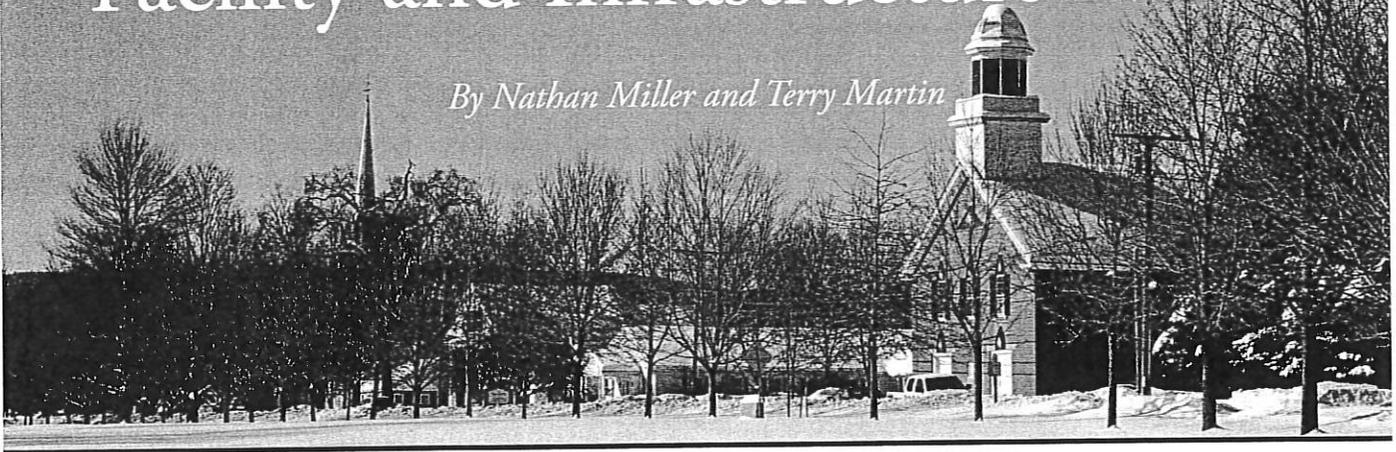


Orford Takes Stock of Community Facility and Infrastructure Needs

By Nathan Miller and Terry Martin



The Town of Orford, New Hampshire (Pop. 1,237) is situated along the Connecticut River approximately 20 miles north of the Town of Hanover. In many ways, Orford is a quintessential rural New England town. The town has a rich agricultural history and features some of the finest federal-style architecture in New Hampshire. Like many rural New Hampshire communities, Orford's residents have long relied on each other to "get things done" in a spirit of pragmatic Yankee volunteerism.

Orford's challenges are not unique within rural New Hampshire. Orford has a small tax base and limited staffing capacity. The Town's low population density (25.8 persons per square mile) makes it challenging to deliver some community services, and changing demographics (i.e. an aging population) are increasing the demand for elder care and transportation services. The Town's infrastructure is aging, and the Town has never developed a Capital Improvement Plan to guide the replacement and upgrade of community facilities.

While the Town has a well-developed financial plan for equipment and fleet replacement, Orford's approach to addressing community facility and infrastructure needs has historically been reactionary. Capital expenditures were made only when a road or bridge reached its failure point, or when major maintenance to a Town facility was unequivocally required. Town officials in Orford began to realize that this reactionary approach was costly, both in dollars and in goodwill. In order to be proactive in addressing community facilities and infrastructure needs, the Town needed a plan. At the 2014 Orford Town Meeting, residents authorized the development of a Long-Range Community Facilities Plan. The plan would identify and prioritize the community's

facilities needs over the next 20 years, and establish a framework for the adoption of a local Capital Improvement Plan. The following items would be included in the plan:

Community Facilities and Infrastructure Addressed in the Orford Long-Range Community Facilities Plan		
Roads	Highway Department	Fire Department
Bridges	Parks and Playgrounds	Old Town Hall
Culverts	Cemeteries	Broadband Infrastructure
Town Office	Transfer Station	Other Needs
Police Department	Libraries	

The Planning Process

To guide the development of the plan, the Orford Selectboard appointed a multi-disciplinary committee comprised of elected officials, appointed officials, and citizens with a unique expertise in the town's community facilities. The Upper Valley Lake Sunapee Regional Planning Commission (UVLSRPC) provided staffing assistance in the development of the plan.

Over the course of 10 months, the Committee met eight times and held two town-wide Public Informational Meetings to gather public input. In addition to the Public Informational Meetings, UVLSRPC staff conducted key person interviews with town staff members, volunteers, and elected officials who regularly work in and utilize the town's community facilities.

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Key elements of the plan include: 1) An inventory of the current status of the town's community facilities; 2) A needs assessment for community facilities over the next 20 years; and 3) Prioritized capital investment options (with preliminary cost estimates) to address those needs.

Growth Projections in the Town of Orford

To consider the future community facility needs of the town over the next twenty years, the Committee needed to understand the likely future growth in the town's population over the same time period because a growing population directly correlates to increasing demand for community facilities and services.

In 2013, the state's nine regional planning commissions pooled funds to commission RLS Demographics, Inc. to develop statewide, county-level, and town-level population projections based on a cohort-component analysis. This is the same population model methodology historically utilized by the NH Office of Energy and Planning. The cohort-component model projected much slower growth in Orford in the next twenty years (11%) than the past

Orford Community Facilities Plan Advisory Committee Members

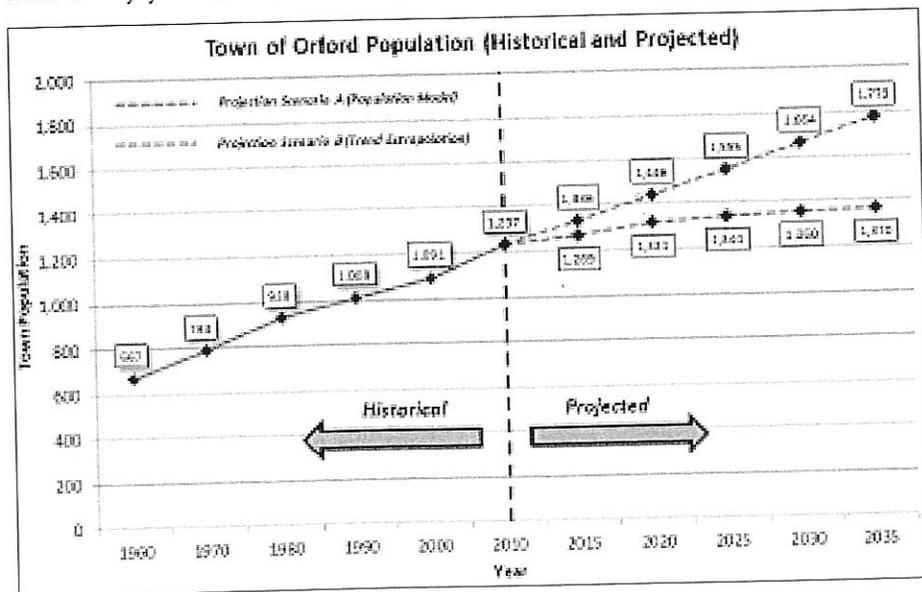
Name	Affiliation	Name	Affiliation
Terry Martin (Chair)	At-Large	Michael Gilbert	EMS
Tom Steketee	Select board	Chris Kilmer	Police Department
Ann Green	Planning Board	Cicely Richardson	School Board
Carl Cassel	Conservation Commission	Sue Kling	Orford Free Library
Paul Messer	Cemetery Commission	Ted Cooley	Orford Social Library
Brad McCormack	Parks and Playgrounds	Sandra Marsh	Transfer Station
Mark Blanchard	Historical Society	Bob Bacon	At-Large
Roger Hadlock	Road Agent	Rob O'Donnell	At-Large
Charlie Waterbury	Road Agent (Former)	Paul Goundrey	At-Large
Terry Straight	Fire Department	Pat Hammond	At-Large
Nathan Miller (UVLSRPC)	Staff	Victoria Davis (UVLSRPC)	At-Large
Adam Ricker (UVLSRPC)	Staff		

fifty years (85%). This is primarily due to the aging and natural decline of the "baby boom" population. This scenario ("Scenario A") formed the lower bound of Orford's expected growth over the next twenty years.

The upper bound of Orford's expected projected growth ("Scenario B") over the next twenty years was developed using an extrapolation of historical population trends in Orford over the past fifty years. The trend extrapola-

tion analysis projected that the Town of Orford's population could grow to 1,773 persons by 2035, which constitutes an increase of approximately 43% over the next twenty years.

While limited growth is projected in Orford over the next twenty years, it is important to note that the town does not currently have land use regulations (i.e. zoning and site plan review ordinances) in place that govern the size and scope of future development. Growth patterns, and therefore demand for community services, in Orford could change substantially if sustained or large-scale unanticipated development occurs. Unanticipated development in Orford is a significant possibility, as the Lebanon-Hanover employment center continues to grow rapidly. The City of Lebanon, approximately 25 miles from Orford, continues to experience non-residential development pressure. More than two million square feet of non-residential development has been permitted, but not yet constructed in Lebanon. The regional ramifications of this growth are likely to impact Orford in the future.



When the Committee understood the projected growth in Orford over the next twenty years, their focus shifted to the Town's infrastructure needs, starting with Orford's municipal bridges.

Town Bridges

There are 13 town-owned bridges in Orford. Five of the town's thirteen bridges are on the "Municipal Redlist," meaning that there is a structural deficiency or functional obsolescence that requires additional inspections by the New Hampshire Department of Transportation (NHDOT). In addition to the five bridges on the Municipal Redlist, a sixth bridge, on Archertown Road over Jacobs Brook, is approximately 85 years old and structurally deficient.

As municipal bridge reconstruction and rehabilitation projects tend to be among the most expensive projects that rural communities in New Hampshire undertake, the Committee established a detailed prioritization process to determine the Town's most pressing bridge improvement needs. As a starting point, the Committee reviewed recent NHDOT inspection data for each bridge in Orford. In addition to inspection data, the Committee reviewed the age, length, width, traffic volume, and detour length for each bridge in Orford. The Committee evaluated each bridge according to a series of six weighted criteria, including:

- State of Good Repair/Existing Condition (25% weighting);
- Access to Residential Areas, Businesses, Services (15% weighting);
- Current Utilization/Traffic Volume (15% weighting);
- Safety/Emergency Response Importance (15% weighting);
- Availability of Alternate Routes (15% weighting);
- Flood Hazard Mitigation Benefits (15% weighting).

Orford Bridge Rehabilitation and Reconstruction Priorities				
Priority	Bridge	Location	Year Built	Redlist Status
1	095/118	Archertown Road over Archertown Brook	1990	Municipal Redlist
2	080/120	Archertown Road over Jacobs Brook	1930	Structurally Deficient
3	114/133	Town Road #100 over Archertown Brook	1997	Municipal Redlist
4	085/101	Creamery Road over Jacobs Brook	1950	Municipal Redlist
5	120/173	Grimes Hill Road over Indian Pond Brook	1964	Municipal Redlist
6	123/126	Archertown Road over Archertown Brook	1970	N/A
7	129/123	Indian Pond Road over Archertown Brook	2011	N/A
8	128/177	Bean Brook Road over Bean Brook	1995	N/A
9	087/108	High Bridge Road over Archertown Brook	1940	Municipal Redlist
10	145/067	Mousley Brook Road over Jacobs Brook	2011	N/A
11	154/066	Quinttown Road over Jacobs Brook	2007	N/A
12	102/085	Brook Road over Jacobs Brook	1930/1998	N/A
13	116/089	Town Road #79 over Jacobs Brook	930/2006	N/A

Using this prioritization framework, the Committee reached consensus on the following local bridge priorities. Interestingly, the Town was forced to begin implementing these improvements sooner than expected. During the development of the plan, the Committee's top priority bridge (Archertown Road over Archertown Brook) washed out requiring an emergency reconstruction project. While a setback for the Town, the washout helped to reaffirm the importance of the Committee's work and validate the Committee's bridge priorities. Ultimately, the Committee recommended that the Town plan to invest up to \$650,000 over the next five years to address the next three highest priority bridges.

Town Roads and Culverts

While the Town of Orford has a substantial local road network, the majority of the Town's roads are gravel and

well-maintained by the local Highway Department. Only eight miles of Town roads are paved. As part of the planning process, and with the support of the NHDOT, UVLSRPC staff developed a Road Surface Management System (RSMS) that evaluated all of Orford's roads in quarter-mile segments. The RSMS system allowed for the evaluation of the extent and severity of pavement cracking, roughness, drainage, potholes, rutting, and other factors to determine the level of repair needed. RSMS information and software was also provided to the Town Road Agent for use in prioritizing maintenance activities.

During the RSMS data collection, UVLSRPC staff also gathered location data for all of the Town's culverts. In total, 281 culverts were located. How-

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ever, additional information about the size, condition, and drainage bankfull width is needed to prioritize the maintenance and replacement of specific culverts. The Committee recognized the importance of the Town's culverts, as effective drainage substantially extends the life of the Town's road surfaces. The Committee recommended that the Town invest \$10,000-\$12,500 to develop a culvert inventory and invest up to \$25,000 per year to upgrade or replace culverts, targeting a town-wide culvert replacement cycle of 30 years.

The RSMS data showed three segments of Archertown Road (approximately 1.25 miles total) needed reconstruction. The Committee recommended that the Town budget approximately \$187,500 to make repairs to Archertown Road, and that the Town budget approximately \$30,000 per year on an ongoing basis to conduct pavement maintenance as necessary to address all of the Town's paved roads on a ten-year cycle.

Town Office/Police Department

The Orford Town Office and Police Department is located in a building built in 1860 that once served as an elementary schoolhouse. The Town Office building houses the Select Board office (with administrator); the Town Clerk's office, the Tax Assessor's office, and the Town Treasurer's office. The Tax Collector's office is currently in a private home, although it is anticipated that this office (approximately 140 square feet) will be included with other town administrative offices at some point in the next five to ten years. There are no Planning and Zoning Administrator (as there is no zoning ordinance in Orford) or Building Inspector offices. A variety of volunteer and community organizations use the building, including town boards and committees, although addi-

Orford Road Reconstruction and Rehabilitation Priorities		
Need	Road	Segment
Reconstruction	Archertown Road	From Dublin Road to 0.75 miles east
	Archertown Road	From west of Blackberry Hill Road to Tillotson Falls Road
	Archertown Road	From Town Road #100 to 0.50 miles west
	Tannery Road	From Dublin Road to Archertown Road
Pavement Rehabilitation	Archertown Road	All segments not listed as needing reconstruction
	Brook Road	From NH Route 25A to 0.25 miles east
	Dublin Road	From NH Route 10 to Tannery Road
	Dublin Road Ext.	Entire length
	River Road	Entire length
	Townshed Road	From 0.50 miles south of Archertown Road to 0.75 miles south of Archertown Road
Preventative or Routine Maintenance	Grimes Hill Road	All paved sections
	Townshed Road	All segments not listed as needing rehabilitation
	Indian Pond Road	All paved sections
	Brook Road	All segments not listed as needing rehabilitation
	Upper Baker Pond Road	All paved sections

tional meeting space for town boards and committees is needed. Voting is also conducted at the Town Offices, but the Town Office does not have a sufficient meeting room to host Orford's Annual Town Meeting.

Due to age, the Orford Town Office building is deficient in many ways. The wooden exterior and stone foundation are decaying, the windows need to be replaced, the building is not energy efficient, the capacity of the septic system (which is shared with an abutting private property owner) is limited, and office security does not meet some current standards. Additionally, in the long-term, the currently-unutilized second floor would need to be fit-up to provide additional office and storage space with ADA-compliant access (via elevator). In order to determine whether investing in improving the Town Office Build-

ing was more prudent than building a new Town Office, the Committee needed to understand the costs of the immediate and long-term needs.

Improving vs. Relocating the Town Office/Police Department

In determining whether to improve the current Town Office building or build a new Town Office, the Committee considered four key factors:

1. Potential Construction Cost of a New Town Office: In addition to potential land costs, the construction cost of a new town office building was assumed to be \$175 to \$225 per square foot.
2. Short-term Needs of Existing Town Office Building: The pressing structural and safety-related short-term needs identified by the

Improvement Needs at the Orford Town Office/Police Department			
Short-Term (Next 5 to 10 Years)		Long-Term (Next 10 to 20 Years)	
Need	Cost	Need	Cost
Structural Assessment of Foundation and Internal Building Systems	\$4,000-\$6,000	Elevator to Provide Access to Second Floor	\$80,000-\$90,000
Mold Remediation and Extermination	\$17,500-\$22,500	Second Floor Fit-up	\$85,000-\$125,000
Exterior Weatherproofing and Window Replacement	\$20,000-\$25,000	Police Department Expansion	\$50,000-\$75,000
Energy Efficiency Improvements	\$30,000-\$35,000	Solar Panels	\$10,000-\$15,000
Foundation Stabilization	\$80,000-\$90,000	Fire Suppression System	\$35,000-\$40,000
Office Security Improvements	\$10,000-\$20,000		
TOTAL	\$161,500-\$198,500	TOTAL	\$260,000-\$345,000

Committee were estimated to cost between \$161,500 and \$198,500

3. Sale Alternative: The private investment interest of the existing Town Office Building would

likely be limited to adaptive reuse as an apartment building with three or possibly four units. Given the potential fit-up costs that a private investor would expend

to convert the building to apartments, the structural expenses detailed above, and the septic system improvements needed to accommodate apartments, the true private investment value of the Town Office Building is likely substantially lower than the assessed value (of land and building) of \$327,800. As such, revenue from a private purchase of the Town Office Building would only offset a fraction of the cost of new construction.

4. Long-term Expansion Potential of the Existing Town Office Building: The existing Town Office building does have substantial expansion potential, particularly on the second floor. While an elevator would be needed to ensure ADA-compliant public access, and fit-up costs would be incurred to renovate the space for offices, the cost of fitting-up and providing ADA-

CATEGORY	CAPITAL IMPROVEMENT	COST			PRIORITY LEVEL		
		Low Estimate (2015 Dollars)	High Estimate (2015 Dollars)	Ongoing Need (Annual)	Short-Term Priority (Next Five Years)	Medium-Term Priority (Next 5-10 Years)	Long-Term Priority (Next 10-20 Years)
TRANSPORTATION	Conduct an Inventory of Town Culverts	\$10,000	\$12,500		X		
	Replace/Upgrade Culverts (Approx. 10 Culverts per Year)	\$17,500	\$25,000	X			
	Reconstruct 1.25-1.5 miles of Archertown Road	\$155,000	\$187,500		X		
	Resurface All Town Roads on a Ten-Year Cycle	\$25,000	\$30,000	X			
	Convert Tannery Road (from Dublin Road to Archertown Road) from Paved to Gravel Surface	Negligible	Negligible		X		
	Reconstruct Archertown Road Bridge over Jacobs Brook	\$250,000	\$300,000			X	
	Reconstruct Town Road #100 Bridge over Archertown Brook	\$150,000	\$200,000		X		
	Reconstruct Grimes Hill Road Bridge over Indian Pond Brook	\$100,000	\$150,000		X		
	Structural Assessment of High Bridge over Archertown Brook	\$3,000	\$5,000		X		
TOWN OFFICE/POLICE DEPARTMENT	Complete a Structural Assessment of the Building and Foundation	\$4,000	\$6,000		X		
	Remediate Mold and Exterminate Animals	\$17,500	\$22,500		X		
	Improve Exterior Weatherproofing and Replace Windows	\$20,000	\$25,000		X		
	Implement Energy Efficiency Recommendations Outlined in Orford Town Office Energy Audit	\$30,000	\$35,000		X		
	Repair Foundation	\$80,000	\$90,000		X		
	Upgrade Office Security	\$10,000	\$20,000		X		
	Construct Elevator for Public Access to Second Floor	\$80,000	\$90,000				X
	Fit-up Second Floor for Office, Storage, and Meeting Space	\$85,000	\$125,000				X
	Construct 200 SF Addition to the Police Department	\$50,000	\$75,000				X
	Install Solar Panels to Reduce Long-term Energy Costs	\$10,000	\$15,000				X
	Install Fire Suppression System	\$35,000	\$40,000				X
HIGHWAY DEPARTMENT	Upgrade Electrical System	\$5,000	\$10,000		X		
	Construct 20 x 60 Storage Facility (Pole Barn)	\$40,000	\$50,000		X		
	Improve/Replace Salt Storage Shed	\$30,000	\$45,000				X
CEMETERIES	Construct a Storage Shed with Water and Electric Service for Cemetery Maintenance	\$20,000	\$30,000		X		
TRANSFER STATION	Improve Secondary Containment System for Waste Oil Including Spill Kit and Shed	\$1,250	\$1,500		X		
	Construct a Platform and Stairs for Scrap Metal Disposal	\$1,250	\$1,750		X		
LIBRARIES	Improve Walkway Drainage at the Social Library	\$750	\$1,500		X		
FIRE	Purchase 300-400 Mini-Pumper for Narrow Driveways	\$180,000	\$220,000		X		
	Purchase Utility Truck for Fire Inspections	\$25,000	\$35,000				X
OLD TOWN HALL	Reserve for Exterior Maintenance	\$5,000	\$7,000				X

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compliant access to the 2,100 square foot second floor would still be substantially lower than the cost of new construction.

Given the four factors discussed above, the Committee recommended that the Town Office should temporarily remain in its current location and the building should be upgraded accordingly. This recommendation was largely contingent upon the findings of the structural assessment of the building's foundation. Should foundation repair costs substantially exceed the estimated costs presented in this plan (which were provided by a foundation contractor from a preliminary review), the recommendation would be re-evaluated.

Other Aspects of the Plan

While the bridge, road, and Town Office needs represent a majority of the plan's recommendations, the Committee worked closely with the Highway Department, Cemetery Commission, Transfer Station, Libraries, Fire Department, and other town staff to ensure that their capital improvement needs were appropriately documented in the plan. A detailed table of the plan's recommendations is included below, which serves as advisory information to inform the town's budget and tax planning processes.

The Committee's work represented the

first time such a wide variety of Town stakeholders formally discussed the Town's community facilities and infrastructure needs, and these discussions have already resulted in some important outcomes. The Town's two libraries are considering consolidating to maximize the use of the Town's limited resources. Similarly, the Fire Department, which is largely a private volunteer organization, has engaged in more productive discussions with the Town Select Board about future capital needs. While the Committee's recommendations in the plan are not binding, the recommendations have been well received by both the public and by elected Town officials.

The plan is intended to be a living document that is regularly updated as the Town's needs change. It is not a "wish list" of unrealistic desires. In fact, many items suggested by town departments were not included in the plan due to fiscal constraints. The plan

represents the pragmatism of Orford's population, and resulted in some difficult but important choices. The needs identified in the plan will not be addressed overnight. But, through a team effort with the Town's leadership, residents, and regional partners like the UVLSRPC, the needs will be addressed. And that is progress.

Nathan Miller is the executive director of the Upper Valley Lake Sunapee Regional Planning Commission and Terry Martin is the chair of the Town of Orford's Community Facilities Plan Advisory Committee.

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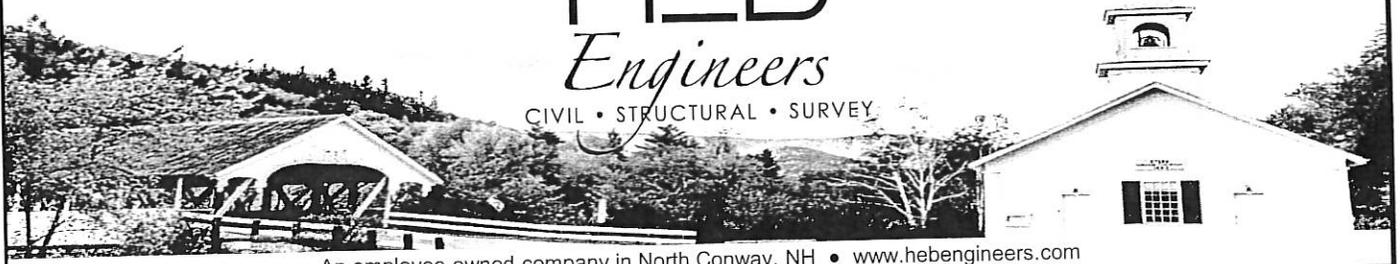
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