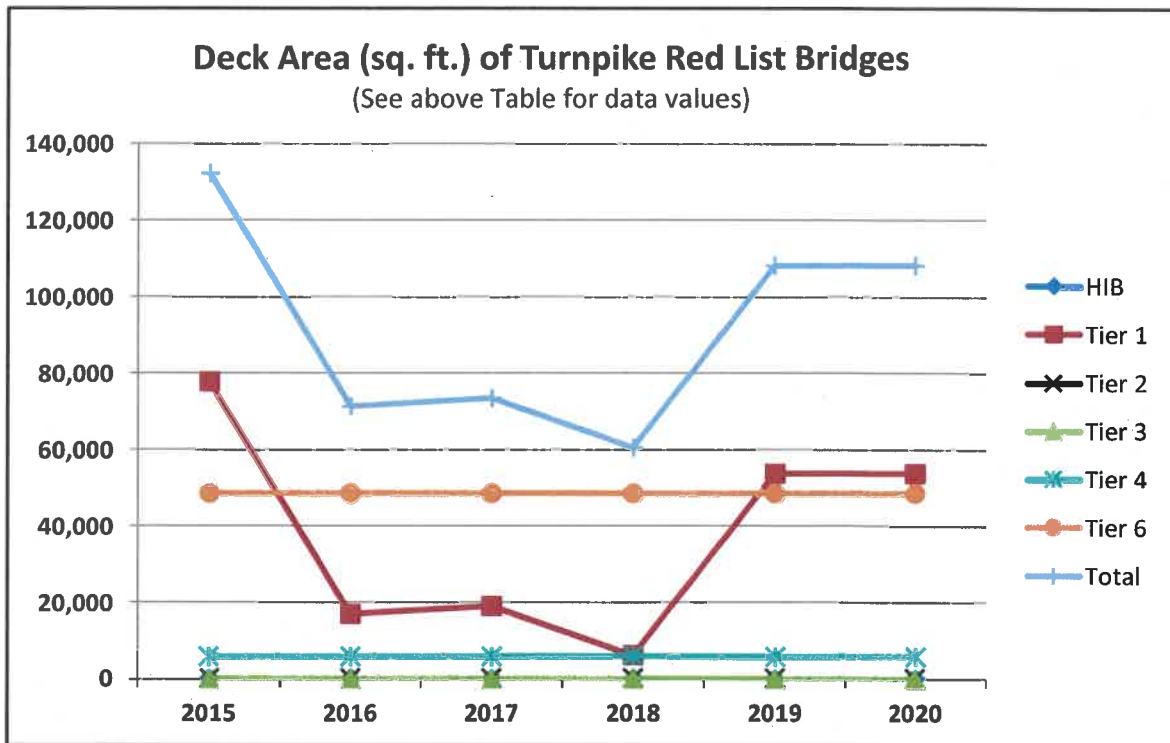
State Red List (non-Turnpike)		2015	2016	2017	2018	2019	2020
HIB	Number	7	6	6	5	4	4
	Deck Area (Sq. Ft.)	292,356	259,846	259,834	158,889	108,584	108,639
Tier 1	Number	11	10	8	8	6	8
	Deck Area (Sq. Ft.)	71,776	71,583	68,554	68,554	37,504	64,567
Tier 2	Number	42	43	42	42	39	35
	Deck Area (Sq. Ft.)	158,452	145,007	148,735	129,667	123,842	113,355
Tier 3	Number	32	36	34	32	30	30
	Deck Area (Sq. Ft.)	99,321	101,020	102,703	121,230	119,247	120,210
Tier 4	Number	32	32	30	31	31	26
	Deck Area (Sq. Ft.)	117,850	117,850	116,824	109,919	104,744	89,612
Tier 5	(Municipal)	N/A	N/A	N/A	N/A	N/A	N/A
Tier 6	Number	7	7	7	7	7	7
	Deck Area (Sq. Ft.)	4,524	4,524	3,828	3,828	3,828	3,828
Totals:	Number	131	134	127	125	117	110
	Deck Area (Sq. Ft.)	744,279	699,830	700,478	592,087	497,749	500,211



The above data show that, overall, the number of State (non-Turnpike) Red List bridges has decreased over the past five years, from 132 in 2015 to 110 in 2020. Concentrated efforts to address State Red List bridges have made this possible, but continued efforts are warranted if the deck areas of deficient bridges on all roadway tiers are to be decreased. However, progress has clearly been made since the total deck area of State (non-Turnpike) Red List bridges has been reduced by 67.2% from 744,279 sq. ft. to 500,211 sq. ft. during the 2015 - 2020 timeframe.

The Table and Chart below show a comparison of the **2020 State Turnpike Red List bridges** by roadway Tier with those of the previous 5 years.

State Red List (Turnpike)		2015	2016	2017	2018	2019	2020
HIB	Number	0	0	0	0	0	0
	Deck Area (Sq. Ft.)	0	0	0	0	0	0
Tier 1	Number	10	4	4	2	6	6
	Deck Area (Sq. Ft.)	77,659	16,813	18,935	6,112	53,643	53,678
Tier 2	Number	0	0	0	0	0	0
	Deck Area (Sq. Ft.)	0	0	0	0	0	0
Tier 3	Number	0	0	0	0	0	0
	Deck Area (Sq. Ft.)	0	0	0	0	0	0
Tier 4	Number	1	1	1	1	1	1
	Deck Area (Sq. Ft.)	5,929	5,929	5,929	5,929	5,929	5,929
Tier 5 (Municipal)		N/A	N/A	N/A	N/A	N/A	N/A
Tier 6	Number	1	1	1	1	1	1
	Deck Area (Sq. Ft.)	48,506	48,506	48,501	48,501	48,501	48,501
Totals:	Number	12	6	6	4	8	8
	Deck Area (Sq. Ft.)	132,094	71,248	73,365	60,542	108,073	108,108

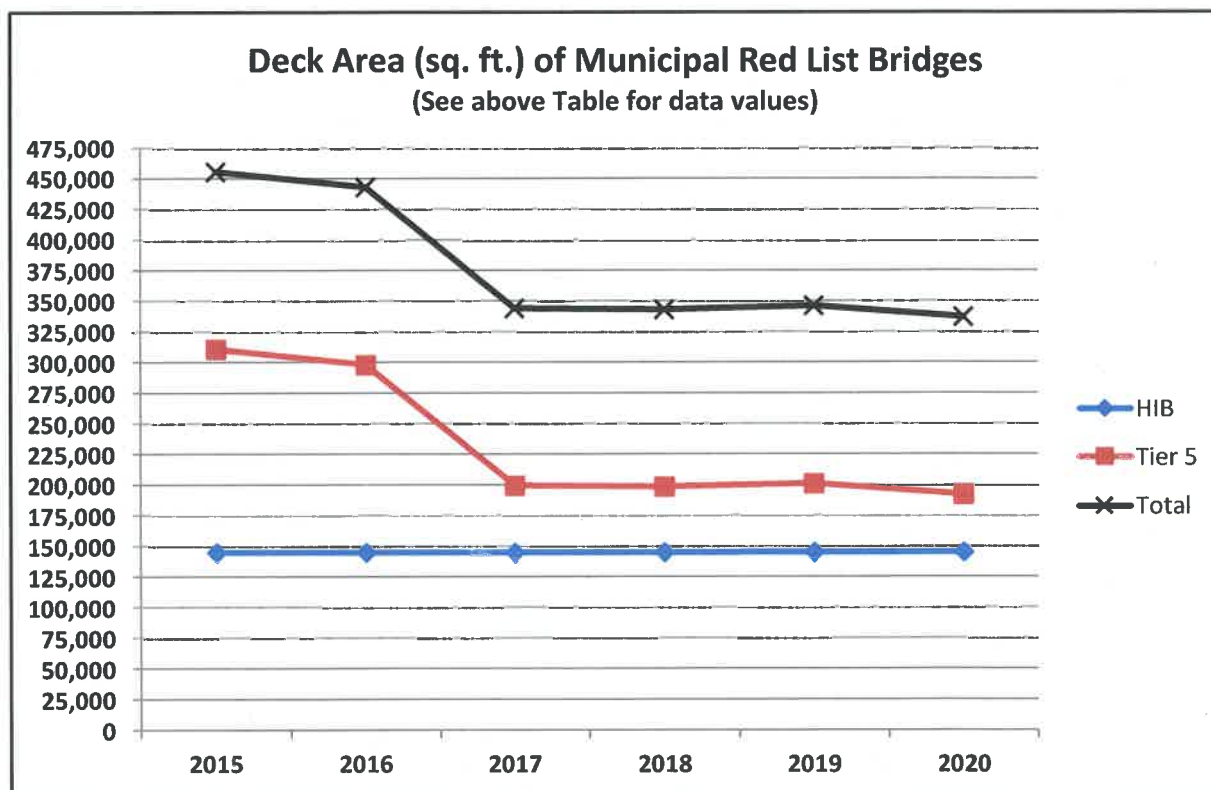


The above data show an overall 30.9% reduction in the Tier 1 deck area of Turnpike Red List bridges from 2015 to 2020. During this time period Turnpike bridges in the Manchester Mill Yard area were removed from the Red List, however, bridges on the Spaulding Turnpike were added to the Red List. Overall, there was an 18.2% reduction in the deck area of Turnpike Red List bridges from 2015 to 2020.

The Table below shows a comparison of the **2020 Municipal (and Other) Red List bridges** by tier with those of the previous 5 years. Please note that the values for 2015 - 2016 have **NOT** been adjusted for the change in the Red List definition that occurred in 2017. (See RSA 234:25-a.)

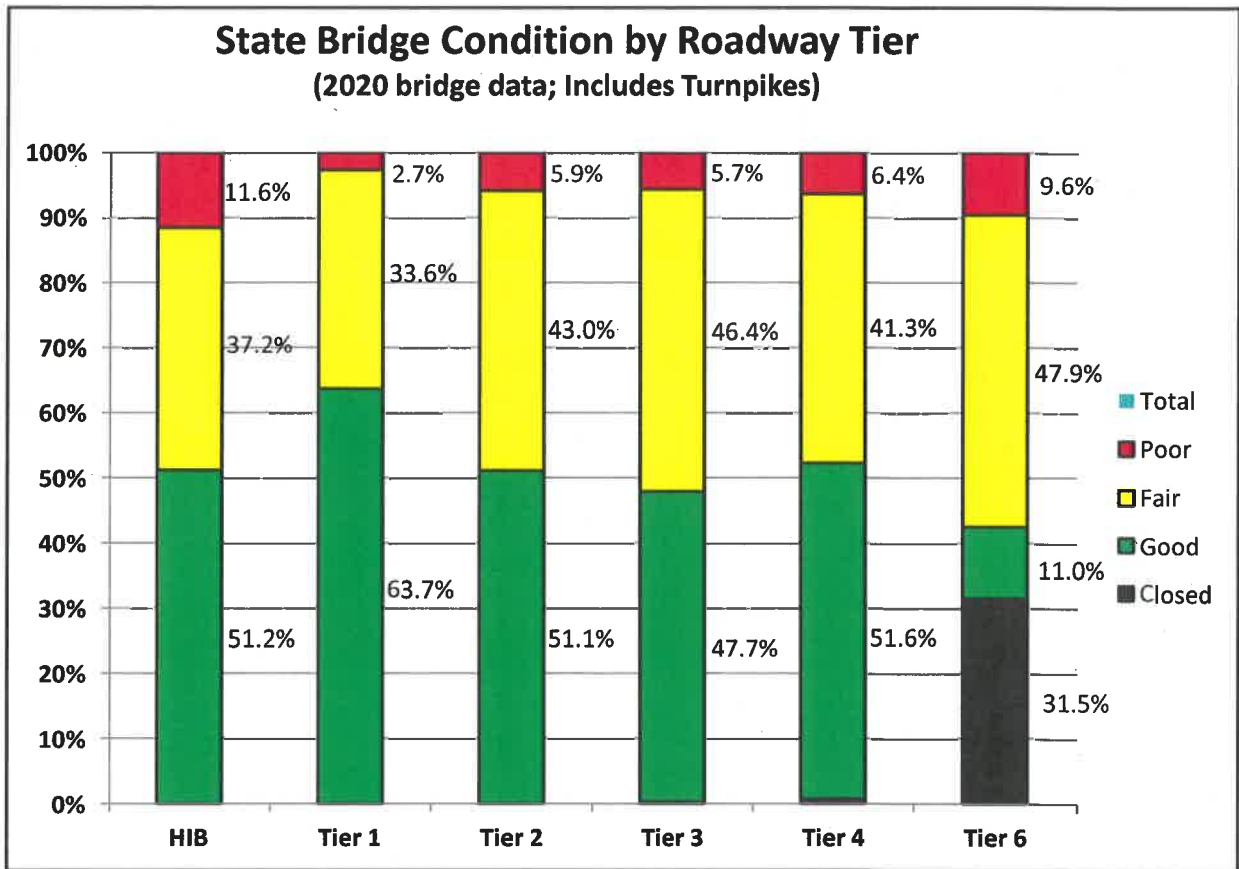
Municipal Red List		2015**	2016**	2017	2018	2019	2020
HIB	Number	3	3	3	3	3	3
	Deck Area (Sq. Ft.)	144,718	144,718	144,704	144,704	144,998	144,840
Tier 1	(State)	N/A	N/A	N/A	N/A	N/A	N/A
Tier 2	(State)	N/A	N/A	N/A	N/A	N/A	N/A
Tier 3	(State)	N/A	N/A	N/A	N/A	N/A	N/A
Tier 4	(State)	N/A	N/A	N/A	N/A	N/A	N/A
Tier 5	Number	335	321	249	238	240	220
	Deck Area (Sq. Ft.)	310,475	297,762	199,038	197,993	200,828	191,915
Tier 6	(State)	N/A	N/A	N/A	N/A	N/A	N/A
Totals:	Number	338	324	252	241	243	223
	Deck Area (Sq. Ft.)	455,193	442,480	343,742	342,697	345,826	336,755

** Values in these columns have **NOT** been adjusted for 2017 change in Red List definition. (See RSA 234:25-a.)



From the data displayed in the Chart above, it appears that the amount of deck area of municipal Red List bridges, which are on Tier 5 roadways, decreased significantly in 2017. However, this graphic misrepresentation is a result of displaying the 2015 – 2016 bridge data that has not been adjusted for the 2017 change in Red List definition, with the 2017, 2018, 2019, and 2020 bridge data that adheres to the 2017 change in Red List definition.

The following graphic displays the relative number of total state-owned (including Turnpikes) Red, Yellow, and Green List bridges, based on 2020 bridge inspection data, for all State-owned roadway Tier levels. In this graphic the HIBs are included in their respective roadway Tier classifications.



State Bridge Condition by Roadway Tier (2020 Includes Turnpikes)

Roadway Tier		Red List	Yellow List	Green List	Black List (Closed)	Totals
HIB	Count	5	16	22	0	43
	Percent	11.6%	37.2%	51.2%	0.0%	100.0%
Tier 1	Count	14	172	326	0	512
	Percent	2.7%	33.6%	63.7%	0.0%	100.0%
Tier 2	Count	35	254	302	0	591
	Percent	5.9%	43.0%	51.1%	0.0%	100.0%
Tier 3	Count	30	243	250	1	524
	Percent	5.7%	46.4%	47.7%	0.2%	100.0%
Tier 4	Count	27	173	216	3	419
	Percent	6.4%	41.3%	51.6%	0.7%	100.0%
Tier 5*	Count	0	0	0	0	0
	Percent	0.0%	0.0%	0.0%	0.0%	0.0%
Tier 6	Count	7	35	8	23	73
	Percent	9.6%	47.9%	11.0%	31.5%	100.0%
Totals	Count	118	893	1,124	27	2,162
	Percent	5.5%	41.3%	52.0%	1.2%	100.0%

***All bridges on Tier 5 roadways are municipally owned.**

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4 Strategy and Life Cycle Costs for State Bridges

A strategy has been developed to estimate funding needs for state bridges based on specific tasks to address deficiencies within each work category (maintenance, preservation, rehabilitation, or replacement). Costs and frequency schedules have been developed to perform these tasks and applied according to each type of bridge (girder, truss, moveable, timber, culvert), so that project and program funding can be estimated and allocated. Specific goals have been established for various work efforts that, when applied to the state bridge inventory, are intended to improve the overall condition of New Hampshire bridges over time and provide the lowest life cycle cost. For further information, please refer to *NHDOT Bridge Program – Recommended Investment Strategy* (<https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/bridgeprogramrecommendedinvestmentstrategy.pdf>).

4.1 Bridge Life Cycle – Characteristics and Costs

As each bridge goes through various life cycle stages, specific needs and deficiencies develop that should be addressed. Timely investment to address deficiencies and perform specific tasks at prescribed time intervals can greatly extend their service life at an overall lower cost than only performing major element repairs. The four categories of work activities are:

- Maintenance – These tasks are performed routinely, usually on an annual or bi-annual basis, to prevent conditions from developing that would accelerate bridge deterioration.
- Preservation – These tasks are performed at specified intervals over the service life of the bridge and address specific conditions to prevent deterioration from developing or expanding. This work is generally performed in two different areas: Pavement Preservation and Bridge Preservation, with each addressing specific deficiencies and preservation needs.
- Rehabilitation – These tasks are performed at specified intervals over the service life of the bridge and address more extensive deterioration of the major bridge elements.
- Replacement – This effort involves complete replacement of the entire bridge structure or complete replacement of the superstructure (e.g., girders and deck).

Estimated costs for each work task are shown below for the five bridge types.

	<u>Activity*</u>	<u>Time Interval</u>	<u>Costs per Sq. Ft. for each Bridge Type</u>				
			<u>Girder</u>	<u>Truss</u>	<u>Moveable</u>	<u>Timber</u>	<u>Culvert</u>
Maintenance	Clean & Seal Substructure	Annual	\$0.10	\$0.10	\$0.10	\$0.10	\$0.10
Preservation	Crack Seal Pavement**	5 yrs	\$0.07	\$0.07	\$0.07	\$0.07	N/A
	Pavement In-lay**	10 yrs	\$1.60	\$1.60	\$1.60	N/A	N/A
	Install/Repair Concrete Invert	10 yrs	N/A	N/A	N/A	N/A	\$50.00
	Patch Deck, Replace Exp. Joints, Membrane, & Pvm; Rehab Bearings	20 yrs	\$50.00	\$100.00	\$200.00	\$50.00	\$100.00
Rehabilitation	Replace Deck, Rehabilitate Bridge	40-60 yrs	\$100.00	\$250.00	\$350.00	\$100.00	N/A
Replacement	Replace Bridge Superstructure***	80-120 yrs	\$325.00	\$375.00	\$500.00	\$250.00	\$250.00
	Replace Complete Bridge (Slope Intercept Method)	80-120 yrs	\$650.00	\$750.00	\$1,000.00	\$500.00	\$500.00

* Specific work activity varies by bridge type. See *Recommended Investment Strategy* for more information on each bridge type.

** These preservation tasks are performed by the Highway Design Bureau's Pavement Program; thus, their costs are not included here.

*** For initial estimating purposes the superstructure replacement cost is taken to be one-half of the complete bridge replacement cost.

Based on experience with the above activities on past bridge projects, the Bridge Management Committee determined that a 60-year to 120-year service life is achievable, depending on the bridge type, for bridges that receive sufficient funds and attention to complete the recommended work tasks at the prescribed intervals.

Cost multipliers were developed for each activity, e.g., maintenance, preservation, rehabilitation, or replacement, based on various characteristics of the specific bridge and site, such as type of bridge and roadway tier (including the traffic volume considerations) of the bridge. When preparing the “global” bridge program funding needs, these multipliers are applied as appropriate for the specific characteristics of the proposed bridge activity.

4.2 **Bridge Maintenance – Work Tasks**

This effort includes: Cleaning the bridge to remove dirt, debris, and deicing (road salt) residue; Sealing bridge substructure to prevent road salt infiltration; Cleaning bridge drainage systems; Clearing vegetation; Etc. Maintenance also includes the repair of bearings and expansion plug joints, which are performed at intervals of up to 5 years. These combined tasks (\$0.10 per sq. ft.) should be performed annually to prevent conditions from developing that would accelerate bridge deterioration. All maintenance tasks are usually performed by the NHDOT Bridge Maintenance Bureau.

4.3 **Bridge Preservation – Work Tasks**

Pavement Preservation – This includes crack sealing of the pavement (\$0.07 per sq. ft.) every 5 years or installing a 1” pavement inlay (\$1.60 per sq. ft.) every 10 years. This work is completed as part of the Pavement Program administered by the Highway Design Bureau.

Bridge Preservation – This includes; repairs to the substructure; deck patching; replacement of bridge copings; replacement of expansion joints; replacement of waterproofing membrane and bridge pavement; and; replacement or rehabilitation of bearings. These combined efforts (\$50.00 per sq. ft. to \$200.00 per sq. ft.; varies by bridge type) should be performed every 20 years and are completed as part of the Bridge Preservation Program administered by the Bridge Management Committee, completed through Bridge Design contracts or Bridge Maintenance efforts. Touch-up painting of the structural steel is also a preservation effort and is included in the above cost estimate.

For a list and location map of all state bridges that received Preservation work during FFY 2020, please see Appendix “D”.

4.4 **Bridge Rehabilitation – Work Tasks**

Replace Bridge Deck – This includes replacing the bridge pavement and membrane, concrete deck, bridge rail & bridge approach rail, expansion joint(s), and bridge bearings, and performing substructure patching/repair. These combined efforts (\$100.00 per sq. ft. to \$350.00 per sq. ft.; varies by bridge type) should be performed every 40 to 60 years and are completed as part of the Bridge Rehabilitation and Replacement Program administered by the Bridge Management Committee, completed through Bridge Design contracts or Bridge Maintenance efforts.

The base cost to remove all lead-based paint and apply a new paint coating is usually handled under a separate program and therefore is not included in the above cost estimate.

For a list and location map of all state bridges that received Rehabilitation work during FFY 2020, please see Appendix “E”.

4.5 **Bridge Replacement – Work Tasks**

Replace Superstructure – This involves replacing the bridge superstructure, including the deck, girders, bridge & approach rail, bearings, expansion joints, and major substructure rehabilitation. These combined efforts (\$325.00 per sq. ft. to \$500.00 per sq. ft., varying by bridge type) should be performed once at the end of the projected 60 to 120-year life of the bridge. Depending on the overall condition of the bridge, the best solution may be to replace the entire bridge, instead of only replacing the superstructure.

Replace Bridge – This involves completely removing the existing bridge and replacing it with a new bridge (\$650.00 per sq. ft. to \$1,000.00 per sq. ft.; varies by bridge type). This effort should be performed at the end of the projected 60 to 120-year life of the bridge. Depending on the overall condition of the bridge, the best solution may be to replace just the bridge superstructure as noted above, instead of replacing the entire bridge.

The “per square foot” cost estimate is an average of the costs required to perform either superstructure replacement or complete replacement of a girder bridge. During development of the project the scope of work may change from a superstructure replacement to a complete bridge replacement, as the specific condition and needs of a deficient bridge are fully identified and quantified. Further, there may be roadway capacity issues that need to be addressed as well, which could require a larger bridge, thereby necessitating a complete bridge replacement. Using this averaged value for replacement actions provides the best “global” estimate for planning and funding purposes for projects in the overall Bridge Program.

These combined efforts should be performed at the end of the projected service life of the bridge and are completed as part of the Bridge Rehabilitation and Replacement Program administered by the Bridge Management Committee, completed through Bridge Design contracts or Bridge Maintenance efforts.

For a list and location map of all state bridges that were **Replaced** during FFY 2020, please see Appendix “F”.

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5 **Bridge Program Accomplishments in 2020**

As can be seen from the information presented in Sections 2 & 3, the Department is making some progress toward reducing the deck area of deficient Red List bridges in the state. Bridge projects, completed through Bridge Design contracts or Bridge Maintenance efforts, that collectively perform maintenance, preservation, and rehabilitation activities, are also important, as these efforts address identified bridge deficiencies before becoming more costly bridge replacement projects.

5.1 **Performance Goals and Results of Efforts of Previous Year**

As previously stated, the Bridge Performance Goals as set forth by the Bridge Management Committee (BMC) and the Performance Workgroup, are:

1. Implement the *Recommended Investment Strategy* (RIS) to attain the maximum service life, which varies from 60 - 120 years based on bridge type, for all types of bridges in New Hampshire.
2. Inspect all state and municipal/other bridges to meet Federal and State inspection and reporting requirements.
3. Manage all posted (weight restricted) bridges to reduce or eliminate constraints affecting the safe and efficient movement of goods and services, including emergency response, on the overall State transportation system. Specifically, the goal is for all High Investment Bridges (HIBs) and all bridges on Tier 1 and 2 roadways to have no weight restrictions, for all Tier 3 bridges with weight restrictions to be included in the 10-Year Plan as projects to address their weight restrictions, and for all weight restricted Tier 4 bridges to be reviewed to ensure that the weight restriction for each bridge does not affect emergency response services. (Please refer to *Appendix C - Bridge Postings and Weight Restrictions* for additional information.)
4. Manage the State's Red List ("poor" condition) bridges to reduce the backlog of bridge rehabilitation and replacement efforts to the maximum extent that can be addressed within funding constraints of the State's 10-Year Transportation Improvement Plan (10-Year Plan).
5. Apply available bridge funds to limit the total area of bridge decks in "poor" condition on the National Highway System (NHS) in New Hampshire to be less than 7% of the total deck area on this highway category. This goal is more stringent than the 10% requirement stipulated by the Federal Highway Administration (FHWA).
6. Record and utilize project cost data to calculate cost estimates through all project development phases (Initial Assessment; Type, Size, & Location (TS&L); Preliminary Plans; PPS&E Plans; and PS&E Plans) to improve cost estimating practices and corresponding project cost results as the *Recommended Investment Strategy* (RIS) is efficiently and effectively implemented. The goal is for Initial Project Assessment cost estimates to be within 25% (\pm) of the PS&E estimate.

The BMC tracks the yearly accomplishments of each performance measure and reviews the anticipated funding allocations to develop future bridge projects to meet these goals to the extent possible within funding and staffing constraints. The yearly accomplishments of each of these goals are presented in more detail on the following pages.

5.1.1 Goal 1: Implement the *Recommended Investment Strategy (RIS)* to attain the maximum bridge service life, which varies from 60 - 120 years based on bridge type, for all types of bridges in New Hampshire

The accomplishments of this goal during FFY 2020 for State and Turnpike bridges are depicted through the following items:

5.1.1.1 Complete Bridge Preservation efforts annually on 268,854 sq. ft. or more of deck area on State (non-Turnpike) bridges and annually on 85,959 sq. ft. or more of deck area on Turnpike bridges, for FFY 2020

(A) 10-Year Plan non-Turnpike Bridge Preservation:

Preservation efforts for State non-Turnpike bridges are funded through several different federal and state programs in the 10-Year Plan for 2019 – 2028, as outlined below:

Funding Program	Effort	Roadway Tier	Annual Funding (10-Year Plan)	Responsible Bureau
BRDG-HIB-M&P	Maintenance & Presevation	HIB	\$2,920,000	Bridge Design
BRDG-T1/2-M&P*	Maintenance & Presevation	1 & 2	\$7,125,000	Bridge Design
BRDG-T3/4-M&P*	Maintenance & Presevation	3 & 4	\$2,560,000	Bridge Design
BET-BMT-BD	Statewide Betterment Program	State Bridges (Federal definition)	\$1,500,000	Bridge Design
BET-BMT-HQ	Statewide Betterment Program for Preservation, Rehab, & Replacement	State Bridges (Federal definition)	\$750,000	Bridge Maintenance
BRDG-T1/2-M&P*	Maintenance & Presevation	1 & 2	\$1,000,000	Bridge Maintenance
BRDG-T3/4-M&P*	Maintenance & Presevation	3 & 4	\$1,000,000	Bridge Maintenance
Annual Funding Program for Maintenance & Preservation			\$16,855,000	

* Funds in these categories are allocated to both Bridge Design and Bridge Maintenance.

When referencing project data, it can be determined that the \$16,855,000 available in FFY 2020 for state non-Turnpike bridge preservation efforts has been expended when PE, ROW, and CONST costs are included for each project. Efforts by the Bridge Design Bureau and the Bridge Maintenance Bureau ensured full application of all State non-Turnpike Bridge Preservation Program funds for FFY 2020.

The numerical value of this State non-Turnpike preservation annual goal is determined by dividing the total deck area of all bridges for each roadway tier, according to bridge type, and then dividing those totals by the projected life cycle of the specific work activity, i.e., preservation. For example, for preservation efforts on State non-Turnpike girder bridges:

There are 27 state non-Turnpike girder HIBs having a total deck area = 1,300,243 sq. ft.

There are 297 state non-Turnpike Tier 1 girder bridges having a total deck area = 2,168,181 sq. ft.

There are 289 state non-Turnpike Tier 2 girder bridges having a total deck area = 1,587,658 sq. ft.

There are 279 state non-Turnpike Tier 3 girder bridges having a total deck area = 849,799 sq. ft.

There are 235 state non-Turnpike Tier 4 girder bridges having a total deck area = 798,393 sq. ft.

All Tier 5 bridges are owned by the municipalities.

There are 23 state non-Turnpike Tier 6 girder bridges having a total deck area = 21,618 sq. ft.

There are 1,153 total State non-Turnpike girder bridges having a deck area = 6,725,862 sq. ft.

The *Recommended Investment Strategy* (RIS) states that preservation activities should be performed 4 times on each girder bridge over its projected 120-year life cycle. This means that 1/30th of the state non-Turnpike girder bridge inventory, i.e., $6,725,862 / 30 = 224,195$ sq. ft., should receive bridge preservation work each year. For all bridge types, the total non-Turnpike bridge preservation annual goal is $8,065,614 / 30 = 268,854$ sq. ft. The annual preservation goal of 224,195 sq. ft. for non-Turnpike girder bridges is clearly a major portion of this effort.

Based on the 10-Year Plan allocation of funds for non-Turnpike bridge preservation efforts, it is projected that up to 6 projects per year, with each project bundling 3 to 4 bridges, can be advertised by the Bridge Design Bureau, with similar efforts by the Bridge Maintenance Bureau, to utilize this funding and work toward accomplishing State non-Turnpike bridge preservation annual goals.

(B) 10-Year Plan Turnpike Bridge Preservation:

Preservation efforts for Turnpike bridges are funded solely through the Turnpike program in the 10-Year Plan for 2019 – 2028. When referencing project data, it can be determined that programmed Turnpike bridge preservation funds have been expended by the Bridge Design Bureau and the Bridge Maintenance Bureau, with PE, ROW, and CONST costs included for each project. These combined efforts ensured full application of all Turnpike Bridge Preservation Program funds during FFY 2020.

The numerical value of this Turnpike bridge preservation goal for FFY 2020 is determined by dividing the total deck area of all Turnpike bridges for each roadway tier, according to bridge type, and then dividing those totals by the projected life cycle of the specific work activity, i.e., preservation.

For example, for preservation efforts on Turnpike girder bridges:

There are 10 Turnpike girder HIBs having a total deck area = 732,249 sq. ft.

There are 88 Turnpike Tier 1 girder bridges having a total deck area = 991,849 sq. ft.

There are 12 Turnpike Tier 2 girder bridges having a total deck area = 185,695 sq. ft.

There are 12 Turnpike Tier 3 girder bridges having a total deck area = 156,058 sq. ft.

There are 22 Turnpike Tier 4 girder bridges having a total deck area = 209,108 sq. ft.

All Tier 5 bridges are owned by the municipalities.

There are 4 Turnpike Tier 6 girder bridges having a total deck area = 22,148 sq. ft.

There are 126 total State Turnpike girder bridges having a deck area = 2,297,107 sq. ft.

The *Recommended Investment Strategy* (RIS) states that preservation activities should be performed 4 times on each girder bridge over its projected 120-year life cycle. This means that 1/30th of the Turnpike girder bridge inventory, i.e., $2,297,107 / 30 = 76,570$ sq. ft., should receive preservation work each year. For all bridge types, the total Turnpike bridge preservation annual goal is $2,578,779 / 30 = 85,959$ sq. ft. The annual preservation goal of 76,570 sq. ft. for Turnpike girder bridges is clearly a major portion of this effort.

Based on the 10-Year Plan allocation of funds for Turnpike bridge preservation efforts, it is projected that up to 5 projects per year, with each project bundling 2 to 6 bridges, can be advertised by the Bridge Design Bureau, with similar efforts by the Bridge Maintenance Bureau, to utilize this funding and work toward accomplishing Turnpike bridge preservation annual goals.

(C) FFY 2020 Bridge Preservation**(C1) FFY 2020 Bridge Preservation (non-Turnpike) – Bridge Design Bureau:**

To meet this Bridge Program goal for FFY 2020, the Bridge Design Bureau advertised 7 projects to perform preservation work on 15 State non-Turnpike bridges having a total deck area of 277,281 sq. ft., which is 103.1 % of our 268,854 sq. ft. State non-Turnpike bridge preservation annual goal for all bridge types. Details for these projects advertised by Bridge Design in FFY 2020 are listed below.

FFY 2020 State non-Turnpike Bridge Preservation (Bridge Design)	Project Number	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Project/Bridge Construction Cost	Cost Per Sq. Ft.
Bethlehem-Carroll (Bethlehem 125/177; Carroll 173/141)	42501	2	2	Girder	26,852	\$1,457,900	\$54
Boscawen (131/035, 139/040)	42440	2	2	Girder	24,519	\$1,647,600	\$67
Littleton (187/065)	42376	1	2	Girder	18,560	\$1,267,700	\$68
Manchester-Hooksett (Hooksett 095/048; Manchester 102/108; Manchester 119/115; Manchester 124/119; Manchester 127/122)	41475	5	1, 2	Girder	151,584	\$8,388,500	\$55
Ossipee (194/146)	41916	1	2	Girder	4,558	\$539,800	\$118
Plymouth-Campton (Plymouth 142/145; Campton 104/059; Campton 105/058)	42364	3	1, 2	Girder	20,410	\$1,729,100	\$85
Walpole, NH - Rockingham, VT (Walpole 058/043)	42277	1	2	Girder	30,798	\$1,686,000	\$55
FFY 2020 Bridge Preservation Totals:	7 Projects	15			277,281	\$16,716,600	\$60
Bridge Design - FFY 2020 Average Bridge Preservation Cost per Sq. Ft. =						\$60	
<small>*Girder, Truss, Moveable, Timber, Culvert (See <i>NHDOT Bridge Program - Recommended Investment Strategy</i> for bridges included in these categories.)</small>							

A review of this project data shows an average cost of $(\$16,716,600 / 277,281 \text{ sq. ft.}) = \$60/\text{sq. ft.}$ for State non-Turnpike bridge preservation, which is greater than but close to the system-wide \$50 per sq. ft. base cost estimate described in the *NHDOT Bridge Program – Recommended Network Funding* for bridge preservation work on Tier 1 girder bridges.

The cost differences may be the result of the following considerations:

- Some of the projects above include bridge painting activities, which increases the average project cost per sq. ft.
- The Ossipee 41916 project involved two-phase traffic control using temporary automated signals to control the alternating one-way traffic. Also, the bridge had 4” of pavement over the deck, which significantly increased the dead load. The project work replaced this with only 2” of bridge pavement, which required several hundred feet of grinding, removal, and replacement of the pavement on the roadway approaches to smoothly transition the reduction in pavement thickness. These factors likely contributed to the high \$118 per-sq.-ft. cost of this project.
- The Bridge Preservation Program has only been implemented for four years, and thus the above projects likely include bridges that have not received recommended preservation work in the past, and now may require more extensive bridge preservation activities than would be expected for a bridge that has received such work as is recommended.

Based on the above summary, the average project costs for bridge preservation appear close to the \$50 per sq. ft. base cost estimated in the *NHDOT Bridge Program – Recommended Network Funding*, especially considering the roadway Tiers on which these bridges are located.

This data also demonstrates the importance of annually reviewing and updating cost data used to develop bridge preservation estimates for future projects, so that over time the estimated costs and actual costs will be more in line with each other. Some of these considerations may also apply to the estimated and actual costs for bridge rehabilitation and replacement projects, necessitating the review and update of those costs as well.

FFY 2020 - Other non-Turnpike Preservation Projects – Bridge Design Bureau

In addition to the previously noted bridge preservation projects, during FFY 2020 the Bridge Design Bureau also advertised 4 other bridge related projects, as listed below.

FFY 2020 State non-Turnpike Bridge - Other Projects (Bridge Design)	Project Number	No. of Bridges	Roadway Tiers	Preservation Task	Project/Bridge Construction Cost
Conway (167/067)	25103	1	4	Scour Protection	\$536,900
Cornish, NH - Windsor, VT (Cornish 064/108)	25067	1	4	Scour Protection	\$993,800
Concord-Ashland-Campton (Ashland 066/127; Campton 104/059; Campton 105/058; Concord 041/123)	41706	4	1, 2, 4	Bridge Painting	\$1,589,300
Concord-Hopkinton (Concord 181/055; Concord 182/055; Hopkinton 123/077; Hopkinton 141/073; Hopkinton 142/073; Hopkinton 148/070)	41703	6	1, 4	Bridge Painting	\$1,419,000
Bridge Design - FFY 2020 "Other" Totals:	4 Projects	12			\$4,539,000

The information presented in the tables above show that on State non-Turnpike bridge preservation projects in FFY 2020, a Project/Bridge Construction funding total of (\$16,716,600 + \$4,539,000) = \$21,255,600 was expended by Bridge Design.

(C2) FFY 2020 Bridge Preservation (non-Turnpike) – Bridge Maintenance Bureau:

To meet this Bridge Program goal for FFY 2020, the Bridge Maintenance Bureau performed preservation work on 7 State non-Turnpike bridges in its 2020 Work Plan having a total deck area of 22,591 sq. ft., which is 8.4% of our 268,854 sq. ft. State non-Turnpike bridge preservation annual goal for all bridge types. Details for the bridges that received preservation activities by Bridge Maintenance in FFY 2020 are listed below.

FFY 2020 State non-Turnpike Bridge Preservation (Bridge Maintenance)	Bridge Number	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Project/Bridge Construction Cost	Cost Per Sq. Ft.
Clarksville (Repair undermined abutment and wingwalls)	077/042	1	4	Girder	518	\$46,650	\$90
Colebrook (Repair piers and abutments)	039/107	1	2	Girder	5,248	\$197,850	\$38
Concord (Repair undermining)	059/127	1	3	Girder	345	\$119,950	\$348
Concord (Repair piers)	150/107	1	2	Girder	12,948	\$122,300	\$9
Jefferson (Strip/replace pavement; install new curb & guardrail)	092/073	1	4	Culvert	1,138	\$157,000	\$138
Piermont (Repair abutment)	067/093	1	2	Culvert	1,476	\$165,050	\$112
Plainfield (Install membrane; replace pavement, curb, guardrail)	083/098	1	4	Culvert	918	\$131,300	\$143
FFY 2020 non-Turnpike Bridge Preservation Totals:	7 Projects	7			22,591	\$940,100	\$42
Bridge Maintenance - FFY 2020 Average Bridge Preservation Cost per Sq. Ft. =						\$42	

*Girder, Truss, Moveable, Timber, Culvert (See *NHDOT Bridge Program - Recommended Investment Strategy* for bridges included in these categories.)

In addition to the Preservation work noted above for FFY 2020, the Bridge Maintenance Bureau also performed 292 bridge repairs, including work on joints, decks, substructures, rail, etc., on State non-Turnpike bridges. This work is in addition to the activity schedules listed in the *Recommended Investment Strategy*.

A review of this project data shows that Bridge Maintenance performed preservation tasks on these comparatively smaller bridges very cost effectively as compared to “traditional” design-bid-build preservation projects developed by the Bridge Design Bureau. In addition, the Bridge Maintenance efforts listed above involve preservation work on specific elements, such as curbs, piers, abutments, or expansion joints, rather than preservation work on the entire bridge deck. When the costs for preservation work on these specific items are distributed over the area of the entire bridge deck, it can result in lower per sq. ft. costs, perhaps making a direct comparison with Bridge Design projects inaccurate.

It is also important to note the staffing and funding constraints of the Bridge Maintenance Bureau, which is one reason that large preservation projects with high traffic volumes are usually handled through projects developed by Bridge Design and are not typically undertaken by Bridge Maintenance crews.

FFY 2020 - Other non-Turnpike Preservation Projects – Bridge Maintenance Bureau

There were no Other Bridge Preservation projects for non-Turnpike bridges performed by the Bridge Maintenance Bureau for FFY 2020.

(C3) FFY 2020 Bridge Preservation (Turnpike) – Bridge Design Bureau:

There were no Bridge Preservation projects for Turnpike bridges developed by the Bridge Design Bureau for FFY 2020.

FFY 2020 - Other Turnpike Preservation Projects – Bridge Design Bureau

There were no Other Bridge Preservation projects for Turnpike bridges developed by the Bridge Design Bureau for FFY 2020.

(C4) FFY 2020 Bridge Preservation (Turnpike) – Bridge Maintenance Bureau:

To meet this Bridge Program goal for FFY 2020, the Bridge Maintenance Bureau performed preservation work on 2 Turnpike bridges in its 2020 Work Plan having a total deck area of 1,055 sq. ft., which is 1.2% of our 85,959 sq. ft. Turnpike bridge preservation annual goal for all bridge types. Details for the Turnpike bridges that received preservation work by Bridge Maintenance in FFY 2020 are listed below. This effort utilizes Turnpike funds.

FFY 2020 Turnpike Bridge Preservation (Bridge Maintenance)	Bridge Number	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Project Construction Cost	Cost Per Sq. Ft.
North Hampton (expansion joint only; assumed 10 ft. wide)	078/070	1	1	Girder	607	\$71,450	\$118
Portsmouth (replace expansion joint; remove granite curb; repair deck at abutment; assumed 10 ft. wide)	199/139	1	1	Girder	448	\$535,650	\$1,196
FFY 2020 Turnpike Bridge Preservation Totals:	2 Projects	2			1,055	\$607,100	\$575
Bridge Maintenance - FFY 2020 Average Turnpike Bridge Preservation Cost per Sq. Ft. =						\$575	
*Girder, Truss, Moveable, Timber, Culvert (See <i>NHDOT Bridge Program - Recommended Investment Strategy</i> for bridges included in these categories.)							

The \$575 per sq. ft. average cost is significantly more (10 times greater) than the \$50 per sq. ft. base preservation cost estimated in *NHDOT Bridge Program – Recommended Network Funding*. This is primarily due to the work efforts and costs being distributed on a very limited deck area immediately adjacent to the expansion joints, rather than distributing the costs over the total deck area of these two bridges. If the total deck areas were applied to the total costs for each project listed above, the per sq. ft. costs would be: North Hampton (\$71,450 / 16,753 sq. ft.) = \$4 per sq. ft., and; Portsmouth (\$535,650 / 448 sq. ft.) = \$83 per sq. ft. Further discussions regarding how to estimate and apply preservation costs to the bridge deck area are likely needed to determine the best method for compiling and comparing these data.

FFY 2020 - Other Turnpike Preservation Projects – Bridge Maintenance Bureau

There were no Other Bridge Preservation projects for Turnpike bridges performed by the Bridge Maintenance Bureau for FFY 2020.

(C5) FFY 2020 Preservation Summary – State and Turnpike Bridges

During FFY 2020 the Bridge Design and Bridge Maintenance Bureaus developed 16 preservation projects and/or performed preservation activities on a total of 24 bridges, having a combined deck area of 300,927 sq. ft. This effort represents 84.8% of our combined (268,854 sq. ft. + 85,959 sq. ft. = 354,813 sq. ft.) total Bridge Preservation annual goal for all bridge types. In addition, 10 bridges were painted and 2 bridge received scour protection, as summarized in the following table. Also, 292 bridges received repair efforts by Bridge Maintenance staff during this time period.

FFY 2020 State & Turnpike Bridge Preservation (Bridge Design & Bridge Maintenance)	Number of Projects	No. of Bridges	Roadway Tiers	Bridge Types*	Existing Deck Area (Sq. Ft.)	Project/Bridge Construction Cost	Cost Per Sq. Ft.
State non-Turnpike	14	22	1, 2, 3, 4	Girder, Culvert	299,872	\$17,656,700	\$59
State non-Turnpike - Other (Painting, Mechanical, Scour, Etc.)	4	12	1, 2, 4	N/A	N/A	\$4,539,000	N/A
Turnpike	2	2	1	Girder	1,055	\$607,100	\$575
Turnpike - Other (Painting, Etc.)	0	0	N/A	N/A	N/A	\$0	N/A
FFY 2020 SUMMARY - Bridge Preservation Totals:	20 Projects	36			300,927	\$22,802,800	\$61
Total Cost Excluding "Other" Projects =						\$18,263,800	
FFY 2020 Average Bridge Preservation Cost per Sq. Ft. = (Excluding "Other" Projects)						\$61	

*Girder, Truss, Moveable, Timber, Culvert (See *NHDOT Bridge Program - Recommended Investment Strategy* for bridges included in these categories.)

Please note that the Campton 104/059 & 105/058 bridges are included in both the Plymouth-Campton 42364 preservation project and the Concord-Ashland-Campton 41706 painting project, and thus are counted twice in the FFY 2020 Preservation Summary totals.

The above data, which compiles the FFY 2020 bridge Preservation efforts of the Bridge Design and Bridge Maintenance Bureaus, result in an average bridge preservation cost of \$61 per sq. ft., which is 22% greater than the \$50 per sq. ft. presented in the *NHDOT Bridge Program – Recommended Network Funding* for girder bridges located on Tier 1 roadways. It should be noted, however, that the efforts by Bridge Maintenance can at times significantly lower the average per sq. ft. cost when combined with Bridge Design project data.

Regardless, when considering that the FFY 2020 bridge preservation efforts involve bridges on Tier HIB, 1, 2, 3, & 4 roadways, and their associated Tier multipliers, these data show an acceptable comparison with the per sq. ft. costs estimated in the *NHDOT Bridge Program – Recommended Network Funding*. However, it is important to annually re-evaluate the estimated cost per sq. ft. for all bridge activities. This effort helps to ensure that values are up to date, with the goal of developing accurate project cost estimates.

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5.1.1.2 Complete Bridge Rehabilitation efforts on 67,214 sq. ft. or more of deck area annually on State non-Turnpike bridges and on 21,490 sq. ft. or more of deck area annually on Turnpike bridges, for FFY 2020

(A) 10-Year Plan non-Turnpike Bridge Rehabilitation:

Following the same methodology previously presented for Bridge Preservation efforts, the *Recommended Investment Strategy* (RIS) states that bridge rehabilitation activities should be performed once on each girder bridge over their projected 120-year life cycle. This means that 1/120th of the state non-Turnpike girder bridge inventory should receive bridge rehabilitation work each year, i.e., $6,725,862 / 120 = 56,049$ sq. ft. For all bridge types the total non-Turnpike bridge rehabilitation annual goal is $8,065,614 / 120 = 67,214$ sq. ft. The annual rehabilitation goal of 56,049 sq. ft. for non-Turnpike girder bridges is clearly a major portion of this effort.

Based on the 10-Year Plan allocation of funds for non-Turnpike bridge rehabilitation efforts, it is projected that up to 10 projects per year can be advertised by the Bridge Design Bureau, with similar efforts by the Bridge Maintenance Bureau, to utilize this funding and work toward accomplishing non-Turnpike bridge rehabilitation goals.

(B) 10-Year Plan Turnpike Bridge Rehabilitation:

Following the same methodology presented above for Turnpike Bridge Preservation efforts, the *Recommended Investment Strategy* (RIS) states that rehabilitation activities should be performed once on each girder bridge during their projected 120-year life cycle. This means that 1/120th of the Turnpike girder bridge inventory should be rehabilitated each year, i.e., $2,297,107 / 120 = 19,143$ sq. ft. For all bridge types the total Turnpike bridge rehabilitation annual goal is $2,578,779 / 120 = 21,490$ sq. ft. The annual rehabilitation goal of 19,143 sq. ft. for Turnpike girder bridges is clearly a major portion of this effort.

Based on the 10-Year Plan allocation of funds for Turnpike bridge rehabilitation efforts, it is projected that up to 10 projects per year can be advertised by the Bridge Design Bureau, with similar efforts by the Bridge Maintenance Bureau, to utilize this funding and work toward accomplishing Turnpike bridge rehabilitation goals.

(C) FFY 2020 Bridge Rehabilitation

(C1) FFY 2020 Bridge Rehabilitation (non-Turnpike) – Bridge Design Bureau:

There were no Bridge Rehabilitation projects for non-Turnpike bridges developed by the Bridge Design Bureau for FFY 2020.

(C2) FFY 2020 Bridge Rehabilitation (non-Turnpike) – Bridge Maintenance Bureau:

To meet this Bridge Program goal for FFY 2020, the Bridge Maintenance Bureau performed rehabilitation work on 4 State non-Turnpike bridges (3 Red List) in its 2020 Work Plan having a total deck area of 6,068 sq. ft., which is 9.1% of our 67,214 sq. ft. State non-Turnpike bridge rehabilitation annual goal for all bridge types. Details for the bridges that received rehabilitation activities by Bridge Maintenance in FFY 2020 are listed below.

FFY 2020 State non-Turnpike Bridge Rehabilitation (Bridge Maintenance)	Bridge Number	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Project/Bridge Construction Cost	Cost Per Sq. Ft.
Barrington (Red List) (Installed concrete invert)	073/127	1	2	Culvert	373	\$118,700	\$318
Durham (Red List) (Replaced timber deck)	093/080	1	4	Timber	720	\$23,700	\$33
Monroe (Constructed wingwall)	125/113	1	3	Girder	542	\$64,200	\$118
Sunapee (Red List) (Install concrete jacket on piles; install riprap; repair deck)	067/078	1	2	Girder	4,433	\$114,050	\$26
FFY 2020 non-Turnpike Bridge Rehabilitation Totals:	4 Projects	4			6,068	\$320,650	\$53
Bridge Maintenance - FFY 2020 Bridge Rehabilitation Cost per Sq. Ft. =						\$53	

*Girder, Truss, Moveable, Timber, Culvert (See *NHDOT Bridge Program - Recommended Investment Strategy* for bridges included in these categories.)

A review of this project data shows an approximate cost of \$53 per sq. ft. for Bridge Maintenance to perform bridge rehabilitation tasks. The *NHDOT Bridge Program – Recommended Network Funding* for bridge rehabilitation does not include a system-wide base cost per sq. ft. for culvert bridges since rehabilitation work is not generally performed on culverts. If the deck area and cost for the culvert bridge is removed, the resulting \$318 average cost per sq. ft. for rehabilitation of the 1 culvert bridge listed above could be compared to the \$500 per sq. ft. x 2.0 Tier 2 multiplier = \$1,000 per sq. ft. cost for replacement of culvert bridges located on Tier 2 roadways.

The \$33 cost per sq. ft. for the 1 timber bridge, performed by Bridge Maintenance, is considerably less than the \$100 per sq. ft. x 1.0 Tier 4 multiplier = \$100 per sq. ft. cost for rehabilitation of timber bridges located on Tier 4 roadways, as listed in the *NHDOT Bridge Program – Recommended Network Funding*.

(C3) FFY 2020 Bridge Rehabilitation (Turnpike) – Bridge Design Bureau:

There were no Bridge Rehabilitation projects for Turnpike bridges developed by the Bridge Design Bureau for FFY 2020.

(C4) FFY 2020 Bridge Rehabilitation (Turnpike) – Bridge Maintenance Bureau:

There were no Bridge Rehabilitation projects for Turnpike bridges performed by the Bridge Maintenance Bureau for FFY 2020.

(C5) FFY 2020 Rehabilitation Summary – State and Turnpike Bridges

During FFY 2020 the Bridge Design and Bridge Maintenance Bureaus developed rehabilitation projects and/or performed rehabilitation activities on a total of 4 bridges (3 Red List) having a combined deck area of 6,068 sq. ft. This effort represents 6.8% of our combined 67,214 sq. ft. + 21,490 sq. ft. = 88,704 sq. ft. total Bridge Rehabilitation annual goal for all bridge types.

FFY 2020 State & Turnpike Bridge Rehabilitation (Bridge Design & Bridge Maintenance)	Number of Projects	No. of Bridges	Roadway Tiers	Bridge Types*	Existing Deck Area (Sq. Ft.)	Project/Bridge Construction Cost	Cost Per Sq. Ft.
State non-Turnpike	4	4	2, 3, 4	Culvert, Timber, Girder	6,068	\$320,650	\$53
Turnpike	0	0	N/A	N/A	0	\$0	N/A
FFY 2020 SUMMARY - Bridge Rehabilitation Totals:	4 Projects	4			6,068	\$320,650	\$53
FFY 2020 Average Bridge Rehabilitation Cost per Sq. Ft. =						\$53	

*Girder, Truss, Moveable, Timber, Culvert (See *NHDOT Bridge Program - Recommended Investment Strategy* for bridges included in these categories.)

The above data, which compiles the FFY 2020 bridge Rehabilitation efforts of the Bridge Design and Bridge Maintenance Bureaus, result in an average bridge rehabilitation cost of \$53 per sq. ft. This value is considerably lower than the \$100 per sq. ft. x 1.5 multiplier = \$150 per sq. ft. for replacement of culvert bridges on Tier 2 roadways, and with the \$100 per sq. x 1.0 multiplier = \$100 per sq. ft. for rehabilitation of timber bridges on Tier 4 roadways, as presented in the *NHDOT Bridge Program – Recommended Network Funding*.

However, it is important to note that efforts by Bridge Maintenance can at times result in lower average per sq. ft. costs, depending on the specific rehabilitation tasks, when combined with Bridge Design project data. A more detailed explanation of costs is provided further above specifically for these Bridge Design and Bridge Maintenance rehabilitation projects advertised / performed in FFY 2020.

5.1.1.3 Complete Bridge Replacement efforts on 67,214 sq. ft. or more of deck area annually on State non-Turnpike bridges and on 21,490 sq. ft. or more of deck area annually on Turnpike bridges, for FFY 2020

(A) 10-Year Plan non-Turnpike Bridge Replacement

Following the same methodology previously presented for Bridge Preservation and Bridge Rehabilitation efforts, the *Recommended Investment Strategy* (RIS) states that bridge replacement activities will be performed once on each girder bridge at the end of their projected 120-year life. This means that $1/120^{\text{th}}$ of the state non-Turnpike girder bridge inventory should be replaced each year, i.e., $6,725,862 / 120 = 56,049$ sq. ft. For all bridge types the total non-Turnpike bridge replacement annual goal is $8,065,614 / 120 = 67,214$ sq. ft. The annual replacement goal of 56,049 sq. ft. for non-Turnpike girder bridges is clearly a major portion of this effort.

Based on the 10-Year Plan allocation of funds for non-Turnpike bridge replacement efforts, it is projected that up to 8 projects per year can be advertised by the Bridge Design Bureau, with similar efforts by the Bridge Maintenance Bureau, to utilize this funding and work toward accomplishing non-Turnpike bridge replacement goals.

(B) 10-Year Plan Turnpike Bridge Replacement

Following the same methodology presented above for Turnpike Bridge Preservation efforts, the *Recommended Investment Strategy* (RIS) states that bridge replacement activities will be performed once on each girder bridge at the end of their projected 120-year life. This means that $1/120^{\text{th}}$ of the Turnpike girder bridge inventory should be replaced each year, i.e., $2,297,107 / 120 = 19,143$ sq. ft. For all bridge types the total Turnpike bridge replacement annual goal is $2,578,779 / 120 = 21,490$ sq. ft. The annual replacement goal of 19,143 sq. ft. for Turnpike girder bridges is clearly a major portion of this effort.

Based on the 10-Year Plan allocation of funds for Turnpike bridge replacement efforts, it is projected that up to 4 projects per year can be advertised by the Bridge Design Bureau, with similar efforts by the Bridge Maintenance Bureau, to utilize this funding and work toward accomplishing Turnpike bridge replacement goals.

(C) FFY 2020 Bridge Replacement

(C1) FFY 2020 Bridge Replacement (non-Turnpike) – Bridge Design Bureau:

To meet this Bridge Program goal for FFY 2020, the Bridge Design Bureau advertised 1 project for replacement of 2 State non-Turnpike bridges (2 Red List) having a total deck area of 46,063 sq. ft. (NH portion), which is 68.5% of our 67,214 sq. ft. State non-Turnpike bridge replacement annual goal for all bridge types. Details for this project are listed below.

FFY 2020 State non-Turnpike Bridge Replacement (Bridge Design)	Project Number	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Project Construction Cost	Cost Per Sq. Ft.
Lebanon, NH - Hartford, VT (044/103; 044/104) (both Red List) Deck area & project cost are the NH portions; Project bid in 2019; re-bid in 2020 (Superstructure replacement & widening, Substructure widening)	16148	2	1	Girder	46,063	\$30,582,100	\$664
FFY 2020 Bridge Replacement Totals:	1 Project	2			46,063	\$30,582,100	
FFY 2020 Bridge Replacement Cost per Sq. Ft. =						\$664	
<small>*Girder, Truss, Moveable, Timber, Culvert (See NHDOT Bridge Program - Recommended Investment Strategy for bridges included in these categories.)</small>							

A review of this data shows an approximate cost of \$664 per sq. ft. for bridge replacement. The *NHDOT Bridge Program – Recommended Network Funding* lists \$650 per sq. ft. for girder bridge replacement on Tier 1 roadways, which is very close to the value above.

The costs per sq. ft. for the project listed above have the following considerations:

- The Lebanon, NH – Hartford, VT 16148 project involves superstructure replacement and widening. When the project was initially advertised in FFY 2019, with a construction estimate of \$36,435,800, it received only one construction bid totaling \$46,330,300. This unusual event necessitated contact with all 6 Contractors that expressed interest in the project, as well a review of project requirements, to identify possible reasons that so many Contractors chose to not bid this project.

The project involves the widening of two nearly 850 ft.-long bridges on I-89 over the Connecticut River, as well as widening of the substructures and tall piers, with interchanges located near each end of the project limits. The significant widening increases the total deck area (NH and VT portions) of both bridges from 60,610 sq. ft. to 92,974 sq. ft., a 53.4% increase. The difficulty of this construction while maintaining Interstate traffic appears to have been underestimated, along with initial contract and bid requirements constraining Contractor activities.

Some aspects of the project were revised and the project was re-bid in FFY 2020. Again, the project received only one bid totaling \$43,755,800, which is nearly \$6.5M greater than the FFY 2019 estimate. Based on the 46,063 sq. ft. of original NH deck area and the \$32,294,700 bid price for the NH portion of this project, this resulted in an \$664 per sq. ft. cost. This is very close to the estimated system-side base cost of \$650 per sq. ft. for replacement of a girder bridge on a Tier 1 roadway.

The above data show how unique project characteristics can significantly increase project costs and should be considered when developing project cost estimates. This also supports frequently reviewing and updating the system-wide base costs for bridge replacement in the *NHDOT Bridge Program – Recommended Network Funding*, with the goal of providing more accurate estimates for future projects.

(C2) FFY 2020 Bridge Replacement (non-Turnpike) – Bridge Maintenance Bureau:

To meet this Bridge Program goal, during the 2020 Federal Fiscal Year (FFY 2020) the Bridge Maintenance Bureau replaced the superstructure of 5 State non-Turnpike bridges (3 Red List) having a total deck area of 4,206 sq. ft., which is about 6.3% of our 67,214 sq. ft. non-Turnpike bridge replacement annual goal for all bridge types. Project details for the bridge replacement efforts completed by Bridge Maintenance for FFY 2020 are listed below.

FFY 2020 State non-Turnpike Bridge Replacement (Bridge Maintenance)	Bridge Number	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Project Construction Cost	Cost Per Sq. Ft.
Chester (Replace superstructure)	126/066	1	3	Girder	477	\$185,200	\$388
Freedom (Red List) (Replace superstructure)	205/041	1	2	Culvert	761	\$370,800	\$487
Gilford (Red List) (Replace superstructure; install riprap)	097/094	1	3	Culvert	444	\$184,900	\$416
Meredith (Red List) (Replace superstructure)	131/105	1	4	Girder	2,142	\$810,200	\$378
Westmoreland (Replace superstructure; clear channel; install riprap)	111/069	1	3	Culvert	382	\$222,100	\$581
FFY 2020 Bridge Replacement Totals:	5 Projects	5			4,206	\$1,773,200	\$422
FFY 2020 Bridge Replacement Cost per Sq. Ft. =						\$422	
<small>*Girder, Truss, Moveable, Timber, Culvert (See NHDOT Bridge Program - Recommended Investment Strategy for bridges included in these categories.)</small>							

The *NHDOT Bridge Program – Recommended Network Funding* lists \$650 per sq. ft. x 1.4 Tier 3 multiplier = \$910 per sq. ft. for girder bridge replacement. A review of the above data shows \$383 per sq. ft. as the cost for this girder bridge replacement effort.

The *NHDOT Bridge Program – Recommended Network Funding* also lists \$500 per sq. ft. x 1.2 Tier 3 (and Tier 4) multiplier = \$600 per sq. ft. for culvert bridge replacement. A review of the above data shows \$495 per sq. ft. as the average cost for these culvert bridge replacement efforts.

These results indicate that Bridge Maintenance can replace comparatively small bridges in a much more cost-effective manner than “traditional” design-bid-build replacement projects developed by the Bridge Design Bureau. However, it is also important to recognize the staffing and funding constraints of the Bridge Maintenance Bureau, which is one reason that larger projects with higher traffic volumes are not typically undertaken by these crews.

(C3) FFY 2020 Bridge Replacement (Turnpike) – Bridge Design Bureau:

There were no Bridge Replacement projects for Turnpike bridges developed by the Bridge Design Bureau for FFY 2020.

(C4) FFY 2020 Bridge Replacement (Turnpike) – Bridge Maintenance Bureau:

There were no Bridge Replacement projects for Turnpike bridges performed by the Bridge Maintenance Bureau for FFY 2020.

(C5) FFY 2020 Replacement Summary – State and Turnpike Bridges

During FFY 2020 the Bridge Design and Bridge Maintenance Bureaus performed replacement of a total of 7 bridges (5 Red List) having a combined deck area of 50,269 sq. ft. This effort represents 56.7% of our combined 67,214 sq. ft. + 21,490 sq. ft. = 88,704 sq. ft. total Bridge Replacement annual goal for all bridge types.

FFY 2020 State & Turnpike Bridge Replacement Projects (Bridge Design & Bridge Maintenance)	Number of Projects	No. of Bridges	Roadway Tiers	Bridge Type*	Existing Deck Area (Sq. Ft.)	Estimated Project Construction Cost	Cost Per Sq. Ft.
State non-Turnpike	6	7	1, 2, 3, 4	Girder, Culvert	50,269	\$32,355,300	\$644
Turnpike	0	0	N/A	N/A	N/A	\$0	N/A
FFY 2020 SUMMARY - Bridge Replacement Totals:	6 Projects	7			50,269	\$32,355,300	\$643.64
FFY 2020 Average Bridge Replacement Cost per Sq. Ft. =						\$644	
<small>*Girder, Truss, Moveable, Timber, Culvert (See NHDOT Bridge Program - Recommended Investment Strategy for bridges included in these categories.)</small>							

The *NHDOT Bridge Program – Recommended Network Funding* lists \$650 per sq. ft. x the 1.4 multiplier for Tiers 2, 3, and 4 = \$910 per sq. ft. for girder bridge replacement. The \$644 per sq. ft. listed in the FFY 2020 Summary table above is 29.2% less than the \$910 per sq. ft. system-wide base cost.

The above data, which compiles the FFY 2020 bridge Replacement efforts of the Bridge Design and Bridge Maintenance Bureaus, result in an average bridge replacement cost of \$644_ per sq. ft. This value is less than the \$500 per sq. ft. x 1.5 multiplier = \$750 per sq. ft. for replacement of culvert bridges on Tier 2 roadways, and somewhat greater than the \$500 per sq. ft. x 1.0 multiplier = \$500 per sq. ft. for replacement of **timber** bridges on Tier 4 roadways, as presented in the *NHDOT Bridge Program – Recommended Network Funding*.

It is noted that bridge replacement efforts by Bridge Maintenance can at times result in lower average per sq. ft. costs when combined with corresponding Bridge Design project data. A more detailed explanation of costs is provided further above specifically for these Bridge Design and Bridge Maintenance replacement projects advertised / performed in FFY 2020.

5.1.2 **Goal 2: Inspect all state and municipal/other bridges to meet all Federal and State inspection and reporting requirements.**

The Bridge Design Bureau has a staff of 9 Bridge Inspectors and 4 Engineers assigned to the Existing Bridge Section that work to ensure the Department meets the above goal. In addition, this effort is supplemented by Consultant inspections (5 to 10 inspections per year) of specific complex bridges, such as moveable bridges, and by contracted divers performing underwater inspections (30 to 50 inspections per year) of specific bridge foundations. In Calendar Year 2020, these individuals performed 2,367 bridge inspections and submitted all required reporting in accordance with all Federal and State inspection and reporting requirements. In addition to the evaluation of the condition of each bridge, the inspection process also includes a review of whether any postings currently required for weight or clearance limits are in place, accurate, and visible to the traveling public as required.

The following table presents a comparison of the 2020 bridge inspection activities, which includes semi-annual inspections of State Red List bridges, annual inspections of Municipal Red List bridges, and all underwater inspections performed during this time frame, with those of the previous 5 years.

Calendar Year	Number of State Bridge Inspection Events	Number of Municipal and Other Bridge Inspection Events	Total Bridge Inspection Events
2015	1,444	1,101	2,545
2016	1,560	1,070	2,630
2017	1,422	1,052	2,474
2018	1,401	1,044	2,445
2019	1,342	980	2,322
2020	1,334	1,033	2,367

A review of the above data would seem to indicate that the number of inspections has greatly reduced over the past five years, from 2,545 to 2,367 inspections, i.e., a reduction of 178 inspections (7.0%) per year. However, as previously noted, Senate Bill 38 (effective on July 1, 2017) narrowed the definition of a “Red List Bridge” (RSA 234:25-a). The revised definition now only includes structurally deficient bridges (one or more major elements in poor or worse condition), thereby eliminating tonnage posted bridges in fair-or-better condition from the Red List and returning them to the standard biennial inspection cycle.

Red List bridge counts and deck areas back to 2010 were then adjusted to account for bridges meeting this new Red List definition. This adjustment resulted in an immediate (in 2017) reduction of about 11 bridges from the State Red List and 71 from the Municipal Red List. Since state Red List bridges are inspected twice per year and municipal Red List bridges are inspected once per year, this change also resulted in a corresponding reduction in the number of bridges inspected each calendar year.

In addition to those removed due to the Red List definition change, continuing efforts by the Department and the municipalities to improve overall bridge conditions have reduced these numbers further, for a net reduction of 93 state bridges and 137 municipal bridges from their respective Red Lists from 2015 through 2020. Consequently, this resulted in a corresponding reduction in the number of inspections to be performed each year.

For these reasons, the number of bridge inspections required to be performed each calendar year has been reduced considerably since 2015.

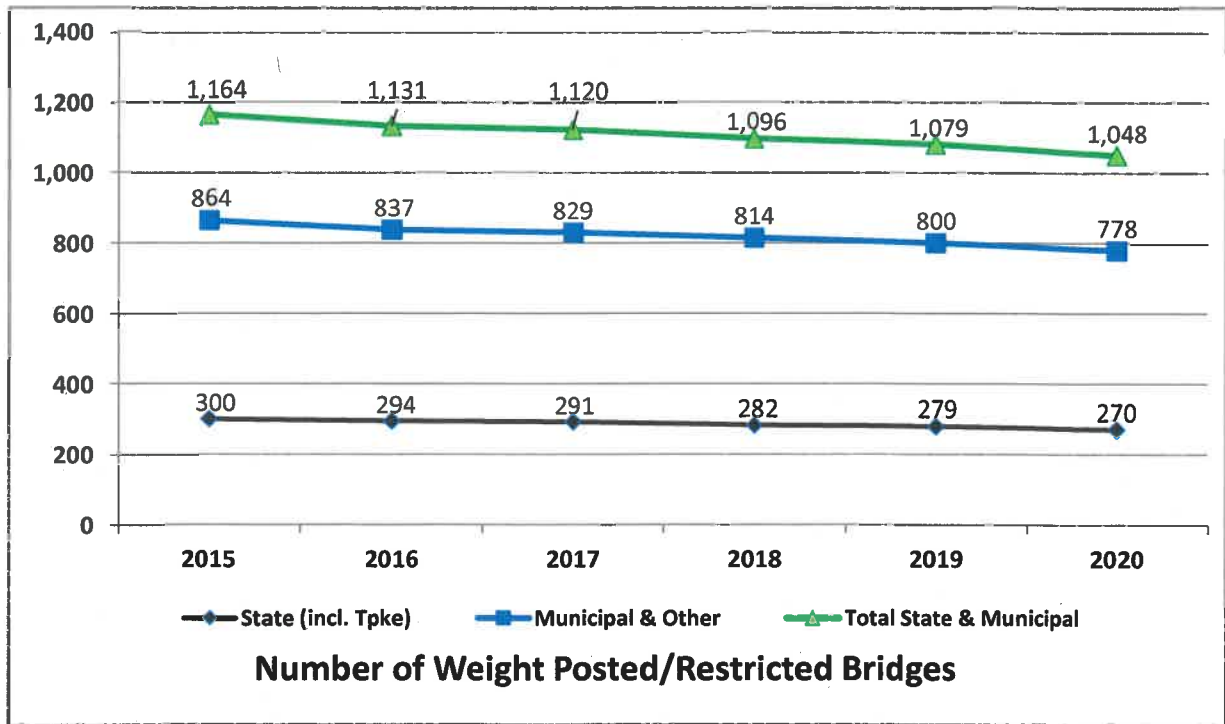
5.1.3 Goal 3: Manage all posted (weight restricted) bridges to reduce or eliminate constraints affecting the safe and efficient movement of goods and services, including emergency response, on the overall State transportation system.

Specifically, the goal is for all bridges on Tier 1 and Tier 2 roadways to have no weight restrictions, for all Tier 3 bridges with weight restrictions to be included in the 10-Year Plan as projects to address their weight restrictions, and for all Tier 4 bridges with weight restrictions to be reviewed to ensure that the weight restriction for each bridge does not affect emergency response services.

It is important to note that the term “weight restriction” refers to the total load applied to the bridge, i.e., the combined weight of the vehicle and the load it carries, not just the load carried by the vehicle. (Example: “Weight Limit 20-Tons” allows a 12-ton vehicle with an 8-ton load.)

Under the ranking criteria for the Rehabilitation & Replacement Priority List and for the Bridge Preservation Priority List, the Bridge Management Committee assigns additional points to each bridge based on whether it has a weight restriction. These additional points shift all weight restricted bridges to a higher priority. Over time, this consideration will gradually reduce the number of bridges with weight restrictions, especially on Tier 2 roadways, and hopefully Tier 3 and Tier 4 roadways as well. These efforts will serve to improve the efficiency and safety of the overall transportation system in New Hampshire.

The following graph presents data regarding the number of state and municipal bridges posted with weight restrictions. The data show that these numbers are gradually being reduced, which will improve the overall functionality of the transportation system and facilitate the movement of people, goods, and services in New Hampshire.



Please refer to *Section 2.3 – Bridge Postings for Weight Restrictions* for additional information on the current posting of existing NH bridges at the completion of the 2020 inspection cycle (December 31, 2020). *Appendix “C” - Bridge Postings and Weight Restrictions: Posting Definitions and Examples* also provides general information on this topic.

5.1.4 Goal 4: Manage the State’s Red List (“poor” condition) bridges to reduce the backlog of bridge rehabilitation and replacement to the maximum extent that can be addressed within the State’s 10-Year Transportation Improvement Plan (10-Year Plan).

The Bridge Management Committee reviews all State Red List bridges to determine if the Bridge Design Bureau or the Bridge Maintenance Bureau will assume the responsibility of addressing each State Red List bridge. Once this review and determination is complete, the BMC initiates efforts for projects being developed by Bridge Design and, through the 10-Year Plan process, recommends the projects, estimated costs, and fiscal years for inclusion. The Bridge Maintenance Bureau schedules and allocates resources toward efforts for State Red List bridges that they will address during this time period.

In the 2019 – 2028 Ten-Year Plan, of the 118 bridges on the 2020 State Red List, 5 State Red List bridges are not included, with 2 of these located on Tier 4 roadways and 3 located on Tier 6 roadways, as follows:

<u>Municipality/Br. No.</u>	<u>Owner</u>	<u>Feature Carried/Crossed</u>	<u>State Red List (Year Added)</u>	<u>Roadway Tier</u>	<u>Condition Rating (Deck, Superstructure, Substructure, Culvert)</u>
Bennington 093/094	NHDOT	NHRR (ABD) / Antrim Road	2002	6	Deck 4 = Poor Superstructure 4 = Poor Substructure 3 = Serious
Franklin 162/100	NHDOT	NHRR (ABD) / NH Route 127	1997	6	Deck 4 = Poor Superstructure 5 = Fair Substructure 4 = Poor
Pinkham’s Grant 076/081	NHDOT	Old NH Route 16 / Brook	2012	6	Culvert 4 = Poor
Pittsburg 099/034	NHDES	Murphy Dam Rd./Dam Spillway	1991	4	Deck 5 = Fair Superstructure 5 = Fair Substructure 2 = Critical
Raymond 083/154	NHDOT	Dudley Road / Lamprey River	1990	4	Deck 5 = Fair Superstructure 6 = Satisfactory Substructure 4 = Poor

The 10-Year Plan also allocates funding for this effort through the *Statewide Red List Bridges 40817* project “to rehabilitate and reconstruct State Red List Bridges”. This project allocates \$10,800,000 to address future State Red List bridges that are identified during upcoming inspection years, prior to development and approval of the next 10-Year Plan.

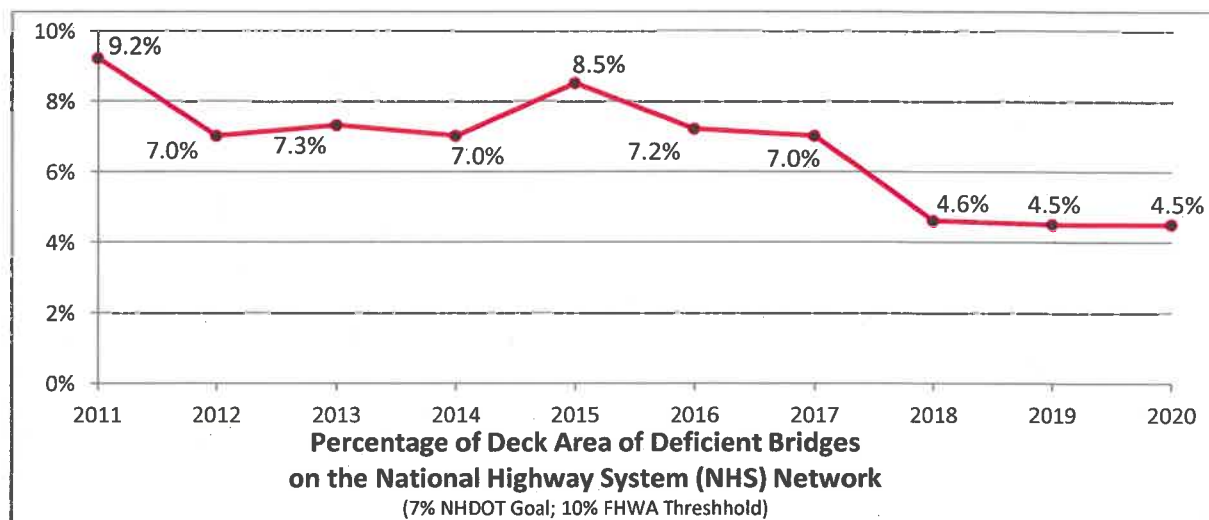
Please refer to *Section 2.2 – Current Condition and Number of Bridges in New Hampshire* for additional information on the number and deck area of NH’s “poor” condition bridges at the completion of the 2020 inspection cycle (December 31, 2020).

5.1.5 Goal 5 - Apply available bridge funds to limit the total area of bridge decks in “poor” condition on the National Highway System (NHS) to be less than 7% of the total deck area on this highway category. This goal is more stringent than the 10% limit stipulated by the Federal Highway Administration.

Under the ranking criteria for the Bridge Rehabilitation & Replacement Priority List and for the Bridge Preservation Priority List, the Bridge Management Committee assigns additional points for Tier 1 and Tier 2 bridges that typically comprise the bridges on the NHS system. These additional points shift bridges on the NHS to a higher priority. As these bridges are addressed over time, the number of “poor” condition NHS bridges will gradually be reduced, thereby improving the efficiency and safety of the state’s overall transportation system.

In an effort to reduce deficient bridges nationwide, recent changes in FHWA requirements (MAP-21 in 2012 and FAST ACT in 2015) stipulate that each state must keep the deck area of all deficient bridges (one or more major structural elements with an NBIS condition rating of “4=Poor” or less) located on the National Highway System (NHS) below 10% of the state’s total deck area of all NHS bridges. The FHWA generally allows some flexibility regarding the types of projects to which federal funds may be applied. However, if the 3-year average of the deck area of deficient bridges on the NHS rises above the 10% threshold, then FHWA limits the state’s flexibility with funding and requires that funds be dedicated to address the deficiencies of bridges on the NHS. As can be seen in the following graphic, NHDOT is well below the 10% threshold.

Through past efforts, NHDOT has been successful in keeping the combined deck area of deficient NHS bridges below 10%, even before this metric became a requirement. The progress made over the past several years, depicted in the following graph, shows the variability of this effort as several large NHS bridges were added to and then removed from the Red List as deficiencies were identified and then addressed.



The percentage of deck area of deficient NHS bridges remained nearly unchanged at 4.5% from 2019 to 2020, a nominal increase of only 2,199 sq. ft. from the total area of deficient NHS bridges. The percentage of deficient NHS deck area is now well below the Bridge Program goal of 7.0%.

It is important to note that, as with all FHWA requirements, this metric only applies to federal definition bridges, i.e., those bridges having a total length greater than 20 feet. (State definition bridges are those having a total length of 10 feet or greater.)

5.1.6 Goal 6 - Record and utilize project cost data to calculate cost estimates through all project development phases (Initial Assessment, Preliminary Plans, PPS&E Plans, and PS&E Plans) to improve cost estimating practices and corresponding project results as the *Recommended Investment Strategy (RIS)* is efficiently and effectively implemented. The goal is for Initial Assessment estimates to be within 25% (\pm) of the PS&E.

The Bridge Management Committee reviews bridge cost data to develop and update better mechanisms to improve the accuracy of cost estimates of bridge projects that are prepared at the initial project development for the 10-Year Plan phase, at the Alternatives Analysis phase, at the Preferred Alternative phase, at the 60% Plan development phase, at the Preliminary Plans, Specification, and Estimate (80%) (PPS&E) development phase, and at the Final Plans, Specification, and Estimate (90%) (PS&E) development phase.

The ultimate goal of this effort is to develop bridge project estimates that maintain funding consistency throughout all phases of the project development process. This would allow the Department to more accurately determine the overall funding needs of the Bridge Program. The Department's goal is for the initial assessment estimate to be within 25% +/- of the PS&E estimate.

A process has been developed and a draft document to provide explanation and direction on developing project cost estimates is currently under review. Once this document has been approved it will be appropriately applied when developing cost estimates for the various development stages for bridge projects and will be posted for reference on the Bridge Design Document Library page.

Project cost estimates are developed and updated at various stages of the project development process, as noted below:

- (1) Initial Project Assessment Estimate - Prepared for developing the 10-Year Plan
- (2) Project Agreement Estimate - At project start-up to program and authorize funds in ProMIS
- (3) Preliminary plans estimate - At 40% to 50% plan completion
- (4) Preliminary plans, specifications, and estimate (PPS&E) - At 80% plan completion
- (5) Plans, specifications, and estimate (PS&E) - At 90% plan completion
- (6) Contract plans estimate - At 100% plan completion (advertising project for bids)
- (7) Project Agreement Estimate (Based on bids) - After bid opening

This is an extremely challenging and optimistic goal, especially when considering the current market conditions, the constant fluctuation of fuel prices, and the ever-changing labor market and associated costs.

5.2 Other Efforts Completed by the Bridge Design Bureau

5.2.1 Development of Contract Plans and Documents for System Expansion Projects

In addition to the Performance Goals presented in *Section 5.1 – Performance Goals and Results of Efforts of Previous Year*, the Bridge Design Bureau is also responsible for the development of bridge plans and contract documents required for proposed expansion efforts of the overall transportation system, such as:

- FE Everett Turnpike expansion from 2 lanes to 3 lanes between Nashua and Bedford
- Manchester Exit 6 and 7 expansion / reconfiguration
- I-93 expansion from 2 lanes to 3 lanes in Bow and Concord, including the I-89 / I-93 and the I-93 / I-393 interchanges

It is recognized that portions of some of these projects will address bridge preservation and rehabilitation needs, as outlined in the *NHDOT Bridge Program – Recommended Investment Strategy*, which would typically be anticipated for the bridges located within the limits of these projects. However, most bridge work associated with these projects addresses these needs through bridge replacement as part of the overarching goal to provide improved transportation capacity on these critical segments of the transportation network.

5.2.2 Bridge Load Ratings and Reviews for Overweight Permits

This overall effort ensures that vehicles and loads in excess of legal limits are utilizing competent bridges capable of safely carrying these non-conforming vehicles and loads without causing damage to the bridges being crossed.

In June 2019, the newly developed “*NHDOT Permits*” online permitting software and web site serving NHDOT was completed and fully implemented, enabling on-line applicants for OS/OW permits to review proposed routes of travel and obtain their permits through a more automated / interactive process. However, this permit process is intended for loads that exceed legal limits and are less than 150,000 lbs. as these types of loads are essentially routine and involve more typical vehicle configurations.

The Existing Bridge Section of the Bridge Design Bureau provides assistance to the Permits Section of the Highway Maintenance Bureau as needed to determine and/or confirm load capacity ratings for overweight permit applications involving loads exceeding 150,000 lbs., i.e., “super loads”. During the 2020 calendar year, Bridge Design reviewed and processed 410 super load permit applications.

For more information regarding bridge postings and weight restrictions for bridges, please refer to *Appendix “C” - Bridge Postings and Weight Restrictions for Certified Vehicles: Posting Definitions and Examples*; or, *RSA 266:18 Equipment of Vehicles*.

<http://www.gencourt.state.nh.us/rsa/html/XXI/266/266-18.htm>

5.2.3 Critical Deficiency Notices - Municipal Bridges

The Existing Bridge Section of the Bridge Design Bureau reviews bridge inspection data and determines whether any postings for weight restrictions need to be revised or have become necessary since the previous inspection. This is especially applicable to state and municipal Red List bridges as these are already in “poor” condition and the rate of deterioration may accelerate. When this occurs, it becomes more likely that the condition of the deficient major bridge element has deteriorated to the extent that the bridge can no longer safely carry all legal loads and must now be down-posted to a new and reduced safe load capacity. Occasionally, deterioration reaches a point at which the bridge is determined to have no remaining safe live load carrying capacity, in which case the bridge is immediately closed and barricaded.

When the safe load capacity of a state bridge is reduced, a posting change notice is prepared and submitted to the NHDOT Commissioner. Upon approval, it is distributed to the Traffic Bureau and the Bridge Maintenance Bureau to prepare and install new weight limit signs. In addition, data for the Overweight Permit process is updated to ensure that approvals for overweight permits prevent these loads from traveling over the affected bridge, again avoiding damage to the bridge and ensuring the safety of the transportation network.

When the safe load capacity of a municipal bridge is reduced, a “Critical Bridge Deficiency” notice is prepared and submitted to the NHDOT Municipal Highways Engineer for approval and for notification to the municipal officials that own the affected bridge. It is the responsibility of the municipal officials to implement the required posting or closure.

In some instances, where an inspection finding warrants additional emphasis but does not yet warrant a “Critical Bridge Deficiency Notice”, the Existing Bridge Section prepares a “Bridge Deficiency Notice” to be sent to the municipality to ensure that local officials are aware of this condition. A metal culvert pipe with accelerating deterioration, a bridge with severely deteriorated bridge railing, or a bridge with substantial undermining are examples of potentially unsafe conditions that may warrant action by the municipality before the next bridge inspection occurs. This advanced notice enables municipal officials to initiate actions and/or to secure funding to address the bridge deficiency before it becomes a travel constraint or a greater safety concern for the roadway users.

During the 2020 calendar year, the Existing Bridge Section prepared 2 *Deficiency Notices* and 6 *Critical Deficiency Notices* for municipal bridges, as noted below.

Date	Type of Deficiency	Bridge ID	Bridge Owner	Facility Carried	Feature Intersected	Bridge Type	Description of Deficiency
January 23, 2020	Critical Deficiency	Farmington 071/089	Municipality (Red List)	Hometown Road	Mad River	Girder	Girder bridge w/deck planks req'd 6-Ton weight limit due to serious section loss of steel beams.
February 20, 2020	Critical Deficiency	Farmington 080/108	Municipality (Red List)	River Road	Mad River	Girder	Girder bridge w/deck planks req'd 3-Ton weight limit and "Passenger Cars Only" due to serious section loss of steel beams.
February 25, 2020	Critical Deficiency	Claremont 123/090	Municipality	Myrtle Street	Concord-Claremont Railroad	Girder	Missing "Weight Limit 15-Tons" signs.
August 6, 2020	Critical Deficiency	Newport 154/129	Municipality (Red List)	Sand Hill Road	Brook	Girder	Web crushing and flange section loss of outer steel beams req'd "10-Ton Weight Limit" and restricting vehicles to one lane in center of bridge; or, "Bridge Closed" posting instead.
September 9, 2020	Critical Deficiency	Hancock 100/046	Municipality (Red List)	Windy Row Road	McDowell Reservoir	Girder	Severe section loss of web at pier req'd "E-2" and "One Lane Bridge" postings to constrain vehicles to opposite side of bridge; or, "Bridge Closed" posting instead.
October 26, 2020	Critical Deficiency	Milan 219/126	Municipality (Red List)	Chickwolnepy Road	Chickwolnepy Stream	Girder	Missing "Weight Limit 6-Tons" sign.
November 16, 2020	Deficiency	Weare 110/150	Municipality (Red List)	River Road	Piscataquog River	Truss	Severely deteriorated steel plank deck. Plating repairs recommended to avoid load posting.
November 23, 2020	Deficiency	Canaan 172/070	Municipality (Red List)	Grist Mill Hill Road	Indian River	Girder	Advancing deterioration of reinforced concrete bridge deck needs to be addressed very soon.

5.2.4 Support of Other Department Actions and Responsibilities

In addition to the Performance Goals presented in *Section 5.1 – Performance Goals and Results of Efforts of Previous Year*, the Bridge Design Bureau supports the efforts of other NHDOT Bureaus. Some of these nominal efforts are noted below:

- Highway Design Bureau
 - Design, development, and reviews of contract plans for culvert headwalls
 - Review plans / specifications for projects constructing large concrete culverts
 - Provide contract plans and specifications for plug joint replacement as part of the Pavement Preservation efforts
 - Provide contract plans / specifications for replacement of bridge rail and approach rail as part of the Department's efforts to update guardrail statewide
- Traffic Bureau and Transportation Systems Management & Operations (TSMO)
 - Provide support involving structural design, contract plans & specifications, and shop drawing review for traffic sign structures and other related structures

5.2.5 Emergency Response for Bridges – Bridge Design Bureau

The staff of the Bridge Design Bureau, including inspectors, technicians, and engineers, respond as needed when an emergency occurs to evaluate damage to bridges due to:

- Impact from vehicles or vessels
- Oversized loads
- Overweight loads
- Flooding and scour, including ice jams
- Failure of a major structural element
- Other bridge-related emergencies

When these emergencies occur, perhaps 10 to 20 times per year, Bridge Design staff coordinates with the Transportation Systems Management & Operations (TSMO), Emergency Operations Center (EOC), other NHDOT Bureaus, emergency response personnel, federal, state, and local agencies, and the media as needed to initially assess the situation and to initiate any actions that are immediately needed to ensure public safety until long term repairs or actions can be undertaken.

5.3 Other Efforts Completed by the Bridge Maintenance Bureau

5.3.1 Repair Projects for State Bridges

In addition to the Performance Goals presented in *Section 5.1 – Performance Goals and Results of Efforts of Previous Year*, the Bridge Maintenance Bureau routinely performs repairs to state bridges to ensure that these bridges can safely remain in service. These repairs are tracked by the Bridge Maintenance Bureau to maintain the historical record of work performed on each specific bridge.

The time needed for these types of repairs range from a few days to a few months, depending on the scope of work appropriate for the needed repair. These efforts address immediate concerns and keep the bridge in service and safe for use until more comprehensive projects are funded, developed, and completed, in accordance with the *Recommended Investment Strategy (RIS)*. They are not intended to be long term solutions and do not “reset” the RIS schedule of work activities.

During FFY 2020 the Bridge Maintenance Bureau completed repair activities on 292 bridges involving the following tasks:

- Repaired expansion joints
- Patched bridge decks
- Patch abutments, piers, wingwalls, and bearing seats
- Initial repair (safety) of impact damage caused by errant, over-sized, or over-weight vehicles
- Repair bearings
- Removed granite bridge curb and replaced it with concrete curb
- Cleared debris from the waterways of bridges

5.3.2 Support of Other Department Actions and Responsibilities

In addition to the Performance Goals presented in *Section 5.1 – Performance Goals and Results of Efforts of Previous Year*, the Bridge Maintenance Bureau supports the efforts of other NHDOT Bureaus, some of which are noted below:

- Assist Highway Maintenance with culvert repairs and perform concrete work at Maintenance Sheds
- Setting up staging and scaffolding to provide access for Bridge Inspectors from the Bridge Design Bureau
- Concrete work to repair and replace various elements of Turnpike infrastructure
- Work on projects sponsored by the Bureau of Materials and Research
- Review Capital program construction plans and details with the goal of reducing future maintenance efforts
- Recommend paving actions for bridges located on roadway sections included in resurfacing projects developed by the Highway Design Bureau

5.3.3 Emergency Response for Bridges – Bridge Maintenance Bureau

The staff of the Bridge Maintenance and Bridge Design Bureaus, including inspectors, technicians, maintainers, and engineers, responds as needed when an emergency occurs to evaluate damage to bridges due to:

- Impact from vehicles or vessels
- Oversized loads
- Overweight loads
- Flooding and scour, including ice jams
- Failure of a major structural element
- Other bridge-related emergencies

When these emergencies occur, perhaps 10 to 20 times per year, Bridge Maintenance staff coordinates with the Transportation Systems Management & Operations (TSMO), Emergency Operations Center (EOC), other NHDOT Bureaus, emergency response personnel, federal, state, and local agencies, and the media as needed to initially address the situation and to ensure public safety.

In FFY 2020 the Bridge Maintenance Bureau responded to 52 bridge emergencies. Some of these incidents may be included in *Section 5.2.5 - Emergency Response for Bridges – Bridge Design Bureau*. However, the Bridge Maintenance staff responds to many emergency situations that do not require or include the involvement of Bridge Design engineers and/or Inspectors.

In addition, the Bridge Maintenance Bureau regularly responds to numerous calls from members of the public expressing concern regarding specific bridge-related conditions or situations they have observed. These concerns are generally communicated through the Highway Maintenance Districts or the Transportation Management Center.

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6 **Overall Bridge Condition Forecast**

It is challenging to predict the near-term condition and anticipated deterioration of state bridges, as well as the number of bridge projects scheduled and funds programmed over the next three years to address their maintenance, preservation, rehabilitation, and replacement needs. Such projections are based on current data from bridge inspection records made over time. The Department strives to follow all adopted procedures for selection of bridge projects to develop projects for bid advertising and to complete construction activities, with the goal of improving the overall condition of state bridges. Bridge preservation, rehabilitation, and replacement efforts all contribute toward attaining the Department's goals and in ensuring the safety of the traveling public.

It is recognized that the projects and efforts actually put forth during this reported time period may be different from the original projections, possibly due to funding or staffing shortfalls, unanticipated delays during development of the project, or any emergency situations that may have occurred.

Regardless, it is projected that the number of State Red List bridges will slightly decrease over the next 3 years and the corresponding amount of deficient bridge deck area will decrease by more than 10%. However, other bridges will deteriorate further to where they are added to the Red List. When considering the number of State Yellow List bridges that are essentially one inspection away from moving onto the State Red List, this projection is truly uncertain, and the numbers can change quickly. With implementation of the *Recommended Investment Strategy*, the number of State Red List bridges and deficient deck area are expected to decrease over the long-term as the benefits of this strategy show the anticipated results.

The amount and availability of resources remain the biggest factors that affect the Department's progress towards the goal of significantly improving the overall condition of bridges in New Hampshire. There are many demands on the use of the limited transportation funds (federal, state, turnpike, and local) available for all transportation needs statewide, including bridges, and although engineering consultants can be utilized to supplement Department staff, it is uncertain whether existing staffing levels in Bridge Design are sufficient to develop, coordinate, review, and manage the annual number of bridge projects potentially required to meet the needs of the *Recommended Investment Strategy* as it applies to New Hampshire bridges.

The following information depicts the Department's progress and the above-described efforts anticipated by projects under development and to be advertised for bids within the next three (3) years, should all programmed funds become available. Although the efforts presented on the following pages may not explicitly adhere to all aspects of the *Recommended Investment Strategy* for all bridges, considerable progress is being made by addressing the deficiencies of several large and very costly bridges, as noted herein.

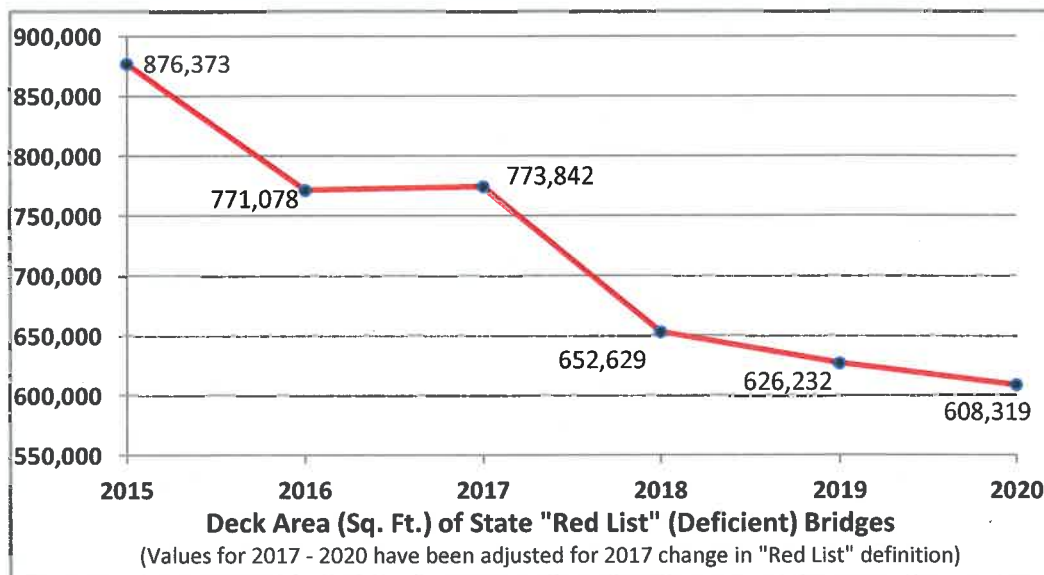
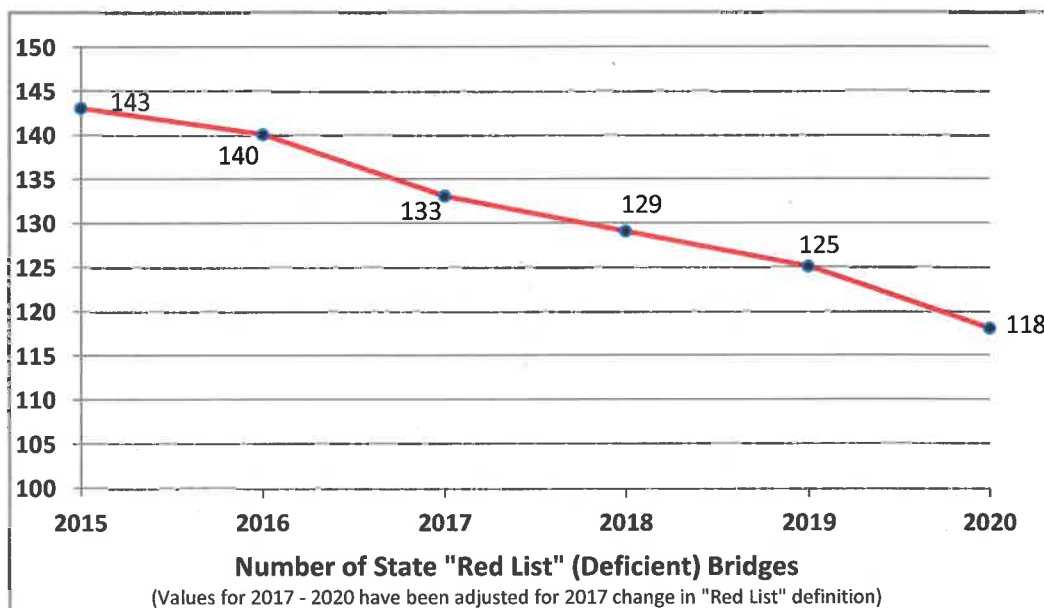
6.1 **Bridge Condition Forecast**

The overarching goal of the *Recommended Investment Strategy* is to improve the overall condition of New Hampshire bridges over time through appropriate, timely, and effective maintenance, preservation, rehabilitation, and replacement activities. In referencing the projects and data summarized in *Section 5.1 - Performance Goals and Results of Efforts of Previous Year* for preservation, rehabilitation, and replacement, it can be determined that although considerable expenditure of resources is being made, these efforts generally fall short of the RIS goals.

The following graphs depict past, current, and projected data for Red List, Yellow List, and Green List bridges from 2015 through 2020.

6.1.1 Red List 2015 - 2020

The graphs below depict the number and deck area of state Red List bridges based on data from 2015 through 2020.

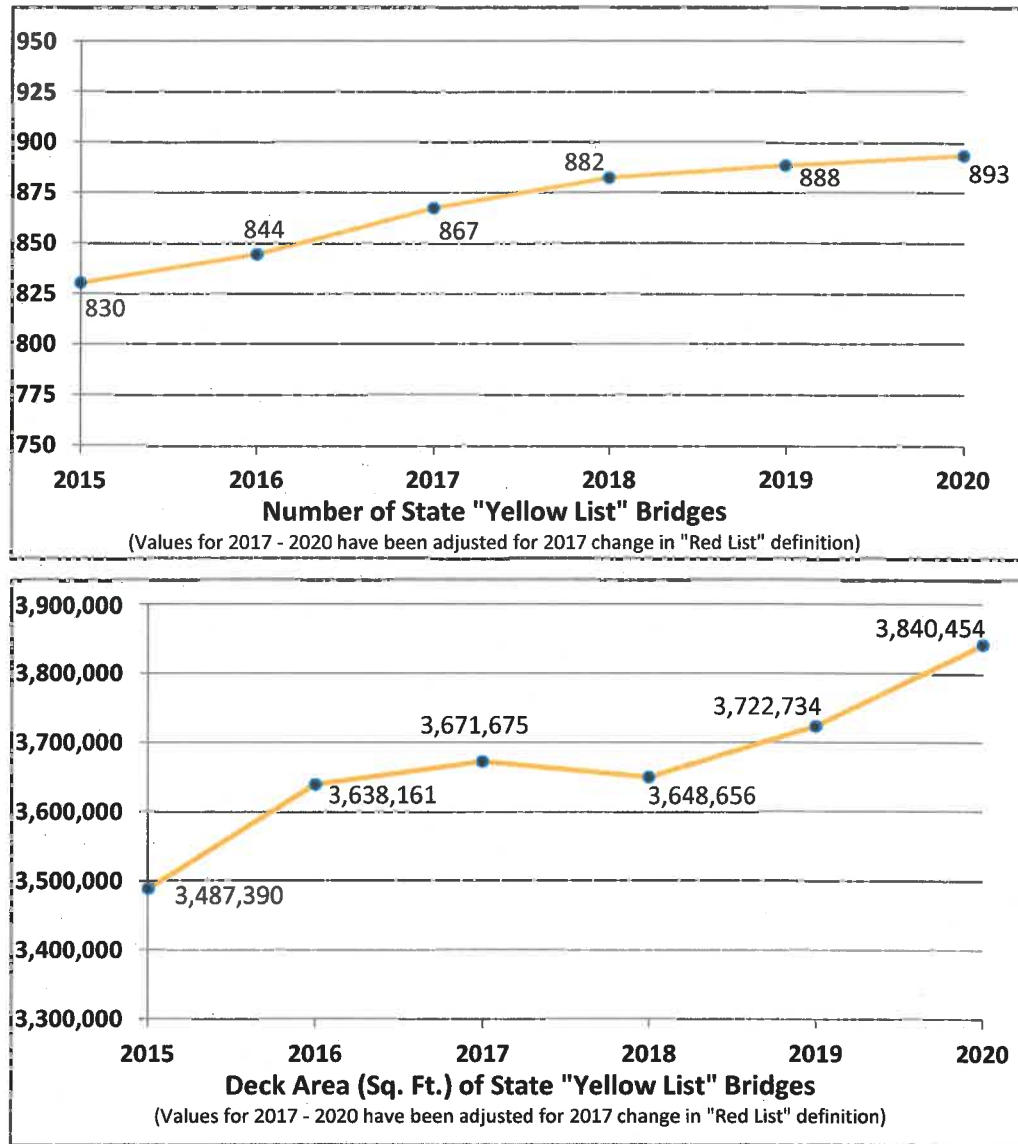


The above graphs and information show that the Department has achieved a significant reduction in the number and deck area of Red List bridges over the past 5 years. However, it is important to note that the general consistency in the number of Red List bridges over time is due to the many bridges previously on the Yellow List that deteriorate further each year and thus transition to the Red List.

It is the goal of the *Recommended Investment Strategy* to perform timely and appropriate preservation activities on bridges that are still in 5 = "Fair" to 7 = "Good" condition, thus keeping them off the Red List. The importance and cost effectiveness of this Strategy cannot be overstated.

6.1.2 Yellow List 2015 – 2020

The graphs below depict the number and deck area of state Yellow List bridges based on data from 2015 through 2020.

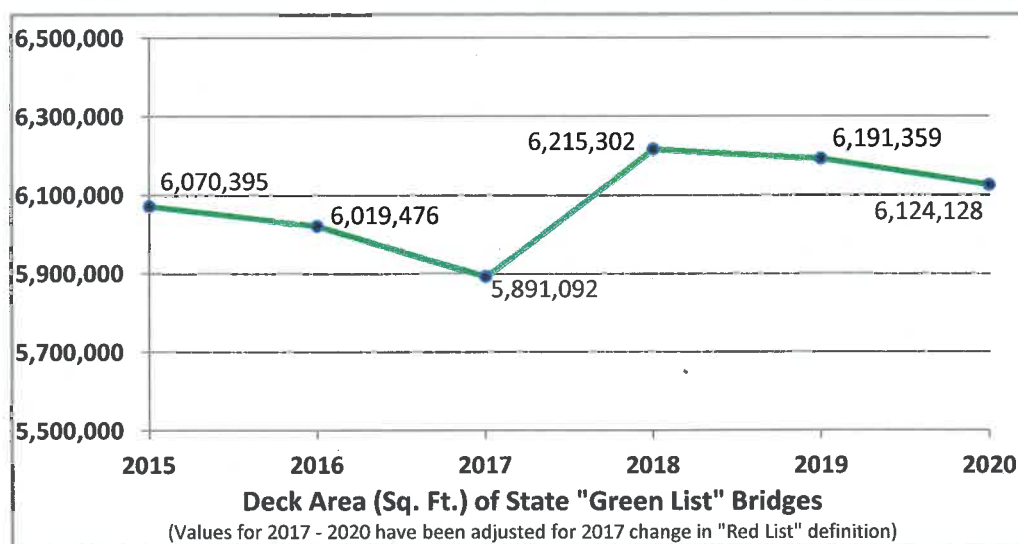
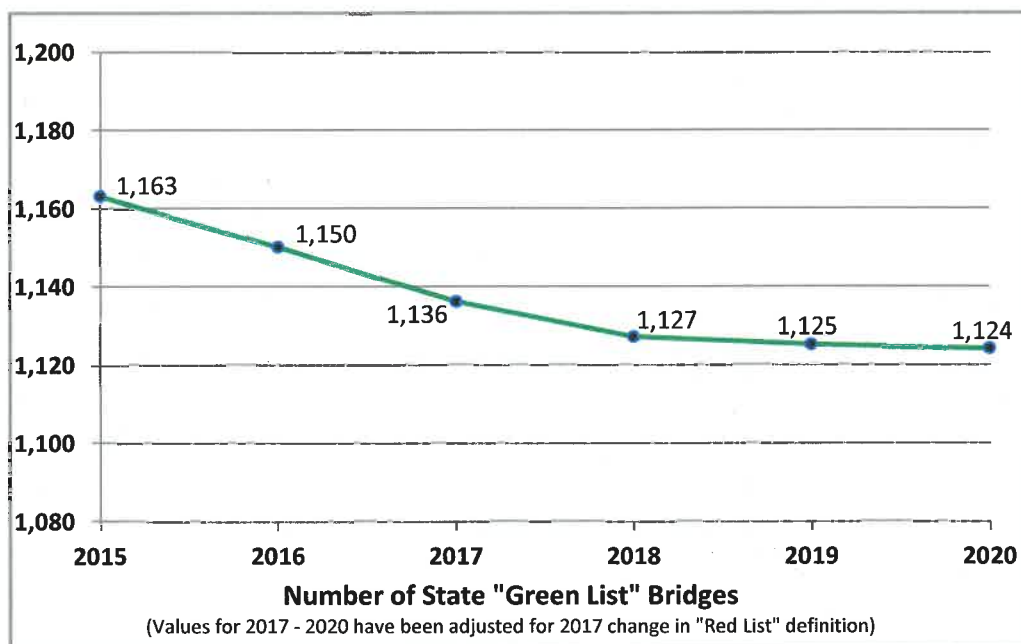


The above graph and information show that the Department has seen an increase in the number and deck area of Yellow List bridges over the past 5 years. If current and projected funding levels are maintained, this trend is expected to continue since bridges are now receiving needed preservation work. By following the *Recommended Investment Strategy*, bridges will remain on the Yellow List (5 = "Fair" or 6 = "Satisfactory" condition) for a longer period of time, rather than being allowed to deteriorate further and be added to the Red List, which would require more expensive rehabilitation or replacement options.

As bridges age and deteriorate, their condition will transition from "Green" to "Yellow". The goal of the *Recommended Investment Strategy* is to allocate sufficient funding to address their deficiencies through appropriate and timely preservation activities before they deteriorate further, and thus keep them from being added to the Red List. The result of this effort would be a consistent number (range) of Yellow List bridges.

6.1.3 Green List 2015 – 2020

The graphs below depict the number and deck area of state Green List bridges based on data from 2015 through 2020.



The above graph and information show that the Department is realizing an overall decrease in the number of Green List bridges over the past 5 years with a net decrease of 69 bridges moved from the Green List and shifted onto the Yellow List. There has also been a slight decrease in the overall deck area of Green List bridges during this same time period. This metric decreased dramatically from 2015 to 2017, but rebounded from 2017 to 2018, so that over the 2015 to 2020 time-period the Green List deck area has remained nearly the same, decreasing by only 25,099 sq. ft. (0.4%). Again, this is the result of addressing several major Red List bridges having very large deck areas during calendar years 2015 – 2017.

This trend supports the *Recommended Investment Strategy* to perform timely maintenance and preservation activities on Green List bridges to extend their service life, rather than following a “worst bridge first” strategy.

Appendices

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Appendix “A”

2020 State Red List

Numerical Ranking and Alphabetical Listing

(Based on bridge inspection data through December 31, 2020)

and

Location Map of all 2020 State Red List Bridges

(Based on bridge inspection data through December 31, 2020)

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March 11, 2021

2020 STATE Bridge Red List by Priority
(based on bridge inspection data through 12/31/2020)

2020 Priority From Ranking Sheet	2019 Priority From Ranking Sheet	Town / City	Bridge Number	Owner	State Project No.	Facility Carried	Feature Crossed	State Red List Status	Roadway Tier	ADT (Year)	2021-2030 10-Year Plan	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
1	1	Hampton (Seabrook-Hampton)	235/025	NHDOT	15904	NH 1A	HAMPTON RIVER	1999	2	9,164-19	2023	Deck 8 Very Good Superstructure 4 Poor Substructure 6 Satisfactory	L=1199.0 W=33.5 13-span	40,167	11/17/2020	E-2	BAS	1984/1949
2	4	Dover	106/133	Tpk Bureau, NHDOT	41824	NH 16,SP TPK NB	COCHECO RIVER	2019	1	23,122-19	2024	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=267.0 W=43.8 4-span	11703.00	11/4/2020	NPR	IB-C	1991/1957
3	5	Dover (Newington-Dover) General Sullivan Bridge	200/023	Tpk Bureau, NHDOT	11238S	ROAD	LITTLE BAY	1979	6	0-03	2022	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=1585.0 W=30.6 9-span	48501.00	11/4/2020	BRC	HT	1950/1934
4	6	Concord (Bow-Concord)	152/108	NHDOT	13742	I-393,US 4,US202	I-93	2011	1	46,690-19 62,000-14	2026	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=167.0 W=92.0 2-span	15,364	11/23/2020	NPR	IB-C	1981/1958
5	7	New Castle-Rye	066/071	NHDOT	16127	NH 1B	LITTLE HARBOR	1994	3	3,167-19	2021	Deck 6 Satisfactory Superstructure 3 Serious Substructure 5 Fair	L=253.5 W=30.8 6-span	7,807	11/17/2020	15 Tons	BAS	1975/1942
6	8	Lyme, NH-Thetford, VT	053/112	NHDOT	14460	EAST THETFORD ROAD	CONNECTICUT RIVER	2013	4	2,118-19	2021	Deck 5 Fair Superstructure 4 Poor Substructure 4 Poor	L=471.0 W=23.7 2-span	11,147	11/6/2020	15 Tons	HT	1937
7	9	Dover	105/133	Tpk Bureau, NHDOT	41824	NH 16,SP TPK SB	COCHECO RIVER	2019	1	24,194-19	2024	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=267.0 W=43.8 4-span	11703.00	11/4/2020	NPR	IB-C	1991/1957
8	10	Dover	132/101	Tpk Bureau, NHDOT	42872	NH 16,SP TPK SB	NH108,PAR(ABD)	2019	1	21,847-19	Not Included	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=300.0 W=47.8 6-span	14350.00	11/4/2020	NPR	IB-C	1999/1957
9	11	Littleton, NH-Waterford, VT	109/134	NHDOT	27711	NH 1B	CONNECTICUT RIVER	2014	3	1,231-19	2025	Deck 6 Satisfactory Superstructure 4 Poor Substructure 4 Poor	L=533.0 W=30.6 5-span	16,310	11/13/2020	NPR	DPG	1980/1934
10	12	Manchester	099/066	Tpk Bureau, NHDOT	16099A	I-293,NH 3A,TPK S	BLACK BROOK	2012	1	22,552-19	2025	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=74.0 W=41.0 1-span	3,034	11/2/2020	NPR	IB-C	1956
11	13	Lee	073/084	NHDOT	41322	NH125	LITTLE RIVER	2014	2	20,515-19	HIP 2022	Culvert 3 Serious	L=18.0 W=39.0 1-span	702	11/16/2020	NPR	MP	1972
12	15	Andover	143/077	NHDOT	40392	US 4	BLACKWATER RIVER	2014	2	2,403-19	HIP 2021	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=75.0 W=26.7 1-span	2,000	11/6/2020	NPR	TPG	1933
13	16	Hampton	163/184	NHDOT	42573	US 1	PAR(ABD)	2017	2	16,332-19	2028	Deck 6 Satisfactory Superstructure 4 Poor Substructure 4 Poor	L=120.0 W=40.0 1-span	4800.00	11/17/2020	E-2	TPG	1977/1936
14	18	Peterborough	108/116	NHDOT	27712	US202,NH123	CONTOOCOOK RIVER	2012	2	6,984-19	2025	Deck 4 Poor Superstructure 5 Fair Substructure 4 Poor	L=176.0 W=52.0 2-span	9,152	11/4/2020	NPR	IB-C	1974/1942
15	19	Sanbornton	127/099	NHDOT	BOBM	I-93 NB	SALMON BROOK	2001	1	14,003-19	Bridge Maintenance 2021	Culvert 4 Poor	L=28.0 W=38.0 1-span	1,064	11/20/2020	NPR	CB	1962
16	20	Westmoreland	113/163	NHDOT	BOBM	NH 12	ALDRICH BROOK	2012	2	7,988-19	Bridge Maintenance 2023	Culvert 3 Serious	L=10.0 W=41.0 1-span	410	11/3/2020	NPR	CB	1960
17	21	Errol	071/030	NHDOT	BOBM	NH 16	OUTLET MOOSE POND	2013	2	1,395-19	Bridge Maintenance 2022	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=12.0 W=28.5 1-span	342	11/17/2020	C-2	IB-C	1931
18	22	Manchester	099/067	Tpk Bureau, NHDOT	16099A	I-293,NH 3A,TPK N	BLACK BROOK	2012	1	24,701-19	2026	Deck 5 Fair Superstructure 6 Satisfactory Substructure 4 Poor	L=74.0 W=41.0 1-span	3,034	11/2/2020	NPR	IB-C	1956
19	29	Concord (Bow-Concord)	154/121	NHDOT	13742	I-393,US 4,US202	FORT EDDY RD	2015	1	43,007-19 16,000-15	2026	Deck 4 Poor Superstructure 6 Satisfactory Substructure 5 Fair	L=70.0 W=104.0 1-span	7280.00	11/23/2020	NPR	IB-C	1980

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2020 STATE Bridge Red List by Priority
(based on bridge inspection data through 12/31/2020)

2020 Priority From Ranking Sheet	2019 Priority From Ranking Sheet	Town / City	Bridge Number	Owner	State Project No.	Facility Carried	Feature Crossed	State Red List Status	Roadway Tier	ADT (Year)	2021-2030 10-Year Plan	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
20	14	Concord (Bow-Concord)	150/107	NHDOT	13742	US202	NHRR,CONSTITUTION AV.	2011	2	46,690-19 2,100-14	2026	Deck 3 Serious Superstructure 7 Good Substructure 5 Fair	L=156.0 W=83.0 2-span	12,948	11/23/2020	NPR	IB-C	1981/1958
21	23	Dover	132/102	Tpk Bureau, NHDOT	42872	NH 16,SP TPK NB	NH108,PAR(ABD)	2019	1	22,715-19	Not Included	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=206.0 W=47.8 4-span	9854.00	11/4/2020	NPR	IB-C	1999/1957
22	24	Woodstock	177/148	NHDOT	27713	NH175	PEMIGEWASSET RIVER	2014	3	566-19	SB 367 2024	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=183.0 W=30.9 1-span	5,655	12/3/2020	20 Tons	SA	1939
23	25	Concord	147/028	NHDOT	42574	US202,NH 9	ASH BROOK	2018	2	2,764-19	2029	Culvert 3 Serious	L=30.0 W=25.0 3-span	750	11/24/2020	NPR	MP	1970
24	17	Deerfield	137/116	NHDOT	24477	NH107	FREESE'S POND	2010	3	2,866-19	SB 367 2022	Culvert 2 Critical	L=13.0 W=22.0 1-span	286	10/29/2020	NPR	MP	1973
25	26	Sandwich	203/029	NHDOT	BOBM	NH 25	WEED BROOK	2016	2	4,724-19	Bridge Maintenance 2022	Culvert 3 Serious	L=13.0 W=36.0 1-span	468.00	11/12/2020	NPR	CB	1946
26	27	Bow	132/160	NHDOT	13742	I-89	SOUTH STREET	2016	1	51,032-19 7,000-13	2026	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=55.0 W=101.0 1-span	5555.00	11/10/2020	NPR	CRF	1959
27	28	North Hampton	148/132	NHDOT	24457	US 1	PAR	2009	2	16,139-19	2021	Deck 3 Serious Superstructure 4 Poor Substructure 5 Fair	L=42.0 W=42.3 1-span	1,777	11/17/2020	E-2	CTB	1935
28	30	Hinsdale	042/044	NHDOT	12210D	NH119	CONNECTICUT RIVER	2018	3	8,183-19	2023	Deck 7 Good Superstructure 4 Poor Substructure 5 Fair	L=297.0 W=21.0 3-span	6,237	7/14/2020	E-2	HT	1988/1920
29	31	Littleton	133/094	NHDOT	BOBM	I-93	MULLIKIN BROOK	2015	1	8,193-19	Bridge Maintenance 2020	Culvert 4 Poor	L=11.0 W=81.0 1-span	891.00	11/19/2020	NPR	MP	1984
30	32	Troy	089/114	NHDOT	40370	NH 12	S BRANCH ASHJELOT RIVER	2013	2	9,137-19	SB 367 2023	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=36.0 W=32.3 1-span	1,163	11/2/2020	NPR	CRF	1941
31	61	Rollinsford-Dover	069/046	NHDOT	42578	OAK STREET	PAR	2017	4	10,310-19	2027	Deck 4 Poor Superstructure 3 Serious Substructure 5 Fair	L=65.0 W=26.5 1-span	1723.00	11/9/2020	6 Tons	LT	1928/1890
32	34	Jefferson	140/097	NHDOT	42558	US 2	PRISCILLA BROOK	2014	2	2,801-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=13.0 W=47.5 1-span	618	11/2/2020	E-2	Jack	1979/1900
33	35	Swanzey	149/072	NHDOT	27692	NH 32	MARTIN BROOK	2000	3	3,095-19	SB 367 2022	Deck 4 Poor Superstructure 4 Poor Substructure 3 Serious	L=27.0 W=23.7 1-span	639	11/2/2020	E-1	CS	1929
34	36	Madison	163/048	NHDOT	BOBM	NH153	PURITY POND BROOK	2013	3	2,654-19	Bridge Maintenance 2024	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=27.0 W=35.0 1-span	945	11/10/2020	E-2	Jack	1967/1900
35	37	Bedford	090/065	NHDOT	13692C	NH101	PULPIT BROOK	2008	2	20,363-19	BRRP 2021	Culvert 4 Poor	L=12.5 W=40.0 2-span	500	11/17/2020	NPR	CP	1936
36	46	Shelburne	049/089	NHDOT	40363	US 2	PEA BROOK	2013	2	5,149-19	SB 367 2022	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=28.0 W=43.8 1-span	1,227	11/9/2020	NPR	CTB	1932
37	38	Hinsdale, NH-Brattleboro, VT	041/040	NHDOT	12210D	NH119	CONNECTICUT RIVER	2018	3	8,183-19	2023	Deck 7 Good Superstructure 4 Poor Substructure 6 Satisfactory	L=339.0 W=23.1 1-span	7,830	7/13/2020	E-2	HT	1988/1920
38	40	Troy	096/091	NHDOT	40371	NH 12	NHRR(ABD)	2013	2	8,320-19	2023	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=71.0 W=41.3 2-span	2,934	11/2/2020	NPR	IB-C	1957

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2020 STATE Bridge Red List by Priority
(based on bridge inspection data through 12/31/2020)

2020 Priority From Ranking Sheet	2019 Priority From Ranking Sheet	Town / City	Bridge Number	Owner	State Project No.	Facility Carried	Feature Crossed	State Red List Status	Roadway Tier	ADT (Year)	2021-2030 10-Year Plan	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
39	41	Orford	219/112	NHDOT	41390	NH 25A	BAKER POND BROOK	2016	3	804-19	2026	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=24.0 W=35.7 1-span	856.00	11/18/2020	E-2	CS	1980/1929
40	42	Dixville	206/101	NHDOT	BOBM	NH 26	CLEAR STREAM	2015	2	1,195-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=15.0 W=33.5 1-span	503.00	11/17/2020	NPR	CA	1970/1929
41	43	Westmoreland	159/125	NHDOT	BOBM	NH 12	MILL BROOK	2016	2	7,248-19	Bridge Maintenance 2024	Culvert 4 Poor	L=21.0 W=30.0 1-span	630.00	11/3/2020	NPR	CACUL	1941
42	39	Shelburne	075/113	NHDOT	40551	NORTH ROAD	ANDROSCOGGIN RIVER	2013	4	403-19	2026	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=182.0 W=24.0 5-span	4,368	11/9/2020	NPR	IB-C	1959/1900
43	44	Bristol	100/082	NHDOT		NH 3A	NEWFOUND RIVER	2013	3	6,779-19	Not Included	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=60.0 W=33.0 1-span	1,980	11/20/2020	C-2	CTB	1965/1924
44		Concord	165/029	NHDOT		I-89 SB	TURKEY POND	2020	1	20,920-19		Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=240.0 W=57.0 3-span	13,680	9/25/2020	NPR	IB-C	1992/1959
45		Concord	166/029	NHDOT		I-89 NB	TURKEY POND	2020	1	20,535-19		Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=240.0 W=57.0 3-span	13,680	9/25/2020	NPR	IB-C	1992/1959
46	45	Allenstown	107/098	NHDOT	40362	NH 28	SUNCOOK RIVER	2013	2	8,829-19	SB367 2021	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=214.0 W=43.6 3-span	9,330	11/19/2020	NPR	IB-C	1995/1958
47		Epping	108/030	NHDOT		NH125	PISCASSIC RIVER	2020	2	13,653-19		Culvert 4 Poor	L=18.0 W=44.0 1-span	792	11/5/2020	NPR	CB	2010/1928
48	47	Campton	124/129	NHDOT	41472	NH 49	PEMIGEWASSET RIVER	2018	3	2,351-19	2027	Deck 5 Fair Superstructure 4 Poor Substructure 6 Satisfactory	L=217.0 W=25.7 2-span	5,577	11/16/2020	NPR	TPG	1928
49	48	Danbury	156/104	NHDOT	16303	US 4	NHRR(ABD)	2016	2	2,465-19	BRRP 2021	Deck 4 Poor Superstructure 6 Satisfactory Substructure 5 Fair	L=117.0 W=28.5 3-span	3,335	11/5/2020	NPR	IB-C	1964/1929
50	49	Bethlehem	099/152	NHDOT	41575	NH142	AMMONOOSUC RIVER	2017	3	1,204-19	2027	Deck 6 Satisfactory Superstructure 4 Poor Substructure 6 Satisfactory	L=124.0 W=24.0 1-span	2976.00	11/2/2020	E-2	HT	1998/1927
51	50	Harrisville	056/058	NHDOT	42575	CHESHAM ROAD	MINNEWAWA BROOK	2002	4	1,542-19	2029	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=90.0 W=27.0 3-span	2,430	11/3/2020	E-2	CS	1984/1939
52	51	Peterborough	087/077	NHDOT	15879	US202,NH101	CONTOOCOOK RIVER	2006	2	14,848-19	BRRP 2021	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=195.0 W=44.0 3-span	8,580	8/28/2020	NPR	IB-C	1958
53	52	Weare	137/043	NHDOT	BOBM	NH114	OTTER BROOK	2018	2	7,893-19	Bridge Maintenance 2024	Culvert 4 Poor	L=12.0 W=27.0 2-span	324	11/10/2020	NPR	MP	1950
54	53	Orford	217/112	NHDOT	40366	NH 25A	BRACKETT BROOK	2013	3	804-19	HIP 2021	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=40.0 W=35.7 2-span	1,427	11/18/2020	E-2	CS	1979/1929
55	54	Pelham	111/090	NHDOT	16145	MAIN STREET	BEAVER BROOK	2010	4	6,253-19	SB 367 2023	Culvert 3 Serious	L=11.0 W=24.0 1-span	264	11/19/2020	NPR	MP	1988
56	55	Andover	208/137	NHDOT	20650	NH 11	SUCKER BROOK	2014	2	2,729-19	2023	Culvert 4 Poor	L=28.0 W=24.0 1-span	672	11/6/2020	NPR	CACUL	1929
57	56	Barrington	181/047	NHDOT	41415	US 4	OYSTER RIVER	2016	2	12,853-19	2023	Culvert 4 Poor	L=10.0 W=44.0 1-span	440.00	11/6/2020	NPR	MP	1980

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58		Jefferson	109/061	NHDOT	BOBM	NH115	RED BROOK	2020	2	2,671-19	Bridge Maintenance 2021	Culvert 4 Poor	L=11.0 W=44.0 1-span	484	11/10/2020	NPR	MP	1984
59	64	Woodstock	195/093	NHDOT	42534	NH175	PEMIGEWASSET RIVER	2018	3	796-19	Preservation 2020	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=320.0 W=34.5 3-span	11,040	11/19/2020	NPR	IB-C	1976
60	57	Alton	163/184	NHDOT	40624	NH 11	MERRYMEETING RIVER	2014	2	7,981-19	2023	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=35.0 W=37.6 1-span	1,316	11/19/2020	NPR	CRF	1934
61	58	Merrimack	107/131	Tpk Bureau, NHDOT	13761B	BABOOSIC LAKE ROAD	FEE TPK	2011	4	8,111-19 68,000-15	2022	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=167.0 W=35.5 4-span	5,929	11/18/2020	NPR	IB-C	1954
62	59	Thomton	239/152	NHDOT	40613	NH 49	MAD RIVER	2014	3	1,674-19	SB 367 2024	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=540.0 W=39.5 5-span	21,330	11/16/2020	NPR	IB-C	1979
63	60	Meredith	189/150	NHDOT	BOBM	NH 25	SWAMP OUTLET	2015	2	18,357-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=16.0 W=200.0 1-span	3200.00	11/12/2020	NPR	CB	1955/1946
64		Bartlett	244/138	NHDOT	BOBM	NH 16A	E BR SACO RIVER	2020	3	1,501-19	Bridge Maintenance 2022	Deck 6 Satisfactory Superstructure 4 Poor Substructure 7 Good	L=80.0 W=26.5 1-span	2,120	11/3/2020	NPR	TPG	1990/1928
65	62	Gilford	115/147	NHDOT	42577	NH 11	POOR FARM BROOK	2017	2	4,934-19	2028	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=30.0 W=55.9 1-span	1677.00	11/3/2020	NPR	PVS	2000/1966
66		Chatham	303/103	NHDOT	BOBM	SOUTH CHATHAM ROAD	WEEKS BROOK	2020	4	575-19	Bridge Maintenance 2023	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=21.0 W=23.5 1-span	494	11/4/2020	NPR	CS	1952
67	63	Danbury	138/094	NHDOT	40395	US 4	SMITH RIVER	2014	2	1,708-19	BRRP 2022	Deck 6 Satisfactory Superstructure 4 Poor Substructure 5 Fair	L=70.0 W=26.5 1-span	1,855	11/5/2020	NPR	TPG	1991/1929
68	65	Nottingham	141/127	NHDOT	40612	NH152	NORTH RIVER	2012	3	3,283-19	SB 367 2024	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=23.0 W=32.7 1-span	752	11/18/2020	C-1	IB-C	1970/1925
69	66	Northwood	045/099	NHDOT	BOBM	NH107	NARROWS BROOK	2016	3	1,217-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=19.0 W=35.6 1-span	676.00	11/18/2020	NPR	CS	2000/1922
70	67	Barrington	075/122	NHDOT	BOBM	US202	ISINGLASS RIVER	2014	2	5,583-19	Bridge Maintenance 2022	Deck 7 Good Superstructure 4 Poor Substructure 7 Good	L=53.0 W=35.7 1-span	1,892	11/6/2020	C-1	CTB	1984/1934
71	68	Raymond	116/052	NHDOT	BOBM	NH102	FORDWAY BROOK	2018	3	6,617-19	Bridge Maintenance 2022	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=19.0 W=36.0 1-span	684	11/5/2020	E-2	IB-C	1972/1900
72	69	Webster	099/123	NHDOT	41429	NH127	BLACKWATER RIVER	2013	3	1,370-19	2022	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=166.0 W=34.0 3-span	5,644	11/10/2020	E-2	CRF	1941
73	70	Dublin	176/072	NHDOT	BOBM	NH137	STANLEY BROOK	2016	3	1,018-19	Bridge Maintenance 2023	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=21.0 W=27.7 1-span	581.00	11/3/2020	NPR	CS	1936
74	71	Bristol	109/061	NHDOT		NH 3A	NEWFOUND RIVER	2015	3	2,972-19	Not Included	Deck 4 Poor Superstructure 5 Fair Substructure 7 Good	L=72.0 W=51.2 2-span	3685.00	11/20/2020	NPR	IB-C	1949
75	72	Center Harbor-New Hampton	080/040	NHDOT	24579	WAUKEWAN ROAD	LAKE WAUKEWAN INLET	2010	4	454-19	2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=13.0 W=21.2 1-span	275	11/12/2020	NPR	CS	1928
76	73	Manchester	176/106	NHDOT	41414	HUSE ROAD	I-293,NH101	2015	4	8,287-19 83,000-15	2021	Deck 4 Poor Superstructure 7 Good Substructure 6 Satisfactory	L=300.0 W=41.5 5-span	12450.00	11/17/2020	NPR	IB-C	1979/1960

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77	74	Colebrook	102/083	NHDOT	BOBM	CARLETON HILL ROAD	MOHAWK RIVER	2012	4	498-19	Bridge Maintenance 2023	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=56.0 W=23.5 1-span	1,316	11/5/2020	NPR	CTB	1935
78		Kensington	071/109	NHDOT	BOBM	NH150	GREAT BROOK	2020	3	2,895-19	Bridge Maintenance 2023	Culvert 4 Poor	L=14.0 W=22.0 2-span	308	11/2/2020	E-2	MP	1988
79	75	Plainfield	096/079	NHDOT	BOBM	STAGE ROAD	BLOW-ME-DOWN BROOK	2012	4	695-19	Bridge Maintenance 2022	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=73.0 W=27.5 1-span	2,008	11/4/2020	E-2	IB-C	1954
80	76	Antrim	133/132	NHDOT	42579	NH 31	STEEL POND BROOK	2017	3	749-19	2029	Culvert 4 Poor	L=13.0 W=32.0 1-span	416.00	11/5/2020	NPR	MP	1977
81	77	Bennington	099/080	NHDOT	29486	S BENNINGTON ROAD	RUSSELL BROOK	2012	4	468-19	2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=12.0 W=30.0 1-span	360	11/5/2020	NPR	CB	1925
82	78	Sandwich	226/162	NHDOT	BOBM	NH113A	MILL BROOK	2018	4	235-19	Bridge Maintenance 2021	Culvert 4 Poor	L=14.0 W=22.0 1-span	308	11/13/2020	NPR	MP	1957
83	79	Surry	101/142	NHDOT		GILSUM ROAD	THOMPSON BROOK	2014	4	311-19	Not Included	Culvert 4 Poor	L=12.0 W=21.0 1-span	252	11/3/2020	NPR	MP	1972
84	80	Dover, NH- South Berwick, ME	182/123	NHDOT	41433	GULF ROAD	SALMON FALLS RIVER	2008	4	6,266-19	2028	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=489.0 W=32.1 27-span	15,697	11/16/2020	NPR	IB-C	1982/1950
85	81	Amherst	135/109	NHDOT	41413	NH122,MAIN ST	NH101	2011	3	7,757-19 13,000-14	2021	Deck 3 Serious Superstructure 6 Satisfactory Substructure 7 Good	L=91.0 W=47.0 1-span	4,277	11/17/2020	NPR	IB-C	1969
86	82	Claremont	072/127	NHDOT	27691	NH 12A	SUGAR RIVER	2011	3	1,071-19	SB 367 2022	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=281.0 W=32.7 3-span	9,180	11/4/2020	NPR	IB-C	1991/1967
87	84	Warner	254/180	NHDOT	15907	NH127	WARNER RIVER	2005	3	1,548-19	SB 367 2021	Deck 3 Serious Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=123.0 W=28.2 3-span	3,468	11/10/2020	C-2	IB-C	1937
88	85	Boscawen	068/145	NHDOT	BOBM	LONG STREET	BEAVER DAM BROOK	2015	4	2,408-19	Bridge Maintenance 2022	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=18.0 W=30.0 1-span	540.00	11/10/2020	E-2	CRF	1931
89	88	Salem	095/052	NHDOT	BOBM	I-93 REST EXIT	POLICY BROOK	2015	6	1,800-00	Bridge Maintenance 2021	Culvert 4 Poor	L=26.4 W=21.0 2-span	555.00	11/20/2020	NPR	MP	1967
90	86	Springfield	091/048	NHDOT	20509	GEORGES MILLS ROAD	STAR LAKE OUTLET	2008	4	1,204-19	(Included in 2020)	Culvert 4 Poor	L=12.3 W=22.0 2-span	270	11/9/2020	NPR	MP	1951
91	87	Tamworth	061/091	NHDOT	41434	NH113A	SWIFT RIVER	2015	4	448-19	2023	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=156.0 W=27.4 3-span	4277.00	11/13/2020	NPR	IB-C	1956
92	90	Canaan	177/123	NHDOT	BOBM	NH118	INDIAN RIVER	2016	3	1,258-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=35.0 W=27.9 1-span	977.00	11/5/2020	E-1	CRF	1948
93	92	Concord (Bow-Concord)	142/116	NHDOT	13742	DELTA DRIVE	I-93,US 4	1997	4	722-19 48,000-14	2026	Deck 3 Serious Superstructure 6 Satisfactory Substructure 7 Good	L=192.0 W=37.0 4-span	7,104	11/23/2020	NPR	IB-C	1958

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94	91	Wilton	094/162	NHDOT	BOBM	NH 31	STONY BROOK	2016	3	3,515-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=23.0 W=36.0 1-span	828.00	11/12/2020	NPR	CRF	1983/1929
95	93	Pelham	110/090	NHDOT	16145	MAIN STREET	BEAVER BROOK	1988	4	6,253-19	SB 367 2023	Deck 4 Poor Superstructure 5 Fair Substructure 4 Poor	L=46.0 W=35.0 2-span	1,610	11/19/2020	E-2	MA	1929/1900
96	94	Walpole, NH-Rockingham, VT (Bellows Falls) (Vilas Bridge)	062/052	NHDOT	41720	BRIDGE STREET	CONNECTICUT RIVER	1986	4	6,100-17	2028	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=230.0 W=32.5 2-span	7,475	11/3/2020	BRC	CA	1974/1930
97	95	Warner	202/136	NHDOT	40622	NH103	I-89 NB	2014	3	1,149-19 9,500-13	SB 367 2023	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=81.0 W=39.0 1-span	3,078	11/13/2020	NPR	IB-C	1993/1966
98	97	Laconia	126/163	NHDOT	24181	CENTENARY AVENUE	NHRR	1991	4	91-19	2025	Deck 3 Serious Superstructure 3 Serious Substructure 4 Poor	L=121.0 W=22.6 7-span	2,734	11/3/2020	7 Tons	TB	1940
99	98	Bennington	093/094	NHDOT	41430	NHRR(ABD)	ANTRIM ROAD	2002	6	- 2,700-14	Not Included	Deck 4 Poor Superstructure 4 Poor Substructure 3 Serious	L=19.0 W=9.8 1-span	187	11/5/2020	NPR	TB	1930
100	99	Pittsburg	099/034	NHDES		MURPHY DAM ROAD	DAM SPILLWAY	1991	4	91-19	Not Included	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=38.0 W=20.5 1-span	779.00	11/5/2020	15 Tons	BGB	1938
101	100	Franklin	162/100	NHDOT		NHRR(ABD)	NH127	1997	6	- 1,700-13	Not Included	Deck 4 Poor Superstructure 5 Fair Substructure 4 Poor	L=72.0 W=12.0 1-span	864	11/6/2020	NPR	TPG	1928
102	101	Raymond	083/154	NHDOT	41437	DUDLEY ROAD	LAMPREY RIVER	1990	4	560-19	Not Included	Deck 5 Fair Superstructure 5 Fair Substructure 2 Critical	L=52.0 W=21.0 2-span	1,092	11/5/2020	10 Tons	CS	1972/1914
103	102	New Hampton	240/104	NHDOT	25365	SMITHS CROSSING	NHRR	1990	6	0-08	2025	Deck 1 Closed - Failing Superstructure 4 Poor Substructure 5 Fair	L=82.0 W=16.0 3-span	1,312	5/9/2019	BRC	TB	1940
104	104	Pinkhams Grant	076/081	NHDOT		OLD NH 16	BROOK	2012	6	7-Oct	Not Included	Culvert 4 Poor	L=10.0 W=8.0 1-span	80	11/12/2020	NPR	CB	1931
105	105	Lyndeborough	108/070	NHDOT	41435	NHRR	GLASS FACTORY ROAD	2014	6	- 20-00	2028	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=23.0 W=12.0 5-span	276	11/5/2020	NPR	IB-W	1920
106	106	Newton	064/107	NHDOT	41436	POND ROAD	PAR	2001	4	498-19	2028	Deck 3 Serious Superstructure 6 Satisfactory Substructure 7 Good	L=41.0 W=25.0 1-span	1025.00	11/2/2020	8 Tons	TB	2003/1920
Under Construction	Under Construction	Conway	158/137	NHDOT	15864	US302,NH113	CONWAY LAKE OUTLET	2010	2	9,707-19	SB367 2019	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=106.0 W=33.0 3-span	3,498	11/4/2020	NPR	CTB	1955
Under Construction	96	Cornish (Covered Bridge)	064/108	NHDOT	25067	CORNISH TOLL BR RD	CONNECTICUT RIVER	1991	4	2,664-19	Preservation 2020	Deck 5 Fair Superstructure 6 Satisfactory Substructure 2 Critical	L=449.0 W=20.7 2-span	9279.00	11/4/2020	10 Tons	TB-C	1989/1866
Under Construction	83	Eaton	084/114	NHDOT	BOBM	BROWNFIELD ROAD	SNOW BROOK	2018	4	509-19	Bridge Maintenance 2020	Culvert 4 Poor	L=16.0 W=21.0 1-span	336	11/10/2020	NPR	MP	1975
Under Construction	Under Construction	Lancaster, NH-Guildhall, VT (Rogers Rangers)	111/129	NHDOT	16155	US 2	CONNECTICUT RIVER	2013	2	3,639-19	SB 367 2019	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=404.0 W=34.8 2-span	14,059	11/10/2020	BRC	HT	1950
Under Construction	Under Construction	Lebanon	093/109	NHDOT	41191	I-89 NB	US 4,NH 10	2009	1	22,284-19 14,000-13	HB 1817 2019	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=115.0 W=61.3 1-span	7,053	11/9/2020	NPR	IB-C	1966

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Under Construction	2	Lebanon, NH - Hartford, VT	044/103	NHDOT	16148	I-89 SB	CONNECTICUT RIVER,NECRR	2011	1	20,853-19	BRRP 2020	Deck 5 Fair Superstructure 4 Poor Substructure 6 Satisfactory	L=846.0 W=35.8 6-span	30,315	11/13/2020	NPR	IB-C	1966
Under Construction	3	Lebanon, NH - Hartford, VT	044/104	NHDOT	16148	I-89 NB	CONNECTICUT RIVER,NECRR	2012	1	21,853-19	BRRP 2020	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=847.0 W=35.8 6-span	30,351	11/13/2020	NPR	IB-C	1966
Under Construction	33	Moultonborough	140/251	NHDOT	BOBM	NH109	BERRY POND BROOK	2010	3	770-19	Bridge Maintenance 2020	Deck 3 Serious Superstructure 3 Serious Substructure 4 Poor	L=17.0 W=26.3 1-span	448	10/30/2020	E-1	CS	1927
Under Construction	Under Construction	Ossipee	137/297	NHDOT	14749	NH 16,NH 25	BEARCAMP RIVER	2004	2	10,193-19	SB 367 2018	Deck 3 Serious Superstructure 4 Poor Substructure 5 Fair	L=396.0 W=33.2 5-span	13,134	10/30/2020	NPR	IB-C	1955
Under Construction	Under Construction	Ossipee	137/299	NHDOT	14749	NH 16,NH 25	RELIEF BEARCAMP RIVER	2004	2	10,193-19	SB 367 2018	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=172.0 W=33.2 4-span	5,705	10/30/2020	NPR	IB-C	1955
Under Construction	Under Construction	Ossipee	152/268	NHDOT	14749	NH 16,NH 25	LOVELL RIVER	1999	2	10,193-19	SB 367 2018	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=62.0 W=34.5 1-span	2,139	10/30/2020	C-2	IB-C	1950
Under Construction	Under Construction	Salem	098/049	NHDOT	BOBM	I-93 REST ENTRANCE	POLICY BROOK	2011	6	1,800-00	Bridge Maintenance 2019	Culvert 3 Serious	L=26.4 W=21.0 2-span	555	11/20/2020	NPR	MP	1967

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46	45	Allenstown	107/098	NHDOT	40362	NH 28	SUNCOOK RIVER	2013	2	8,829-19	SB367 2021	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=214.0 W=43.6 3-span	9,330	11/19/2020	NPR	IB-C	1995/1958
60	57	Alton	163/184	NHDOT	40624	NH 11	MERRYMEETING RIVER	2014	2	7,981-19	2023	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=35.0 W=37.6 1-span	1,316	11/19/2020	NPR	CRF	1934
85	81	Amherst	135/109	NHDOT	41413	NH122.MAIN ST	NH101	2011	3	7,757-19 13,000-14	2021	Deck 3 Serious Superstructure 6 Satisfactory Substructure 7 Good	L=91.0 W=47.0 1-span	4,277	11/17/2020	NPR	IB-C	1969
12	15	Andover	143/077	NHDOT	40392	US 4	BLACKWATER RIVER	2014	2	2,403-19	HIP 2021	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=75.0 W=26.7 1-span	2,000	11/6/2020	NPR	TPG	1933
56	55	Andover	208/137	NHDOT	20650	NH 11	SUCKER BROOK	2014	2	2,729-19	2023	Culvert 4 Poor	L=28.0 W=24.0 1-span	672	11/6/2020	NPR	CACUL	1929
80	76	Antrim	133/132	NHDOT	42579	NH 31	STEEL POND BROOK	2017	3	749-19	2029	Culvert 4 Poor	L=13.0 W=32.0 1-span	416.00	11/5/2020	NPR	MP	1977
57	56	Barrington	181/047	NHDOT	41415	US 4	OYSTER RIVER	2016	2	12,853-19	2023	Culvert 4 Poor	L=10.0 W=44.0 1-span	440.00	11/6/2020	NPR	MP	1980
70	67	Barrington	075/122	NHDOT	BOBM	US202	ISINGLASS RIVER	2014	2	5,583-19	Bridge Maintenance 2022	Deck 7 Good Superstructure 4 Poor Substructure 7 Good	L=53.0 W=35.7 1-span	1,892	11/6/2020	C-1	CTB	1984/1934
64		Bartlett	244/138	NHDOT	BOBM	NH 16A	E BR SACO RIVER	2020	3	1,501-19	Bridge Maintenance 2022	Deck 6 Satisfactory Superstructure 4 Poor Substructure 7 Good	L=80.0 W=26.5 1-span	2,120	11/3/2020	NPR	TPG	1990/1928
35	37	Bedford	090/065	NHDOT	13692C	NH101	PULPIT BROOK	2008	2	20,363-19	BRRP 2021	Culvert 4 Poor	L=12.5 W=40.0 2-span	500	11/17/2020	NPR	CP	1936
81	77	Bennington	099/080	NHDOT	29486	S BENNINGTON ROAD	RUSSELL BROOK	2012	4	468-19	2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=12.0 W=30.0 1-span	360	11/5/2020	NPR	CB	1925
99	98	Bennington	093/094	NHDOT	41430	NHRR(ABD)	ANTRIM ROAD	2002	6	- 2,700-14	Not Included	Deck 4 Poor Superstructure 4 Poor Substructure 3 Serious	L=19.0 W=9.8 1-span	187	11/5/2020	NPR	TB	1930
50	49	Bethlehem	099/152	NHDOT	41575	NH142	AMMONOOSUC RIVER	2017	3	1,204-19	2027	Deck 6 Satisfactory Superstructure 4 Poor Substructure 6 Satisfactory	L=124.0 W=24.0 1-span	2976.00	11/2/2020	E-2	HT	1998/1927
88	85	Boscawen	068/145	NHDOT	BOBM	LONG STREET	BEAVER DAM BROOK	2015	4	2,408-19	Bridge Maintenance 2022	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=18.0 W=30.0 1-span	540.00	11/10/2020	E-2	CRF	1931
26	27	Bow	132/160	NHDOT	13742	I-89	SOUTH STREET	2016	1	51,032-19 7,000-13	2026	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=55.0 W=101.0 1-span	5555.00	11/10/2020	NPR	CRF	1959
43	44	Bristol	100/082	NHDOT		NH 3A	NEWFOUND RIVER	2013	3	6,779-19	Not Included	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=60.0 W=33.0 1-span	1,980	11/20/2020	C-2	CTB	1965/1924
74	71	Bristol	109/061	NHDOT		NH 3A	NEWFOUND RIVER	2015	3	2,972-19	Not Included	Deck 4 Poor Superstructure 5 Fair Substructure 7 Good	L=72.0 W=51.2 2-span	3685.00	11/20/2020	NPR	IB-C	1949
48	47	Campton	124/129	NHDOT	41472	NH 49	PEMIGEWASSET RIVER	2018	3	2,351-19	2027	Deck 5 Fair Superstructure 4 Poor Substructure 6 Satisfactory	L=217.0 W=25.7 2-span	5,577	11/16/2020	NPR	TPG	1928
92	90	Canaan	177/123	NHDOT	BOBM	NH118	INDIAN RIVER	2016	3	1,258-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=35.0 W=27.9 1-span	977.00	11/5/2020	E-1	CRF	1948

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75	72	Center Harbor-New Hampton	080/040	NHDOT	24579	WAUKEWAN ROAD	LAKE WAUKEWAN INLET	2010	4	454-19	2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=13.0 W=21.2 1-span	275	11/12/2020	NPR	CS	1928
66		Chatham	303/103	NHDOT	BOBM	SOUTH CHATHAM ROAD	WEEKS BROOK	2020	4	575-19	Bridge Maintenance 2023	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=21.0 W=23.5 1-span	494	11/4/2020	NPR	CS	1952
86	82	Claremont	072/127	NHDOT	27691	NH 12A	SUGAR RIVER	2011	3	1,071-19	SB 367 2022	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=281.0 W=32.7 3-span	9,180	11/4/2020	NPR	IB-C	1991/1967
77	74	Colebrook	102/083	NHDOT	BOBM	CARLETON HILL ROAD	MOHAWK RIVER	2012	4	498-19	Bridge Maintenance 2023	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=56.0 W=23.5 1-span	1,316	11/5/2020	NPR	CTB	1935
23	25	Concord	147/028	NHDOT	42574	US202,NH 9	ASH BROOK	2018	2	2,764-19	2029	Culvert 3 Serious	L=30.0 W=25.0 3-span	750	11/24/2020	NPR	MP	1970
44		Concord	165/029	NHDOT		I-89 SB	TURKEY POND	2020	1	20,920-19		Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=240.0 W=57.0 3-span	13,680	9/25/2020	NPR	IB-C	1992/1959
45		Concord	166/029	NHDOT		I-89 NB	TURKEY POND	2020	1	20,535-19		Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=240.0 W=57.0 3-span	13,680	9/25/2020	NPR	IB-C	1992/1959
19	29	Concord (Bow-Concord)	154/121	NHDOT	13742	I-393,US 4,US202	FORT EDDY RD	2015	1	43,007-19 16,000-15	2026	Deck 4 Poor Superstructure 6 Satisfactory Substructure 5 Fair	L=70.0 W=104.0 1-span	7280.00	11/23/2020	NPR	IB-C	1980
93	92	Concord (Bow-Concord)	142/116	NHDOT	13742	DELTA DRIVE	I-93,US 4	1997	4	722-19 48,000-14	2026	Deck 3 Serious Superstructure 6 Satisfactory Substructure 7 Good	L=192.0 W=37.0 4-span	7,104	11/23/2020	NPR	IB-C	1958
4	6	Concord (Bow-Concord)	152/108	NHDOT	13742	I-393,US 4,US202	I-93	2011	1	46,690-19 62,000-14	2026	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=167.0 W=92.0 2-span	15,364	11/23/2020	NPR	IB-C	1981/1958
20	14	Concord (Bow-Concord)	150/107	NHDOT	13742	US202	NHRR,CONSTITUTION AV.	2011	2	46,690-19 2,100-14	2026	Deck 3 Serious Superstructure 7 Good Substructure 5 Fair	L=156.0 W=83.0 2-span	12,948	11/23/2020	NPR	IB-C	1981/1958
Under Construction	Under Construction	Conway	158/137	NHDOT	15864	US302,NH113	CONWAY LAKE OUTLET	2010	2	9,707-19	SB367 2019	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=106.0 W=33.0 3-span	3,498	11/4/2020	NPR	CTB	1955
Under Construction	96	Cornish (Covered Bridge)	064/108	NHDOT	25067	CORNISH TOLL BR RD	CONNECTICUT RIVER	1991	4	2,664-19	Preservation 2020	Deck 5 Fair Superstructure 6 Satisfactory Substructure 2 Critical	L=449.0 W=20.7 2-span	9279.00	11/4/2020	10 Tons	TB-C	1989/1866
49	48	Danbury	156/104	NHDOT	16303	US 4	NHRR(ABD)	2016	2	2,465-19	BRRP 2021	Deck 4 Poor Superstructure 6 Satisfactory Substructure 5 Fair	L=117.0 W=28.5 3-span	3,335	11/5/2020	NPR	IB-C	1964/1929
67	63	Danbury	138/094	NHDOT	40395	US 4	SMITH RIVER	2014	2	1,708-19	BRRP 2022	Deck 6 Satisfactory Superstructure 4 Poor Substructure 5 Fair	L=70.0 W=26.5 1-span	1,855	11/5/2020	NPR	TPG	1991/1929
24	17	Deerfield	137/116	NHDOT	24477	NH107	FREESE'S POND	2010	3	2,866-19	SB 367 2022	Culvert 2 Critical	L=13.0 W=22.0 1-span	286	10/29/2020	NPR	MP	1973
40	42	Dixville	206/101	NHDOT	BOBM	NH 26	CLEAR STREAM	2015	2	1,195-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=15.0 W=33.5 1-span	503.00	11/17/2020	NPR	CA	1970/1929
2	4	Dover	106/133	Tpk Bureau, NHDOT	41824	NH 16,SP TPK NB	COCHECO RIVER	2019	1	23,122-19	2024	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=267.0 W=43.8 4-span	11703.00	11/4/2020	NPR	IB-C	1991/1957
7	9	Dover	105/133	Tpk Bureau, NHDOT	41824	NH 16,SP TPK SB	COCHECO RIVER	2019	1	24,194-19	2024	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=267.0 W=43.8 4-span	11703.00	11/4/2020	NPR	IB-C	1991/1957

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8	10	Dover	132/101	Tpk Bureau, NHDOT	42872	NH 16,SP TPK SB	NH108,PAR(ABD)	2019	1	21,847-19	Not Included	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=300.0 W=47.8 6-span	14350.00	11/4/2020	NPR	IB-C	1999/1957
21	23	Dover	132/102	Tpk Bureau, NHDOT	42872	NH 16,SP TPK NB	NH108,PAR(ABD)	2019	1	22,715-19	Not Included	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=206.0 W=47.8 4-span	9854.00	11/4/2020	NPR	IB-C	1999/1957
3	5	Dover (Newington-Dover) General Sullivan Bridge	200/023	Tpk Bureau, NHDOT	11238S	ROAD	LITTLE BAY	1979	6	0-03	2022	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=1585.0 W=30.6 9-span	48501.00	11/4/2020	BRC	HT	1950/1934
84	80	Dover, NH- South Berwick, ME	182/123	NHDOT	41433	GULF ROAD	SALMON FALLS RIVER	2008	4	6,266-19	2028	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=489.0 W=32.1 27-span	15,697	11/16/2020	NPR	IB-C	1982/1950
73	70	Dublin	176/072	NHDOT	BOBM	NH137	STANLEY BROOK	2016	3	1,018-19	Bridge Maintenance 2023	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=21.0 W=27.7 1-span	581.00	11/3/2020	NPR	CS	1936
Under Construction	83	Eaton	084/114	NHDOT	BOBM	BROWNFIELD ROAD	SNOW BROOK	2018	4	509-19	Bridge Maintenance 2020	Culvert 4 Poor	L=16.0 W=21.0 1-span	336	11/10/2020	NPR	MP	1975
47		Epping	108/030	NHDOT		NH125	PISCASSIC RIVER	2020	2	13,653-19		Culvert 4 Poor	L=18.0 W=44.0 1-span	792	11/5/2020	NPR	CB	2010/1928
17	21	Errol	071/030	NHDOT	BOBM	NH 16	OUTLET MOOSE POND	2013	2	1,395-19	Bridge Maintenance 2022	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=12.0 W=28.5 1-span	342	11/17/2020	C-2	IB-C	1931
101	100	Franklin	162/100	NHDOT		NHRR(ABD)	NH127	1997	6	1,700-13	Not Included	Deck 4 Poor Superstructure 5 Fair Substructure 4 Poor	L=72.0 W=12.0 1-span	864	11/6/2020	NPR	TPG	1928
65	62	Gilford	115/147	NHDOT	42577	NH 11	POOR FARM BROOK	2017	2	4,934-19	2028	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=30.0 W=55.9 1-span	1677.00	11/3/2020	NPR	PVS	2000/1966
13	16	Hampton	163/184	NHDOT	42573	US 1	PAR(ABD)	2017	2	16,332-19	2028	Deck 6 Satisfactory Superstructure 4 Poor Substructure 4 Poor	L=120.0 W=40.0 1-span	4800.00	11/17/2020	E-2	TPG	1977/1936
1	1	Hampton (Seabrook-Hampton)	235/025	NHDOT	15904	NH 1A	HAMPTON RIVER	1999	2	9,164-19	2023	Deck 8 Very Good Superstructure 4 Poor Substructure 6 Satisfactory	L=1199.0 W=33.5 13-span	40,167	11/17/2020	E-2	BAS	1984/1949
51	50	Harrisville	056/058	NHDOT	42575	CHESHAM ROAD	MINNEWAWA BROOK	2002	4	1,542-19	2029	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=90.0 W=27.0 3-span	2,430	11/3/2020	E-2	CS	1984/1939
28	30	Hinsdale	042/044	NHDOT	12210D	NH119	CONNECTICUT RIVER	2018	3	8,183-19	2023	Deck 7 Good Superstructure 4 Poor Substructure 5 Fair	L=297.0 W=21.0 3-span	6,237	7/14/2020	E-2	HT	1988/1920
37	38	Hinsdale, NH- Brattleboro, VT	041/040	NHDOT	12210D	NH119	CONNECTICUT RIVER	2018	3	8,183-19	2023	Deck 7 Good Superstructure 4 Poor Substructure 6 Satisfactory	L=339.0 W=23.1 1-span	7,830	7/13/2020	E-2	HT	1988/1920
32	34	Jefferson	140/097	NHDOT	42558	US 2	PRISCILLA BROOK	2014	2	2,801-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=13.0 W=47.5 1-span	618	11/2/2020	E-2	Jack	1979/1900
58		Jefferson	109/061	NHDOT	BOBM	NH115	RED BROOK	2020	2	2,671-19	Bridge Maintenance 2021	Culvert 4 Poor	L=11.0 W=44.0 1-span	484	11/10/2020	NPR	MP	1984
78		Kensington	071/109	NHDOT	BOBM	NH150	GREAT BROOK	2020	3	2,895-19	Bridge Maintenance 2023	Culvert 4 Poor	L=14.0 W=22.0 2-span	308	11/2/2020	E-2	MP	1988
98	97	Laconia	126/163	NHDOT	24181	CENTENARY AVENUE	NHRR	1991	4	91-19	2025	Deck 3 Serious Superstructure 3 Serious Substructure 4 Poor	L=121.0 W=22.6 7-span	2,734	11/3/2020	7 Tons	TB	1940

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Under Construction	Under Construction	Lancaster, NH-Guildhall, VT (Rogers Rangers)	111/129	NHDOT	16155	US 2	CONNECTICUT RIVER	2013	2	3,639-19	SB 367 2019	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=404.0 W=34.8 2-span	14,059	11/10/2020	BRC	HT	1950
Under Construction	Under Construction	Lebanon	093/109	NHDOT	41191	I-89 NB	US 4,NH 10	2009	1	22,284-19 14,000-13	HB 1817 2019	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=115.0 W=61.3 1-span	7,053	11/9/2020	NPR	IB-C	1966
Under Construction	2	Lebanon, NH - Hartford, VT	044/103	NHDOT	16148	I-89 SB	CONNECTICUT RIVER,NECRR	2011	1	20,853-19	BRRP 2020	Deck 5 Fair Superstructure 4 Poor Substructure 6 Satisfactory	L=846.0 W=35.8 6-span	30,315	11/13/2020	NPR	IB-C	1966
Under Construction	3	Lebanon, NH - Hartford, VT	044/104	NHDOT	16148	I-89 NB	CONNECTICUT RIVER,NECRR	2012	1	21,853-19	BRRP 2020	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=847.0 W=35.8 6-span	30,351	11/13/2020	NPR	IB-C	1966
11	13	Lee	073/084	NHDOT	41322	NH125	LITTLE RIVER	2014	2	20,515-19	HIP 2022	Culvert 3 Serious	L=18.0 W=39.0 1-span	702	11/16/2020	NPR	MP	1972
29	31	Littleton	133/094	NHDOT	BOBM	I-93	MULLIKIN BROOK	2015	1	8,193-19	Bridge Maintenance 2020	Culvert 4 Poor	L=11.0 W=81.0 1-span	891.00	11/19/2020	NPR	MP	1984
9	11	Littleton, NH-Waterford, VT	109/134	NHDOT	27711	NH 18	CONNECTICUT RIVER	2014	3	1,231-19	2025	Deck 6 Satisfactory Superstructure 4 Poor Substructure 4 Poor	L=533.0 W=30.6 5-span	16,310	11/13/2020	NPR	DPG	1980/1934
6	8	Lyme, NH-Thetford, VT	053/112	NHDOT	14460	EAST THETFORD ROAD	CONNECTICUT RIVER	2013	4	2,118-19	2021	Deck 5 Fair Superstructure 4 Poor Substructure 4 Poor	L=471.0 W=23.7 2-span	11,147	11/6/2020	15 Tons	HT	1937
105	105	Lyndeborough	108/070	NHDOT	41435	NHRR	GLASS FACTORY ROAD	2014	6	- 20-00	2028	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=23.0 W=12.0 5-span	276	11/5/2020	NPR	IB-W	1920
34	36	Madison	163/048	NHDOT	BOBM	NH153	PURITY POND BROOK	2013	3	2,654-19	Bridge Maintenance 2024	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=27.0 W=35.0 1-span	945	11/10/2020	E-2	Jack	1967/1900
10	12	Manchester	099/066	Tpk Bureau, NHDOT	16099A	I-293,NH 3A,TPK S	BLACK BROOK	2012	1	22,552-19	2025	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=74.0 W=41.0 1-span	3,034	11/2/2020	NPR	IB-C	1956
18	22	Manchester	099/067	Tpk Bureau, NHDOT	16099A	I-293,NH 3A,TPK N	BLACK BROOK	2012	1	24,701-19	2026	Deck 5 Fair Superstructure 6 Satisfactory Substructure 4 Poor	L=74.0 W=41.0 1-span	3,034	11/2/2020	NPR	IB-C	1956
76	73	Manchester	176/106	NHDOT	41414	HUSE ROAD	I-293,NH101	2015	4	8,297-19 83,000-15	2021	Deck 4 Poor Superstructure 7 Good Substructure 6 Satisfactory	L=300.0 W=41.5 5-span	12450.00	11/17/2020	NPR	IB-C	1979/1960
63	60	Meredith	189/150	NHDOT	BOBM	NH 25	SWAMP OUTLET	2015	2	18,357-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=16.0 W=200.0 1-span	3200.00	11/12/2020	NPR	CB	1955/1946
61	58	Merrimack	107/131	Tpk Bureau, NHDOT	13761B	BABOOSIC LAKE ROAD	FEE TPK	2011	4	8,111-19 68,000-15	2022	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=167.0 W=35.5 4-span	5,929	11/18/2020	NPR	IB-C	1954
Under Construction	33	Moultonborough	140/251	NHDOT	BOBM	NH109	BERRY POND BROOK	2010	3	770-19	Bridge Maintenance 2020	Deck 3 Serious Superstructure 3 Serious Substructure 4 Poor	L=17.0 W=26.3 1-span	448	10/30/2020	E-1	CS	1927
5	7	New Castle-Rye	066/071	NHDOT	16127	NH 1B	LITTLE HARBOR	1994	3	3,167-19	2021	Deck 6 Satisfactory Superstructure 3 Serious Substructure 5 Fair	L=253.5 W=30.8 6-span	7,807	11/17/2020	15 Tons	BAS	1975/1942
103	102	New Hampton	240/104	NHDOT	25365	SMITHS CROSSING	NHRR	1990	6	0-08	2025	Deck 1 Closed - Failing Superstructure 4 Poor Substructure 5 Fair	L=82.0 W=16.0 3-span	1,312	5/9/2019	BRC	TB	1940
106	106	Newton	064/107	NHDOT	41436	POND ROAD	PAR	2001	4	498-19	2028	Deck 3 Serious Superstructure 6 Satisfactory Substructure 7 Good	L=41.0 W=25.0 1-span	1025.00	11/2/2020	8 Tons	TB	2003/1920

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27	28	North Hampton	148/132	NHDOT	24457	US 1	PAR	2009	2	16,139-19	2021	Deck 3 Serious Superstructure 4 Poor Substructure 5 Fair	L=42.0 W=42.3 1-span	1,777	11/17/2020	E-2	CTB	1935
69	66	Northwood	045/099	NHDOT	BOBM	NH107	NARROWS BROOK	2016	3	1,217-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=19.0 W=35.6 1-span	676.00	11/18/2020	NPR	CS	2000/1922
68	65	Nottingham	141/127	NHDOT	40612	NH152	NORTH RIVER	2012	3	3,283-19	SB 367 2024	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=23.0 W=32.7 1-span	752	11/18/2020	C-1	IB-C	1970/1925
39	41	Orford	219/112	NHDOT	41390	NH 25A	BAKER POND BROOK	2016	3	804-19	2026	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=24.0 W=35.7 1-span	856.00	11/18/2020	E-2	CS	1980/1929
54	53	Orford	217/112	NHDOT	40366	NH 25A	BRACKETT BROOK	2013	3	804-19	HJP 2021	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=40.0 W=35.7 2-span	1,427	11/18/2020	E-2	CS	1979/1929
Under Construction	Under Construction	Ossipee	137/297	NHDOT	14749	NH 16,NH 25	BEARCAMP RIVER	2004	2	10,193-19	SB 367 2018	Deck 3 Serious Superstructure 4 Poor Substructure 5 Fair	L=396.0 W=33.2 5-span	13,134	10/30/2020	NPR	IB-C	1955
Under Construction	Under Construction	Ossipee	137/299	NHDOT	14749	NH 16,NH 25	RELIEF BEARCAMP RIVER	2004	2	10,193-19	SB 367 2018	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=172.0 W=33.2 4-span	5,705	10/30/2020	NPR	IB-C	1955
Under Construction	Under Construction	Ossipee	152/268	NHDOT	14749	NH 16,NH 25	LOVELL RIVER	1999	2	10,193-19	SB 367 2018	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=62.0 W=34.5 1-span	2,139	10/30/2020	C-2	IB-C	1950
55	54	Pelham	111/090	NHDOT	16145	MAIN STREET	BEAVER BROOK	2010	4	6,253-19	SB 367 2023	Culvert 3 Serious	L=11.0 W=24.0 1-span	264	11/19/2020	NPR	MP	1988
95	93	Pelham	110/090	NHDOT	16145	MAIN STREET	BEAVER BROOK	1988	4	6,253-19	SB 367 2023	Deck 4 Poor Superstructure 5 Fair Substructure 4 Poor	L=46.0 W=35.0 2-span	1,610	11/19/2020	E-2	MA	1929/1900
14	18	Peterborough	108/116	NHDOT	27712	US202,NH123	CONTOCOOK RIVER	2012	2	6,984-19	2025	Deck 4 Poor Superstructure 5 Fair Substructure 4 Poor	L=176.0 W=52.0 2-span	9,152	11/4/2020	NPR	IB-C	1974/1942
52	51	Peterborough	087/077	NHDOT	15879	US202,NH101	CONTOCOOK RIVER	2006	2	14,848-19	BRRP 2021	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=195.0 W=44.0 3-span	8,580	8/28/2020	NPR	IB-C	1958
104	104	Pinkhams Grant	076/081	NHDOT		OLD NH 16	BROOK	2012	6	7-Oct	Not Included	Culvert 4 Poor	L=10.0 W=8.0 1-span	80	11/12/2020	NPR	CB	1931
100	99	Pittsburg	099/034	NHDES		MURPHY DAM ROAD	DAM SPILLWAY	1991	4	91-19	Not Included	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=38.0 W=20.5 1-span	779.00	11/5/2020	15 Tons	BGB	1938
79	75	Plainfield	096/079	NHDOT	BOBM	STAGE ROAD	BLOW-ME-DOWN BROOK	2012	4	695-19	Bridge Maintenance 2022	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=73.0 W=27.5 1-span	2,008	11/4/2020	E-2	IB-C	1954
71	68	Raymond	116/052	NHDOT	BOBM	NH102	FORDWAY BROOK	2018	3	6,617-19	Bridge Maintenance 2022	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=19.0 W=36.0 1-span	684	11/5/2020	E-2	IB-C	1972/1900
102	101	Raymond	083/154	NHDOT	41437	DUDLEY ROAD	LAMPREY RIVER	1990	4	560-19	Not Included	Deck 5 Fair Superstructure 5 Fair Substructure 2 Critical	L=52.0 W=21.0 2-span	1,092	11/5/2020	10 Tons	CS	1972/1914

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2020 STATE Bridge Red List by Town/City

(based on bridge inspection data through 12/31/2020)

2020 Priority From Ranking Sheet	2019 Priority From Ranking Sheet	Town / City	Bridge Number	Owner	State Project No.	Facility Carried	Feature Crossed	State Red List Status	Roadway Tier	ADT (Year)	2021-2030 10-Year Plan	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
31	61	Rollinsford-Dover	069/046	NHDOT	42578	OAK STREET	PAR	2017	4	10,310-19	2027	Deck 4 Poor Superstructure 3 Serious Substructure 5 Fair	L=65.0 W=26.5 1-span	1723.00	11/9/2020	6 Tons	LT	1928/1890
89	88	Salem	095/052	NHDOT	BOBM	I-93 REST EXIT	POLICY BROOK	2015	6	1,800-00	Bridge Maintenance 2021	Culvert 4 Poor	L=26.4 W=21.0 2-span	555.00	11/20/2020	NPR	MP	1967
Under Construction	Under Construction	Salem	098/049	NHDOT	BOBM	I-93 REST ENTRANCE	POLICY BROOK	2011	6	1,800-00	Bridge Maintenance 2019	Culvert 3 Serious	L=26.4 W=21.0 2-span	555	11/20/2020	NPR	MP	1967
15	19	Sanbornton	127/099	NHDOT	BOBM	I-93 NB	SALMON BROOK	2001	1	14,003-19	Bridge Maintenance 2021	Culvert 4 Poor	L=28.0 W=36.0 1-span	1,064	11/20/2020	NPR	CB	1962
25	26	Sandwich	203/029	NHDOT	BOBM	NH 25	WEED BROOK	2016	2	4,724-19	Bridge Maintenance 2022	Culvert 3 Serious	L=13.0 W=36.0 1-span	468.00	11/12/2020	NPR	CB	1946
82	78	Sandwich	226/162	NHDOT	BOBM	NH113A	MILL BROOK	2018	4	235-19	Bridge Maintenance 2021	Culvert 4 Poor	L=14.0 W=22.0 1-span	308	11/13/2020	NPR	MP	1957
36	46	Shelburne	049/089	NHDOT	40363	US 2	PEA BROOK	2013	2	5,149-19	SB 367 2022	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=28.0 W=43.8 1-span	1,227	11/9/2020	NPR	CTB	1932
42	39	Shelburne	075/113	NHDOT	40551	NORTH ROAD	ANDROSCOGGIN RIVER	2013	4	403-19	2026	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=182.0 W=24.0 5-span	4,368	11/9/2020	NPR	IB-C	1959/1900
90	86	Springfield	091/048	NHDOT	20509	GEORGES MILLS ROAD	STAR LAKE OUTLET	2008	4	1,204-19	(Included in 2020)	Culvert 4 Poor	L=12.3 W=22.0 2-span	270	11/9/2020	NPR	MP	1951
83	79	Surry	101/142	NHDOT		GILSUM ROAD	THOMPSON BROOK	2014	4	311-19	Not Included	Culvert 4 Poor	L=12.0 W=21.0 1-span	252	11/3/2020	NPR	MP	1972
33	35	Swanzey	149/072	NHDOT	27692	NH 32	MARTIN BROOK	2000	3	3,095-19	SB 367 2022	Deck 4 Poor Superstructure 4 Poor Substructure 3 Serious	L=27.0 W=23.7 1-span	639	11/2/2020	E-1	CS	1929
91	87	Tamworth	061/091	NHDOT	41434	NH113A	SWIFT RIVER	2015	4	448-19	2023	Deck 4 Poor Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=156.0 W=27.4 3-span	4277.00	11/13/2020	NPR	IB-C	1956
62	59	Thornton	239/152	NHDOT	40613	NH 49	MAD RIVER	2014	3	1,674-19	SB 367 2024	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=540.0 W=39.5 5-span	21,330	11/16/2020	NPR	IB-C	1979
30	32	Troy	089/114	NHDOT	40370	NH 12	S BRANCH ASHUELOT RIVER	2013	2	9,137-19	SB 367 2023	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=36.0 W=32.3 1-span	1,163	11/2/2020	NPR	CRF	1941
38	40	Troy	096/091	NHDOT	40371	NH 12	NHRR(ABD)	2013	2	8,320-19	2023	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=71.0 W=41.3 2-span	2,934	11/2/2020	NPR	IB-C	1957
96	94	Walpole, NH-Rockingham, VT (Bellows Falls)	062/052	NHDOT	41720	BRIDGE STREET	CONNECTICUT RIVER	1986	4	6,100-17	2028	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=230.0 W=32.5 2-span	7,475	11/3/2020	BRC	CA	1974/1930
87	84	Warner	254/180	NHDOT	15907	NH127	WARNER RIVER	2005	3	1,548-19	SB 367 2021	Deck 3 Serious Superstructure 6 Satisfactory Substructure 6 Satisfactory	L=123.0 W=28.2 3-span	3,468	11/10/2020	C-2	IB-C	1937
97	95	Warner	202/136	NHDOT	40622	NH103	I-89 NB	2014	3	1,149-19 9,500-13	SB 367 2023	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=81.0 W=38.0 1-span	3,078	11/13/2020	NPR	IB-C	1993/1966

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2020 STATE Bridge Red List by Town/City
(based on bridge inspection data through 12/31/2020)

2020 Priority From Ranking Sheet	2019 Priority From Ranking Sheet	Town / City	Bridge Number	Owner	State Project No.	Facility Carried	Feature Crossed	State Red List Status	Roadway Tier	ADT (Year)	2021-2030 10-Year Plan	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
53	52	Weare	137/043	NHDOT	BOBM	NH114	OTTER BROOK	2018	2	7,893-19	Bridge Maintenance 2024	Culvert 4 Poor	L=12.0 W=27.0 2-span	324	11/10/2020	NPR	MP	1950
72	69	Webster	099/123	NHDOT	41429	NH127	BLACKWATER RIVER	2013	3	1,370-19	2022	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=166.0 W=34.0 3-span	5,644	11/10/2020	E-2	CRF	1941
16	20	Westmoreland	113/163	NHDOT	BOBM	NH 12	ALDRICH BROOK	2012	2	7,988-19	Bridge Maintenance 2023	Culvert 3 Serious	L=10.0 W=41.0 1-span	410	11/3/2020	NPR	CB	1960
41	43	Westmoreland	159/125	NHDOT	BOBM	NH 12	MILL BROOK	2016	2	7,248-19	Bridge Maintenance 2024	Culvert 4 Poor	L=21.0 W=30.0 1-span	630.00	11/3/2020	NPR	CACUL	1941
94	91	Wilton	094/162	NHDOT	BOBM	NH 31	STONY BROOK	2016	3	3,515-19	Bridge Maintenance 2021	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=23.0 W=36.0 1-span	828.00	11/12/2020	NPR	CRF	1983/1929
22	24	Woodstock	177/148	NHDOT	27713	NH175	PEMIGEWASSET RIVER	2014	3	566-19	SB 367 2024	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=183.0 W=30.9 1-span	5,655	12/3/2020	20 Tons	SA	1939
59	64	Woodstock	195/093	NHDOT	42534	NH175	PEMIGEWASSET RIVER	2018	3	796-19	Preservation 2020	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=320.0 W=34.5 3-span	11,040	11/19/2020	NPR	IB-C	1976

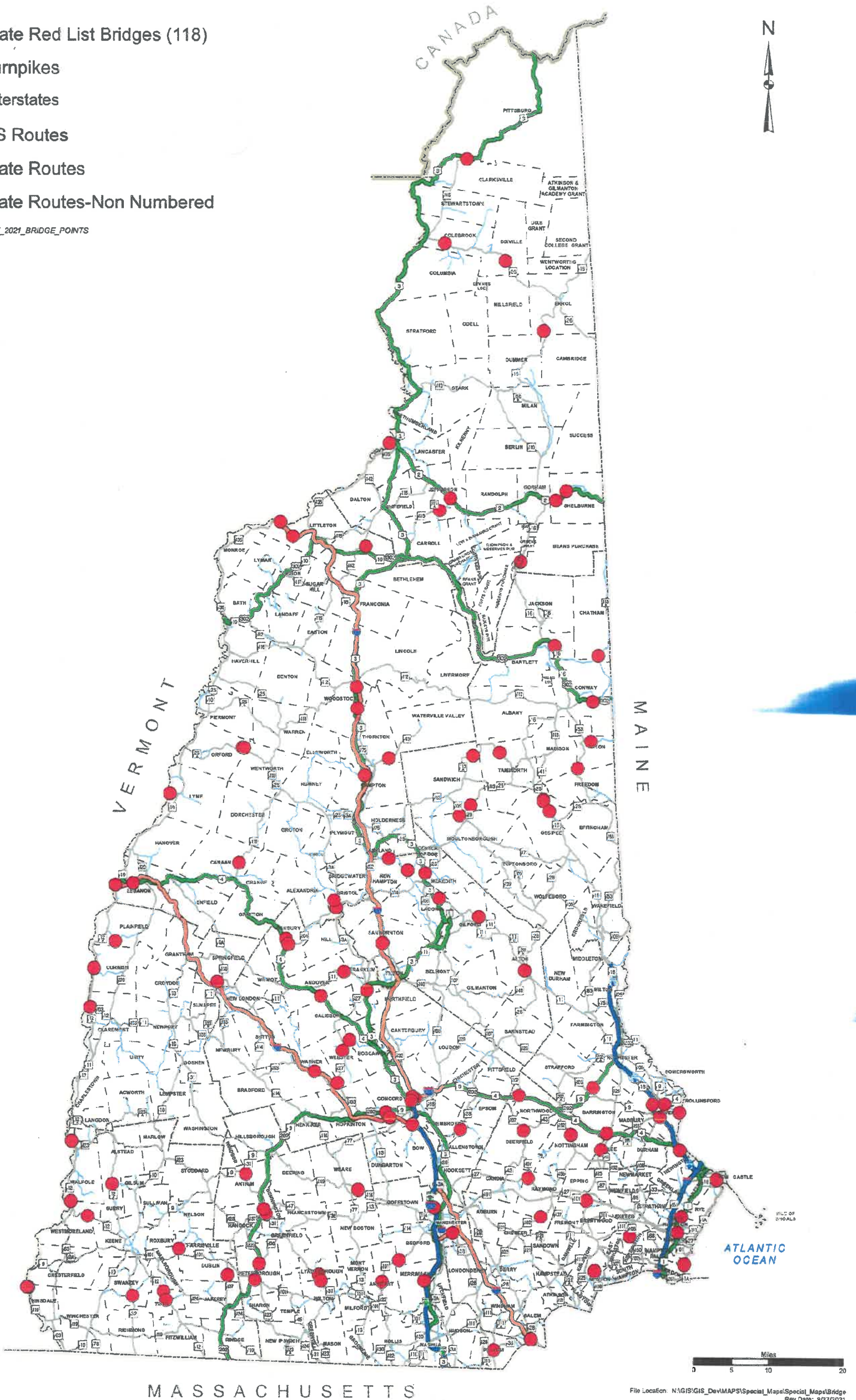
State Bridge Conditions

2020 Red List



- State Red List Bridges (118)
- Turnpikes
- Interstates
- US Routes
- State Routes
- State Routes-Non Numbered

* All Tiers, State
Data Source: ASSET_2021_BRIDGE_POINTS



MASSACHUSETTS

File Location: N:\GIS\GIS_Dev\MAPS\Special_Maps\Special_Map\MapBridge
Rev Date: 9/27/2021

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Appendix “B”

2020 Municipal Red List

(Based on bridge inspection data through December 31, 2020)

and

Location Map of all 2020 Municipal Red List Bridges

(Based on bridge inspection data through December 31, 2020)

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2020 MUNICIPAL BRIDGE RED LIST

Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Acworth	105/035	FOREST ROAD	GREAT BROOK	91-19	Culvert 1 Closed - Failing	L=18.0 W=20.0 1-span	360	8/6/2020	E-2	MP	1977
Albany	213/094	DRAKE HILL ROAD	MEADOW BROOK	121-19	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=24.0 W=26.3 1-span	632	10/21/2020	E-2	CS	1930
Alexandria	096/112	SHEM VALLEY ROAD	BROCK BROOK	88-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 5 Fair	L=20.0 W=17.0 1-span	340	11/18/2020	E-2	IB-W	1930
Alexandria	136/131	COLE HILL ROAD	FOWLER RIVER	88-18	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=43.0 W=11.9 1-span	512	11/18/2020	E-2	IB-W	1930
Alstead	058/132	DREWSVILLE ROAD	DARBY BROOK	298-19	Culvert 4 Poor	L=16.0 W=20.0 1-span	320	8/26/2020	E-2	MP	1979
Alstead	058/136	HILL ROAD	DARBY BROOK	91-19	Culvert 2 Critical	L=19.3 W=21.0 1-span	405	8/26/2020	E-2	MP	1974
Alstead	059/134	HILL ROAD	DARBY BROOK	91-19	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=30.0 W=24.1 1-span	723	8/26/2020	E-2	IB-BP	1970
Alton	141/222	LOON COVE ROAD	WATSON BROOK	91-19	Culvert 4 Poor	L=11.0 W=18.0 1-span	198	12/4/2020	NPR	MP	1968
Amherst	112/071	MONT VERNON ROAD	CEASARS BROOK	199-19	Culvert 4 Poor	L=14.0 W=22.0 2-span	308	10/29/2020	NPR	MP	1956
Amherst	145/106	THORNTONS FERRY RD	BEAVER BROOK	408-19	Culvert 4 Poor	L=20.0 W=20.0 2-span	400	10/29/2020	E-2	MP	1970
Andover	083/098	BRIDGE ROAD	BLACKWATER RIVER	91-19	Deck 6 Satisfactory Superstructure 4 Poor Substructure 7 Good	L=65.0 W=19.0 1-span	1,235	10/14/2020	E-2	TB-C	1882
Andover	104/078	HALL ROAD	BRADLEY BROOK	16-18	Deck 3 Serious Superstructure 5 Fair Substructure 5 Fair	L=16.0 W=18.9 1-span	302	10/12/2020	10 Tons	IB-C	1970/1932
Andover	125/129	ELBOW POND ROAD	MOUNTAIN BROOK	91-19	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=20.0 W=18.7 1-span	374	10/12/2020	6 Tons	IB-C	1964
Andover	216/139	LAST STREET	SUCKER BROOK	91-19	Deck 9 Excellent Superstructure 9 Excellent Substructure 4 Poor	L=26.5 W=19.5 1-span	517	10/2/2020	E-2	TB	2019/1936
Antrim	113/143	LIBERTY FARM ROAD	NORTH BRANCH RIVER	91-19	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=32.0 W=16.0 2-span	512	6/26/2020	E-2	PVS	1991
Antrim	174/070	HIGH STREET	GREAT BROOK	248-19	Culvert 4 Poor	L=18.0 W=26.0 1-span	468	6/23/2020	NPR	MP-A	1960

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Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Auburn	095/127	GRIFFIN MILL ROAD	MAPLE FALLS BROOK	199-19	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=29.0 W=14.3 1-span	415	7/10/2020	BRC	IB-W	1991/1850
Barnstead	128/056	GRAY ROAD	CROOKED RUN BROOK	179-19	Culvert 4 Poor	L=12.0 W=18.0 1-span	216	9/18/2020	NPR	MP	1970
Bartlett	112/098	FOSTER STREET	BROOK	116-19	Culvert 4 Poor	L=12.0 W=19.0 1-span	228	10/21/2020	6 Tons	MP	1974
Bath	130/162	TOWN ROAD	PETTYBORO BROOK	5-08	Deck 7 Good Superstructure 5 Fair Substructure 4 Poor	L=24.0 W=16.3 1-span	390	11/25/2020	4 Tons	IB-W	1930
Bedford	105/055	BEALS ROAD	BABOOSIC BROOK	510-19	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=23.0 W=23.0 1-span	529	7/13/2020	E-2	CS	1984/1928
Belmont	078/132	UNION ROAD	DURGIN BROOK	2,085-19	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=19.0 W=33.3 1-span	633	8/20/2020	E-2	CTB	1960
Bennington	095/093	ANTRIM ROAD	MONADNOCK MILL CANAL	2,515-19	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=28.0 W=32.0 1-span	896	10/28/2020	E-2	CTB	1922
Berlin	238/055	MASON STREET	CANAL	5,111-19	Deck 6 Satisfactory Superstructure 7 Good Substructure 4 Poor	L=121.0 W=37.1 2-span	4,494	10/28/2020	E-2	IB-C	1977/1967
Bow	065/140	PAGE ROAD	BELA BROOK	1,187-19	Culvert 3 Serious	L=12.0 W=23.0 1-span	276	6/11/2020	E-2	MP	1950
Bow	182/113	DUNKLEE ROAD	BOW BOG BROOK	2,398-19	Culvert 4 Poor	L=22.0 W=24.0 1-span	528	6/11/2020	NPR	CRF-P	2006
Bradford	104/141	JOHNSON HILL ROAD	WEST BRANCH BROOK	88-18	Deck 2 Critical Superstructure 5 Fair Substructure 5 Fair	L=27.0 W=12.1 1-span	327	12/10/2020	12 Tons	IB-BP	1950
Bradford	140/144	BRADFORD CENTER RD	W BR WARNER RIVER	88-18	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=61.0 W=18.5 1-span	1,129	12/8/2020	3 Tons	TB-C	1964/1854
Bradford	168/162	BLAISDELL LAKE RD	STREAM	88-18	Deck 5 Fair Superstructure 6 Satisfactory Substructure 3 Serious	L=20.0 W=12.2 1-span	244	12/10/2020	15 Tons	IB-BP	1950
Brentwood	060/054	MILL ROAD	EXETER RIVER	460-19	Culvert 3 Serious	L=30.7 W=18.0 1-span	553	10/27/2020	E-2	MP-A	1967
Bridgewater	156/172	RIVER ROAD	CLAY BROOK	91-19	Culvert 4 Poor	L=21.0 W=21.0 2-span	441	12/1/2020	E-2	CACUL	1960/1900
Bridgewater	166/093	HAMMOND HILL ROAD	WOODMAN BROOK	91-19	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=17.0 W=25.0 1-span	425	12/1/2020	E-2	CS	1975

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Bristol	123/079	DANFORTH BROOK RD	DANFORTH BROOK	128-19	Culvert 4 Poor	L=17.0 W=21.0 1-span	357	12/1/2020	E-2	MP	1960
Brookfield	096/070	MOUNTAIN ROAD	HANSON BROOK	233-19	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=22.0 W=23.0 1-span	506	8/24/2020	E-2	CS	1920
Brookline	065/085	DUPAW GOULD ROAD	LANCY BROOK	561-19	Culvert 4 Poor	L=22.0 W=24.0 1-span	528	11/17/2020	NPR	MP-B	1987
Campton	170/075	PERCH POND ROAD	RYAN BROOK	91-19	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=26.0 W=25.0 1-span	650	10/2/2020	E-2	CS	1940
Canaan	147/055	POTATO ROAD	INDIAN RIVER	504-19	Deck 5 Fair Superstructure 4 Poor Substructure 7 Good	L=54.0 W=22.1 1-span	1,193	9/1/2020	15 Tons	IB-W	1994/1930
Canaan	172/070	GRIST MILL HILL RD	INDIAN RIVER	373-19	Deck 3 Serious Superstructure 5 Fair Substructure 5 Fair	L=51.0 W=21.0 1-span	1,071	9/14/2020	E-2	IB-C	1956
Candia	151/123	OLD DEERFIELD ROAD	BROOK	146-19	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=24.0 W=21.3 2-span	511	10/29/2020	5 Tons	MS	1920
Candia	188/105	BEANE ISLAND ROAD	BEAN BROOK	5-19	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=13.0 W=22.5 1-span	292	10/29/2020	E-2	IB-C	1930
Canterbury	111/101	CLOUGH TAVERN ROAD	FOREST POND BROOK	91-19	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=19.0 W=20.0 1-span	380	8/19/2020	NPR	IB-G	1990/1940
Charlestown	152/053	BRIDGE STREET	NECRR	779-19	Deck 5 Fair Superstructure 4 Poor Substructure 4 Poor	L=72.0 W=19.8 3-span	1,428	11/16/2020	10 Tons	IB-W	1992
Charlestown	248/060	OLD CHESHIRE TPK	HACKETT BROOK	91-19	Culvert 4 Poor	L=10.0 W=15.0 1-span	150	11/16/2020	NPR	MP	1940
Chester	169/122	SHEPARD HOME ROAD	EXETER RIVER	473-19	Culvert 4 Poor	L=28.0 W=22.0 2-span	616	11/10/2020	NPR	MP	2007/1986
Chester	170/135	HANSON ROAD	EXETER RIVER	1,824-19	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=31.0 W=28.0 1-span	868	11/10/2020	E-2	IB-C	1932
Claremont	091/118	PLAINS ROAD	SUGAR RIVER	1,455-19	Deck 4 Poor Superstructure 6 Satisfactory Substructure 7 Good	L=194.0 W=36.4 2-span	7,065	12/9/2020	E-2	IB-C	1974
Colebrook	167/120	BEAR ROCK ROAD	W BR MOHAWK RIVER	72-19	Culvert 3 Serious	L=13.0 W=18.0 2-span	234	10/30/2020	6 Tons	MP	1950
Colebrook	190/109	HARVEY SWELL ROAD	E BRANCH MOHAWK RIVER	91-19	Culvert 4 Poor	L=14.0 W=24.0 1-span	336	10/30/2020	E-2	MP	1969
Columbia	228/109	BUNGY ROAD	EAST BRANCH SIMMS STREAM	91-19	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=17.0 W=24.0 1-span	408	10/13/2020	E-2	CS	1932

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Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Concord	048/082	WASHINGTON STREET	CANAL INLET	2,922-19	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=76.0 W=34.3 1-span	2,603	11/24/2020	E-2	IB-C	1975
Concord	163/111	NH 9(LOUDON ROAD)	MERRIMACK RIVER	25,651-19	Deck 4 Poor Superstructure 6 Satisfactory Substructure 5 Fair	L=525.0 W=77.0 4-span	40,425	11/23/2020	NPR	IB-C	1996/1966
Concord	190/067	IRON WORKS ROAD	TURKEY RIVER	1,395-19	Deck 3 Serious Superstructure 3 Serious Substructure 3 Serious	L=15.0 W=29.0 1-span	435	11/16/2020	E-2	CS	1925
Concord	193/027	BIRCHDALE ROAD	BELA BROOK	434-19	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=22.0 W=24.0 1-span	528	10/20/2020	E-2	CRF	1928
Concord	200/015	HOKSETT TURNPIKE	BELA BROOK	727-19	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=16.0 W=24.0 1-span	384	10/20/2020	E-2	CRF	1928
Conway	065/057	CONWAY SCENIC RR	RIVER ROAD	0-80 2,200-15	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=75.0 W=9.8 8-span	738	11/3/2020	NPR	TB	1931
Cornish	175/143	LEAVITT HILL ROAD	BLOW-ME-DOWN-BROOK	104-19	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=23.0 W=25.1 1-span	577	10/8/2019	E-2	IB-BP	1991/1950
Croydon	104/069	BRIGHTON ROAD	BEAVER BROOK	91-19	Culvert 4 Poor	L=16.0 W=18.0 1-span	288	11/17/2020	E-2	MP	1985
Danbury	112/108	BOHONNON ROAD	WILD MEADOW BROOK	91-19	Culvert 3 Serious	L=16.0 W=20.0 1-span	320	7/8/2020	E-2	MP	1960
Danbury	178/057	WALKER BROOK ROAD	FRAZIER BROOK	77-19	Deck 7 Good Superstructure 4 Poor Substructure 6 Satisfactory	L=28.0 W=16.2 1-span	454	7/17/2020	6 Tons	IB-W	1950
Danbury	224/074	JACK WELLS ROAD	FRAZIER BROOK	45-19	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=25.0 W=12.5 1-span	313	7/23/2020	NPR	IB-W	2016/1950
Deerfield	139/127	BLAKES HILL ROAD	LAMPREY RIVER	91-19	Deck 5 Fair Superstructure 4 Poor Substructure 5 Fair	L=19.0 W=20.9 1-span	397	10/29/2020	12 Tons	Jack	1930
Dover	057/173	SIXTH STREET	BLACKWATER BROOK	3,125-19	Culvert 4 Poor	L=16.0 W=18.0 1-span	288	9/10/2020	E-2	CRF	1937
Durham	097/109	MILL ROAD	OYSTER RIVER	2,197-19	Culvert 4 Poor	L=17.0 W=26.0 1-span	442	12/8/2020	E-2	MP	1971
Durham	150/065	DURHAM POINT ROAD	CROMMET CREEK	254-19	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=23.0 W=23.0 1-span	529	12/8/2020	15 Tons	IB-C	1970/1930
Eaton	058/130	POTTER ROAD	SNOW BROOK	91-19	Deck 5 Fair Superstructure 4 Poor Substructure 4 Poor	L=19.0 W=18.2 1-span	346	11/24/2020	E-2	IB-S	1965
Effingham	165/112	SNOW ROAD	SOUTH RIVER	185-19	Culvert 3 Serious	L=32.0 W=20.0 4-span	640	11/24/2020	E-2	MP	1972

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Effingham	166/082	GRANITE ROAD	SOUTH RIVER	91-19	Deck 5 Fair Superstructure 2 Critical Substructure 5 Fair	L=36.0 W=18.5 2-span	666	11/24/2020	BRC	IB-C	1950/1920
Enfield	198/103	OAK HILL ROAD	GRAFTON POND OUTLET	91-19	Culvert 3 Serious	L=11.0 W=21.0 1-span	231	9/14/2020	NPR	MP	1994
Exeter	068/083	GARRISON LANE	LITTLE RIVER	15-19	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=27.0 W=18.0 1-span	486	8/12/2020	NPR	IB-W	1976/1930
Farmington	071/089	HORNETOWN ROAD	MAD RIVER	88-18	Deck 5 Fair Superstructure 3 Serious Substructure 5 Fair	L=24.0 W=24.0 1-span	576	12/2/2020	NPR	IB-BP	1984
Farmington	076/135	SPRING STREET	COCHECO RIVER	793-18	Deck 4 Poor Superstructure 6 Satisfactory Substructure 5 Fair	L=39.0 W=30.0 1-span	1,170	12/4/2020	E-2	CTB	1926
Farmington	080/108	RIVER ROAD	MAD RIVER	104-18	Deck 4 Poor Superstructure 3 Serious Substructure 5 Fair	L=35.0 W=24.3 1-span	852	12/2/2020	BRC	IB-BP	1986
Farmington	142/050	SHEEPBORO ROAD	BERRYS RIVER	20-87	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=21.5 W=20.0 1-span	430	12/4/2020	E-2	IB-W	2007/1983
Fitzwilliam	147/054	TEMPLETON TURNPIKE	PRIEST BROOK	65-19	Culvert 2 Critical	L=10.0 W=22.0 1-span	220	11/30/2020	NPR	MP	1987
Fitzwilliam	147/080	TEMPLETON TURNPIKE	PRIEST BROOK	65-19	Culvert 2 Critical	L=21.0 W=18.0 3-span	378	11/30/2020	3 Tons	MP	1984
Francestown	091/142	OLD COUNTY RD N	COLLINS BROOK	88-18	Culvert 3 Serious	L=30.0 W=15.0 2-span	450	10/23/2020	E-2	MP	1981
Francestown	119/059	CRESSY HILL ROAD	RAND BROOK	88-18	Deck 7 Good Superstructure 4 Poor Substructure 5 Fair	L=31.0 W=16.0 1-span	496	10/22/2020	10 Tons	IB-W	1940
Franconia	057/083	LAFAYETTE ROAD	HAM BRANCH	497-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 6 Satisfactory	L=52.0 W=22.2 1-span	1,154	11/13/2020	E-2	IB-G	1979/1920
Fremont	106/076	SCRIBNER ROAD	EXETER RIVER	265-19	Deck 3 Serious Superstructure 5 Fair Substructure 5 Fair	L=47.0 W=24.3 1-span	1,142	10/23/2020	E-2	IB-C	1941
Fremont	155/133	MARTIN ROAD	PISCASSIC RIVER	583-19	Deck 4 Poor Superstructure 6 Satisfactory Substructure 3 Serious	L=18.0 W=20.5 1-span	369	10/23/2020	15 Tons	IB-C	1930
Gilford	139/093	RECREATION TRAIL	GUNSTOCK RIVER	0-00	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=42.0 W=10.5 1-span	441	8/6/2020	NPR	TB-C	1995
Gilsum	097/139	BANKS ROAD	HAYWARD BROOK	88-18	Culvert 3 Serious	L=12.0 W=21.0 1-span	252	12/8/2020	NPR	MP	1994
Goshen	082/083	BALL PARK ROAD	TROW BROOK	88-18	Deck 6 Satisfactory Superstructure 5 Fair Substructure 3 Serious	L=15.0 W=18.0 1-span	270	12/1/2020	NPR	IB-BP	1994/1930

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Goshen	084/077	LEMPSTER COACH RD	TROW BROOK	88-18	Deck 8 Very Good Superstructure 6 Satisfactory Substructure 4 Poor	L=25.0 W=18.0 1-span	450	12/1/2020	NPR	IB-BP	1999/1940
Grantham	083/108	OLDE FARMS ROAD	SAWYER BROOK	91-19	Culvert 3 Serious	L=13.0 W=20.0 1-span	260	11/17/2020	NPR	MP	1965
Grantham	108/147	FRYE LANE	STONY BROOK	50-00	Culvert 3 Serious	L=12.0 W=12.0 1-span	144	11/17/2020	NPR	MP	1972
Greenfield	151/089	SCHOOL HOUSE RD	BROOK	88-18	Culvert 1 Closed - Failing	L=14.0 W=14.0 1-span	196	10/28/2020	BRC	MP	1988
Greenville	075/114	WILTON ROAD	SOUHEGAN RIVER	1,769-18	Deck 7 Good Superstructure 5 Fair Substructure 4 Poor	L=173.0 W=32.0 1-span	5,536	11/13/2020	E-2	HT	1986/1938
Hancock	100/046	WINDY ROW ROAD	MCDOWELL RESERVOIR	236-19	Deck 5 Fair Superstructure 4 Poor Substructure 5 Fair	L=224.0 W=21.0 4-span	4,704	8/27/2020	BRC	IB-C	1950
Hancock	107/074	MIDDLE HANCOCK RD	SMALL BROOK	91-19	Culvert 4 Poor	L=13.0 W=22.0 1-span	286	11/12/2020	NPR	MP	1982
Hanover	056/089	RESERVOIR ROAD	CAMP BROOK	519-18	Culvert 4 Poor	L=12.0 W=21.0 1-span	252	12/4/2020	E-2	MP-A	1940
Hanover	116/097	HANOVER CENTER RD	MONAHAN BROOK	1,176-18	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=12.0 W=23.7 1-span	284	12/4/2020	E-2	CRF	1929
Hanover	118/080	RUDDSBORO ROAD	MINK BROOK	88-18	Culvert 4 Poor	L=37.0 W=22.0 2-span	814	12/4/2020	E-2	MP-A	1940
Harrisville	061/060	SOUTH ROAD	MINNEWAWA BROOK	88-18	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=31.0 W=20.2 1-span	626	11/3/2020	NPR	PTB	1950
Haverhill	095/046	FLAT IRON ROAD	NORTH BRANCH	88-18	Culvert 4 Poor	L=12.0 W=12.0 1-span	144	10/2/2020	E-2	MP	1985
Hill	131/080	BUNKER HILL ROAD	NEEDLE SHOP BROOK	91-19	Culvert 4 Poor	L=17.0 W=17.0 1-span	289	7/9/2020	E-2	MP	1978
Hill	171/105	SHOP ROAD	NEEDLE SHOP BROOK	49-18	Deck 6 Satisfactory Superstructure 3 Serious Substructure 5 Fair	L=35.0 W=12.2 1-span	427	7/29/2020	3 Tons	IB-W	1930
Hillsborough	061/139	COOLEGE ROAD	BEARDS BROOK	88-18	Deck 5 Fair Superstructure 3 Serious Substructure 5 Fair	L=26.0 W=24.0 1-span	624	10/1/2020	E-2	IB-C	1970
Hillsborough	088/093	GLEASON FALLS ROAD	BEARDS BROOK	88-18	Culvert 4 Poor	L=34.0 W=12.0 1-span	408	9/29/2020	6 Tons	MA	1900
Hillsborough	100/070	JONES ROAD	BEARDS BROOK	88-18	Culvert 4 Poor	L=45.0 W=12.0 2-span	540	9/29/2020	6 Tons	MA	1900

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Hillsborough	146/102	COLBY ROAD	NELSON BROOK	88-18	Culvert 3 Serious	L=13.0 W=16.0 1-span	208	10/15/2020	E-2	MS	1900
Hillsborough	154/113	BOG ROAD	SAND BROOK	88-18	Culvert 3 Serious	L=11.0 W=16.0 1-span	176	10/15/2020	E-2	MP	1985
Hillsborough	158/080	RED FOX CROSSING	NELSON BROOK	100-93	Culvert 1 Closed - Failing	L=14.0 W=18.0 1-span	252	10/1/2020	BRC	MP	1984
Hillsborough	171/064	CONTOOCOOK FALLS R	CONTOOCOOK RIVER	459-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 7 Good	L=224.0 W=29.0 2-span	6,496	8/21/2020	C-2	TPG	1991/1933
Hopkinton	057/111	NH127	PENSTOCK (UNIT 1)	3,474-19	Culvert 2 Critical	L=10.0 W=23.0 1-span	230	6/16/2014	NPR	MP	1980
Hopkinton	154/136	BROAD COVE ROAD	DOLF BROOK	88-18	Culvert 4 Poor	L=12.0 W=22.0 1-span	264	11/16/2020	NPR	MP	1990
Hudson	116/080	NH 3A	FIRST BROOK	20,434-19	Culvert 4 Poor	L=10.0 W=44.0 1-span	440	6/10/2020	NPR	MP	1987
Jaffrey	159/094	NUTTING ROAD	CONTOOCOOK RIVER	1,877-19	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=43.0 W=27.0 1-span	1,161	7/21/2020	E-2	MA	1905
Jefferson	104/078	LARCOMB ROAD	ISRAEL RIVER OVERFLOW	88-18	Culvert 4 Poor	L=10.0 W=12.0 1-span	120	10/19/2020	NPR	MP	1979
Keene	079/080	WHITCOMB MILLS RD	WHITE BROOK	776-18	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=23.0 W=16.3 1-span	376	11/12/2020	6 Tons	IB-C	1940
Keene	090/101	MAPLE AVE	BLACK BROOK	3,303-18	Culvert 3 Serious	L=23.0 W=22.0 3-span	506	11/12/2020	E-2	MP	1961
Keene	091/099	SUMMIT ROAD	BLACK BROOK	2,391-18	Culvert 4 Poor	L=12.0 W=24.0 1-span	288	11/12/2020	E-2	CB	1979/1948
Keene	118/051	NH 10	ASH SWAMP BROOK	18,780-18	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=21.0 W=25.0 1-span	525	11/12/2020	E-2	CB	1941
Keene	140/075	CHURCH STREET	BEAVER BROOK	775-18	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=20.0 W=37.0 1-span	740	11/24/2020	E-2	IB-C	1940
Keene	140/078	SPRING STREET	BEAVER BROOK	604-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=22.0 W=34.2 1-span	752	11/24/2020	E-2	CTB	1923
Keene	140/079	BEAVER STREET	BEAVER BROOK	2,855-18	Deck 4 Poor Superstructure 4 Poor Substructure 3 Serious	L=15.0 W=40.5 1-span	608	11/24/2020	E-2	CS	1923
Keene	142/092	GEORGE STREET	BEAVER BROOK	486-18	Deck 4 Poor Superstructure 4 Poor Substructure 3 Serious	L=17.0 W=40.0 1-span	680	11/25/2020	E-2	CS	1923

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Keene	173/135	FERRY BROOK ROAD	FERRY BROOK	59-18	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=14.5 W=17.1 1-span	248	11/25/2020	E-2	CS	1940
Laconia	121/037	ACADEMY STREET	DURKEE BROOK	1,298-18	Deck 4 Poor Superstructure 3 Serious Substructure 5 Fair	L=22.0 W=67.0 1-span	1,474	10/7/2020	E-2	IB-C	1930
Laconia	123/049	RECREATION TRAIL	WINNIPESAUKEE RIVER	0-08	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=131.0 W=8.0 2-span	1,048	10/9/2020	NPR	IB-C	1960
Laconia	135/128	US 3,WEIRS BLVD	LANGLEY BROOK	9,518-18	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=12.0 W=60.0 1-span	720	10/12/2020	NPR	IB-C	1933
Lancaster	218/076	MCGARY HILL ROAD	BONE BROOK	97-18	Culvert 4 Poor	L=14.0 W=19.0 2-span	266	10/30/2020	E-2	MP	1953
Landaff	074/159	SYM NOYES ROAD	MILL BROOK	88-18	Culvert 3 Serious	L=13.7 W=12.0 1-span	164	11/20/2020	E-2	MP	2001
Landaff	119/118	GALE CHANDLER ROAD	MILL BROOK	88-18	Culvert 4 Poor	L=10.3 W=16.0 1-span	165	11/20/2020	NPR	MP	1980
Landaff	138/134	MERRILL MT ROAD	MILL BROOK	88-18	Deck 7 Good Superstructure 7 Good Substructure 3 Serious	L=14.0 W=15.9 1-span	223	11/20/2020	E-2	CRF	1922
Langdon	161/105	CRANE BROOK ROAD	COLD RIVER	445-19	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=94.0 W=27.0 2-span	2,538	10/1/2019	E-2	IB-C	1964
Lebanon	062/117	NH 12A	NHRR	9,440-19	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=145.0 W=27.7 3-span	4,017	7/30/2020	E-2	IB-C	1949
Lebanon	066/059	TRUE'S BROOK ROAD	BLOODS BROOK	1,148-19	Deck 3 Serious Superstructure 5 Fair Substructure 6 Satisfactory	L=65.0 W=22.0 2-span	1,430	7/10/2020	E-2	IB-C	1986/1952
Lebanon	100/110	US 4,MECHANIC ST	MASCOMA RIVER	14,555-19	Deck 4 Poor Superstructure 7 Good Substructure 6 Satisfactory	L=89.0 W=72.5 1-span	6,453	7/30/2020	E-2	IB-C	1977
Lebanon	121/117	NH120,PARK LOT,PED	NHRR(ABD)	6,036-19	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=28.0 W=61.3 1-span	1,716	7/28/2020	E-2	PVS	1969
Lempster	096/081	OLDS ROAD	DODGE BROOK	91-19	Deck 3 Serious Superstructure 5 Fair Substructure 6 Satisfactory	L=28.0 W=17.4 1-span	487	9/3/2019	E-2	IB-BP	1998/1976
Lisbon	063/078	SCHOOL STREET	AMMONOOSUC RIVER	2,201-18	Deck 4 Poor Superstructure 7 Good Substructure 6 Satisfactory	L=222.0 W=36.2 3-span	8,037	11/24/2020	E-2	IB-C	1986/1960
Lisbon	088/125	PLAINS ROAD	MILL BROOK	88-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 6 Satisfactory	L=27.0 W=22.0 1-span	594	11/25/2020	E-2	IB-C	1975
Londonderry	070/135	HALL ROAD	LITTLE COHAS BROOK	1,991-18	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=24.0 W=32.0 1-span	768	11/19/2020	E-2	CS	1974

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Londonderry	077/151	STOKES ROAD	LITTLE COHAS BROOK	35-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=28.0 W=18.0 1-span	504	11/19/2020	15 Tons	CS	1930
Loudon	054/065	WALES BRIDGE ROAD	SOUCOOK RIVER	342-18	Deck 4 Poor Superstructure 4 Poor Substructure 6 Satisfactory	L=146.0 W=29.0 3-span	4,234	12/7/2020	E-2	CRF	1934
Lyme	113/147	PINNACLE ROAD	TROUT BROOK	239-18	Culvert 3 Serious	L=19.0 W=16.0 2-span	304	11/30/2020	E-2	MP	1980
Lyme	141/094	FLINT HILL ROAD	GRANT BROOK	88-18	Culvert 3 Serious	L=19.0 W=14.0 2-span	266	11/6/2020	E-2	MP	1979
Madbury	056/072	NUTE ROAD	BELLAMY RIVER	168-18	Culvert 4 Poor	L=15.0 W=15.0 1-span	225	8/18/2020	E-2	MP	1960
Madbury	160/086	FRESHET ROAD	JOHNSON CREEK	407-18	Culvert 3 Serious	L=14.2 W=18.0 1-span	256	8/18/2020	E-2	MP	1974
Manchester	107/072	SALMON STREET EB	MERRIMACK R,PAR,RD,RAMP	11,821-18 7,800-13 7,500-03	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=1023.0 W=33.7 8-span	34,441	9/17/2020	NPR	IB-C	1999/1970
Manchester	151/065	US 3,NH 3A	I-293,NH 3A,PAR,MERR R	24,531-18 61,000-15 36,500-12	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=1186.0 W=59.0 14-span	69,974	9/14/2020	NPR	DT	1995/1923
Manchester	188/092	GOFFS FALLS ROAD	PAR(ABD)	4,511-18	Deck 4 Poor Superstructure 6 Satisfactory Substructure 4 Poor	L=88.0 W=35.0 3-span	3,080	11/18/2020	NPR	IB-C	1979/1948
Marlborough	128/077	OLD DUBLIN ROAD	MOUNTAIN BROOK	88-18	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=22.0 W=20.2 1-span	444	8/18/2020	E-2	IB-C	1965
Meredith	106/128	BLAKE ROAD	BROOK	55-18	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=13.0 W=23.0 1-span	299	11/30/2020	E-2	CS	1929
Meredith	180/144	PARKING LOT ACCESS	WAUKEWAN LK OUTLET	200-01	Deck 4 Poor Superstructure 7 Good Substructure 7 Good	L=27.5 W=15.8 1-span	433	11/30/2020	15 Tons	TB	2000
Merrimack	112/115	RECREATION TRAIL	SOUHEGAN RIVER	0-11	Deck 7 Good Superstructure 3 Serious Substructure 8 Very Good	L=136.0 W=6.0 1-span	816	6/30/2020	NPR	HT	2011
Merrimack	116/120	US 3	SOUHEGAN RIVER	13,596-19	Deck 5 Fair Superstructure 4 Poor Substructure 5 Fair	L=113.0 W=42.0 2-span	4,746	6/30/2020	E-2	MA	1934/1921
Merrimack	118/135	US 3	BABOOSIC BROOK	14,565-19	Culvert 4 Poor	L=30.0 W=32.0 1-span	960	6/30/2020	E-2	CACUL	1933
Milan	219/126	CHICKWOLNEP Y ROAD	CHICKWOLNEPY STREAM	88-18	Deck 5 Fair Superstructure 4 Poor Substructure 5 Fair	L=38.8 W=16.0 1-span	621	10/23/2020	6 Tons	IB-W	1950

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Milan	254/038	STEARNS BROOK ROAD	STEARNS BROOK	88-18	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=39.0 W=16.0 1-span	624	10/23/2020	NPR	BAIB	1950
Milford	089/106	MASON ROAD	GREAT BROOK	3,506-19	Culvert 4 Poor	L=11.0 W=22.0 1-span	242	6/16/2020	E-2	MP	1982
Milford	103/163	HARTSHORN ROAD	HARTSHORN BROOK	28-19	Culvert 3 Serious	L=18.0 W=17.0 2-span	306	6/22/2020	6 Tons	MS	1910
Milton - Lebanon	168/152	TOWNHOUSE ROAD	NORTHEAST POND	489-18	Deck 0 Failed - Closed Superstructure 0 Failed - Closed Substructure 0 Failed - Closed	L=94.0 W=26.2 4-span	2,463	12/3/2020	BRC	TB	1948
Milton	190/101	WINDING ROAD	LYMAN BROOK	88-18	Deck 5 Fair Superstructure 4 Poor Substructure 4 Poor	L=21.0 W=33.5 1-span	704	12/3/2020	E-2	IB-BP	1995
Mont Vernon	142/089	BEAVER BROOK ROAD	BEAVER BROOK	827-18	Deck 4 Poor Superstructure 4 Poor Substructure 7 Good	L=30.0 W=22.0 1-span	660	10/29/2020	E-2	CS	1932
Nashua	139/115	CANAL STREET	NASHUA RIVER	16,809-18	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=160.0 W=54.0 2-span	8,640	11/18/2020	E-2	CA	1928
Nelson	142/126	OLD STODDARD ROAD	BAILEY BROOK	91-19	Culvert 2 Critical	L=13.5 W=16.0 1-span	216	7/25/2019	NPR	MP	1988
New Boston	091/155	DOUGHERTY LANE	MID BR PISCATAQUOG RIVER	88-18	Deck 8 Very Good Superstructure 8 Very Good Substructure 1 Closed - Failing	L=22.0 W=20.0 1-span	440	10/28/2020	BRC	CRF-P	2004
New Hampton	061/069	BROOK ROAD	BLAKE BROOK	88-18	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=22.0 W=15.3 1-span	337	12/1/2020	12 Tons	TB	1960/1920
New Ipswich	108/070	TAYLOR ROAD	WEST BR SOUHEGAN RIVER	88-18	Culvert 3 Serious	L=10.0 W=18.0 1-span	180	8/13/2020	BRC	MP	1981
Newport	086/095	CHANDLER MILL ROAD	CUTTS BROOK	544-19	Deck 4 Poor Superstructure 4 Poor Substructure 5 Fair	L=20.0 W=20.0 1-span	400	7/31/2020	E-2	IB-BP	1973
Newport	097/139	GREENWOOD ROAD	DODGE BROOK	91-19	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=18.0 W=23.6 1-span	424	7/31/2020	BRC	IB-BP	1989
Newport	154/129	SAND HILL ROAD	BROOK	184-19	Deck 3 Serious Superstructure 2 Critical Substructure 5 Fair	L=27.0 W=24.3 1-span	656	7/31/2020	E-2	IB-BP	1984
Newport	177/117	PARADISE ROAD	SUGAR RIVER	91-19	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=39.0 W=18.0 1-span	702	7/2/2020	BRC	IB-BP	1976

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Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Newton	053/105	WILDERS GROVE RD	COUNTRY POND	470-18	Culvert 2 Critical	L=12.0 W=12.0 2-span	144	12/9/2020	NPR	MP	1989
Northwood	095/113	BOW LAKE ROAD	SHERBURNE BROOK	576-18	Deck 3 Serious Superstructure 3 Serious Substructure 3 Serious	L=14.0 W=25.0 1-span	350	10/8/2020	E-2	CS	1938
Orange	107/046	BROCK HILL ROAD	BROWN BROOK	88-18	Culvert 4 Poor	L=17.2 W=24.0 1-span	413	12/7/2020	E-2	MP	1980
Orford	080/120	ARCHERTOWN ROAD	JACOBS BROOK	395-18	Deck 4 Poor Superstructure 5 Fair Substructure 5 Fair	L=52.0 W=18.3 1-span	952	10/6/2020	E-2	IB-C	1930
Orford	087/108	HIGH BRIDGE ROAD	ARCHERTOWN BROOK	88-18	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=24.0 W=14.0 1-span	336	11/30/2020	BRC	IB-W	1940
Orford	114/133	TOWN ROAD #100	ARCHERTOWN BROOK	88-18	Culvert 3 Serious	L=13.0 W=12.0 1-span	156	10/6/2020	E-2	MP	1997
Peterborough	092/089	MAIN STREET	CONTOOCOOK RIVER	8,499-18	Deck 3 Serious Superstructure 3 Serious Substructure 5 Fair	L=86.0 W=41.5 1-span	3,569	11/4/2020	3 Tons	CRF	1940
Peterborough	132/134	SLAB ROAD	OTTER BROOK	88-18	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=26.0 W=20.0 1-span	520	11/4/2020	E-2	Jack	1940
Pittsburg	134/057	HILL ROAD	PERRY STREAM	239-18	Deck 7 Good Superstructure 5 Fair Substructure 4 Poor	L=78.0 W=18.3 2-span	1,427	10/7/2020	E-2	TB-C	1991/1860
Portsmouth	198/107	GATE STREET	HODGSON BROOK	1,448-18	Deck 2 Critical Superstructure 5 Fair Substructure 6 Satisfactory	L=37.0 W=28.0 1-span	1,036	12/8/2020	15 Tons	IB-C	1940
Portsmouth	231/103	MAPLEWOOD AVENUE	NORTH MILL POND	6,603-18	Culvert 3 Serious	L=25.0 W=32.0 1-span	800	12/8/2020	E-2	MA-CA	1976/1940
Randolph	080/047	DURAND ROAD	MOOSE RIVER	88-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=14.0 W=28.0 1-span	392	11/12/2020	E-2	CB	1920
Richmond	065/083	WHIPPLE HILL ROAD	ROARING BROOK	233-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 6 Satisfactory	L=43.0 W=20.5 3-span	882	12/2/2020	NPR	IB-BP	1983/1950
Richmond	155/066	TULLY BROOK ROAD	TULLY BROOK	88-18	Culvert 4 Poor	L=14.0 W=18.0 1-span	252	12/2/2020	15 Tons	MP	1990
Rindge	154/069	WELLINGTON ROAD	CONVERSEVILLE BROOK	879-19	Culvert 3 Serious	L=28.0 W=24.0 2-span	672	7/20/2020	3 Tons	MP	1950
Rollinsford	090/052	OLD MILL LANE	ROLLINS BROOK	201-18	Deck 4 Poor Superstructure 2 Critical Substructure 3 Serious	L=21.0 W=18.5 1-span	389	8/18/2020	NPR	TB	1900

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Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Rumney	093/082	BUFFALO ROAD	BROOK	454-18	Culvert 2 Critical	L=13.0 W=21.0 1-span	273	10/8/2020	E-2	MP	1972
Salem	115/097	BRIDGE STREET	SPICKET RIVER	5,776-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=29.0 W=35.0 1-span	1,015	11/20/2020	E-2	Jack	1959/1900
Sanbornton	118/089	BROOK ROAD	SALMON BROOK	88-18	Deck 8 Very Good Superstructure 8 Very Good Substructure 4 Poor	L=35.0 W=16.0 1-span	560	11/30/2020	NPR	CS	2012/1900
Sharon	071/056	SWAMP ROAD	GRIDLEY RIVER	91-19	Deck 7 Good Superstructure 7 Good Substructure 4 Poor	L=20.0 W=16.0 1-span	320	7/22/2020	NPR	IB-G	1991/1938
Shelburne	114/104	VILLAGE ROAD	CLEMENT BROOK	55-18	Deck 5 Fair Superstructure 5 Fair Substructure 4 Poor	L=45.0 W=30.1 2-span	1,354	10/28/2020	E-2	CS	1971/1929
South Hampton	069/066	HILLDALE AVE	POWWOW RIVER	201-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=31.0 W=18.6 1-span	577	10/28/2020	15 Tons	IB-C	1920
South Hampton	099/062	WHITEHALL ROAD	POWWOW RIVER	605-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 7 Good	L=33.0 W=22.0 1-span	726	10/28/2020	E-2	IB-C	1976
Springfield	071/138	GEORGE HILL ROAD	GOVE BROOK	88-18	Culvert 4 Poor	L=12.0 W=21.0 1-span	252	9/18/2020	E-2	MP	1970
Stark	068/173	LEIGHTON MEADOW RD	PHILLIPS BROOK	88-18	Deck 5 Fair Superstructure 5 Fair Substructure 3 Serious	L=40.0 W=13.6 1-span	544	10/29/2020	6 Tons	CTB	1970/1940
Stewartstown	109/100	BISHOP BROOK ROAD	CEDAR BROOK	88-18	Culvert 4 Poor	L=12.0 W=19.0 1-span	228	10/7/2020	E-2	MP	1960
Stoddard	115/126	KINGS HIGHWAY	KENNEDY BROOK	88-18	Culvert 2 Critical	L=12.0 W=22.5 2-span	270	8/31/2020	10 Tons	MP	1980
Strafford	057/135	BARN DOOR GAP ROAD	BIG RIVER	88-18	Culvert 3 Serious	L=14.0 W=16.0 1-span	224	8/10/2020	E-2	MP	1984
Sugar Hill	202/128	CRANE HILL ROAD	GALE RIVER	88-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=108.0 W=18.9 1-span	2,041	11/23/2020	8 Tons	HT	1960/1928
Sugar Hill	208/125	STREETER POND ROAD	INDIAN CREEK	474-18	Culvert 3 Serious	L=11.5 W=16.0 1-span	184	11/23/2020	NPR	CRF-P	2010
Sunapee	069/069	TRASK BROOK ROAD	WENDELL BROOK	88-18	Culvert 4 Poor	L=11.0 W=16.0 2-span	176	9/17/2020	NPR	MP	1983
Swanzy	098/122	CHRISTIAN HILL RD	NHRR(ABD)	1,972-19	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=74.0 W=20.8 3-span	1,539	8/5/2020	BRC	TB	1960/1930

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Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Tamworth	037/157	SCOTT ROAD	CHOCORUA RIVER	88-18	Culvert 3 Serious	L=11.0 W=14.0 1-span	154	12/3/2020	NPR	MP	1995
Tamworth	168/070	MOUNTAIN ROAD	COLD BROOK	57-18	Deck 6 Satisfactory Superstructure 4 Poor Substructure 5 Fair	L=38.0 W=16.0 1-span	608	12/3/2020	E-2	IB-W	1983/1900
Temple	107/117	POWERS ROAD	BLOOD BROOK	91-19	Deck 4 Poor Superstructure 5 Fair Substructure 3 Serious	L=24.0 W=16.0 1-span	384	6/17/2020	3 Tons	IB-C	1920
Temple	116/139	PUTNAM ROAD	BROOK	91-19	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 3 Serious	L=25.0 W=17.0 1-span	425	6/15/2020	6 Tons	IB-C	1930
Temple	117/138	PUTNAM ROAD	BROOK OVERFLOW	91-19	Deck 5 Fair Superstructure 6 Satisfactory Substructure 4 Poor	L=15.0 W=19.0 1-span	285	6/15/2020	6 Tons	IB-C	1930
Troy	093/084	PROSPECT STREET	BROOK	245-18	Deck 6 Satisfactory Superstructure 6 Satisfactory Substructure 4 Poor	L=19.0 W=23.7 1-span	450	12/2/2020	15 Tons	IB-C	1940
Wakefield NH-Acton,ME	186/118	CANAL ROAD	GREAT EAST LAKE OUTLET	459-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=19.0 W=25.3 1-span	481	9/15/2020	3 Tons	MA	1920
Wakefield	290/064	MAPLE STREET	BRANCH RIVER	88-18	Deck 1 Closed - Failing Superstructure 1 Closed - Failing Substructure 1 Closed - Failing	L=35.0 W=22.3 1-span	781	9/15/2020	BRC	CTB	1972/1940
Walpole	122/067	MAIN STREET	OLD MILL POND BROOK	3,055-18	Culvert 4 Poor	L=10.0 W=40.0 1-span	400	11/19/2020	E-2	MP	1979
Walpole	213/076	WENTWORTH ROAD	HOUGHTON BROOK	134-18	Culvert 4 Poor	L=18.0 W=18.0 1-span	324	11/19/2020	NPR	MP-A	1955
Warner	189/099	NORTH VILLAGE ROAD	SILVER BROOK	88-18	Culvert 4 Poor	L=13.0 W=18.0 1-span	234	10/29/2020	E-2	MP	1979
Warren	106/086	LUND LANE	ORE HILL BROOK	88-18	Culvert 3 Serious	L=17.0 W=18.0 1-span	306	10/5/2020	E-2	MP	1970
Warren	120/058	FISH HATCHERY ROAD	PATCH BROOK	62-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=33.0 W=23.3 1-span	769	12/1/2020	E-2	Jack	1930
Weare	082/045	LULL ROAD	PEACOCK BROOK	112-18	Culvert 3 Serious	L=10.0 W=22.0 1-span	220	9/18/2020	E-2	MP	1973
Weare	084/040	OLD FRANCESTOWN RD	PEACOCK BROOK	258-18	Culvert 3 Serious	L=11.0 W=21.0 1-span	231	9/18/2020	E-2	MP	1973
Weare	110/150	RIVER ROAD	PISCATAQUOG RIVER	1,989-18	Deck 4 Poor Superstructure 3 Serious Substructure 5 Fair	L=117.0 W=29.5 1-span	3,452	11/16/2020	NPR	LT	1997/1940

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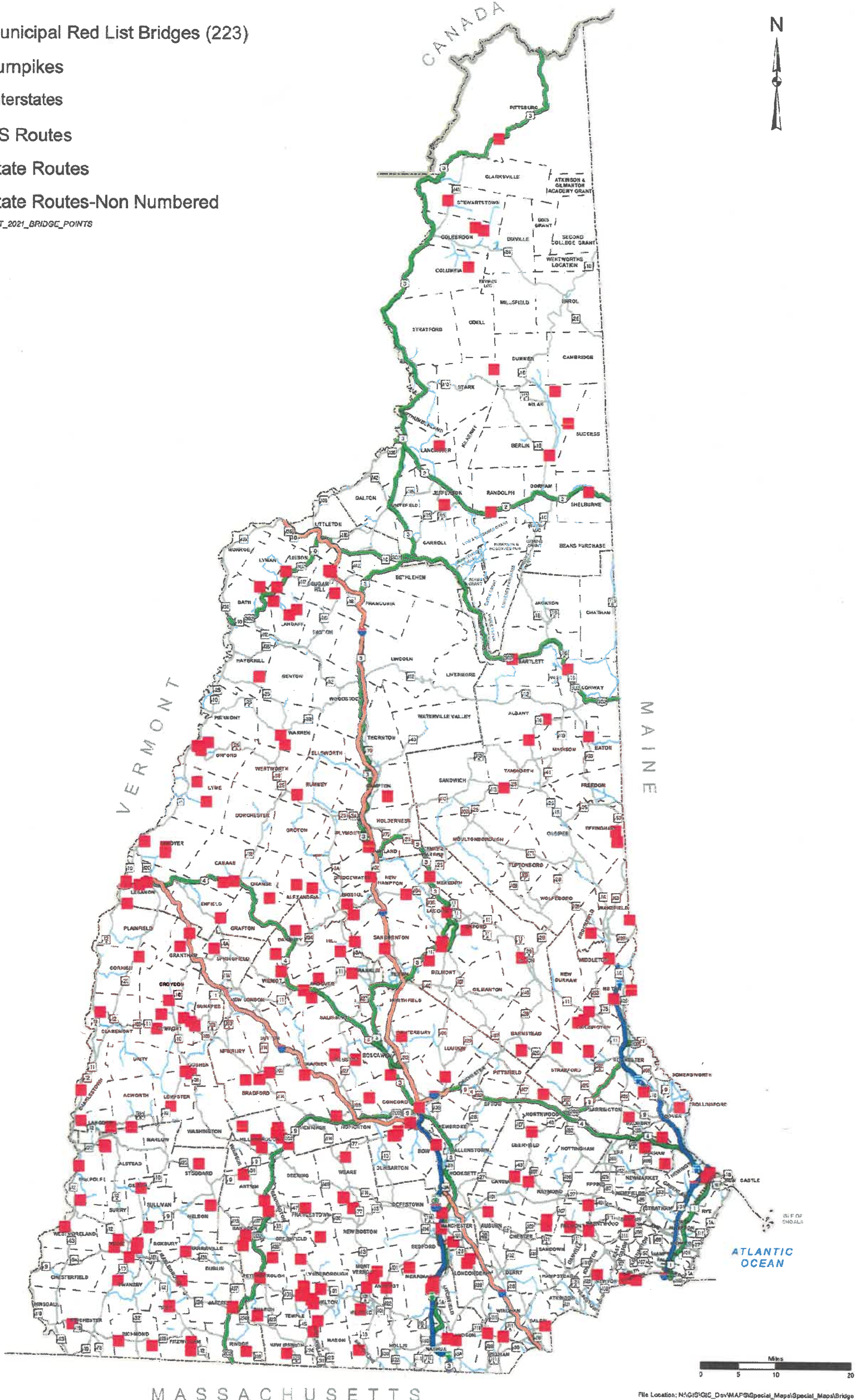
Town / City	Bridge Number	Facility Carried	Feature Crossed	Est. ADT (Year)	Condition of Deck, Superstructure, Substructure, or Culvert	Total Length (ft); Total Width (ft); No. of Spans	Gross Deck Area (sf)	Date of Most Recent Inspection	Bridge Posting	Structure Type	Year Modified / Year Built
Webster	066/113	WHITE PLAINS ROAD	MEADOW BROOK	496-18	Culvert 2 Critical	L=13.0 W=18.0 3-span	234	12/11/2020	3 Tons	MP	1989/1930
Webster	121/103	CLOTHESPIN BR ROAD	BLACKWATER RIVER	502-18	Deck 3 Serious Superstructure 5 Fair Substructure 4 Poor	L=73.0 W=20.6 1-span	1,504	12/11/2020	E-2	IB-C	1954
Westmoreland	089/100	RIVER ROAD SOUTH	PARTRIDGE BROOK	1,176-18	Deck 4 Poor Superstructure 4 Poor Substructure 4 Poor	L=147.3 W=25.3 6-span	3,727	11/19/2020	E-2	CTC	1937
Wilton	060/118	OLD COUNTY FARM RD	BLOOD BROOK	88-18	Deck 8 Very Good Superstructure 8 Very Good Substructure 3 Serious	L=26.0 W=18.0 1-span	468	11/13/2020	NPR	CS	2013/1950
Wilton	063/105	TEMPLE ROAD	BLOOD BROOK	1,176-18	Deck 3 Serious Superstructure 3 Serious Substructure 4 Poor	L=49.0 W=23.0 2-span	1,127	11/13/2020	10 Tons	MA	1901
Wilton	074/060	KING BROOK ROAD	KING BROOK	88-18	Culvert 3 Serious	L=12.0 W=20.0 1-span	240	11/13/2020	E-2	MA	1901
Wilton	080/145	FRYE MILL ROAD	BURTON POND OUTLET	41-18	Deck 8 Very Good Superstructure 8 Very Good Substructure 4 Poor	L=28.0 W=16.0 1-span	448	11/12/2020	NPR	CS	2014/1920
Winchester	063/101	RECYCLE WAY	ASHUELOT RIVER	45-19	Deck 6 Satisfactory Superstructure 7 Good Substructure 4 Poor	L=132.0 W=17.5 2-span	2,310	5/27/2020	E-2	IB-C	1985/1947
Windham	057/051	CASTLE HILL ROAD	BEAVER BROOK	287-19	Culvert 1 Closed - Failing	L=14.5 W=23.0 1-span	334	7/16/2020	BRC	MP	1984
Windham	099/044	MOECKEL ROAD	ROCK POND	134-19	Deck 4 Poor Superstructure 5 Fair Substructure 6 Satisfactory	L=18.0 W=18.0 1-span	324	7/16/2020	E-2	Jack	1940

Municipal Bridge Conditions 2020 Red List



- Municipal Red List Bridges (223)
- Tumpikes
- Interstates
- US Routes
- State Routes
- State Routes-Non Numbered

* All Tiers, State
Data Source: ASSET_2021_BRIDGE_POINTS



File Location: N:\GIS\GIS_Dev\MAPS\Special_Maps\Special_Maps\Bridge
Rev Date: 6/27/2021

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Appendix “C”

Bridge Postings and Weight Restrictions

Definitions, Signs, and Examples

<http://www.gencourt.state.nh.us/rsa/html/XXI/266/266-18.htm>

https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/definitions_of_weight_restrictions.pdf

https://www.nh.gov/dot/org/projectdevelopment/bridgedesign/documents/signs_postings_for_certified_loads.pdf

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TITLE XXI - MOTOR VEHICLES
CHAPTER 266 - EQUIPMENT OF VEHICLES
Weight - Section 266:18

266:18 Weight on Interstate and Defense Highway System. – The driving on the interstate and defense highway system of this state of any vehicle or combination of vehicles exceeding the limitations of this section is hereby prohibited.

I. Maximum tire and axle gross weights allowable:

- (a) The manufacturer's load rating for the tires.
- (b) When being driven with a gross weight in excess of 73,280 pounds:
 - (1) 20,000 pounds per axle on axles more than 8 feet apart;
 - (2) 17,000 pounds per axle on axles not more than 8 feet apart;
- (c) When being driven with a gross weight not in excess of 73,280 pounds:
 - (1) 22,400 pounds per axle on 3-axle single unit vehicles and on all other vehicles with axles 10 feet or more apart, including combination vehicles;
 - (2) 18,000 pounds per axle on axles of vehicles less than 10 feet apart, except 3-axle single unit vehicles.
- (d) Two axles less than 40 inches apart shall be considered as a single axle unit.

II. Maximum allowable vehicle gross weights:

- (a) For 2-axle vehicles, 33,400 pounds.
- (b) For single unit 3-axle vehicles, 47,500 pounds, or a gross weight not in excess of that produced by application of the weight formula as defined in subparagraph (h), whichever is greater, as shown in table III.
- (c) For single unit 4-axle vehicles, provided that such vehicles shall have drive on 2 rear axles, and the tridem may contain not more than one retractable axle and, if not factory installed and load equalizing, must provide a system of load equalization by hydraulic, pneumatic, or mechanical means, and be equipped with brakes:
 - (1) 47,500 pounds, or a gross weight not in excess of that produced by application of the weight formula as defined in subparagraph (h), whichever is the greater; or
 - (2) If a heavy duty recovery vehicle, 75,000 pounds, or a gross weight not in excess of that produced by application of the weight formula as defined in subparagraph (h), whichever is the greater.
- (d) For a single unit 5-axle heavy duty recovery vehicle, 80,000 pounds, or a gross weight not in excess of that produced by application of the weight formula as defined in subparagraph (h), whichever is the greater. Such vehicles shall have drive on 2 rear axles, and the tridem may contain not more than one retractable axle and, if not factory installed and load equalizing, must provide a system of load equalization by hydraulic, pneumatic, or mechanical means, and be equipped with brakes.
- (e) For a combination of truck-tractor and semi-trailer equipped with 3 axles, the gross weight shall not exceed that set forth in table I as follows:

Distance Between Extreme Axles in Feet	Maximum Gross Weight in Pounds
25	54,500
26	55,500
27	56,000
28	57,000
29	57,500
30	58,000
31	59,000
32	60,000

Further provided that the maximum tire and axle gross weights as provided in paragraph I shall apply and the maximum load in pounds carried on any group of 2 or more consecutive axles shall not exceed that produced by application of the weight formula as defined in subparagraph (h).

- (f) For a combination of truck-tractor and semi-trailer equipped with 4 axles, the gross weight shall not exceed that set forth in table II as follows:

Distance Between Extreme Axles in Feet	Maximum Gross Weight in Pounds
28	60,500
29	61,500
30	62,000
31	62,500
32	63,500
33	64,000
34	64,500
35	65,500
36	66,000
37	66,500
38	67,500
39	68,000

Further provided that the maximum tire and axle gross weights as provided in paragraph I shall apply, and the maximum load in pounds carried on any group of 2 or more consecutive axles shall not exceed that produced by application of the weight formula as defined in subparagraph (h).

- (g) For a combination of truck-tractor and single semi-trailer with 5 or more axles with gross weight not in excess of 73,280 pounds, the weight on any single axle shall not exceed 22,400 pounds and the weight on any tandem axle shall not exceed 36,000 pounds.
- (h) For a combination of truck-tractor and single semi-trailer equipped with 5 or more axles with a gross weight in excess of 73,280 pounds or a combination of truck-tractor and more than one trailing unit, the total gross weight shall not exceed 80,000 pounds including all law enforcement tolerances, and the overall gross weight on a group of 2 or more consecutive axles shall not exceed that produced by application of the following formula, known as the weight formula:

$$W = 500 \left\{ \frac{LN}{N-1} + 12N + 36 \right\}$$

(In which W equals overall gross weight on any group of 2 or more consecutive axles to the nearest 500 pounds; L equals the distance measured to the nearest foot between the extreme of any group of 2 or more consecutive axles; and N equals the number of axles in the group under consideration.) Except that 2 consecutive sets of tandem axles may carry a gross load of 34,000 pounds each, provided the overall distance between the first and last axles of such consecutive sets of tandem axles is 36 feet or more and provided that such gross weight shall not exceed 80,000 pounds, including all law enforcement tolerances.

The formula

$$W = 500 \left\{ \frac{LN}{N-1} + 12N + 36 \right\}$$

when expressed in tabular form results in maximum allowable load in pounds carried on any group of 2 or more consecutive axles as follows in table III.

Table III.						
Distance*	2 axles	3 axles	4 axles	5 axles	6 axles	7 axles
4	34,000					
5	34,000					
6	34,000					
7	34,000					
8 and less	34,000	34,000				
more than 8	38,000	42,000				
9	39,000	42,500				
10	40,000	43,500				
11		44,000				
12		45,000	50,000			
13		45,500	50,500			
14		46,500	51,500			
15		47,000	52,000			
16		48,000	52,500	58,000		
17		48,500	53,500	58,500		
18		49,500	54,000	59,000		
19		50,000	54,500	60,000		
20		51,000	55,500	60,500	66,000	
21		51,500	56,000	61,000	66,500	
22		52,500	56,500	61,500	67,000	
23		53,000	57,500	62,500	68,000	
24		54,000	58,000	63,000	68,500	74,000
25		54,500	58,500	63,500	69,000	74,500
26		55,500	59,500	64,000	69,500	75,000
27		56,000	60,000	65,000	70,000	75,500
28		57,000	60,500	65,500	71,000	76,500
29		57,500	61,500	66,000	71,500	77,000
30		58,500	62,000	66,500	72,000	77,500
31		59,000	62,500	67,500	72,500	78,000
32		60,000	63,500	68,000	73,000	78,500
33			64,000	68,500	74,000	79,000
34			64,500	69,000	74,500	80,000
35			65,500	70,000	75,000	
**36			66,000	70,500	75,500	
**37			66,500	71,000	76,000	
**38			67,500	71,500	77,000	
39			68,000	72,500	77,500	
40			68,500	73,000	78,000	
41			69,500	73,500	78,500	
42			70,000	74,000	79,000	
43			70,500	75,000	80,000	
44			71,500	75,500		
45			72,000	76,000		
46			72,500	76,500		
47			73,500	77,500		
48			74,000	78,000		
49			74,500	78,500		
50			75,500	79,000		
51			76,000	80,000		
52			76,500			
53			77,500			
54			78,000			
55			78,500			
56			79,500			
57			80,000			

* Distance in feet between the extremes of any group of 2 or more consecutive axles.

**Distance in feet between the extremes of 4 axles. (2 sets of 2 axles) 68,000 gross weight exception. The permissible loads are computed to the nearest 500 pounds.

- (i) The following loaded vehicles shall not be driven over H15-44 bridges:
- (1) A combination vehicle equipped with 5 axles in the configuration of 3-axle truck-tractor and 2-axle semi-trailer with wheel base less than 38 feet or 2-axle truck-tractor with 1-axle semi-trailer and 2-axle full trailer with wheel base less than 45 feet.
 - (2) A loaded single unit vehicle with full trailer equipped with axles with wheel base less than 45 feet.
 - (3) Vehicles with 7, 8, or 9 axles.
- (j) Coupled vehicles consisting of a truck together with a trailer attached to the truck by a pintle hook or similar coupling device with adequate breakaway protection as provided in RSA 266:63 may be driven, provided the total combined gross weight of the vehicles does not exceed 80,000 pounds and provided that each unit of the coupled vehicles shall be limited to the maximum permissible axle weights and gross weights of the individual units, and further provided that the weight of 2 or more consecutive axles of the coupled vehicle shall not be in excess of that produced by application of the weight formula as defined in subparagraph (h) and shall be limited to a total combined gross weight not in excess of 80,000 pounds, a single axle limit of 20,000 pounds and a tandem axle limit of 34,000 pounds:

III. Notwithstanding paragraphs I and II, for as long as exemptions exist in 23 U.S.C. section 127 that allow maximum gross weights of up to 99,000 pounds on interstate routes 89, 93, and 95 of the interstate and defense highway system, the provisions of RSA 266:18-a regarding weight on the non-interstate and general highway system shall also apply to vehicles or combination vehicles while being operated on any sections of interstate routes 89, 93, or 95 not posted by the commissioner of transportation for lower weights. Such vehicles shall not exceed the weight limits in paragraphs I and II unless they have been certified pursuant to RSA 266:18-d for the higher weights and paid the required fee the same as vehicles operating on the non-interstate highways as provided in RSA 266:18-d.

Source. 1921, 119:25. PL 103:22. 1927, 77:1. 1929, 33:1. 1933, 157:1. 1935, 133:1. 1937, 82:1. 1939, 131:1. 1941, 169:1. RL 119:37. 1947, 11:1. 1949, 104:1. 1950, 11:1, 2. 1951, 20:11. RSA 263:61. 1955, 230:1; 310:2. 1963, 189:1, 3; 202:1. 1973, 468:2. 1977, 487:1, 2. 1979, 219:1; 220:2; 239:1; 358:12. 1981, 55:1; 146:1. 1983, 434:15. 1986, 121:2. 1987, 404:20. 2005, 203:9, eff. July 1, 2005. 2018, 74:2, eff. July 24, 2018.

The following information provides a summary pertaining to load limitations imposed on Certified Vehicles crossing posted bridges. For more detailed information, refer to the referenced State Regulations, or you may contact New Hampshire Department of Safety, Division of Motor Vehicles, or the New Hampshire Department of Transportation, Bureau of Bridge Design.

DEFINITIONS – VEHICLE WEIGHT LIMITS

Certified Vehicle: A vehicle that has certification under:

[RSA 266:18-d Additional Certification and Registration](#); and

is registered for the weight limits in:

[RSA 266:18-b Weight on Non-interstate and General Highway System for Vehicles With Additional Registration](#); and

is traveling at a weight limit in excess of the weight limit in:

[RSA 266:18-a Weight on Non-interstate and General Highway System](#); or

[RSA 266:18 Weight on Interstate and Defense Highway System](#), (if applicable)

Single Unit Vehicle: A vehicle traveling without a trailer.

Combination Vehicle: A combination of a truck and one or more trailers.

Excluded Bridge: A bridge with a sign ‘E-1’ or ‘E-2’. These signs Exclude Certified Vehicles from crossing the bridge, and are authorized in:

[RSA 266:18-c General Weight Provisions](#):

Caution Crossing: A bridge with a sign ‘C-1’, ‘C-2’ or ‘C-3’. These signs indicate that Caution Crossing Procedures are to be used by Certified Vehicles, and are authorized in:

[RSA 266:18-b-III-h Weight on Non-interstate and General Highway System for Vehicles With Additional Registration](#) and [RSA 266:18-c General Weight Provisions](#):

RSA 266:18-b-III-(h) The commissioner of Transportation may restrict at his discretion the crossing of certain bridges or other structures, which he determines to have insufficient strength to safely carry multiple legal loads, by limiting vehicles to a caution crossing, whereby the bridge is restricted to one vehicle certified under RSA 266:18-d exceeding 37,400 pounds on the bridge at any one time. When multiple vehicles of more than 2 axles are located on the designated bridge, all loaded certified vehicles shall be required to stop and wait until other traffic passes before crossing the bridge. A bridge so restricted shall be posted according to RSA 266:18-c.

E-2 Sign: This sign indicates an Excluded Bridge. Certified Vehicles, both Single Unit and Combination Vehicles, are excluded from crossing the bridge.

E-1 Sign: This indicates an Excluded Bridge for Single Unit Vehicles only. A Certified Vehicle that is a Single Unit Vehicle is excluded from crossing the bridge.

C-2 Sign: This indicates Caution Crossing Bridge. Certified Vehicles, both Single Unit and Combination Vehicles, are required to wait until they can cross the bridge with no other trucks on the bridge.

C-1 Sign: This indicates Caution Crossing Bridge, for Single Unit Vehicles only. A Certified Vehicle that is a Single Unit Vehicle is required to wait until they can cross the bridge with no other trucks on the bridge.

C-3 Sign: This indicates an Excluded Bridge for Single Unit Vehicles only; and a Caution Crossing Bridge for Combination Vehicles only. A Certified Vehicle that is a Single Unit Vehicle is excluded from crossing the bridge. A Certified Vehicle that is a Combination Vehicle is required to wait until they can cross the bridge with no other trucks on the bridge.

SIGNS AND POSTINGS FOR CERTIFIED LOADS

Drivers will see one of the following signs as they approach a bridge that is posted to restrict Certified Vehicles:



E-1 Sign: This indicates an Excluded Bridge for Single Unit Vehicles only. A Certified Vehicle that is a Single Unit Vehicle is excluded from crossing the bridge.



E-2 Sign: This sign indicates an Excluded Bridge. Certified Vehicles, both Single Unit and Combination Vehicles, are excluded from crossing the bridge.



C-1 Sign: This indicates a Caution Crossing Bridge, for Single Unit Vehicles only. A Certified Vehicle that is a Single Unit Vehicle is required to wait until they can cross the bridge with no other trucks on the bridge.



C-2 Sign: This indicates a Caution Crossing Bridge. All Certified Vehicles, both Single Unit and Combination Vehicles, are required to wait until they can cross the bridge with no other trucks on the bridge.



C-3 Sign: This indicates an Excluded Bridge for Single Unit Vehicles only; and a Caution Crossing Bridge for Combination Vehicles only. A Certified Vehicle that is a Single Unit Vehicle is excluded from crossing the bridge. A Certified Vehicle that is a Combination Vehicle is required to wait until they can cross the bridge with no other trucks on the bridge.

Appendix “D”

List and Location Map of all State Bridges Receiving

Preservation Work in 2020

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State Bridges receiving Preservation work in FFY 2020

(For additional information on these 2020 Bridge Preservation projects, please see Section 5.1.1.1.)

<u>BRIDGE DESIGN BUREAU</u>	
<u>BETHLEHEM 42501</u>	<u>LITTLETON 42376</u>
<ul style="list-style-type: none"> • BETHLEHEM 127/177 – US Route 302, NH Route 10 over Ammonoosuc River • CARROLL 173/141 – US Route 302 over Ammonoosuc River 	<ul style="list-style-type: none"> • LITTLETON 187/065 – US Route 302, NH Route 10 over I-93
	<u>MANCHESTER-HOOKSETT 41475</u>
<u>BOSCAWEN 42440</u>	<ul style="list-style-type: none"> • HOOKSETT 095/048 – I-93 SB over US Route 3, NH Route 28 • MANCHESTER 102/108 – NH Route 28A over I-93 • MANCHESTER 119/115 – I-93 SB over Wellington Road • MANCHESTER 124/119 – I-93 SB over Stevens Pond • MANCHESTER 127/122 – I-93 SB over Stevens Pond
<ul style="list-style-type: none"> • BOSCAWEN 131/035 – Tremont Street over Contoocook River • BOSCAWEN 139/040 – US Route 4 over River Road and BMRR (Abandoned) 	
<u>CONCORD-ASHLAND-CAMPTON 41706 (Bridge Painting)</u>	
<ul style="list-style-type: none"> • ASHLAND 066/127 – North Ashland Road over I-93 • CAMPTON 104/059 – I-93 SB over Bog Brook • CAMPTON 105/058 – I-93 NB over Bog Brook • CONCORD 041/123 – US Route 4 WB (Hoit Road) over I-93, US Route 4 WB 	<u>OSSIPEE 41916</u>
	<ul style="list-style-type: none"> • OSSIPEE 194/146 – NH Route 28 over PAR (Abd)
<u>CONCORD-HOPKINTON 41703 (Bridge Painting)</u>	<u>PLYMOUTH-CAMPTON 42364</u>
<ul style="list-style-type: none"> • CONCORD 181/055 – I-89 SB over NH Route 13 • CONCORD 182/055 - I-89 NB over NH Route 13 • HOPKINTON 123/077 – South Road over I-89 • HOPKINTON 141/073 – I-89 SB over I-89 Ramp • HOPKINTON 142/073 – I-89 NB over I-89 Ramp • HOPKINTON 148/070 – Jewett Road over I-89 	<ul style="list-style-type: none"> • CAMPTON 104/059 - I-93 SB over Bog Brook • CAMPTON 105/058 - I-93 NB over Bog Brook • PLYMOUTH 142/145 – US Route 3, NH Route 25 WB over NH Route 3A
	<u>WALPOLE, NH-ROCKINGHAM, VT 42277</u>
	<ul style="list-style-type: none"> • WALPOLE 058/043 – Church Street over Connecticut River, NECRR
<u>CONWAY 25103 (Scour Protection)</u>	
<ul style="list-style-type: none"> • CONWAY 167/067 – East Side Road over Saco River 	<u>TURNPIKE</u>
	(None)
<u>CORNISH, NH-WINDSOR, VT 25067 (Scour Protection)</u>	
<ul style="list-style-type: none"> • CORNISH 064/108 – Cornish Toll Bridge Road over Connecticut River 	
<p>Please note that the Campton 104/059 & 105/058 bridges are included in both the Plymouth-Campton 42364 preservation project and the Concord-Ashland-Campton 41706 painting project, and thus are counted twice in the FFY 2020 Preservation Summary totals.</p>	

<u>BRIDGE MAINTENANCE BUREAU</u>	
<ul style="list-style-type: none"> • CLARKSVILLE 077/042 – NH Route 145 over Pond Brook • COLEBROOK 039/107 – NH Route 26 over Connecticut River • CONCORD 059/127 – NH Route 132 over Hayward Brook • CONCORD 150/107 – US Route 202 over NHRR and Constitution Avenue • JEFFERSON 092/073 – NH Route 115A over Cherry Mill Brook • PIERMONT 067/093 – NH Route 10 over Eastman Brook • PLAINFIELD 083/098 – Stage Road over Blow-Me-Down Brook 	<u>TURNPIKE</u>
	<ul style="list-style-type: none"> • NORTH HAMPTON – 078/070 – I-95 Ramp B-D over I-95 • PORTSMOUTH 199/139 - US Route 4, NH Route 16, Spaulding Turnpike over NB Turnpike On-Ramp

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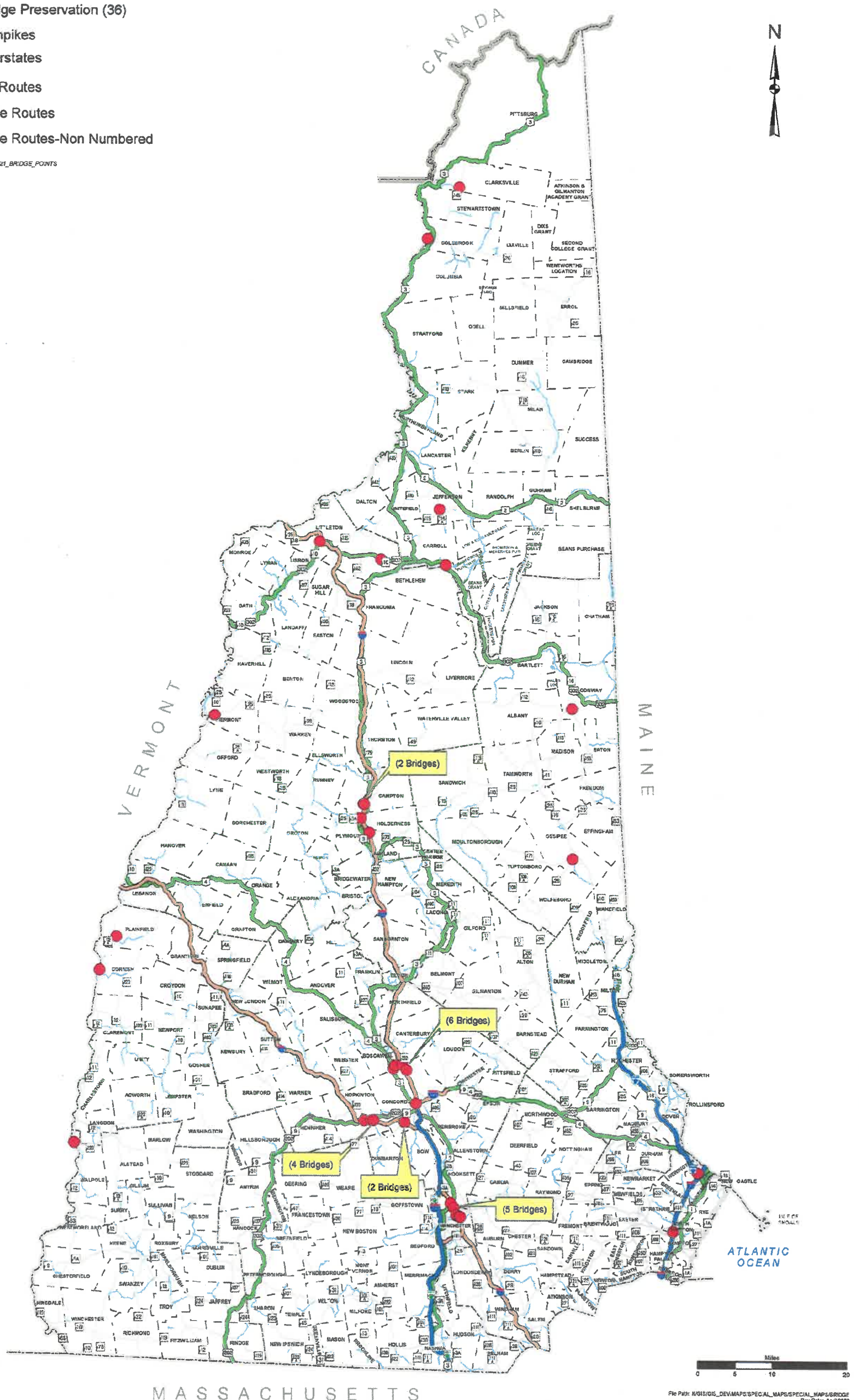
State Bridge Conditions

FFY 2020 State Bridge Preservation Work



- Bridge Preservation (36)
- Turnpikes
- Interstates
- US Routes
- State Routes
- State Routes-Non Numbered

* All Tiers, State
Data Source: ASSET_2021_BRIDGE_POINTS



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Appendix “E”

**List and Location Map of all State Bridges Receiving
Rehabilitation Work in 2020**

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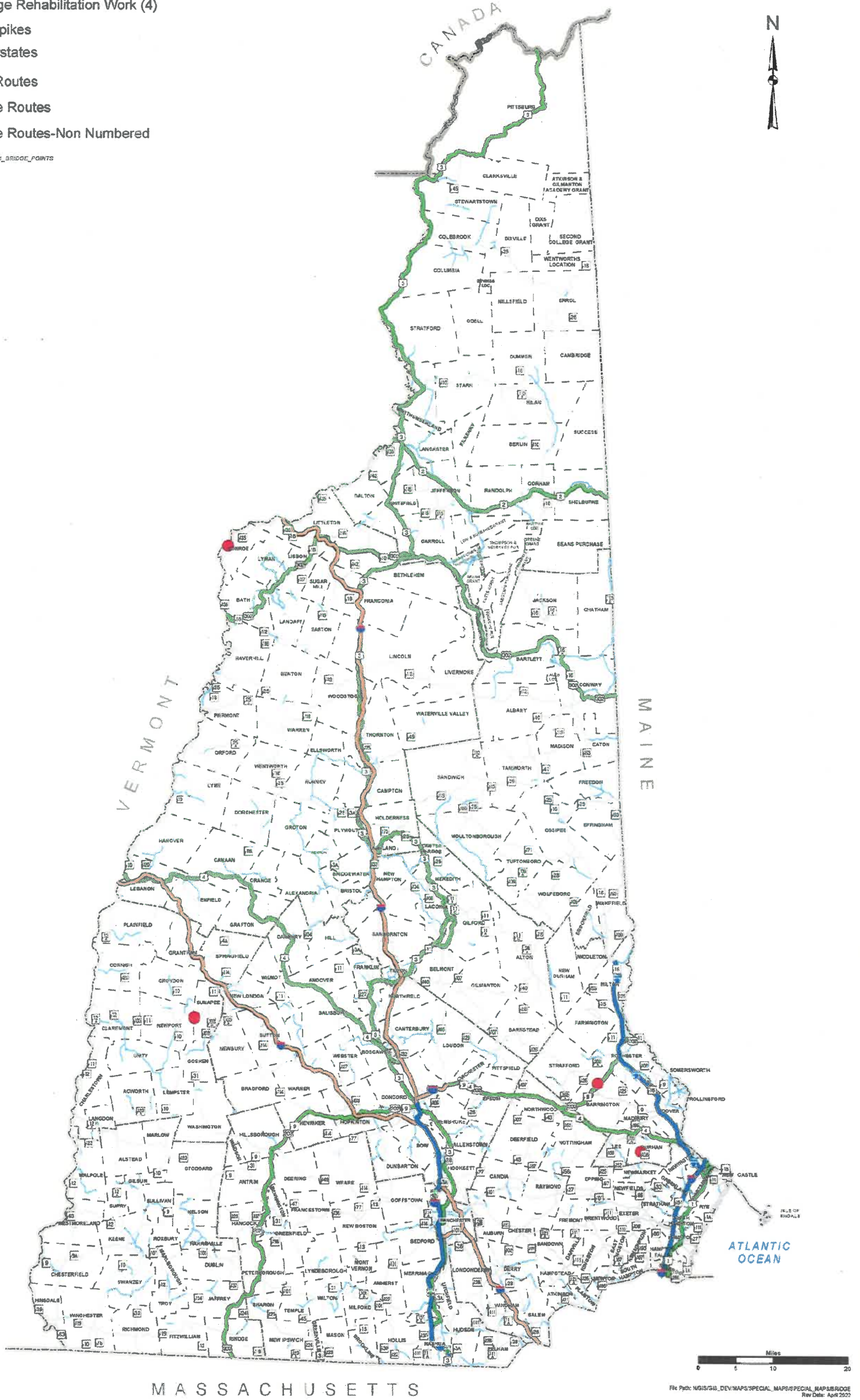
State Bridge Conditions

FFY 2020 State Bridge Rehabilitation Work



- Bridge Rehabilitation Work (4)
- Turnpikes
- Interstates
- US Routes
- State Routes
- State Routes-Non Numbered

* All State
Data Source: AGSET_2021_BRIDGE_POINTS



File Path: NGIS\GIS_DEV\MAPS\SPECIAL_MAPS\BRIDGE
Rev Date: April 2022

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Appendix “F”

List and Location Map of all State Bridges

Replaced in 2020

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State Bridges Replaced in FFY 2020

(For additional information on these 2020 Bridge Replacement projects, please see Section 5.1.1.3.)

<u>BRIDGE DESIGN BUREAU</u>	<u>BRIDGE MAINTENANCE BUREAU</u>
LEBANON, NH – HARTFORD, VT 16148	<ul style="list-style-type: none"> • CHESTER 126/066 – NH Route 121 over Wilson Brook
<ul style="list-style-type: none"> • LEBANON 044/103 – I-89 SB over Connecticut River, NECRR (Red List) 	<ul style="list-style-type: none"> • FREEDOM 205/041 – NH Route 25 over Outlet of Loon Pond (Red List)
<ul style="list-style-type: none"> • LEBANON 044/104 - I-89 NB over Connecticut River, NECRR (Red List) 	<ul style="list-style-type: none"> • GILFORD 097/094 – NH Route 11B over Meadow Brook (Red List)
	<ul style="list-style-type: none"> • MEREDITH 131/105 – Meredith Center Road over Outlet of Wickwas Pond (Red List)
	<ul style="list-style-type: none"> • WESTMORELAND 111/069 – NH Route 63 over Branch Partridge Brook
<u>TURNPIKE</u>	<u>TURNPIKE</u>
(None)	(None)

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State Bridge Conditions

FFY 2020 State Bridge Replacement Work



- Bridge Replacement (7)
- Turnpikes
- Interstates
- US Routes
- State Routes
- State Routes-Non Numbered

* All Tiers, State
Data Source: ASSET_2021_BRIDGE_POINTS

