

Report of the Road Committee

Westford, VT

July, 2017

Approved by the Selectboard on November 14, 2019

Committee Members:

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Goals of the Present Committee

- Review former committee reports and evaluate progress towards their recommendations.
- Survey the current condition of town roads.
- Apply consideration of environmental concerns including state directives regarding road sediment runoff, including Clean Water Initiative.
- Provide guidelines for the town's road crew helping them set priorities within time and money constraints.

Prior Westford Road Committees

The Westford Road Committee typically convenes at appropriate time intervals to develop a 5-Year Road Plan. The Committee has previously submitted roads plans in 1999, 2004, 2010 and 2012. The Westford Road Committee reconvened in 2012 (earlier than usual) after an usually bad mud season that included the closure of several roads and significant changes to the school bus routes during the closures. The Committee approached the Selectboard with their concerns and the Selectboard agreed to appoint the 2012 Westford Road Committee. This Committee had a much different focus than the previous three Road Committees. The Selectboard and 2012 Road Committee agreed to address these issues:

- Road standards
- Winter sand analysis
- Mud season policy
- Heavy truck traffic
- Review of road maintenance practices by Vermont Local Roads
- Paving analysis
- Road Foreman hiring assistance

The 2016-17 Road Committee was assembled to craft the next 5-year Road Plan. The starting point for the 2016-17 Road Committee was to review the previous 2 Road Plans and to document whether the recommended work and improvements had been completed. This provided the starting point for the 2016-17 Road Plan Recommendations but not the end point. The Committee then married these recommendations to the upcoming state regulations.

Unlike the 2012 Road Plan, this Plan has not been presented in a public form for approval, recommendations or input. Instead it is being presented directly to the Selectboard.

Results of the Committee's Work

Recommendation carryover. After reviewing the previous committees' work, evaluations were made as to which recommendations had been implemented and which remained incomplete. A majority of the past recommendations had been completed or partially completed. Of the ones that had yet to be carried out, a determination was made as to which of those still applied to present conditions or might benefit from modification. The current recommendations have incorporated the results of that synthesis.

Current status of town roads. Drawing on the expertise of the road department director, the experience of the two members who had been on previous road committees, our personal experience with driving area roads, and a few field trips to trouble spots, the committee has made the following observations:

- *Positives:* The adoption of a previous recommendation of using a better quality gravel for road surfacing has made a noticeable improvement. Also, the current practice of pulling road material from the sides back into the center has helped the roads maintain a crown facilitating better drainage and saving the cost of materials. The major renovation of Allen Irish Road with new culverts, proper ditching, and roadbed resurfacing has been a success and could be used as a model for fixing other trouble spots. It is estimated that the town should save \$12,000 annually (30 loads of gravel at \$400 a load) quickly recouping its investment in the project. The purchase of a hydro-seeder should help speed the process of the ditching that will be needed to complete committee recommendations.
- *Negatives:* Since nearly all of the town roads are dirt/gravel, runoff remains a concern. Runoff of road material into area waterways and wetlands is not only a serious environmental concern (see below), it also adds costs when we have to keep replacing roadbed material that washes away or dumping more material into soggy areas in order to make them passable. Proper ditching (which is one of the best ways to control runoff and manage the upheavals of “mud season”) has not been being done at a pace that keeps up with the natural degradation of the ditches.

Environmental Concerns

The road networks throughout Vermont present a challenge for our road crews to manage the water that comes over, through, and under our roads. The road networks are conduits for water to be moved into the lakes and streams that are connected to the roads through ditches and over land flow. Roads were identified as a source of pollution (sediment, nutrients, and other contaminants) in the Lake Champlain Total Daily Maximum Load (TMDL) pollution assessment report. New requirements for reducing loading from roads is being implemented through a Municipal Road General Permit. The permit is required by H.35/Act 64, the Vermont Clean Water Act, and the Lake Champlain Phase I TMDL. This general permit is intended to achieve significant reductions in storm-water related erosion from municipal roads, both paved and unpaved.

Municipalities will identify the sections of their road networks that are connected to surface waters through ditches, culverts or other drainage structures. Hydrologically connected roads present substantially greater risks to water quality. Approximately 40% of Westford roads are identified as being potentially hydrologically connected. Westford has begun work with the Chittenden County Regional Planning Commission to complete a more detailed inventory of the roads to identify areas of erosion and potential water quality concerns. From there the information will be used to assist the town with prioritizing where to focus resources over time to meet the permit requirement.

Municipalities will implement a customized, multi-year plan to stabilize their road drainage system. The plan will include bringing road drainage systems up to basic maintenance standards, and additional corrective measure to reduce erosion as necessary to meet a TMDL or other water quality restoration effort. The Westford Road Committee recognized the upcoming permit requirements, and used the available hydrologically connected road layer, as the committee reviewed and prioritized the projects identified in the 2017 five-year plan. The Town’s continued efforts through road planning have been effective in improving our roads over time, and will continue to support the TMDL implementation effort.

Current Recommendations and Implementation

What follows is comprehensive plan designed to tackle prioritized road improvements that have been categorized as resurfacing and ditching projects.

Explanation of Projects. A rebuilding of the roadbed is assumed in all resurfacing plans. So is the resetting of culverts (or adding them, if needed) and the implementation of proper ditching. For many roads, simply improving the ditching will make the roads easier to maintain and more drivable. Water that puddles on the road surface or that seeps into a roadbed from the sides is highly destructive to a dirt/gravel road. Ditching also helps to narrow the road back to its intended width giving the road crew less surface area to maintain and even less material usage.

Variables. The attached schedule is a fairly ambitious one. In order for it to be accomplished in the time frame outlined, either grants or increased budget appropriations (or both) will be needed. Some of the costs will be recouped by future savings in materials and man hours that result from improving the roadbed foundations and properly draining the areas bordering the roads. If greater funding does not materialize and the current budgeted amounts prevail, the plan is still usable, it is just that it will have to be adjusted toward a slower yearly progress, but the priorities should remain the same. The use of contractors for ditching could be a viable option, rather than hiring additional crew or adding worker hours. What also could affect the progress of these recommendations could be a major weather event that requires immediate attention.

The three major factors effecting the prioritizing of projects. Nearly every road in Westford has areas that are in hydrologically sensitive regions. Those concerns played a major role in deciding which projects were listed first. The poor condition of a road and the amount of traffic on a road were the other two factors that effected these decisions.