



Upper Valley Lake Sunapee
Regional Planning Commission

May 11, 2017

Ms. Victoria Sheehan, Commissioner
New Hampshire Department of Transportation
7 Hazen Drive
Concord, NH 03302-0483

RE: UVLSRPC Priorities for 2019-2028 Ten-Year Transportation Improvement Plan

Dear Commissioner Sheehan:

The Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) Transportation Advisory Committee (TAC) has completed its solicitation for the 2019-2028 Ten-Year Transportation Improvement Plan and has unanimously approved a fiscally-constrained set of project priorities. Per the LEAN Process improvements made during the last Ten-Year Plan update cycle, the TAC: 1) Prioritized projects according to the statewide project evaluation criteria; 2) Utilized the new Project Information Form for all existing and proposed Ten-Year Plan projects; and 3) Developed a fiscally-constrained Ten-Year Plan program based on the NHDOT-identified regional budget target. UVLSRPC's proposed 2019-2028 Ten-Year Plan program of non-programmatic projects is fiscally-constrained to our regional budget target of \$82 Million, which assumes level funding from the regional budget target utilized in the development of the 2019-2028 Ten-Year Plan. This correspondence details UVLSRPC's proposed Ten-Year Plan program of projects (a summary of which is included in Appendix A).

Overview of Needs and Strategic Priorities in the UVLSRPC Region

During the course of UVLSRPC's 2019-2028 Ten-Year Plan solicitation, the TAC received projects from our region's 27 municipalities, NHDOT District II, NHDOT District IV, and the NHDOT Bureau of Bridge Design. The 30 existing and proposed non-programmatic projects identified in the UVLSRPC region total approximately \$120 Million. If the needs of urban compact areas and non-federal aid state highways are included, this total climbs to almost \$140 Million. Thus, UVLSRPC's \$82 Million budget for non-programmatic projects only covers a fraction our region's needs.

With these funding constraints, our TAC remains focused on the region's strategic priorities of improving safety and maintaining our existing infrastructure in a state of good repair by addressing our structurally-deficient bridges. In other words, there are no new roads or large-scale capacity improvements on our list of transportation needs. Rather, our region strives to "take care of what we have" and ensure that our transportation network is as safe as possible.

Existing Projects to be Completed Prior to the 2019-2028 Ten-Year Plan

The UVLSRPC TAC identified the following non-programmatic projects to be completed prior to the 2019-2028 Ten-Year Transportation Improvement Plan. It is assumed that these projects will be completed according to their current schedule (i.e. before the start of the next Ten-Year Plan), and will not impact the UVLSRPC's \$82 Million budget.

Community	Project	Total Cost	Construction Year
Acworth	Replace NH Route 123A Bridge over Bowers Brook	\$1,400,000	2018
Walpole-Charlestown	Reconstruction of NH Route 12 from Main Street in Walpole to NH 12A in Charlestown, Remove Concrete Base, Add Shoulders and Improve Drainage	\$692,000	2017-2019
Lebanon	Rehabilitate Interstate 89 Bridges over Hardy Hill Road (Bridges 155/117 and 156/117)	\$10,537,000	2017-2018
Piermont-Bradford	Rehabilitate and Paint NH Route 25 Bridge over the Connecticut River (Bridge 032/103)	\$12,043,000	2017

Existing Projects to be Considered “Funded” in the 2019-2028 Ten-Year Plan

Per NHDOT guidance, “all projects that are currently in the approved STIP can be considered as funded for TYP purposes based on their progress to date.” As such, the UVLSRPC TAC considered projects that: A) Start construction prior to 2019 and continued through 2019 or 2020; and B) Start construction in 2019. These projects are considered to be funded in their entirety with UVLSRPC’s \$82 Million budget impacted accordingly.

There are four projects that fall into this category.

Community	Project	Total Cost	Construction Year	Regional Budget Impact
Lebanon-Hartford	Rehabilitation and Widening of Bridges over Connecticut River (Interstate 89)	\$34,890,000	2019-2020	\$26,636,400*
Lebanon	Exit 18 Improvements	\$9,000,000	2021	\$7,200,000
Enfield	Add Shoulders, Improve Horizontal Curves, Remove Clear Zone Obstructions along U.S. Route 4 from Maple/Main Street to the Lebanon City Line	\$8,238,000	2024	\$8,238,000
Lebanon	PHASE I- Interstate Rehabilitation (I-89) from Exit 17 to Exit 20, Includes 7 Bridges (#093/109 #094/108, #097/112, #098/111, #140/124, #141/123, and #099/111)	\$12,568,150	2019-2020	\$12,568,150

* Assumes cost sharing from the State of Vermont.

Priority #1- Lebanon/Hartford- Rehabilitation and Widening of I-89 Bridges over Connecticut River

- **Project Synopsis:** This project involves the rehabilitation and widening of the twin (northbound and southbound) bridges on Interstate 89 over the Connecticut River. Both bridges are on the State Red List, and this work is currently in the preliminary design phase. These bridges serve as the Upper Valley Lake Sunapee Region’s primary connection to the State of Vermont and points west, and the bridges see the highest traffic volumes anywhere in the UVLSRPC region with 39,000 AADT.

- Proposed Construction Year: The UVLSRPC TAC recommends that this project be constructed over two years (2019-2020), with one bridge being completed during each year (starting with the southbound bridge in 2019).
- Fiscal Constraint Assumptions: It is assumed that the State of Vermont will contribute approximately \$7.31 Million towards the cost of the project. As such, the UVLSRPC regional budget impact for this project is \$23.185 Million.

Priority #2- Lebanon- Exit 18 Improvements

- Project Synopsis: This project was added to the Ten-Year Plan during the last update cycle at the request of the UVLSRPC TAC. The project remains the top priority of both NHDOT District II and the NHDOT Bureau of Traffic within the UVLSRPC region. The project is intended to address the high crash rates that result from congestion and queuing onto the Interstate 89 travelway during peak hours. A diverging diamond interchange continues to be discussed as one potential construction alternative, but it is important that the NHDOT coordinate closely on the design of the project with the City of Lebanon and other regional partners to ensure both local and state support.
- Recommendations: The UVLSRPC TAC recommends that an engineering phase for this project be programmed to begin in 2017 for a targeted construction date of 2021. The TAC recommends that the engineering phase be budgeted at \$535,500, ROW at \$100,000, and construction at \$4.0 Million.
- Fiscal Constraint Assumptions: It is assumed that the entire \$4.635 Million cost of this project will impact the UVLSRPC regional budget.

Priority #3- Lebanon- PHASE I Interstate Rehabilitation from Exit 17 to Exit 20, Including 7 Bridges

- Project Synopsis: This project involves the rehabilitation of Interstate 89 from Exit 17 to Exit 20. When originally added to the Ten-Year Plan, this was a pavement rehabilitation project only. However, the scope was expanded to include the rehabilitation of seven bridges. Our TAC remains concerned that the scope of work for the project is disproportionately large.

As such, the TAC is reiterating its recommendation that this project be implemented in two phases. The TAC is proposing to fund PHASE I of this project at \$12.568 Million, with the scope of work for PHASE I jointly determined by the NHDOT Bureaus of Bridge Design and Highway Design based on the asset condition of the affected infrastructure. The “savings” achieved by implementing this project in phases allows the TAC to maintain fiscal constraint while including simultaneously programming the advancement of acute Red List Bridge needs, including the I-89 bridges over Hardy Hill Road and the Lyme-Thetford Bridge.

- Proposed Construction Year: The UVLSRPC TAC recommends that this project be constructed in 2019 and 2020, and that construction be coordinated with the rehabilitation of the Interstate 89 bridges over Hardy Hill Road (see Priority #9 below) to achieve economies of scale.
- Fiscal Constraint Assumptions: It is assumed that the entire \$12.568 Million cost of this project will impact the UVLSRPC regional budget.

Priority #4- Enfield- Add Shoulders, Improve Horizontal Curves, Remove Clear Zone Obstructions on U.S. Route 4

- **Project Synopsis:** This project was added to the Ten-Year Plan during the last update cycle at the request of the UVLSRPC TAC. The segment of U.S. Route 4 from the Lebanon/Enfield town line to Maple/Main Street in Enfield appears perennially on the “5% Report” of high crash locations in New Hampshire. The road lacks adequate shoulders, has structures within the clear zone (at the edge of pavement), and is located on a steep downgrade. A Road Safety Audit was completed on this segment that identified interim safety improvement alternatives. However, adding shoulders and removing clear zone obstructions would go beyond the scope of a Highway Safety Improvement Program (HSIP) project. In addition, U.S. Route 4 is experiencing structural deterioration in this segment, and settling is occurring west of Adams Road.
- **Proposed Construction Year:** The UVLSRPC TAC concurs with NHDOT’s suggested construction year of 2024.
- **Fiscal Constraint Assumptions:** It is assumed that the entire \$8.238 Million cost of this project will impact the UVLSRPC regional budget.

Project Priorities for the 2019-2028 Ten-Year Plan

After accounting for the four aforementioned projects, the remaining UVLSRPC regional budget was \$29.4Million. All remaining projects (i.e. those projects currently on the Ten-Year Plan starting construction in 2019 or later, previously deferred Ten-Year Plan projects, and newly-proposed projects) were prioritized against the statewide criteria.

UVLSRPC project priorities are summarized on the following page.

Priority	Community	Project	Total Cost	Proposed Construction Year	Regional Budget Impact
1	Charlestown	Reconstruct/Rehabilitate NH Route 12 from NH Route 12A in South Charlestown to Almar Street (Approx. 2.4 Miles)	\$4,575,000	2023	\$4,525,000
2	Newport	Capacity Improvements on NH 11/103 between NH 10 and Luxury Drive, Install Westbound Turn Lane to Cross Street, Improve Shoulders, Drainage, and Guardrail (1.0 Miles)	\$2,760,800	2025	\$2,760,800
3	Newport-Goshen	Reconstruct/Rehabilitate NH Route 10 from Newport to the Goshen/Lempster Town Line (6.7 Miles), Improve Safety at the Intersection of NH Route 10/NH Route 31	\$8,310,000	2025-2026	\$8,310,000
4	Sutton-New London	Pavement Rehabilitation (I-89) from Exit 10 to Exit 11 (4 Miles)**	\$12,013,000	2022-2023	\$1,201,300

5	Lyme-Thetford	Bridge Rehabilitation (East Thetford Road) over the Connecticut River, Remove Lead-based Paint and Recoat	\$4,500,000	2019	\$4,275,000
6	Lebanon	PHASE II- Interstate Rehabilitation (I-89) from Exit 17 to Exit 20, Includes 7 Bridges (#093/109 #094/108, #097/112, #098/111, #140/124, #141/123, and #099/111)	\$8,350,000	2019	\$8,350,000

****Assumes 90% cost sharing from the CNHRPC regional budget.**

Priority #1- Charlestown- Reconstruct/Rehabilitate NH Route 12 from NH Route 12A to Almar Street

- **Project Synopsis:** This project is the two-mile segment of NH Route 12 in Charlestown immediately north of the aforementioned project in Walpole/Charlestown. The Ride Comfort Index (RCI) rating for pavement condition on this segment is among the lowest anywhere in the UVLSRPC region. This segment has poor drainage, lacks shoulders, and has a substantial crash history. Fortunately, this segment should not require railroad relocation, making this reconstruction project substantially easier and less expensive than the Walpole-Charlestown segment. This project is also an identified priority for NHDOT District IV.
- **Proposed Construction Year:** The UVLSRPC TAC recommends that this project be constructed in 2023.
- **Fiscal Constraint Assumptions:** It is assumed that the entire \$4.275 Million cost of this project will impact the UVLSRPC regional budget.

Priority #2- Newport- Capacity Improvements on NH Route 11/103 Between NH Route 10 and Luxury Drive

- **Project Synopsis:** This project involves constructing capacity improvements on NH Route 11/103 in Newport. The project includes installing a westbound turn lane to Cross Street, improving shoulders, drainage, and guardrail. This segment has a substantial crash history. Notably, NH Route 11 (from Interstate 89 to the Vermont State Line) is the only section of road other than Interstate 89 in the Upper Valley Lake Sunapee region that is on the National Highway System. This project is also an identified priority for NHDOT District II.
- **Proposed Construction Year:** The UVLSRPC TAC recommends that this project be constructed in 2025.
- **Fiscal Constraint Assumptions:** It is assumed that the entire \$2.65 Million cost of this project will impact the UVLSRPC regional budget.

Priority #3- Newport/Goshen- Reconstruct/Rehabilitate NH Route 10, Improve Safety at NH Route 10/31

- **Project Synopsis:** This project involves the reconstruction and rehabilitation of NH Route 10 from Newport to the Goshen/Lempster Town Line (approx. 6.7 Miles). This project was previously included in the Ten-Year Plan (formerly known as Project #13952). However, the project was deferred due to budgetary constraints during the 2009-2018 Ten-Year Plan update process. Originally, the project encompassed approximately 15 miles of NH Route 10 in the towns of Newport, Goshen, Lempster, and Marlow.

The UVLSRPC TAC has split this project into two segments, as the originally-scoped project was unrealistically large. The two segments are: 1) NH Route 10 from Newport to the Goshen/Lempster

Town Line; and 2) NH Route 10 from the Goshen/Lempster Town Line to the Lempster/Marlow Town Line. Notwithstanding previous deferral from the Ten-Year Plan, the needs along NH Route 10 have not disappeared. After evaluating both proposed segments, the Newport/Goshen segment emerged as a priority due to its crash history. This project is also an identified priority for NHDOT District II.

- **Proposed Construction Year:** The UVLSRPC TAC recommends that this project be constructed over two years (2025-2026).
- **Fiscal Constraint Assumptions:** It is assumed that the entire \$8.06 Million cost of this project will impact the UVLSRPC regional budget.

Priority #4- Sutton/New London- Rehabilitation of Interstate 89 Exit 10 to Exit 11

- **Project Synopsis:** This project involves the rehabilitation of Interstate 89 from Exit 10 to Exit 11. This segment received an inlay in 2009, but the rehabilitation project is still needed and remains a priority for the NHDOT Pavement Management Section.
- **Proposed Construction Year:** The UVLSRPC TAC recommends that this project be constructed over two years (2022-2023).
- **Fiscal Constraint Assumptions:** The New London/Sutton town line is located immediately south of Interstate 89 Exit 11, thus, approximately 90% of this project occurs in the CNHRPC region. As such, the impact to the UVLSRPC regional budget related to this project would be approximately 10% of the total cost of the project (which amounts to \$1,201,300).

Priority #5- Bridge Rehabilitation (East Thetford Road) Over the Connecticut River

- **Project Synopsis:** This is a long-standing project on the Ten-Year Plan, and recent bridge inspection results indicate that the bridge has a significant structural deficiency. As a result, the weight limit for the bridge was reduced and an emergency maintenance project completed. On July 9, 2014, the UVLSRPC TAC sent correspondence to the NHDOT requesting that the construction timeline for the Lyme-Thetford Bridge be advanced. In that correspondence, the TAC offered the Mascoma Street Bridge over Interstate 89 in Lebanon as a concession to maintain fiscal constraint. On July 29, 2014, NHDOT sent correspondence to the UVLSRPC concurring with this exchange of project priorities.
- **Proposed Construction Year:** The UVLSRPC TAC recommends that the construction of this project be advanced to 2019.
- **Fiscal Constraint Assumptions:** It is assumed that the State of Vermont will contribute approximately 10% of the total cost of this project, resulting in a UVLSRPC regional budget impact of \$4,050,000 (90% of the total project cost).

Priority #6- Lebanon- PHASE II -Rehabilitate Interstate 89 from Exit 17 to Exit 20 (includes 7 bridges)

- **Project Synopsis:** This project involves the rehabilitation of Interstate 89 bridges from Exit 17 to Exit 20 in Lebanon, including seven bridges. These bridges are the TAC's priority along the section of Interstate 89 between Exit 17 and Exit 20. As such, the TAC has recommended phasing the implementation of the project (Project #15880) to allow funding to rehabilitate these bridges while meeting the region's fiscal constraint requirements.

- **Proposed Construction Year:** The UVLSRPC TAC recommends that this project be constructed in 2019-2020, and that construction should be coordinated with the aforementioned rehabilitation of Interstate 89 between Exit 17 and Exit 20 to achieve economies of scale.
- **Fiscal Constraint Assumptions:** It is assumed that the entire \$8.35 Million cost of this project will impact the UVLSRPC regional budget.

Additional (Unfunded) Needs in the UVLSRPC Region

As you are aware, the limited funding available to address deficiencies in our state’s transportation system necessitates difficult choices. This reality is no different at the regional level. As mentioned in the opening paragraphs of this correspondence, the identified road and bridge needs in the UVLSRPC region (including those needs in urban compact areas and on non-federal aid eligible highways) total more than \$200 Million. Our 2019-2028 Ten-Year Plan budget target of \$82 Million can only address a fraction of the region’s needs.

The UVLSRPC TAC has directed me to present their unfunded needs to you in prioritized order to explicitly demonstrate how the region would recommend utilizing additional funding should it become available. Additional project needs in the UVLSRPC Region are listed in prioritized order below. (“AN” stands for “Additional Need”.)

Priority	Community	Project	Total Cost
AN-1	Lempster	Reconstruct/Rehabilitate NH Route 10 from the Goshen/Lempster Town Line to the Lempster/Marlow Town Line (8.3 Miles)	\$9,745,000
AN-2	Orford	Reconstruct/Rehabilitate NH Route 25A Bridge over Brackett Brook	\$4,800,000
AN-3	Lempster	Reconstruct/Replace NH Route 10 Culvert Serving Cold Brook	\$865,000
AN-4	Hanover	Improve Horizontal Curves, Install Sidewalk and Bicycle Lane on Greensboro Road from Great Hollow Road to NH Route 120	\$2,500,000
AN-5	Springfield	Georges Mills Road- Rehabilitate or Replace Twin 5' Diameter Culverts Carrying Star Lake Outlet at Intersection of Fisher Corner Road	\$927,000
AN-6	Claremont	Rehabilitate Bridge on NH Route 12A over Sugar River (Bridge #072/127)	\$6,990,000
AN-7	Lyme	Improve Geometry, Drainage, and Guardrail on NH Route 10 from Post Pond Road to the Orford Town Line, Including Safety Improvements at the Intersection of NH Route 10/North Thetford Road (2.8 Miles)	\$3,550,000
AN-8	Plainfield	Replace Deck and Repaint Stage Road Bridge over Blow-Me-Down Brook (Bridge 096/079)	\$1,800,000

AN-9	Lebanon	Rehabilitate Bridge on Mascoma Street over Interstate 89 (Bridge #103/116)	\$3,606,000
AN-10	New London	Replace Bridge 060/113 Over Goose Hole Pond Outlet on Goose Hole Rd at Intersection with Otterville Rd	\$1,025,000

Related to the above list of additional needs, I would like to specifically note three projects that are on the 2015-2024 Ten-Year Plan that were not included in our region’s recommended 2019-2028 Ten-Year Plan program due to fiscal constraint. Those projects are:

- Springfield- Replace Twin 5’ Diameter Culverts on Georges Mills Road Carrying Star Lake Outlet
- Claremont- Rehabilitate Bridge on NH Route 12A over Sugar River
- Lebanon- Rehabilitate Bridge on Mascoma Street over Interstate 89

There is broad recognition amongst the UVLSRPC TAC, NHDOT Bureau of Bridge Design, and NHDOT District II that these projects are needed and should be done expeditiously. However, when evaluating projects against the statewide criteria developed during the Ten-Year Plan LEAN process, it is difficult for these projects to compete with other non-programmatic projects because: 1) There is no (or minimal) crash history at these locations; 2) The best proxy for “facility importance” is federal functional classification; and 3) These roads see lower traffic volumes than other priority locations within our region.

The UVLSRPC TAC recommends that the Department review options for funding these projects programmatically. The TAC encourages NHDOT to review all of the projects listed as additional needs in the UVLSRPC Region, and where feasible, consider options for addressing the most acute needs on the list with Betterment-funded projects.

MUPCA Needs in the UVLSRPC Region

Through the course of Ten-Year Plan solicitations, municipalities also submit transportation needs within urban compact areas to the UVLSRPC TAC for consideration. The TAC recognizes that projects in urban compact areas would likely be funded programmatically (and managed locally) through the Municipal Urban Projects- Compact Areas (MUPCA) Program. While these projects would be programmatic, the TAC has prioritized our region’s MUPCA Program needs for your consideration.

Priority	Community	Project	Total Cost	Construction Year
STIP (Included)	Lebanon	Reconstruction of Mechanic Street (U.S. Route 4) from High Street to I-89 Ramps, Remove Concrete Base, Install Sidewalks, and Improve Drainage	\$3,147,000	2018
MUPCA-1	Claremont	Reconstruction, Improve Drainage, and Improve Sidewalks on Main Street (NH Route 12) from Elm Street to Citizens Street	\$6,395,750	TBD by NHDOT
MUPCA-2	Claremont	Reconstruction, Improve Drainage, and Improve Sidewalks on Charlestown Road (NH Route 12) from Draper's Corners to Urban Compact Boundary	\$4,915,000	TBD by NHDOT

Non-Federal Aid Highway Needs in the UVLSRPC Region

Through the Ten-Year Plan solicitation process, municipalities also submit transportation needs on state highways that are not federal-aid eligible. The TAC recognizes that these needs would likely be funded programmatically through the Reconstruction of Secondary Roads (RSR) Program. While these projects would be programmatic, the TAC has prioritized our region's RSR Program needs for your consideration. The UVLSRPC will also submit follow-up correspondence to the NHDOT providing additional details about these projects.

Priority	Community	Project	Total Cost	Construction Year
RSR-1	New London-Newbury	PHASE I- Reconstruction of NH Route 103A Segment 1 (Baker Hill Road to King Hill Road, 1.4 Miles)	\$1,825,000	2018
RSR-2	New London	Reconstruction of Main Street (NH Route 114) from Crockett's Corner to Homan's Corner	\$2,140,000	TBD by NHDOT
RSR-3	Grantham-Springfield	PHASE II- Reconstruction of NH Route 114 from NH Route 10 to Grantham/Springfield TL (2.5 Miles)	\$2,950,000	TBD by NHDOT

Next Steps

Per NHDOT guidance, UVLSRPC will submit our scoring/evaluation of each project to the NHDOT Bureau of Planning and Community Assistance on the statewide electronic template, and we will provide your staff with supporting documentation for the projects on our proposed Ten-Year Plan program. We look forward to working collaboratively with you and your staff as you work through the Decision Lens modeling process and develop the draft 2019-2028 Ten-Year Plan for consideration by the Governor's Advisory Commission on Intermodal Transportation (GACIT).

Please feel free to contact me at (603) 448-1680 or aricker@uvlsrpc.org if you have any questions about this correspondence.

Respectfully Submitted,



Adam Ricker
Planner

Cc: Bill Watson, NHDOT Bureau of Planning and Community Assistance
Bill Oldenburg, NHDOT Front Office
Bill Lambert, NHDOT Bureau of Traffic
Mark Richardson, NHDOT Bureau of Bridge Design
Doug King, NHDOT District II
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Leigh Levine, FHWA NH Division
Martin Calawa, FHWA NH Division
Hon. Joseph Kenney, NH Executive Council
Hon. Andru Volinsky, NH Executive Council
NH Representatives in the UVLSRPC Region
NH Senators in the UVLSRPC Region
UVLSRPC TAC Members (via e-mail)
UVLSRPC Commissioners (via e-mail)

APPENDIX A

SUMMARY OF UVLSRPC 2019-2028 TEN-YEAR PLAN PROJECT PRIORITIES

