

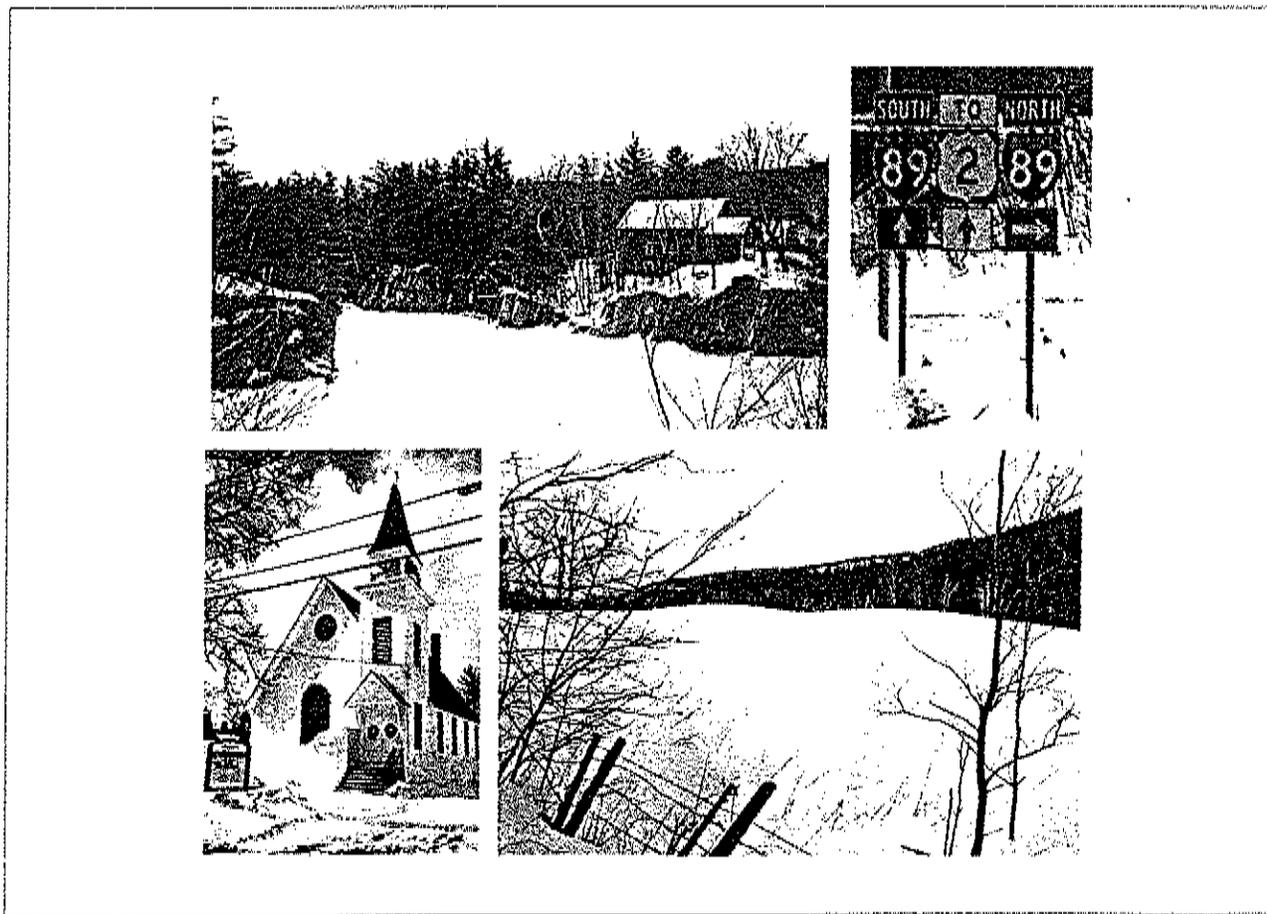
*put on agenda for
2/16/02 in place
of 2/16/02*

*as given to
Select Board
1/9/02*

Cindy

MIDDLESEX VILLAGE/EXIT 9 LAND USE & DEVELOPMENT PLAN

OCTOBER 2001



Prepared for

Middlesex Planning Commission

Prepared by



Burnt Rock Inc.
Associates in Community Planning
Waitsfield, Vermont

A Middlesex Village/Exit 9
Land Use and Development Plan

Table of Contents

1.0 Introduction	1
1.1 Overview	1
1.2 Relationship to the Municipal Plan	1
1.3 Planning Area	2
1.4 Planning Process	2
2.0 Development Trends	3
2.1 Historic Settlement	3
2.2 After the 1927 flood	4
2.3 Recent Trends	5
3.0 Natural Features & Development Limitations	6
3.1 Natural Setting	6
3.2 Natural Features	6
3.3 Natural Features Issues & Opportunities	9
4.0 Transportation Network	11
4.1 Overview	11
4.2 Roads	11
4.3 Bridges	12
4.4 Rail, Air & Public Transit	13
4.5 Sidewalks & Recreation Paths	13
4.6 Transportation Issues & Opportunities	14
5.0 Community Facilities	17
5.1 The Expanded Village as the Town Center	17
5.2 Water & Sewer Facilities	18
5.3 Middlesex Town Hall	20
5.4 Fire Station	20
5.5 Recreation Facilities	20
5.6 Town Parcels	20
5.7 Facility Issues & Opportunities	21
6.0 Land Use	23
6.1 Current Conditions	23
6.2 Planning Subareas	23
6.4 Existing Zoning	28
6.5 Future Land Use Issues & Opportunities	30
7.0 Goals & Recommendations	34
7.1 Natural Features/Resources Goals & Recommendations	34
7.2 Transportation Goals & Recommendations	35
7.3 Facility Goals & Recommendations	36
7.4 Land Use Goals & Recommendations	37
Appendices	
A. Planning Maps	
B. Community Survey Results	
C. Community Forum Summary	
D. Alternative Zoning Standards	

Middlesex Village/Exit 9 Land Use and Development Plan

1.0 INTRODUCTION

1.1 Overview

Preparing a plan for Middlesex Village and the area surrounding the I-89 interchange (Exit 9) has been a goal of the Town of Middlesex since at least 1995 when a revised town plan was adopted. The 1995 plan outlines a number of land use goals, including the preparation of "a plan for land use in the Village and surrounding area (near Exit 9)." In 1998, a draft village plan was developed as an addendum to the town plan. That draft contains a general overview of current conditions in the village, identifies several concerns, and sets forth an action plan which calls for:

- (1) the preparation of a comprehensive village land use plan; and
- (2) the preparation of a water and sewage disposal feasibility study.

In 1999, the Town of Middlesex received a Vermont Municipal Planning Grant to prepare a land use plan for Middlesex Village and lands surrounding Exit 9. To assist with this effort, the Planning Commission contracted with Burnt Rock Inc., Associates in Community Planning of Waitsfield, VT. Burnt Rock was charged with preparing a draft land use and development plan that:

- is based, to the extent practical, on the attitudes and opinions of Middlesex residents regarding development alternatives for the village and surrounding area;
- includes a comprehensive inventory of existing conditions, including natural features, development constraints, the transportation network, public facilities, settlement patterns and land use;
- considers current local and state policies and programs regarding land use, development, environmental protection, and facility planning for the village and surrounding area;
- establishes clear land use and facility goals for the village; and
- sets forth a comprehensive program of recommendations to achieve those goals.

Concurrent with this effort, the Middlesex Selectboard commissioned Stone Environmental Inc. to prepare a *Water Supply and Wastewater Planning Study*, which was completed in March 2001. The results of that study and associated analyses were carefully considered in the preparation of this plan.

1.2 Relationship to the Municipal Plan

This planning effort builds upon earlier Planning Commission attempts to address issues specific to Middlesex Village and land adjacent to Exit 9 in the broad context of town-wide planning. It is anticipated that the plan will serve as an addendum to the *Middlesex Town Plan*, which expired in August 2000 and is currently being updated by the Planning

Commission in accordance with state statute. The background information, analysis and recommendations that follow may either be incorporated into an updated plan or adopted by reference. Certain recommendations, such as changes to the town's zoning bylaws, will require the adoption or re-adoption of an updated town plan. As part of this update, the town can further address the relationship of the village and surrounding lands to the town as a whole and, more specifically, other town centers.

1.3 Planning Area

The area addressed by this plan encompasses approximately 680 acres. Included is all land designated under current zoning as the **Village District**, located immediately south of I-89 (approximately 275 acres). This incorporates the historic village center around the intersection of U.S. Route 2 and VT Route 100B. Also included are approximately 405 acres, designated as the **Industrial-Commercial District**, immediately north of I-89. These lands are located north of I-89 on both sides of the Center Road for a distance of nearly one mile (see map). To better address different settlement patterns and physical features within the planning area, three separate subareas have been defined:

- 1) the **Historic Village**, encompassing all land in the present Village District east of, and including, the Ferris property (west of Camp Mead) and Gallagher Lumber;
- 2) the **Village-West**, comprised of all land in the present Village District west of the Ferris property and Gallagher Lumber; and
- 3) the current **Industrial-Commercial District** (all land north of Exit 9).

These areas, and their associated characteristics, are discussed in detail below.

1.4 Planning Process

The following findings and recommendations were heavily informed by a direct mail survey of local residents and landowners. In February 2001, approximately 1,000 copies of a three page survey were distributed to 684 households. One hundred and sixty-eight completed surveys were returned, representing a return rate of 16.8%. A copy of the survey results is included as an appendix. Findings from that survey are referenced in appropriate locations throughout this document.

In addition to the survey, a **community forum** was held on March 14, 2001, to solicit detailed advice from interested town and village residents regarding future development scenarios for the planning area. Nearly 40 residents participated in that meeting, which included breaking into three groups to identify appropriate and inappropriate land uses and activities specific to each subarea. A summary of comments from the community forum is also included in the appendices. Finally, the Planning Commission held several working sessions with Burnt Rock and interested citizens to review data, discuss options and outline the goals and recommendations set forth below.

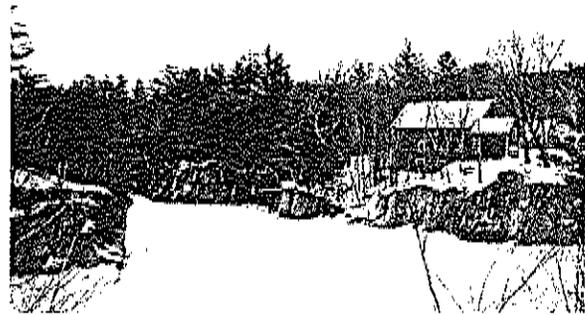
2.0 DEVELOPMENT TRENDS

2.1 *Historic Settlement*

The Winooski River long served as a major transportation corridor through the Green Mountains that was heavily used by both Native Americans and those who followed them in settlement. Few prehistoric sites have been found within this stretch of the Winooski watershed, however, historic accounts note that artifacts have been found at the mouth of the Mad River, just downstream from Middlesex Village. A limited archaeological survey conducted in 1987 in association with proposed bridge and road projects uncovered no new prehistoric sites in the immediate vicinity of the village, but other prehistoric sites have been identified within the larger planning area.

The Town of Middlesex was chartered in 1763, and first settled some twenty years later. According to historical accounts, the land where the village now stands was part of the “third” or “white pine” division of the town laid out in 1787-88. This division included 30 acres reserved for what was considered one of the best mill privileges in the state (the Narrows), and an additional 104 acres of pine lands located to the east. Apparently in anticipation of future settlement, this area, unlike the rest of the town, was initially laid out in one acre lots. Middlesex Village was not centrally located, but because of its strategic location on the Winooski River, within a major transportation corridor, it quickly grew as the town’s center for commerce and community life.

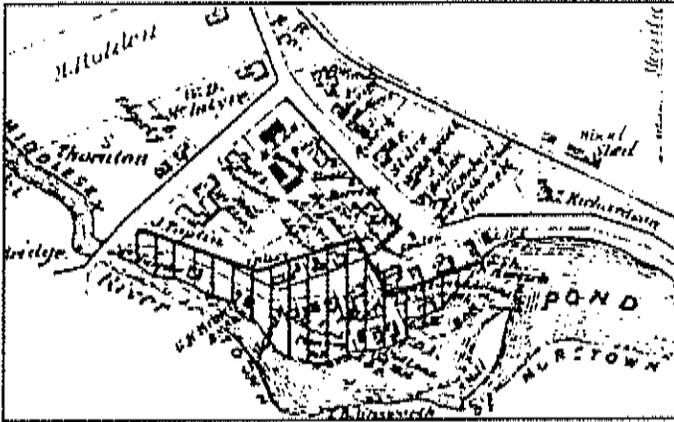
The earliest grist and saw mills were built at the Narrows around 1800 by Henry Perkins, who lived in one of the first two houses in the village. Soon after additional mills – including oil, clothing, wool and shingle mills– were constructed in the village and across the river. A fire in 1821, and floods in 1818, 1828 and 1830 destroyed the mills, which were quickly rebuilt following each event. Mills employed workers housed largely on the Middlesex side of the river. These industries, and the town’s emerging farming community, supported a growing local economy of craftsmen and merchants, and an active civic life centered in the village.



The “narrows” above the GMP Dam

The coming of the Central Vermont Railroad in the mid-1800s furthered the development of the village and neighboring communities along the line. According to local history, Middlesex became a railroad center – supporting a rail depot, a commercial stage route to Warren, and two large hotels which did a thriving business. Water was supplied from a spring in Moretown through pipes that ran under the “High Bridge” – a covered wooden bridge spanning the Narrows. At the height of its development in the 1870s and 1880s the village also supported a church, school house, three stores, three black smith shops, one public house and about 200 inhabitants.

An 1873 Beers map of the village shows the maximum extent of its development during this era – including the road and adjoining properties that then extended south and west to the river. Most existing development in the village dates from this era; as a result Middlesex Village has been included as an historic district in the state’s most recent historic sites and structures survey, maintained by the Division for Historic Preservation.



Area of Middlesex Village destroyed in the 1927 flood
[Thomas & Frink, 1988]

Flooding continued to be a frequent occurrence, culminating in the 1927 flood which took out the railroad, the High Bridge across the Narrows, and the southern end of the village. A great volume of water bypassed the upstream bend, and flowed directly onto the lower level of the village, “removing structures and excavating the north bank until it scoured the bedrock almost clean.”¹ Following the flood, the dam and power station, owned and operated by Green Mountain Power were built at the Narrows; the bridge was

replaced by a Pratt truss bridge on its recent alignment, and the state installed a “cement road” (Route 2) to serve the valley. The tracks were repaired, but the flood also heralded the final decline of active rail service through Middlesex.

2.2 *After the 1927 flood*

The village’s vitality never completely returned after the 1927 flood. The years following the flood did see some additional development, including the establishment of a Civilian Conservation Corps camp (now Camp Mead) and, with improvements to Route 2, the construction of the first of three village automobile service stations. This historic station remains, but is no longer in operation. Many of the industrial facilities lost in the flood were not rebuilt; and, with the decline of the importance of rail transport, the village’s economic vitality languished.

The 1960s brought the interstate highway system to Middlesex, which has had a profound impact on the village and town. While I-89 left the village largely intact, it bisected farms and eliminated Route 2’s function as the primary east-west highway in the region, diverting traffic in the process. The construction of the highway required a tremendous amount of sand and gravel – the extent to which local sources provided a portion of those materials is still evident on the landscape. The interchange area also brought new state facilities, including the Agency of Transportation’s district maintenance facility, and the Vermont State Police Barracks, located on the site of (and incorporating) the town’s former elementary school.

¹ Thomas, P.A. and D. Frink. 1987. Archaeological Reconnaissance Survey for Moretown-Middlesex RS 0167(9) and BRS 0167 (11), Department of Anthropology, University of Vermont, Report No. 91.

2.3 *Recent Trends*

Despite modest town-wide housing and population growth in recent years – the town experienced a 14% increase in population between 1990 and 2000 – development in the planning area has been limited. Most noteworthy was the creation of the Welch Park subdivision in 1993. According to Act 250 records, the seven lot subdivision was initially intended for a mix of “commercial and residential uses,” although the area is locally referred to as an industrial park.

Soon after the subdivision, a pond and fire pump house were installed on one of the lots, and an eighth lot was created and deeded to the town for recreation and conservation purposes. A 52,650 square foot garage and administrative facility was constructed for the Bell Atlantic (now Verizon) Corporation on another. The Verizon facility is the only one of the eight lots developed to date. In addition, the State General Services Division constructed a records facility immediately behind the State Police Barracks. Other development has been limited to small additions to existing structures, including a minor expansion of Camp Mead’s restaurant in 1995.



Camp Mead Motor Court was constructed as a Civilian Conservation Corps Camp during the Great Depression of the 1930's

3.0 NATURAL FEATURES

3.1 Physical Setting

Middlesex Village and surrounding lands are situated near the western edge of the Vermont Piedmont, a plateau-like upland area dissected by a number of streams and the Winooski River. The village lies along a major fall line in the Winooski, which defines its southern border. From a series of rapids just down stream of the present bridge, the Winooski flows through the Green Mountains and the Champlain Lowlands before entering Lake Champlain about 40 miles downstream. Much of the historic village is situated on an old alluvial terrace which, prior to the 1927 flood, extended roughly 125 feet farther south, toward the river.

The village's most prominent natural feature, which factored largely in its historic development, is the Middlesex Gorge, or "the Narrows"—a natural chasm through which the river, prior to being dammed, dropped over 35 feet. The gorge is 30 to 70 feet wide and nearly one-quarter of a mile long. In some places its rock walls tower 75 feet above the water, making it one of the most spectacular stretches of Winooski. In the life of the village, the river has given and taken away—historically much of development fueled by the falls was subsequently destroyed by the river's raging floodwaters. Today the river and its tributaries continue to serve as important wildlife, recreation, and public resources.

The Winooski valley also offered productive forest and farmland. Land within the vicinity of the village was cleared of timber for use in industry and construction, and to place land in cultivation. Soils were sufficiently fertile to support subsistence, and later, small commercial farming operations. Historic farmsteads such as the Knapp farm still exist within the village, but are no longer in productive operation. Forests have reclaimed much of the land north of I-89, providing abundant wildlife habitat.

3.2 Natural Features

Several important natural features exist within the planning area which serve as important scenic and ecological resources, and affect the development potential of the study area. These include those features which pose either physical challenges for construction and access (e.g., steep slopes, poor soil conditions) and/or likely regulatory barriers (e.g., wetlands, wildlife habitat). In addition, additional development considerations in the village include hazardous waste sites and extensive rights-of-way associated with transportation facilities. Such features, depicted on the Development Limitations Map, are described below.

Wetlands. Wetlands perform a variety of important ecological functions, including maintaining water quality and providing wildlife habitat. Wetlands also pose physical constraints for development, and are subject to state permitting requirements under the Vermont Wetlands Rules and setback requirements for septic disposal systems under the Middlesex Zoning Bylaws. Few wetlands (approximately 2.47 acres) have been identified in the planning area. According to the water supply and wastewater study prepared by Stone Environmental, the actual locations of identified wetlands vary significantly from their

mapped locations as depicted on the Development Limitations Map (derived from the National Wetlands Inventory conducted in the mid-1970s). Additional wetland areas not depicted on the map likely exist; however these potential wetlands encompass small amounts of land within the planning area. The limitations posed are therefore quite site specific, and are not expected to significantly affect overall development potential within the planning area.

Floodplains. Flooding of the Winooski River has had a profound impact on Middlesex Village, although many of the structures most affected by past floods no longer exist. Approximately 70.3 acres of floodplain are located adjacent to the Winooski River, nearly 60% of which are downstream of the historic village. As is the case with wetlands, site verification of floodplains is needed to confirm the actual boundaries depicted on the Development Limitations Map. Although land within the designated floodplain may be developed – through filling and the use of construction practices that incorporate floodproofing – such development may still threaten downstream properties and should be avoided. Proposed development within the floodplain is subject to approval by the Middlesex Board of Adjustment in accordance with the town’s adopted flood hazard regulations.

Surface Waters. Approximately 26 acres of surface waters are located within the planning area, including the Winooski River, tributary streams and a small fire pond adjacent to the Verizon facility in Welch Park. Any in-stream alteration to the river and its tributaries requires a Stream Alteration Permit from the Agency of Natural Resources. The town has no adopted regulatory protection of riparian lands (e.g., stream setback and/or buffer requirements) other than a requirement that in-ground septic systems be sited a minimum of 100 feet from all surface waters.

DEVELOPMENT LIMITATIONS SUMMARY		
Feature	Estimated Acreage	Percent of Planning area
Wetlands	2.47	0.4%
Surface Waters	26.1	3.8%
Steep Slopes (>25%)	83.28	12.2%
Prime Agriculture Soils	228.3	33.6%
100 Year Floodplain	70.3	10.3%
Deeryard	297.5	43.8%
Transportation R-O-Ws	100.0	14.7
Source: Central Vermont Regional Planning Commission		

Steep Slopes. Steep slopes (generally greater than 15%) pose the risk of erosion and excessive stormwater runoff, limitations for access (especially for emergency response vehicles), and construction challenges (e.g., basements, septic systems). Due to the potential environmental degradation from clearing and construction on steep slopes, the U.S.D.A. Natural Resource Conservation Service recommends that for slopes with gradients greater than 25%, all construction be avoided, and careful land management strategies be applied. Over 80 acres of steep slope are found in the planning area. These include an estimated 57.5 acres of hillside north of I-89, and limited areas of steep slope scattered throughout the Village District. The most significant of these are the steep drop from Route 2 across from its intersection with Center Road, and slopes on the Vermont Agency of Transportation maintenance facility property.

No state or local regulations prohibit development on steep slopes, although activities subject to local conditional use review, Act 250, or state stormwater permits may be required to prepare and implement erosion and sediment control plans. Presently, development subject to state subdivision review (including the creation of lots of less than 10 acres) may not site a septic system on slopes of 25% or greater; however development on lots greater than 10 acres is not subject to such requirements.

Wildlife Habitat. An extensive deer wintering area, estimated to encompass nearly 300 acres, is located north of I-89. Deer wintering areas (or deeryards) are characterized by coniferous forest on predominately south or west facing slopes, typically below elevations of 2,000 feet. Not only are such areas critical to deer populations, but nearly half of Vermont's vertebrate wildlife species (169 species) rely on coniferous forests for at least part of their life needs. The deeryard identified in the planning area, however, includes large areas of cleared land associated with the Colby property north of Exit 9. While such area may appropriately be designated as deeryard, ground verification of important habitat, including travel corridors, should be pursued prior to any development or change in use. No local regulations prohibit development in deeryards; however development reviewed under Act 250 may be subject to limitations on the use and development of this land.

Septic Suitability. Based upon an assessment of the on-site septic disposal suitability of mapped soils units conducted as part of the SEI water and sewer study, soils in the planning area were found to be generally suitable for conventional and mound systems. Further, based upon limited site testing, some areas identified in the soils rankings as unsuitable for in-ground disposal were found to be adequate for conventional systems. While some limitations for on-site disposal were identified, especially on land north of Exit 9, other "pockets" of land in this area (e.g. Colby parcel) appeared quite suitable. Two sites of note in the existing Village District which have favorable soil conditions include Welch Park, already targeted for development, and the Scribner parcel, which to date remains largely undeveloped. The greatest development limitations associated with poor septic suitability are found on land north of Exit 9 and east of the Center Road.

Prime Agricultural Soils. In some respects, the presence of prime agricultural soils are anything but a development limitation – they often represent the best (e.g., level, well drained) development sites available. They also represent a finite natural resource and are therefore restricted from development under Act 250 (though off-site mitigation is a common practice). Over 225 acres of prime agricultural soils are located in the planning area, extending throughout the historic village to the Center Road, Welch Park, and on the Colby parcel north of Exit 9 and east of Center Road.

Highway Rights-of-way. Middlesex Village was founded, and for many years prospered, due to its location along a major transportation corridor. This location continues to provide opportunities for development. At the same time, the amount of land devoted to maintaining these transportation facilities – including nearly 100 acres of highway and railroad rights-of-way – heavily influences future development opportunities, especially south

of I-89 and in the vicinity of Center Road. In some respects, existing rights-of-way, coupled with other limitations (e.g., steep slopes), provide a degree of protection from highway-oriented commercial development immediately south of Exit 9.

Hazardous Waste Sites. Within the study area there are two known contamination sites included on the most recent Vermont Active Hazardous Sites List (Fourth Quarter 2000)—the Middlesex Country Store (General Store) in the historic village, a low priority site first identified in 1980, and the Vermont General Services Building on Route 2, a medium priority site identified in 1997.

The Middlesex General Store contamination site resulted from leaking underground petroleum tanks, which have since been removed. The site has been thoroughly investigated and remediated through the use of a soil vapor extraction system. Any residual contamination that remains will break down naturally, and does not pose a risk to human health. Impacted drinking water supplies in the village have been treated.

Former wastewater disposal practices at the General Services Center were suspected of adversely impacting groundwater beneath on-site leach fields. An initial site investigation in 1997 revealed the presence of silver (Ag) and chromium (Cr) in system septic tanks, but not in soils beneath the leach fields. Subsequent site investigations in 1998 and 1999 were conducted to determine the presence of volatile organic compounds (VOCs). Several VOCs were found in both effluent and solids samples, but not in leach field soil samples. A monitoring well did detect the VOC tetrachloroethene in excess of health advisory levels. Given the presence of this VOC, and several water systems down gradient of the leach fields, the installation of three additional monitoring wells has been recommended.

Both identified sites are being monitored, and pose no immediate threat to public health and safety. In addition, the Planning Commission has identified three other potential contamination sites, based on the presence of known or potential underground storage tanks: the Morse property (now owned by the town), the Sticky Fingers property (formerly owned by Ultramar), and the Alger-Lewis property.

The development of a public water supply would help alleviate concerns regarding the potential impact of these sites on drinking and ground water supplies and the development potential of neighboring properties.

3.3 *Natural Features Issues & Opportunities*

- 1. Delineation of Resource Boundaries.** Several fragile natural features (wildlife habitat, wetlands, steep slopes) have not been well delineated. As part of the local planning and/or regulatory process, an effort to better identify the location, extent and functional value of such features would enable the town and landowners to better manage them and mitigate or avoid the impacts of development.

2. **Protection of Water Quality.** Recognizing that much of the planning area will continue to function as a growth center, environmental protection standards to protect water quality are important. Efforts to ensure reasonable protection of surface and groundwater should be made especially where relatively large-scale development and/or compact, small lot development are likely to occur. Such measures include:

- setbacks, and associated buffer requirements, from streams;
- stormwater management standards for new development and, in areas targeted for high densities, coordinated stormwater management improvements;
- erosion control requirements, especially related to development of steep slopes; and
- reconsideration of zoning district boundaries (described below) to discourage development in areas characterized by steep slopes, especially east of the Center Road.

It should also be noted that no groundwater source protection areas presently exist within the planning area. Should a water system be developed which uses a source in or near the planning area, a source protection area and associated protection measures will be needed.

3. **Habitat Protection.** Although further evaluation is needed to verify the boundaries and relative value of identified deer wintering areas, it is evident that a large deeryard is located north of Exit 9. Much of this area (east of Center Road) is also characterized by limited access, steep slopes and limited or poor suitability for on-site septic disposal.

Consideration should be given to reducing the Commercial-Industrial zoning district boundaries to offer greater protection to these areas.

4. **Primary Agricultural Soils.** Many parts of the planning area include primary agricultural soils. Strict on site protection of this resource may be difficult in areas that have historically or are proposed to serve as a growth center, such as the Welch park and Historic Village area. North of Exit 9, however, the combination of primary agricultural soils and large tracts of open, scenic farmland warrant efforts to maintain some of the most visible and productive land as open space and allowing for the land to be used for agricultural production.

5. **Hazardous Sites.** There are no specific development limitations posed by identified hazardous waste sites within the planning area, however the development of a public water supply would alleviate concerns regarding their potential impact on drinking and ground water supplies, and on adjoining properties. Future hazardous waste generators should be excluded from locating within source protection areas.

6. **River Access.** While not specific to development limitations, improving public access to the Winooski River was supported by 67.1% of the survey respondents. Such access provides recreation opportunities, as well as opportunities for conservation education. Potential river access sites are discussed below under Community Facilities.

4.0 TRANSPORTATION NETWORK

4.1 Overview

Middlesex Village developed from, and is in many ways defined by, its transportation network. The Winooski River valley has long served as the primary east-west corridor through Vermont's Green Mountains – from the earliest traces along the river to the completion of Interstate 89 in the mid-1960s. The village, strategically located within this corridor, historically benefitted from a series of transportation developments that strengthened its links to surrounding communities and the world beyond.

Transportation corridors comprise roughly 15% of the total area, and define the northern extent of the village as currently zoned. Extensive road rights-of-way are owned and maintained by the state and the New England Central Railroad (formerly the Central Vermont Railroad). In the past, transportation corridors supported village growth; in the present, they also serve to restrict access and confine development within the larger village area.

4.2 Roads

Primary access routes to, from, and through Middlesex Village include US Route 2, VT Route 100B, I-89, and the Middlesex State Highway (to the Exit 9 interchange area). These provide ready access for local residents and businesses to points beyond, including neighboring employment and commercial centers in Montpelier, Waterbury, Barre, and Chittenden County. They also provide access from I-89 to points south—including the Mad River Valley and the Sugarbush Ski Area—and northward, up Center Road, to the rest of town. Because of the type and amount of traffic they carry, state routes within the village serve a variety of sometimes conflicting functions.

22,000 (A)		24,300 (A)	
	State Hwy	I-89	
3,600 (E)		3,600 (E)	2,500 (E)
	Rte 2	2,000 (A)	Rte 100B
Average Annual Daily Traffic			
VAOT 1998 [A-Actual, E-Estimate]			

Unlike other roads through the village, Interstate I-89 serves only through traffic – an average of 22,000 to 24,000 vehicles per day. Access to the freeway and the associated interchange is intentionally limited, dividing the planning area into two distinct areas. To date land north of the interstate remains largely undeveloped; but given its proximity to the interchange, this area has significant potential for development. I-89 is considered a scenic highway, but so far has not been formally designated as such.

Route 2, which runs parallel to I-89, provides an alternate route for local traffic – serving as a major collector for roadways without direct access to the interstate. At Exit 9 it provides

access via the Middlesex State Highway (Center Road) to I-89, and in addition serves fronting businesses and residences within the village. Sections of this route have been recommended by the Vermont Agency of Transportation (VAOT) for rehabilitation or reconstruction – accommodation of bicycle and pedestrian traffic, and possibly the Cross Vermont Trail, need to be made through this corridor.

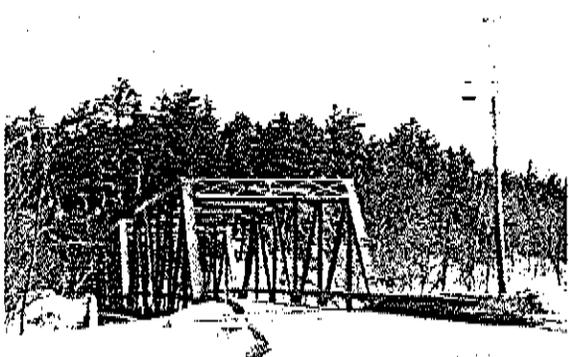
Route 100B, also classified as a major collector, carries traffic from southern towns through historic Middlesex Village to Route 2 and I-89. Because of the relatively high percentage of truck traffic on this route (5-7% of the total) it is sometimes classified as a minor arterial (or through route), but also serves local residences and businesses within the village. This route is currently being realigned through the village, at a cost of \$5.53 million (including bridge construction), to improve safety, driveability and the intersection alignment with Route 2. The new bridge and roadway should be opened to traffic by September 2001. Moretown has classified Route 100B as a scenic route to the Middlesex town line.

Local roads within the planning area, apart from Center Road, are dead ends that provide access to specific parcels. They do not offer any grid or through connections. No traffic volume data are available for **Center Road**, but there is the perception that traffic on this road has increased significantly in recent years – which may result in the need for road upgrades.

4.3 *Bridges*

The transportation network includes two major bridges across the Winooski River – the Route 100B bridge which is currently under construction on its new alignment, and the Route 2 bridge, which is scheduled for replacement. Both bridges serve as visual and physical “gateways” into the community.

The **Route 100B bridge** replaces a historic Pratt truss bridge that was built to replace the covered “High Bridge” across the Narrows following the flood of 1927. At one point the truss bridge was proposed for rehabilitation as a pedestrian span, but the cost was deemed prohibitive. When construction is completed the temporary bridge will be removed, but the pylons will remain in place. The Church Street end will be barricaded and fenced.



Historic bridge slated for replacement

The **Route 2 bridge** is a 2-span Pratt truss bridge, also built in 1928 following the flood. This bridge, however, is the only structure in Middlesex with the distinction of being listed on the National Register of Historic Sites and Structures. Sufficiency ratings indicate the need for its replacement, which is in the initial planning (scoping) phase. Because of its historic significance, it is currently recommended – under a state and federal “programmatic agreement” – that a new bridge be constructed on a parallel

alignment, and the current bridge be rehabilitated in place for pedestrian or recreational use. Local meetings to discuss alternatives are planned.

4.4 Rail, Air & Public Transit

Middlesex residents, as most rural residents, are wed to their cars. According to 1990 US Census data, nearly 88% of local residents drove themselves to work. Around 11% carpooled or vanpooled, and less than 1% walked to work. As a result, the local **Middlesex Park and Ride**, located off Exit 9, continues to be under used despite limited improvements in recent years. This facility has been recommended for additional improvements as a park and ride and, in the long-term, as a possible commuter rail stop to serve the local area.

New England Central Railroad, which took over the Central Vermont Railroad, currently owns and operates the rail line paralleling I-89 through the village. This line figured largely in the village's past and, though presently much diminished, continues to carry passengers and freight. An active rail siding is located in the village, although the nearest passenger stops are in Waterbury and Berlin (Montpelier Junction). The New England Central Line is well-maintained, and offers the possibility of re-establishing commuter rail service through Middlesex some time in the future.



Village Train Station

At present, bus and other public transit services are limited. Regional bus, rideshare and carpool/vanpool services are available through the Central Vermont Transit Authority (CVTA), which also provides transportation services for eligible elderly and disabled clients. CV Wheels, the regional bus service out of Montpelier, has fixed route stops in Moretown and Waterbury, and door to door service is available by reservation. Buses are handicapped accessible and equipped with bike racks. According to a CVTA representative, a fixed stop could be established on Waterbury and/or Montpelier lines in the future if there is sufficient demand and safe stopping areas are available. The nearest Vermont Transit line stops, for intercity and interstate service, are located in Waterbury and Montpelier.

The nearest air passenger and freight services are located at the **Burlington International Airport** in South Burlington, and the state-owned **E.F. Knapp Airport** in Berlin. I-89 provides relatively easy access to both airports.

4.5 Sidewalks & Recreation Paths

Currently there are no sidewalks, cross walks or other pedestrian or recreation paths within the village or larger planning area. Pedestrians and bicyclists are required to use road shoulders. The installation of curbed sidewalks within the village is recommended under

relevant state design guidelines, and in the most recent *Central Vermont Regional Transportation Plan* (1996). The Route 2 corridor is also recommended for the Cross Vermont Trail (CVT), but some shoulder widening may be required to safely accommodate bicycle traffic.

The new Route 100B and bridge designs do not incorporate sidewalks (as initially recommended), but will retain their paved width through the residential area near the bridge to provide shoulder areas for cyclists and walkers. The straightened alignment and wide shoulders, however, could also encourage higher traffic speeds into the village. Additional traffic calming may be necessary in these areas.

4.6 *Transportation Issues & Opportunities*

1. **Traffic, Pedestrian Safety & Circulation.** As noted in the Middlesex Town Plan and recent public forums, the volume and speed of traffic through the village, and the impact these have on local pedestrian circulation and safety, have long been a concern of local residents. State routes are typically designed to carry larger volumes of traffic, but current Agency of Transportation design standards (1997) now include specific guidelines for state routes within village settings – in particular to incorporate pedestrian and bicycle traffic. These include, but may not be limited to the following:

- curbing, sidewalks, and crosswalks to safely accommodate pedestrian traffic,
- road designs that reflect and support reduced posting speeds (down to 25 mph in some cases),
- reduced lane widths to slow traffic,
- paved shoulders of sufficient width to accommodate cyclists, and possibly on-street parking,
- other traffic calming measures (e.g., “bump-outs” at pedestrian crossings, etc.), and
- separate, off-street path networks for pedestrians and/or cyclists.

The most appropriate combination of pedestrian and traffic calming measures for the village should be considered in relation to specific traffic, road and village characteristics and conditions.

The need for sidewalks in Middlesex was identified by 45% of survey respondents. As noted, sidewalks for the village are also an identified need in the *Central Vermont Regional Transportation Plan* (1996). In lieu of or in addition to sidewalks, off-street paths could be developed on town and state owned land and rights-of-way within the village and along Route 2. Pedestrian connections to the other side of the interchange also may be required in relation to the type of development planned for this area.

Additionally, improved highway access management policies are an important means of ensuring smooth traffic flow without undue congestion. Within the Village, driveway accesses (curb-cuts) can be consolidated, and excessive widths reduced, as properties are

redeveloped. Throughout the planning area, but especially along Route 2 west of the historic village and along Center Road, future development should be served by existing roads (e.g., Colby Road) and new curb cuts and development roads prohibited.

2. **Streetscape & Village Character.** As noted in the *Vermont State Standards* for roadway design, small villages such as Middlesex historically have been sited along road corridors which often serve as the community's "Main Street." Given the importance of village centers to community identity, the state is now promoting, within village and urban areas, road and bridge designs that enhance rather than detract from their historic and pedestrian setting. Design options, in addition to those presented above, include:

- pedestrian scaled street lighting and street furniture,
- street trees,
- landscaping to define access roads, gateways, and adjoining public spaces,
- coordinated signs,
- aesthetic treatments of bridges, abutments, and retaining walls (e.g., the use of native materials and architectural detailing) to emphasize gateways and prominent features, and
- the integration of historic features and design elements.



The intersection of Route 2 and the new Route 100B will be reconstructed as part of the bridge replacement

The current configurations of Route 2 and 100B tend to overwhelm the historic and pedestrian character of Middlesex Village. Existing and future rehabilitation and reconstruction projects should incorporate village streetscape and traffic calming improvements.

Route 100B is currently being relocated from Church Street to a side street that has been a dead end since the 1927 flood. This rerouting has the effect of transforming Church Street into a dead end street, and the dead end street into a major through road. The new bridge also replaces the existing bridge as the southern entrance or "gateway" into the village; the existing, historic village entrance will be barricaded and fenced.

The 100B project predates new design standards, and is intended to improve driveability rather than walkability – so it's not yet clear what long term impacts it may have on village character. Historic buildings along the route will not be directly affected by the relocation. Sidewalks, as noted, are not planned, but designs do include the installation of curbing and street trees. No specific gateway improvements are anticipated, but two parcels owned by the state, east of the new road, could be considered for a gateway or riverside park.

Church Street, though a dead end, will continue to provide access to village parking areas at the town hall and the church, and may also be able to accommodate on-street parking. A river overlook, access, and/or pedestrian bridge could be considered at road end to improve river access or recreation links. Off-street pedestrian connections between 100B and Church Street also could be provided on town land, or along the old right-of-way along the river, if slope permits.

Enhancement funds originally included in the project budget may be available for streetscape improvements; however due to a change in this program, such funds are now dispersed on a competitive basis. Other sources of funding also may be available, depending on the type of improvement project.

- 3. Public Transit Services.** Public transit services, as noted, are currently limited. It's reasonable to expect that a Middlesex stop could be added to existing bus/van routes to Waterbury, Montpelier and the Mad River Valley, if a safe stop or pullover area can be located within the village. Given that these are the principal commuter destinations for Middlesex residents, regular bus service could also afford an alternative, more cost effective means of getting to work. In the long term, commuter rail service through Middlesex may also be a possibility, if warranted by the potential ridership between larger, regional shopping and employment centers.

5.0 COMMUNITY FACILITIES

Middlesex, as a rural community, does not support extensive community facilities and services. Given the town's limited tax base and fiscal resources, emphasis has been placed on maintaining basic services that support town residents and businesses— including a quality school system, a good local road network, basic emergency services, and a cost effective town government that relies heavily on the efforts of dedicated volunteers.

5.1 *The Expanded Village as the Town Center*

Of the town's existing municipal facilities, only the town hall and main fire station are located within Middlesex Village. The existing fire station occupies an historic school building behind the town hall. The former elementary school, now incorporated in the Vermont State Police Barracks, was replaced by the more centrally located Rumney School. Over the years there has been some discussion about relocating the town center, and associated facilities and services, to a more geographically central location (e.g., near the school); however survey respondents strongly supported the existing village as the present and future focal point of the community:

- over 94% agreed that the village should remain the center of town government,
- 92% agreed that municipal facilities open to the public (town offices, library) should be located within the village,
- nearly 78% agreed that the village needs to become a central focal point for town activities,
- 73% supported the development of a town common or other location within the village for gathering and socializing, and
- nearly 58% agreed that the village should be the town's central shopping, employment and growth center.

Despite this level of support, growth in the historic village and immediate vicinity has stagnated in relation to growth in the rest of the community. This is likely due to a combination of factors, including development limitations discussed elsewhere in this report, market demand for house-sites on large lots in rural settings, and the proximity of Middlesex Village to regional commercial centers with available infrastructure (e.g., water and sewer). This does not diminish opportunities for strengthening the role of the village as a community center, however, at a scale and function appropriate for the town, nor for taking advantage of the planning area's strategic location (e.g., its proximity to a major transportation corridor).

It also should be noted that strengthening Middlesex Village as a community center does not preclude the town from planning for and strengthening other community centers, such as the area around the Rumney School and Putnamville. The relatively modest scale of each of these areas, current and future population distribution in town, and continued growth pressure stemming from Middlesex's proximity to regional centers, may support the designation and enhancement of several small community centers with distinct community

functions. Consideration of such areas should be included in the pending update of the town plan.

Several issues related to community facilities within the village and larger planning area warrant attention. The purchase of the parcel adjoining the town office has prompted discussion regarding the possible relocation of the fire station within the village. Other facility needs identified from the survey include a village green or playground, river access, sidewalks and path connections (as discussed under transportation), a community center, and additional landscaping and beautification projects. The re-establishment of a post office in the village area also received very strong support. Identified facility needs are discussed in more detail as follows.

5.2 *Water & Sewer Facilities*

Most residences and businesses within the village and larger planning area are served by individual, on-site water and sewer systems. Two small shared water systems provide water to a few local residences. Relatively high densities of development in the historic village, the desire for additional compatible growth, and concerns regarding potential groundwater contamination from leaking underground storage tanks prompted the town to commission the aforementioned *Water Supply and Wastewater Planning Study*. Options presented in this study are summarized here.

Water. The SEI consulting team recommended that a community water supply system be developed, based on a projected demand of 25,640 GPD (through 2020), to serve buildings in a proposed water service area which includes the historic village, and also the area on the southern side of the Interstate up to and including the Vermont General Services Complex and Verizon buildings. The service area could, under the third of three alternatives offered for consideration, also extend north of the interstate. By serving these areas, potential concerns about contamination from leaking underground tanks and on-site septic systems would be eliminated, as would associated isolation distance requirements that currently limit development.

A variety of funding sources were recommend to cover the majority of project costs. Based on a total of 79 users, estimated user fees to cover system operation and maintenance could range from \$453 to \$477 annually.

None of the proposed alternatives, however, provide for fire protection as called for in the town plan. The cost of system design to meet current insurance code requirements was considered prohibitive. Given the ample supply of water available from the Winooski River, it was agreed that additional dry hydrants in the Winooski and the existing fire pond at the Verizon building would be sufficient to meet anticipated fire protection needs.

MIDDLESEX VILLAGE WATER SYSTEM ALTERNATIVES					
Option	Source	Collection	Treatment	Storage	Estimated Project Cost
1	Drilled bedrock well near existing spring in Moretown	Piping across river, along Church St. to storage tank	Stand-by chlorination at well	30,000 gallon below grade, concrete reservoir accessed from Gallagher Road	Construction: \$698,400 Total Project Cost: \$999,800
2	Scribner Spring	Lines to reservoir/pumping station; or a series of small pressurized storage tanks	Chlorination in reservoir	Pre-cast concrete reservoir; or a series of pressurized storage tanks with a line to the main storage tank off Gallagher Rd.	Construction: \$599,700 Total Project Cost: \$871,300
3	Drilled bedrock well on the Colby property	Chlorination prior to storage tank	Chlorination prior to storage tank	30,000 gallon tank above well on the Colby property	Construction: \$800,160 Total Project Cost: \$1,130,760

Source: *Water Supply and Wastewater Planning Study*, Stone Environmental Inc. March 2001

Wastewater. The wastewater planning study was conducted because of concerns about the potential health and environmental impacts from on-site septic systems. The relatively small population in the core village area makes a centralized treatment plant unnecessary and expensive on a per user basis. The study concluded that, in the future, there may be a need for small cluster systems to serve pockets of town that have small lots and private water supplies. Soils within the planning area will readily support the development of such systems. Possible sites for cluster systems with capacities of 6,500+ GPD that may warrant further are noted in the accompanying table.

The consulting team also tested two other sites, one on the Colby property, and one on recently acquired town land in the village. Neither site had the capacity to handle a potential cluster system.

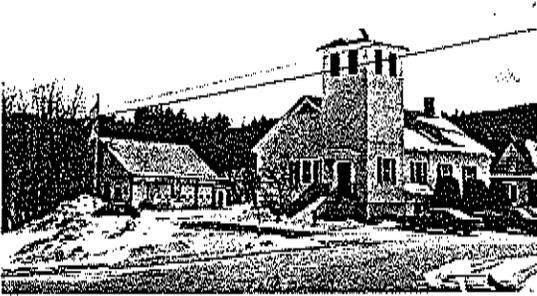
The consultants observed that the development of a water supply system to serve the majority of homes and businesses in the planning area, as recommended, would greatly reduce concerns about the impact of failing systems on water supplies, and associated development limitations.

SOIL TEST SITES		
Test Site	Location	Estimated Capacity
JCL	Colby Property	15,000 GPD
DB	Welch Park, Lot 1	8,000 GPD
ES	Scribner Property/ VELCO line	4,000- 6,500 GPD

Source: *Water Supply and Wastewater Planning Study*, Stone Environmental Inc. March 2001

5.3 *Middlesex Town Hall*

Town offices are housed in the basement of the Middlesex Town Hall, one of the village's most prominent and historic buildings. Constructed in 1901, the clapboard sided, gable-roofed meeting hall occupies the intersection of Church Street and Route 2, and includes a shingle-sided entry tower and belfry topped with a pyramidal roof. The main hall is located upstairs from the town office, and is still used for town meetings. No specific facility needs were identified; however a lack of adequate parking behind the hall was cited as problem, particularly during public meetings and events. The parking area provides access to, and is shared with, the fire station. Parking options could include expanded parking on-site, the development of additional parking on adjoining town land, shared parking (e.g., with the church) and, with its closure, on-street parking on Church Street.



5.4 *Fire Station*

The Middlesex Volunteer Fire Department (MVFD) operates out of 2 fire stations— its 3-bay main headquarters in the village, and a 1-bay substation located on Shady Hill Road. The village station houses an engine, a tanker, and a Fast Squad rescue vehicle. The current facility, originally a school, is considered inadequate for long-term use. Possible structural deficiencies have also been cited although not verified through a detailed structural assessment. Expanded service, resulting from continued residential and commercial growth will necessitate substantial improvements to the existing facility, or the construction of a new facility.

5.5 *Recreation Facilities*

There are currently no developed indoor or outdoor recreation facilities in the village or larger planning area. Survey respondents and forum participants identified the need for:

- a central green, park or playground,
- a community center, and
- additional river access.

5.6 *Town Parcels*

Within the past several years, the town has acquired two vacant parcels within the planning area. The 1.6 acre Morse parcel, with frontage on Route 2 and the new Route 100B, is contiguous to the town hall and fire station. The property was acquired to provide the town with options regarding the expansion or development of municipal facilities within the village, although no specific plans have been developed for the use of the property.

The town also acquired a 2.58 acre parcel with extensive frontage on the Winooski River. The site is located within the former "Welch Park" (formerly Dowdell Trust) subdivision which is presently the site of the Verizon administration and maintenance facility. According to representatives of the Middlesex Conservation Commission, the site was acquired for river conservation, education and recreation purposes.



Morse parcel, from new Route 100B

5.7 Facility Issues & Opportunities

1. **Water System Development.** The Stone Environmental report recommends the development of a centralized water system to serve an expanded village area. To move forward with this recommendation, additional work will be required to determine the yields and quality of the preferred sources, and associated system costs and financing options. The next step is the development of a preliminary engineering report that provides more detailed information on water sources, pumping requirements, building specifications, system hydraulics, and potential environmental impacts.

2. **Wastewater System Capacity & System Management.** Although no immediate need for shared or clustered wastewater systems was identified in the accompanying study, the town may wish to consider investigating in more detail potential large scale leach field areas to reserve for future use.

The consultants also found that the organizational structure for wastewater permitting and management in town, accomplished to a limited extent through zoning, is currently lacking. It was strongly recommended that a recently defeated town-wide sewage ordinance be rewritten with input from all parties, and reintroduced for consideration and adoption. In addition, a more comprehensive management program could be instituted to help ensure the proper installation and management of on-site systems

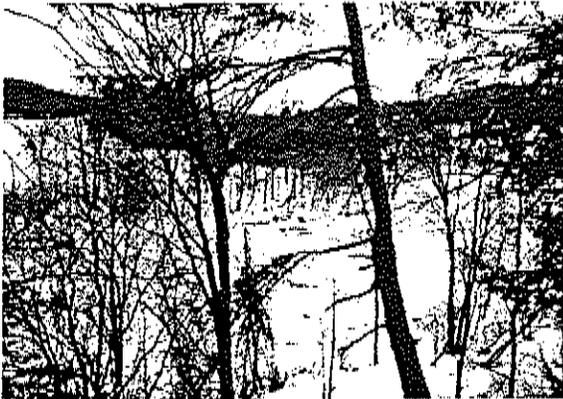
3. **Fire Station Relocation.** As noted, there has been some initial discussion regarding relocating the station to adjoining town property, which would provide more direct access onto Route 2 and/or Route 100B, though this has not yet been evaluated in relation to new road and intersection alignments. It has also been suggested that the fire station could be relocated out of the village center, within the more industrial stretch of Route 2, and closer to the existing fire pond. This would allow for the consideration of alternative uses for town-owned land in the village, including uses that could directly benefit from a central location with frontage on Route 2 or Route 100B.

4. **Parking.** There is a perceived need for additional parking in the village center, which could also serve a proposed transit stop. Parking options could include expanded parking

on-site behind the town hall, the development of additional parking on adjoining town land, shared parking (e.g., with the church), and with its pending closure, on-street parking on Church Street. Parking needs and options should be more specifically evaluated in relation to documented average and peak demands. Any new or expanded parking area should be designed for compatibility with its setting, to include landscaping, screening, and pedestrian access as appropriate.

- 5. Town & State-owned Properties.** The town had the great foresight to purchase land adjoining the town hall for future community use. A number of alternatives have been suggested for this parcel, including a new fire station, a community green, a post office, additional parking, off-street pedestrian paths, and elderly housing. Given the strategic location of this parcel, and the variety of suggested uses for it, it is strongly recommended that the appropriate use be determined, at least in part, through a facilitated community design process that includes broad based participation from town and village residents. A more detailed market or development suitability analysis may also be needed.

The town-owned rivershore property south of the Verizon building could provide river access in addition to existing portages located on Moretown side of the river above and below the power dam. The Conservation Commission is also interested in using this parcel to support local outdoor education programs. Because this parcel is located within the floodplain, it should remain largely undeveloped but could, with proper management, accommodate a variety of educational and recreational uses. This parcel could also be included in, and accessed by, a linking river path.



Town-owned river parcel from Moretown

As noted, the state also owns two parcels of land on the east side of the new Route 100B bridge. Septic disposal systems to serve two village homes will be located on a portion of these parcels. This land also offers the possibility of a riverside park or green that would complement the village center and improve access to the Winooski River.

6.0 LAND USE

6.1 Current Conditions

Despite the relatively compact settlement that characterizes the historic village, the larger 680 acre planning area is sparsely developed. Over half of the area is forested, while another 19% is comprised of agricultural fields. Forest types tend to be a mix of hard and softwoods, with large areas north of I-89 dominated by coniferous forest (which support a sizable deeryard). No information is available regarding the present use of open fields although it appears as though the land is not operated as a commercial farm.

An estimated 100 acres are located within transportation rights-of-way (e.g., railroad, I-89). Few commercial and industrial land uses exist in the planning area, although such uses consume over 25 acres - exceeding the total area used for residential purposes.

6.2 Planning Subareas

As stated previously, the planning area encompasses the existing village zoning district. This district incorporates all land between I-89 and the Winooski River, extending westward from the Route 2 truss bridge along both sides of Route 2 for approximately 1.3 miles.

The eastern portion of this district is occupied by the historic village, which has served as a residential, civic and commercial/industrial center since its earliest settlement. The historic village is markedly distinct from the western portion of the district with regard to settlement patterns, land uses, development density, visual character and development opportunities. To better address these differences, the Village District is separated into a "Historic Village" subarea and a "Village-West" subarea.

North of Exit 9, the planning area incorporates all land presently comprising the Industrial-Commercial District. Included is land on both sides of Center Road for a distance of slightly less than one mile from the interchange. As with the village, this area is decidedly different in character than the area south of Exit 9 and is addressed as a third, distinct, subarea. Each subarea is summarized in the accompanying table, and described in greater detail below.

MIDDLESEX VILLAGE/EXIT 9 PLANNING AREA: LAND USE/LAND COVER		
Land Use/ Land Cover Category	Estimated Acreage	Percent of Total
Agriculture & Open Land	129.9	19.1%
Cemetery	0.7	0.1%
Commercial Service	13.2	1.9%
Forest/woodland	365.1	53.7%
Government	12.4	1.8%
Industrial	12.7	1.9%
Institutional	0.4	0.1%
Residential	23.0	3.4%
Roads & Parking Lots	50.9	7.5%
Sand & Gravel Pits	20.1	3.0%
Scrub/Shrub	25.5	3.7%
Surface Waters	26.1	3.8%
Total	680.1	100%

Source: Central Vermont Regional Planning Commission

**MIDDLESEX VILLAGE/EXIT 9 PLANNING AREA:
PARCEL SUMMARY**

Subarea	Parcels	Acres ¹	Mean ² Parcel Size	Median ³ Parcel Size	Dwelling Units	Commercial & Industrial Uses	Civic Uses
Historic Village	38	38.32	1.0 ac.	0.66 ac.	32	4	6
Village-West (west of Camp Mead/Gallagher Lumber)	19	137.55	9.2 ac.	7.3 ac.	8	2	3
North of I-89 (located within Industrial-Commercial District)	10	405	68.5 ac. ⁴	41.6 ac. ⁴	5	0	0
Total	67	580.9	—	—	45	6	9

Notes: ¹ Acreage excludes an approximately 100 acres of land located within existing transportation rights-of-way within the planning area.

² The statistical mean is a common measure of central tendency defined as the sum total of all observations divided by their number.

³ The statistical median is another common measure that divides the distribution into two equal parts, defined as the observation that is located halfway between the smallest and largest observations in the distribution.

⁴ Parcel size for lands north of I-89 include portions of several parcels that are located outside of the Commercial Industrial zoning district.

Source: Town of Middlesex Land Records

Historic Village. The historic village may be roughly delineated as all properties east of the Ferris parcel (located immediately to the west of Camp Mead) and Gallagher Lumberyard. Approaching along Route 2 from its intersection with Center Road, this area is readily identifiable by a change in character in settlement patterns and streetscape – a sense of enclosure occurs as development becomes much more concentrated and closer to the road – and historic structures become much more prevalent.

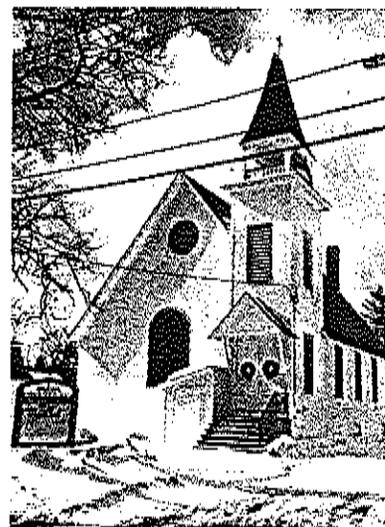
Despite its legacy as a center of industry and commerce, little development has taken place within the village in recent years. No new structures were built within the past decade, and at least one historic residence was removed prior to the construction of the new Route 100B bridge. The area, however, retains much of its traditional character, as defined by:

- a compact settlement pattern – lot sizes range from 0.18 acres to 6.8 acres, and more than 70% of the lots are less than one acre;
- a comfortable walking distance – the distance from the village center at the intersection of Church Street and Route 2 to village edges is less than a five minute walk, or around 1,500 feet;
- a concentration of residential uses – including 32 dwelling units (representing 70% of the total in the planning area) are found here;
- a defined village streetscape – especially in the vicinity of the Route 100B/Route 2 intersection, where buildings are set relatively close to the road;
- a mix of uses – the greatest concentration, and variety, of land uses within the planning area are located in the historic village;
- a relatively small (human) scale – as defined by architecture and associated land uses, including rail structures now associated with Gallagher's Lumberyard;

- a wealth of historic resources – the village, which as noted has been identified by the state as an historic district, includes over 40 historic sites and structures; and
- clear entrances, or gateways – formed by the sharp curve in Route 2 from the east, the Route 100B bridge from the south, and, from the west, the area where a concentration of buildings begins to define a built-edge to the street (or secondly, through the “S” curve past Camp Mead).

Respondents to the 2001 survey provided clear preferences on a number of issues related to land use and development within the village. In response to key questions:

- 79.9% of respondents indicated that steps should be taken to protect the historic character of the village;
- 57.8% felt the village should be the central shopping, employment and growth center within the town;
- specific uses that “should be encouraged to locate/remain in the village” included:
 - restaurants (84.3% – a need also identified by several participants at the March 14 community forum),
 - single family homes (80.4%),
 - elderly housing (77.6%),
 - business and professional offices (74.4%),
 - recreation facilities (70.9%),
 - retail stores (70.7% – although 77.1% felt that limits should be placed on the type and size of retail establishments to prevent the development of “big-box” stores); and
- 66.9% indicated that development within the village should be guided through new land use and zoning regulations.



Middlesex United Methodist Church

In response to other questions, however, respondents were less decided, or their opinions split to a much greater degree, making the results less clear. For example:

- only 44.4% supported high density affordable housing, 37.5% opposed it, and 18.1% expressed no opinion; and
- 52.2% felt that the existing village zoning district should remain unchanged, although 49.4% felt that the zoning should be changed to encourage alternative uses in the village-west area – strong support for revised zoning boundaries also was expressed by participants at the March 14 public forum.

Village-West. The character of land west of the historic village (or, alternately, west of Center Road) differs considerably from historic village. This area is physically separated from the much more heavily developed historic village by extensive Agency of Transportation rights-of-way and heavily wooded, undeveloped land along Route 2. West of the Center



Verizon Facility

Road, the landscape retains some vestiges of its agricultural past, including a historic cluster of farm structures (Knapp Farm) adjacent to the park and ride, as well as several expanses of open field. The town operated a elementary school in the building currently occupied by the Vermont State Police until the late 1960s. This area has not been developed at the density, or with the mix of uses, that characterize the historic village. Defining characteristic of the area include:

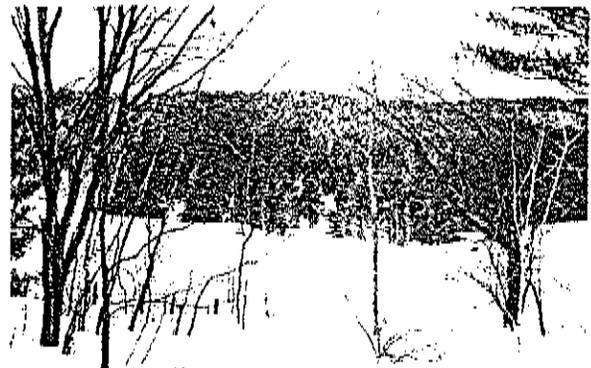
- much lower densities and larger lot sizes than the historic village – parcel sizes range from 2.6 to over 28 acres;
- scattered, low density residential development;
- the emergence of large scale commercial/industrial buildings – the most notable examples being the Verizon facility and the General Services complex;
- fewer historic structures – which are generally associated with bygone agricultural or transportation activities – notable examples include, Green Mountain Florist Supply, an excellent example of an adaptive reuse of a historic structure that maintains its original architectural heritage, and the Route 2 truss bridge;
- the presence of both ongoing and inoperative sand and gravel operations, some of which may be in need of reclamation;
- the lack of a village streetscape or comparable organizing feature– newer development is oriented toward large expanses of parking;
- areas of steep slope, especially adjacent to Route 2 immediately across from its intersection with Center Road;
- the presence of significant vacant land, or land occupied by low densities and therefore open to more intensive development, the most notable examples being vacant lots in Welch Park, the Gosselin (paintball) parcel, and the Scribner parcel (which, because of access, could be included with the historic villages for these purposes).

As is the case with the historic village, the results of the survey indicate community support for well managed development within much of this area, with some caveats. For example

- 49.4% of the respondents indicated that zoning should be revised to encourage additional industrial uses within this area, but 25.3% disagreed, and 25.3% had no opinion or did not know;
- 60% indicated, however, that the village should allow for “light” industrial development;

- only 14.4% supported the construction or expansion of additional state facilities, while 31.9% indicated they should be discouraged, and over 50% either did not have enough information to render an opinion or had no opinion; and
- 77.1% felt that limits should be placed on the type and size of retail establishments to prevent the development of “big-box” stores, which was also a common theme at the March 14 forum.

North of Exit 9. Despite its designation as a Industrial-Commercial zoning district, the planning area north of I-89 is sparsely developed. Presently, only five dwellings are located in the district, which is largely defined by forest and farmland. In many respects, this area serves as the rural contrast to the more heavily developed Village District. It also stands in stark contrast to the poorly planned and unsightly development pattern that has come to dominate many highway interchanges throughout the state and nation. The current land use reflects the state goals, established in 24 V.S.A. sec. 4302 to plan development so as to maintain the historic settlement pattern of compact villages and urban centers separated by rural countryside, and to discourage strip development along highways, and preserve important natural features of the Vermont landscape.



Colby property, west of Center Road

Due to its proximity to I-89, favorable development potential west of Center Road, and large parcel sizes which enhance landowner flexibility, this area presents a relatively clean slate for development. The presence of development limitations (especially east of Center Road), however, coupled with the rural character and residential nature of this and surrounding land, and lack of infrastructure, raise significant concerns regarding how this land should be developed and potential impacts to the surrounding community. These concerns appear to be shared by many local residents. According to survey results:

- 69.7% of the respondents did *not* agree that highway oriented commercial establishments (e.g., gasoline stations, fast food restaurants) should be encouraged north of Exit 9;
- 67.7% did *not* agree that large scale retail stores (e.g., such as a large supermarket) should be encouraged;
- 69.5% supported encouraging a mix of residential and commercial uses as an extension of the village – although only 49% supported allowing high density residential development, and 15.3% had no opinion on this matter;
- only 24.7% felt that current or future landowners should be permitted to use their land in any manner they choose (62% disagreed);
- 41.6% agreed that industrial uses should be encouraged, while 48.7% disagreed and 9.7% had no opinion;

- 60.0% supported allowing for light industrial development, however in response to another question, 71.8% disagreed with locating heavy industry/large scale manufacturing within the area – which highlights a general concern regarding the need to control the scale and intensity of new development that was also repeatedly raised at the community forum.

6.4 Existing Zoning

Middlesex has had zoning in place since (at least) the mid-1980s. The current version, adopted in March 1987, establishes five zoning districts – the **Village and Industrial-Commercial Districts**, which encompass all land in the planning area, as well as a **Medium Density Residential, Rural Residential-Agricultural and Conservation Districts**. A **Flood Hazard Overlay District** is also included in the current bylaw.

The Village and Industrial-Commercial Districts are the two most “permissive” districts with regard to development densities and range of allowed uses. The types of land uses and related development allowed in each, and current density and dimensional standards, are summarized in the accompanying table.

The current zoning bylaw also includes several development review processes and associated standards for various land uses. These include **Site Plan Review**, administered by the planning commission, which applies to all development other than agriculture, forestry, one and two-family homes and associated home-based uses (e.g., home occupations). The review standards for site plan review are limited to general criteria related to traffic access and circulation, parking, the utilization of renewable energy resources, temporary erosion control and landscaping.

Several types of land use and development are also subject to **Conditional Use Review**, administered by the Board of Adjustment. Review criteria established in part by state statute and require the Board to determine that proposed use will not adversely affect:

- the capacity of existing or planned public facilities;
- the character of the area;
- traffic on roads and highways in the vicinity
- bylaws in effect;
- existing utilization of renewable energy resources; and
- natural capability of the land to support development.

Finally, residential developments may be approved as a **Planned Residential Development (PRD)**, which allows for the Planning Commission to waive or vary certain development standards (e.g., lot size) and grant a density bonus of up to 25% to encourage clustering. Within the Village district, developments may also be approved as a **Planned Unit Development (PUD)**, which allows for a mix of residential, commercial and/or light industrial uses within a single project.

Middlesex Village Study Area Existing Zoning Summary

Land Use	Village District		Industrial District	
	Permitted ¹	Conditional ²	Permitted ¹	Conditional ²
Bed & Breakfast	✓			✓
Boarding House	✓			✓
Contractor's yard			✓	
Freight/Trucking Terminal			✓	
Government Office/Facility		✓		
Hotel		✓		✓
Industrial Use (outdoor)				✓
Machinery & Transportation Sales, Service & Repair			✓	
Manufacturing/Industry (enclosed)			✓	
Multi-Family Dwelling		✓		✓
Museum	✓			
One & Two-family Dwelling	✓			✓
Professional & Business Office (public & private)	✓		✓	
Public Utility		✓	✓	
Railroad Siding & Shed			✓	
Recreation Facility		✓		✓
Religious Institution	✓			
Restaurant	✓		✓	
Retail Store/Commercial Establishment (excluding salvage yards)	✓			
Sawmill/Lumberyard			✓	
School	✓			
Town Offices/Facility	✓			
Warehouse (enclosed)			✓	

¹ Permitted Uses may be approved by the Zoning Administrator, although all uses other than 1 and 2 family dwellings and agriculture must receive site plan approval by the Planning Commission;

² Conditional Uses must be approved by the Board of Adjustment, and may also require site plan approval from the Planning Commission.

District	Minimum Lot Size	Front Setback (from centerline)	Side/Rear Setback	Minimum Lot Frontage
Village	1 acre; 1/4 acre w/ water & sewer	50'	25'	100'
Industrial/Commercial	1 acre	50'	25'	100'

Despite the various review processes, standards regarding the appearance and orientation of new construction (especially commercial and industrial buildings), the scale and proportions of new buildings, and potential impact on the surrounding area, are limited. Such standards are not specific to the district in which the development is located, and lack specificity or guidelines to assist the review body or the applicant.

6.5 *Future Land Use Issues & Opportunities*

1. **Zoning District Boundaries.** Current zoning district boundaries within the planning area raise several concerns. Both the Village and Industrial-Commercial Districts are excessive in that they do not foster a compact settlement pattern or efficient use of land. With regard to the existing Industrial-Commercial District, the boundaries encompass large areas having moderate and severe development limitations, and potentially high natural resource value. In the case of the Village District, the boundary does not effectively address different village and industrial areas within the district- in accordance with the dual goals of maintaining historic village character and encouraging light industrial development in Welch Park.

Future decisions regarding the development of centralized water and/or sewage disposal systems should also be coordinated with the town's land use goals and zoning district designations. As recommended in Stone Environmental's *Water Supply and Wastewater Planning Study*, the town has three options regarding a future water supply system, each of which involve a service area encompassing the historic village east to, and including, the General Services and Verizon buildings. The third option could also include land north of Exit 9 in the service area. Such systems would remove well isolation distance requirements that currently limit higher densities of development within portions of the village.

With regard to sewage disposal, the study indicated that soils within much of the study area, including the historic village, village-west and portions of the area north of Exit 9 (and, generally, south of the Colby Road) are suitable for in-ground septic systems, including some deposits that could support pockets of clustered, higher density development.

To guide future development in a manner that fosters a pattern of compact village development, encourages residential and industrial uses in appropriate locations, maintains the historic character of the area and protects sensitive natural resources, the existing land use plan and related zoning district designations should be revised. Proposed revisions are depicted on the *Proposed Village Zoning Map*, and are described in Section 7.4.

2. **District Use Standards.** In association with revisions to district boundaries, it is appropriate to also review the types of uses, and associated impacts, allowed in each district to ensure that district designations provide the mix of uses desired by the town. Because each district includes land outside of the planning area, such a review would best be conducted in the context of a town-wide planning effort. Some concerns are specific to the planning area, however, such as:

- the public desire to limit large-scale, “big-box” development and highway oriented “strip development” in the vicinity of exit 9;
- support for encouraging manufacturing and related commercial activity in the Welch Park development (which is presently restricted);
- the desire to strengthen the historic Village’s traditional role as a compact, pedestrian-oriented center of commerce, government and housing;
- the need to balance reasonable development options north of I-89 with public support for limiting commercial and industrial development in this area, and for protecting the open, scenic qualities of the landscape, and natural resources, along I-89 and the Center Road.

A list of optional uses, by proposed zoning district, is provided in Section 7.4.

3. **District Density & Dimensional Standards.** As is the case with district use standards, dimensional standards should be reviewed relative to historic settlement patterns and the purpose of the respective districts. Setback and frontage standards in the Village District, for example, appear excessive relative to historic patterns. The minimum lot size for that district could also be revised to reflect historic patterns, perhaps with a third category to allow ½ acre lots if off-site water or off-site sewer is available (in keeping with the recommendations of the water and sewer study). In addition, specific limitations on the scale of certain uses, most notably retail stores, could be included in district standards to address widespread local concerns regarding the possible development of “big-box” stores.

4. **Village Character.** Current zoning, which includes site plan and conditional use review, provides minimal standards and guidance to review bodies and applicants with regard to site design, building scale and architectural character. As noted, dimensional and district standards also provide very limited oversight regarding the scale or intensity of new construction.



Bed & Breakfast on Church Street

By statute, municipalities are authorized to adopt separate historic preservation or design review standards (e.g., as an overlay district) which incorporate very specific review criteria to ensure that new development is compatible with the existing or historic character of the district. Less cumbersome would be the incorporation of minimal design standards under existing site plan and/or conditional review procedures.

The site plan review provision, which is applicable to most development other than one and two-family homes, agriculture and forestry, could be strengthened with the creation of additional review standards that are specific to the zoning district and development context. Such standards could include parking and landscaping requirements specific to the zoning district and development context.

5. **Interchange Area.** The area immediately surrounding the Exit 9 interchange, including all land within the study area north of I-89, and the immediate vicinity of the Center Road/Route 2 intersection, has not experienced the type of inappropriate, commercial strip development that has marred other interstate interchanges in Vermont.

Consequently, the area still retains its open, scenic character, providing an attractive gateway to both the town's historic village center and rural areas. Maintaining this character is an important community goal. To this end:

- The present visual character of the interchange area is important and should be maintained; highway strip development or other blighting uses should be prohibited along Route 2 or Center Road.
- To minimize traffic congestion associated with development and provide for a limited number of access points on to Route 2 and other public highways, projects abutting or adjacent to these highways should be planned to use common access points and common interior roadways.
- To satisfy job and investment opportunities and provide sufficient income for the citizens of the town and region, future economic development should be pursued selectively and evaluated fully at all levels to provide maximum economic benefit with minimal environmental, social and visual degradation.
- Development in the Interchange area should be planned to maintain the scenic character and quality of the I-89/Route 2 corridor.
- Several categories of use should not be allowed to develop in the I-89 interchange area or north of I-89 because of one or more of the following factors:
 - they would be in conflict with the character of the community;
 - they are not compatible with maintaining the scenic value of the surrounding rural landscape;
 - they are uses that are to be encouraged to develop in the village; and/or
 - they are uses that are more appropriate to locate in a nearby community desiring to be a regional service center.

Such uses include traveler services, including gas stations, motels, convenience stores, restaurants, large retail stores or complexes, warehouses and personal services.

- Future development should retain large tracts of prime agricultural soils or other critical resource areas such as stream banks, floodplains or significant wildlife habitat and open space. Agricultural and natural resources within the planning area, and particularly north of I-89, help define Middlesex's community identity and support the town's and state's goal of maintaining compact village centers surrounded by rural countryside.
- The historic village area should be the location of the Town's major commercial activity and should continue to provide most of the civic, cultural and business activities.

6. **Natural Resources.** Natural resources are described in detail in Section 3 of this report. These include extensive deeryards and areas of steep slope north of I-89, large areas of floodplain down-river from the historic village, and primary agricultural soils throughout the planning area. Future development should avoid impacting fragile natural resources, such as steep slopes and wildlife habitat, and should maintain the remaining large tracts of land containing primary agricultural soils. Specific recommendations regarding natural resources are contained in the following section.

7. **Gateways.** Specific standards related to strengthening and enhancing the entrances to the Village, including the area immediately surrounding the interstate interchange, could be included as site plan review or district standards. To avoid the type of contemporary strip development that often clusters around interchanges, restrictions on certain uses, such as gasoline stations and restaurants, could be established within a specified distance from the exit.

Historic Village and Exit 9 Area

Natural Features/Resources Goals & Recommendations

Goals:

1. To expand knowledge and understanding of the natural resources and fragile features found within the planning area.
2. To balance the protection of important natural resources, fragile features and scenic qualities with the designation and enhancement of a growth center characterized by compact, high density mixed use development surrounded by open countryside
3. To protect water quality, wetlands, critical habitat, agricultural resources and other fragile natural features from adverse impacts resulting from development activity within the study area.

Recommendations:

Consider conducting a natural resources inventory of land within the planning area, preferably as part of a larger, town-wide or regional, inventory.

Require, through local zoning, that applicants seeking to develop land south of Route 2 verify the location of the 100 year flood plain to ensure implementation of existing flood hazard bylaws.

Consider establishing water quality protection standards (e.g., stream setbacks/buffers, erosion control and stormwater management, site reclamation for sand/gravel pits) as part of the local regulatory process.

Revise existing zoning boundaries to place lands characterized by multiple development limitations, especially east of Center Road, into a more appropriate district (comparable with other adjacent lands).

Consider interim measures available to maintain current conditions until implementation of new zoning measures.

Ensure that local and state regulations allow for the development of land containing prime agricultural soils in village and industrial zoning districts south of 1-89; attempt, through clustering or other site planning techniques, to preserve a portion of the prime agricultural soils as open space located north of 1-89.

Continue work with the state to identify and monitor contamination sites within the village; and exclude such sites, and any hazardous waste generators, from source protection areas designated to serve a public water supply.

Transportation Goals & Recommendations

Goals:

1. To improve pedestrian and vehicular access and circulation within an expanded village area, and minimize user conflicts.
2. To ensure that future transportation projects within the planning area enhance and extend its historic and pedestrian character, and incorporate traffic calming, street scape and gateway improvements as appropriate.
3. To provide increased access to regular public transit services for all Middlesex residents.

Recommendations:

Investigate the use of any remaining enhancement funds budgeted for the Route 100B bridge project to finance additional street scape and gateway or park improvements within the village.

Evaluate, in association with the Agency of Transportation, the use of state owned parcels in the vicinity of the Route 100B bridge for a public park or green.

Develop a sidewalk, recreation path, and street scape plan for the expanded village area, to include construction and maintenance budget estimates and potential funding sources.

More clearly define village gateways or entrances through the use of attractive landscaping and signs.

Develop traffic calming and access management plans, and associated bylaw provisions, for the Route 2 corridor and Exit 9 interchange area.

Obtain traffic count data on the Center Road to evaluate the need for any associated road upgrades, particularly in relation to the potential development of land north of Exit 9.

Identify enhancement and other funds to restore or rehabilitate historic transportation-related structures for reuse, such as the train station, gas station, existing and proposed Route 100B bridge gateways, and the Route 2 truss bridge.

Work with the Central Vermont Transportation Authority to establish a Middlesex Village bus/van stop on existing regional transit routes.

Evaluate, in association with the Agency of Transportation, the Central Vermont Regional Planning Commission, and New England Central the expanded use of existing rail sidings, and the long-term feasibility of a commuter rail stop in Middlesex.

Facility Goals & Recommendations

Goal:

To provide the facilities and services needed within the village to support and strengthen its central role within the community, and to allow for compatible village growth and development.

Recommendations:

Proceed with the development of a centralized community water supply in accordance with consultant (SEI) recommendations to serve an expanded village area. The next step includes the preparation of preliminary engineering report and environmental review.

Evaluate proposed water service areas in relation to desired village growth and land use patterns; avoid extending services into areas outside of existing or proposed village growth centers (e.g., as defined by revised zoning districts).

Prepare a source protection area plan(s) for water sources serving a public water supply to protect source areas.

Assist the Middlesex Volunteer Fire Department in developing a system of dry hydrants and/or fire ponds, including the procurement of associated funds, to ensure adequate fire protection within the village and town.

Investigate in more detail potential leach field areas with the capacity to serve clustered on-site systems, as identified in the 2000 SEI *Water Supply and Wastewater Planning Study*; consider the reservation of sites appropriate for future community use through public ownership, easements and/or other development restrictions.

Conduct a parking needs assessment and associated options for the historic village, including, but not limited to expanded parking on-site, the development of additional parking on adjoining town land, shared parking options (e.g., with the church lot) and potential on-street parking alternatives.

Work with the Middlesex Volunteer Fire Department to identify options for fire station redevelopment and/or relocation, including, but not limited to, use of the town-owned Morse property.

Develop an outdoor recreation plan for the expanded village, including, but not limited to the development of a central park or green (e.g., near the Route 100B bridge or on the Morse parcel), an community center, and additional river access (e.g., on town or state own land, and at the end of Church Street). See also transportation recommendations for the development of an associated, interconnecting path or trail network. Identify the best use for the town-owned Morse property through a facilitated community design process (e.g., a charrette); conduct associated site analyses, and develop a site plan for the property.

Land Use Goals & Recommendations

Goals:

1. Foster a development pattern characterized by compact, mixed-use development surrounded by open countryside.

2. Maintain historic Middlesex Village as a commercial, cultural, civic and residential center of the community.
3. Encourage manufacturing and related business activities to concentrate within a well defined Industrial District south of 1-89.
4. Consider a mix of small scale mix uses in a compact manner north of 1-89, while preserving natural and agricultural resources, fragile features and the scenic and rural character of this important gateway to Middlesex.
5. Consider interim measures available to maintain current conditions until the implementation of new zoning measures.
6. Ensure that land use and development goals are balanced with, and reinforce, the Natural Resource, Transportation and Facility Goals and Recommendations set forth above.
7. Avoid strip development around the interchange.
8. Encourage development in the area north of 1-89 that would enhance the historic village as a community, commercial and business center of town.
9. Protect aesthetic and scenic character of the Center Road and 1-89 corridor.

Recommendations:

Update and adopt a revised town plan which either adopts this land use and development plan by reference, and/or incorporates related goals and recommendations.

Initiate proposed changes to the future land use element of the Middlesex Town Plan, and zoning bylaws, depicted on the *Proposed Village Zoning Map* and described below:

Revise **Village District** boundaries to better reflect historic village limits. Such boundaries should encompass the existing historic village from the current Village district's eastern boundary to the gas station on the western boundary.

Establish a new, separate **Industrial-Commercial District**, to include Welch Park and adjacent lands (e.g., State Police Barracks and Green Mountain Florist Supply) to encourage manufacturing and compatible business activity within the planned industrial park.

Designate the western portion of the existing Village District (west of Welch Park), and the portion east of Welch park to the Historic Village (the area immediately around the intersection of Route 2 & Center Road) as **Medium Density Residential District** under current zoning to maintain the existing character of the area as a low density, residential area, and avoid highway oriented commercial development.

Designate a large portion of the land north of Exit 9, presently zoned **Industrial-Commercial**, as **Conservation District** under the current zoning regulations, which is more consistent with adjacent lands, and better addresses the presence of natural features and existing development limitations.

Conduct a comprehensive natural resource inventory of the area immediately north of the I-89 exchange and south/west of Colby Road and establish means to protect the natural resource features.

Establish a new **Mixed-Use District** (immediately north of the I-89 exchange and south/west of Colby Road) to allow for a mix of residential, and/or small scale light industrial or business uses supported by shared, on-site services. Standards should promote a settlement pattern with a village scale and character while maintaining significant open space in order maintain the present rural character and scenic, natural and agricultural resources of the area.

Consider interim measures available to maintain the current conditions until implementation of new zoning measures.

Proposed boundaries of recommended zoning districts are included on the *Proposed Village Zoning Map*. Associated standards and uses are discussed briefly below and are included in Appendix D.

Based upon the land use and zoning recommendation described above, review existing permitted and conditional uses allowed within the respective districts and make changes as needed to achieve the goals of this plan. The review of uses should not be limited to the study area, but should be based upon a comprehensive review of the town's land use plan and the functional relationship of the study area with other designated growth centers. Lacking such a comprehensive review, however, a list of alternative uses for the study area is presented in the Appendix D. While not definitive, the list is included to illustrate the range and type of uses that might achieve the land use goals described above.

Explore opportunities to work with landowners within the proposed Mixed-Use District to undertake a master planning effort to coordinate the development of parcels within this district. Such an effort should identify an appropriate mix of land uses and associated development plan. An appropriate mix of uses for this area is perhaps best defined by the type and scale of development that should not occur, including large-scale (big-box) retail establishments, automobile oriented commercial establishments (e.g., gasoline stations, fast-food restaurants with drive-through restaurants) and industrial facilities.

To ensure that the proposed Mixed Use District (north of exit 9) is developed in accordance with this plan, the Planned Unit Development standards included in the existing zoning bylaw should be rewritten with a more comprehensive PUD provision and related standards. Such standards should allow for, or require:

- a desired mix of uses, including relatively high density housing, provided significant remaining land is left open, and compatible small scale industrial or business activities;
- a pedestrian orientation, characterized by an extensive network of sidewalks and walking paths, and a human scale and orientation of buildings, lighting and public spaces;
- buildings which are oriented toward and front upon streets (as opposed to large parking areas);

- an integrated network of streets and limited access directly onto Center Road; and the protection of significant open space to maintain the scenic, rural character of Center Road from exit 9 and the 1-89 corridor.

In addition to revised PUD standards, conditional use and/or site plan review standards should be reviewed and revised as appropriate to ensure that:

- parking and landscaping standards are specific to the various zoning districts; buildings in the historic village front upon and relate to public streets, and parking is located to the side or rear of buildings, industrial development is well screened from public roads and nearby residential properties;
- landscaping reinforces and strengthens the street scape, performance standards address off-site impacts of development (e.g., noise, odor, vibration, etc.), especially within the Industrial District; and the architectural design of new development is compatible with the village's historic character.

In addition to the standards described above, zoning regulations should be revised to incorporate highway access management provisions to:

- limit the number of curb cuts serving single parcels to one;
- limit direct access onto the Center Road to internal development roads serving multiple parcels or uses;
- require the elimination and/or consolidation of pre-existing multiple accesses; limit the width of new curb cuts and require the reduction of excessively wide preexisting curb cuts; and
- encourage shared access where compatible adjoining uses allow it.

LIST OF APPENDICES

- A. Planning Maps**
- B. Community Survey Results**
- C. Community Forum Summary**
- D. Alternative Zoning Standards**

Middlesex Village Study: Orthophotomap with Parcels



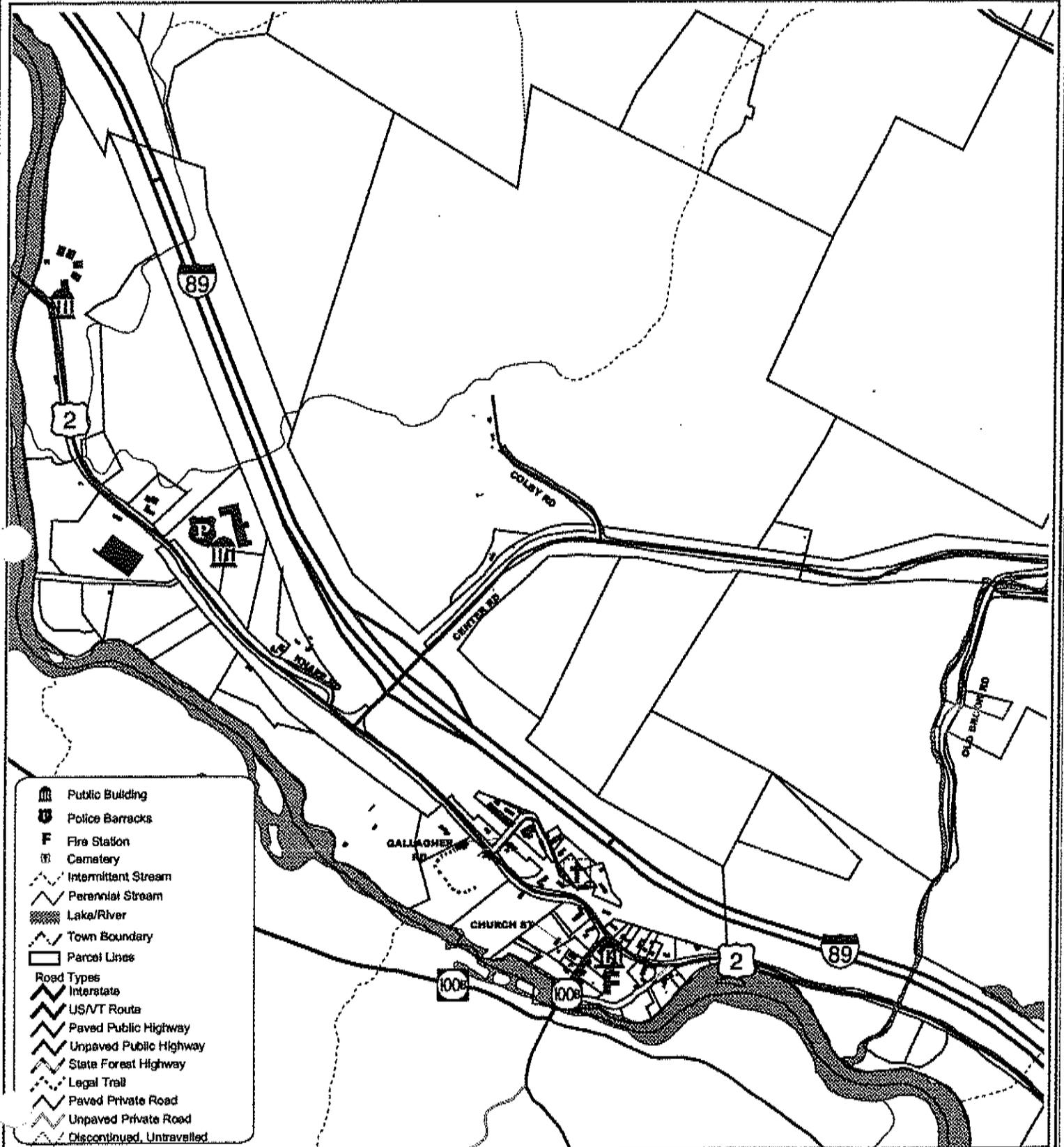
Source:
Orthophotography: 1:25,000, Vermont Mapping
Program, 1996-1998.
Parcel Lines: Middlesex Parcel Data, 1990.



This map is for planning only.
This map may contain errors and omissions.
This map is only as accurate as the original source
materials.

Created by K. Fuller, CNRPC on 5-16-01.
K:fuller@vt.gov 404-16-607

Middlesex Village Study: Facilities and Services



Source:
Public Buildings: 1:5,000 Aerial Data, VCOI, 1999.
Surface Waters: 1:5,000 CVRPC Surface Waters Data, 1995-1999.
Building Footprints: Digitized from 1:5,000 Orthophotograph, 2001.
Parcel Lines: Knowledge Parcel Data, 1999.
Road Data: E-911 Road Data, VCOI, 2000.

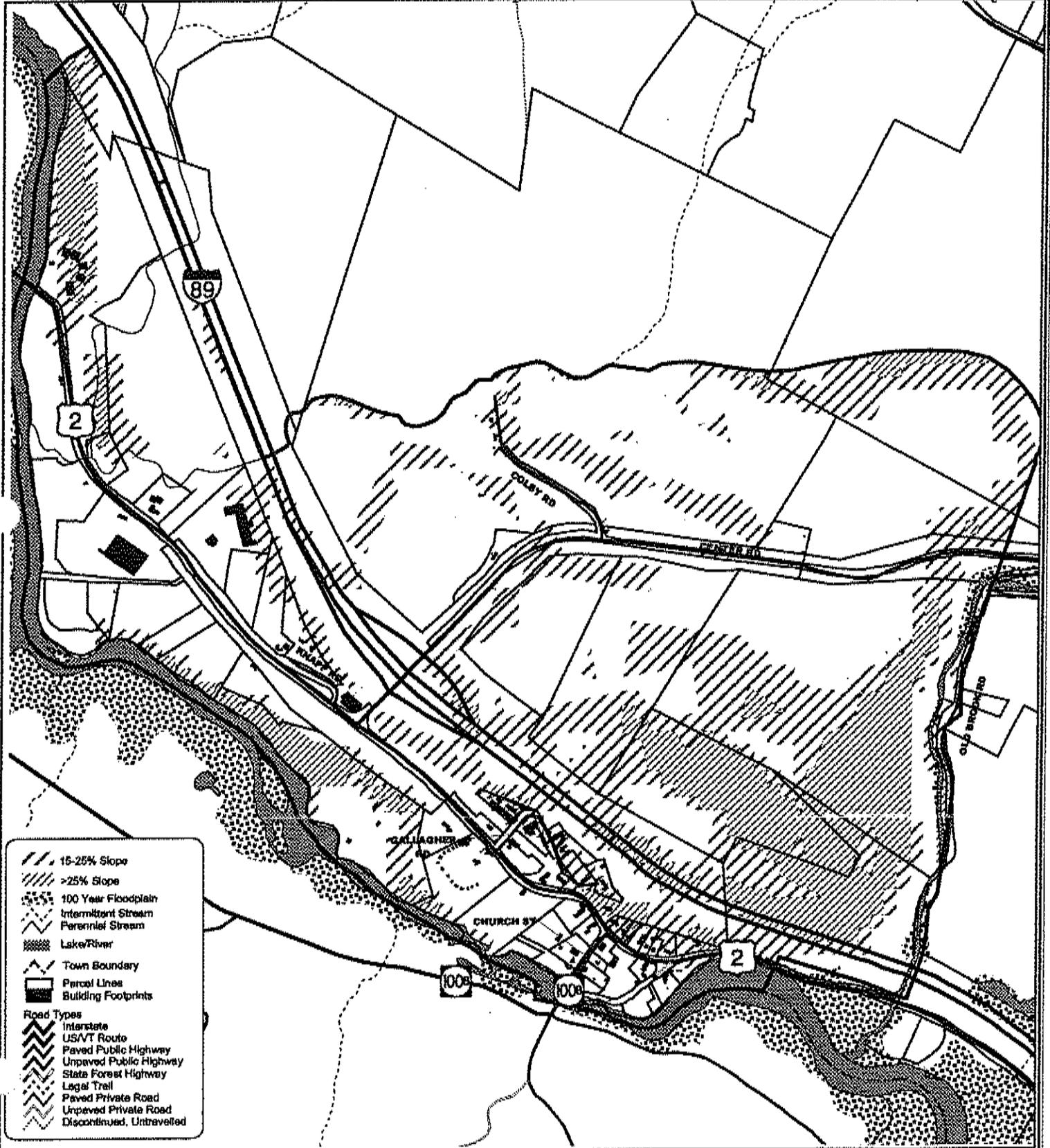


This map is for planning only.
This map may contain errors and omissions.
This map is only as accurate as the original source materials.

Created by K. Faber, CVRPC on 3-16-01.
A Universal Access Project by ISIP

Middlesex Village Study: Development Limitations

Map 1



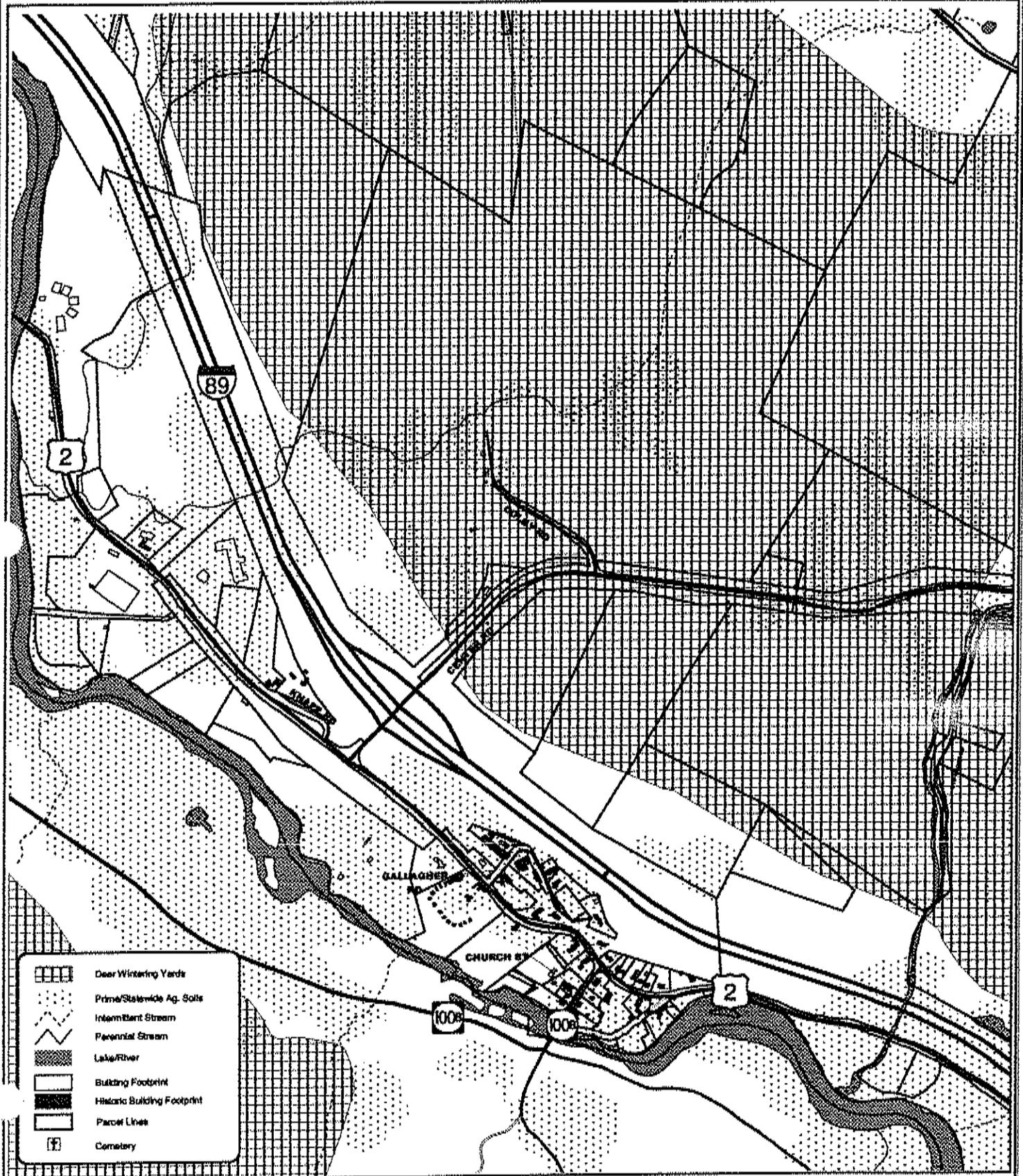
- 15-25% Slope
- >25% Slope
- 100 Year Floodplain
- Intermittent Stream
- Perennial Stream
- Lake/River
- Town Boundary
- Parcel Lines
- Building Footprints
- Road Types**
- Interstate
- US/VT Route
- Paved Public Highway
- Unpaved Public Highway
- State Forest Highway
- Legal Trail
- Paved Private Road
- Unpaved Private Road
- Discontinued, Untraveled

Source:
 100 Year Floodplain: FEMA Q3 Data, 1999.
 Slope: Derived from 7.5 minute USGS DEM, 1992.
 Surface Water: 15,000 Contour Surface Water Data, 1996-1998.
 Building Footprints: Digitized from 1:25,000 Orthophotograph, 2001.
 Parcel Lines: Middlesex Parcel Data, 1990.
 Road Data: 5-111 Road Data, VCGI, 2000.



This map is for planning only.
 This map may contain errors and omissions.
 This map is only as accurate as the original source material.
 Created by K. Fisher, CDMHC on 5-16-01.
 H:\mvs\GIS\Study\Map1\16-01

Middlesex Village Study: Natural & Cultural Features



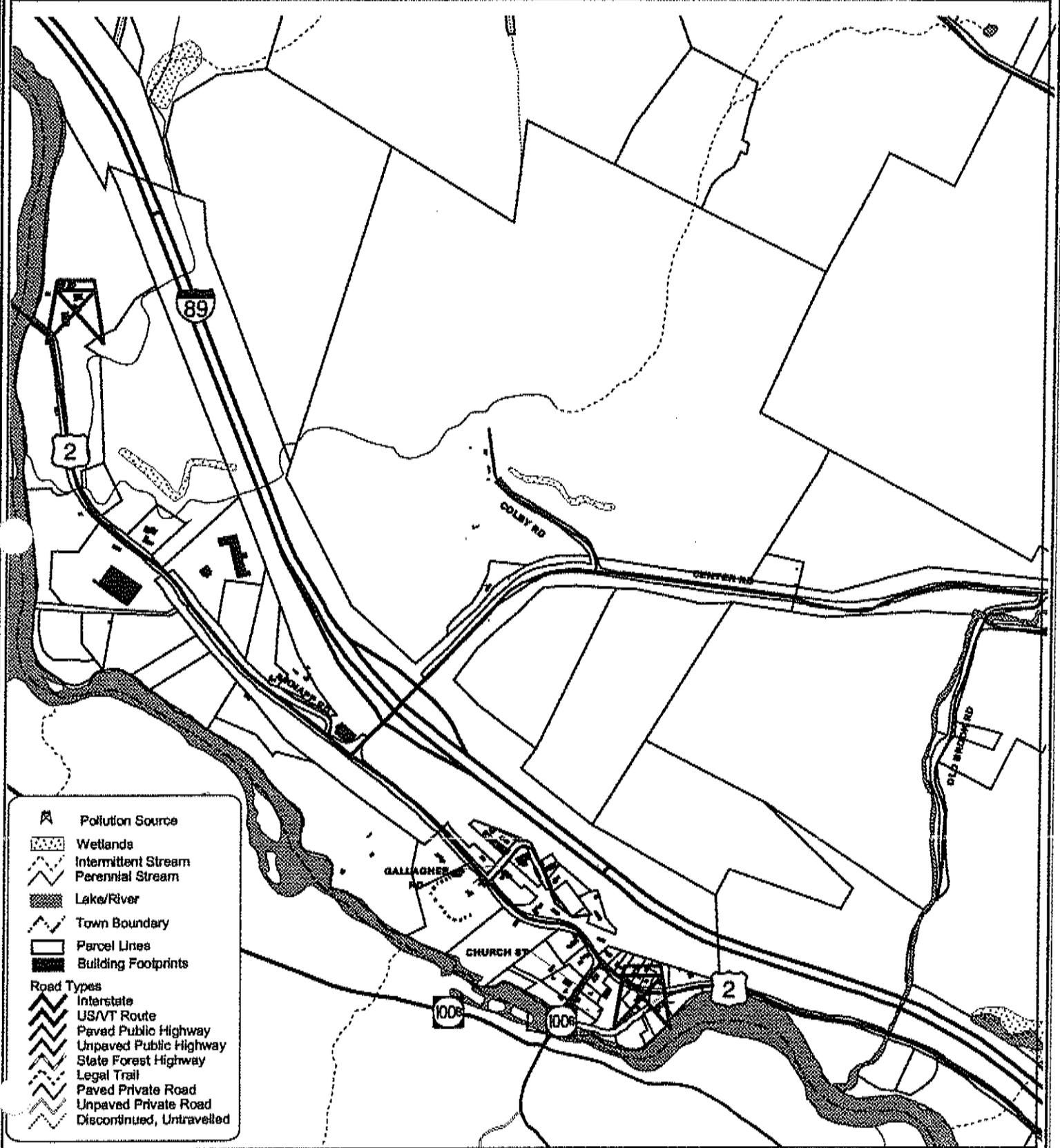
Source:
Soils: Digitally scanned from 1:25,000 USDA-NRCS soil maps, 1991.
Deer Wintering Yards: 128,000 and 135,000 VAMR, 1998.
Surface Waters: 1:5,000 GVRC, Department of Environmental Affairs, 1996-1999.
Building Footprints: Digitized from Middlesex Village, 2001.
Parcel Lines: Middlesex Parcel Data, 2001.
Road Data: E-911 Road Data, 2001.



This map is for planning only.
This map may contain errors and omissions.
This map is only as accurate as the original source materials.
Created by K. Paker, CVRPC on 3-10-01.
k.paker@middlesex.gov

Middlesex Village Study: Development Limitations

Map 2



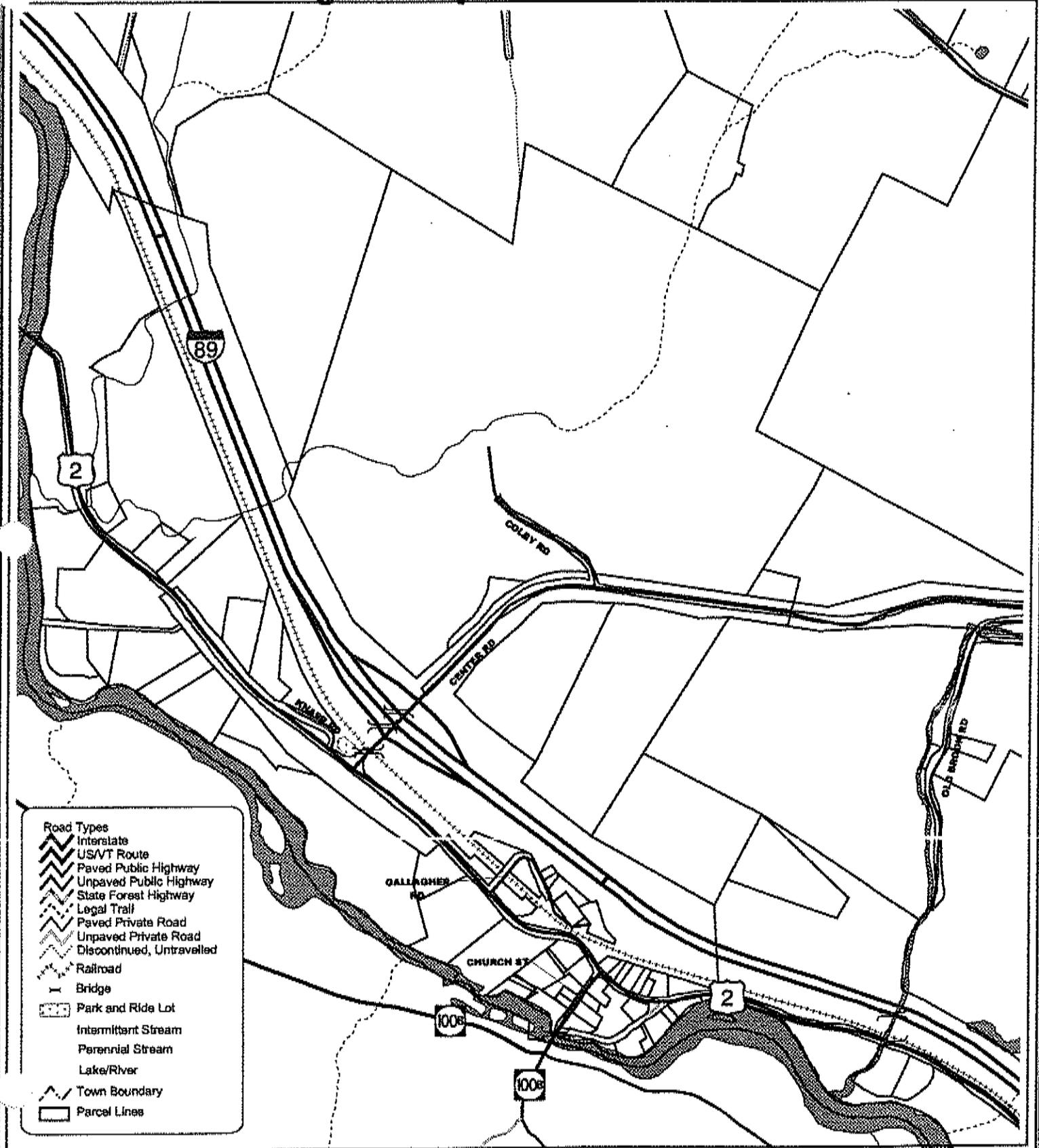
- Pollution Source
- Wetlands
- Intermittent Stream
- Perennial Stream
- Lake/River
- Town Boundary
- Parcel Lines
- Building Footprints
- Road Types**
- Interstate
- US/VT Route
- Paved Public Highway
- Unpaved Public Highway
- State Forest Highway
- Legal Trail
- Paved Private Road
- Unpaved Private Road
- Discontinued, Untravelled

Source:
 Wetlands: 1:50,000 USFWS, 1976-1978.
 Surface Waters: 1:50,000 DWR/DNR Surface Waters Data, 1995-1996.
 Building Footprints: Digitized from 1:50,000 Orthorectification, 2001.
 Parcel Lines: Middlesex Parcel Data, 1990.
 Road Data: E-911 Road Data, VDOT, 2000.



This map is for planning only.
 The map may contain errors and omissions.
 This map is only as accurate as the original source materials.
 Created by K. Fisher, DVRPD on 3-18-01.
 r:\source\middlesex\map21a.apr

Middlesex Village Study: Village Transportation Network



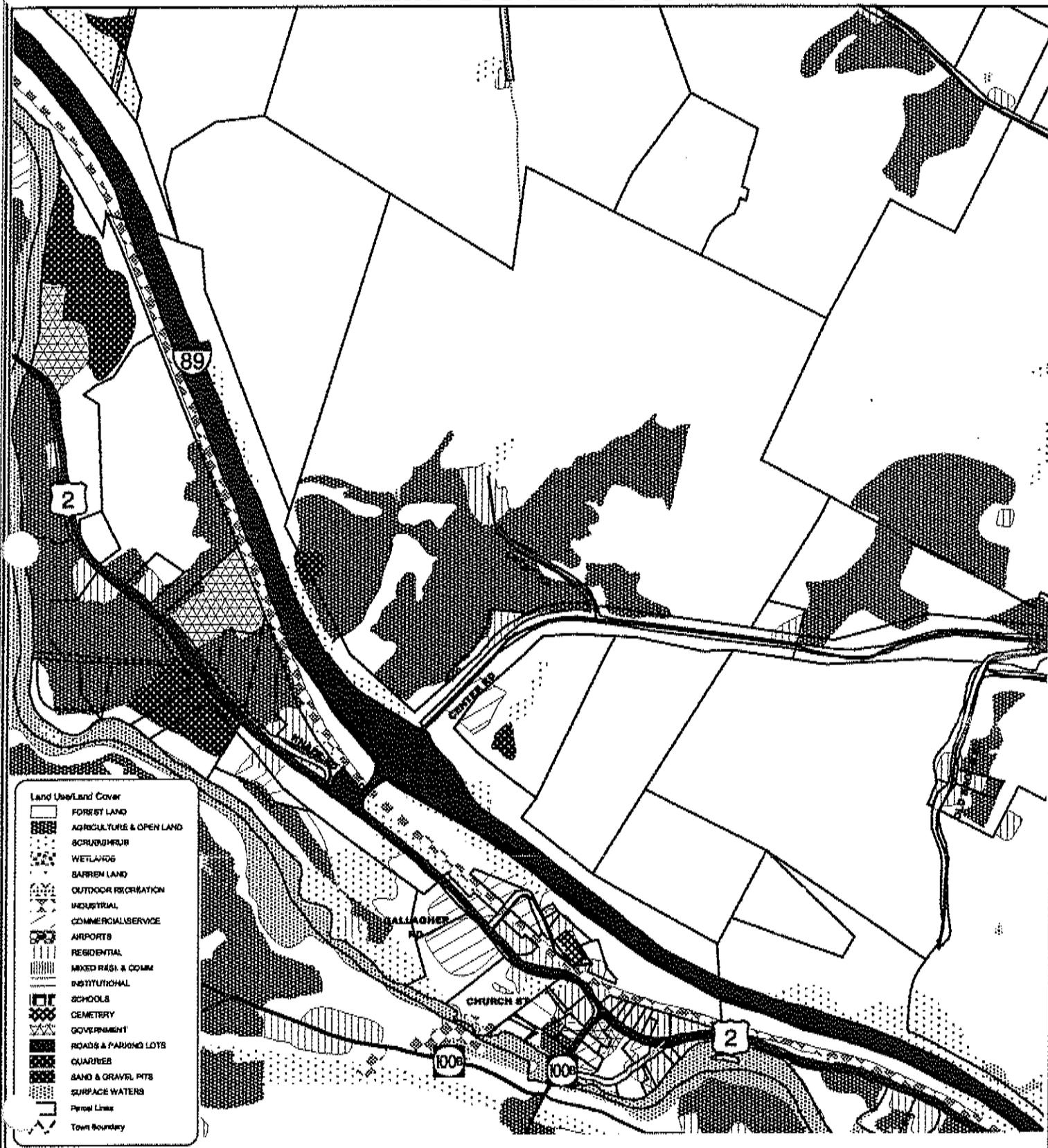
- Road Types**
- Interstate
 - US/VT Route
 - Paved Public Highway
 - Unpaved Public Highway
 - State Forest Highway
 - Legal Trail
 - Paved Private Road
 - Unpaved Private Road
 - Discontinued, Untraveled
- Railroad**
- Bridge
- Park and Ride Lot**
- Intermittent Stream
 - Perennial Stream
 - Lake/River
- Town Boundary**
- Parcel Lines

Source:
 Road Data: © 2011 Road Data, VDOT, 2000.
 Railroad: 1:5,000 ADT Data, 1974-1980.
 Bridge Data: Long Structures, VDOT, 1998.
 Surface Waters: 1:5,000 CHRPC Surface Waters Data, 1995-1998.
 Park and Ride: Digitized from 1:5,000 Orthophotographs, 2001.
 Parcel Lines: Middlesex Parcel Data, 1990.

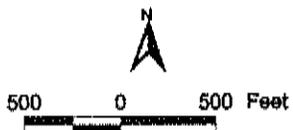


This map is for planning only.
 This map may contain errors and omissions.
 This map is only as accurate as the original source
 materials.
 Created by K. Paker, CURPC on 5-18-01.
 k.paker@middlesexvt.org

Middlesex Village Study: Land Use / Land Cover



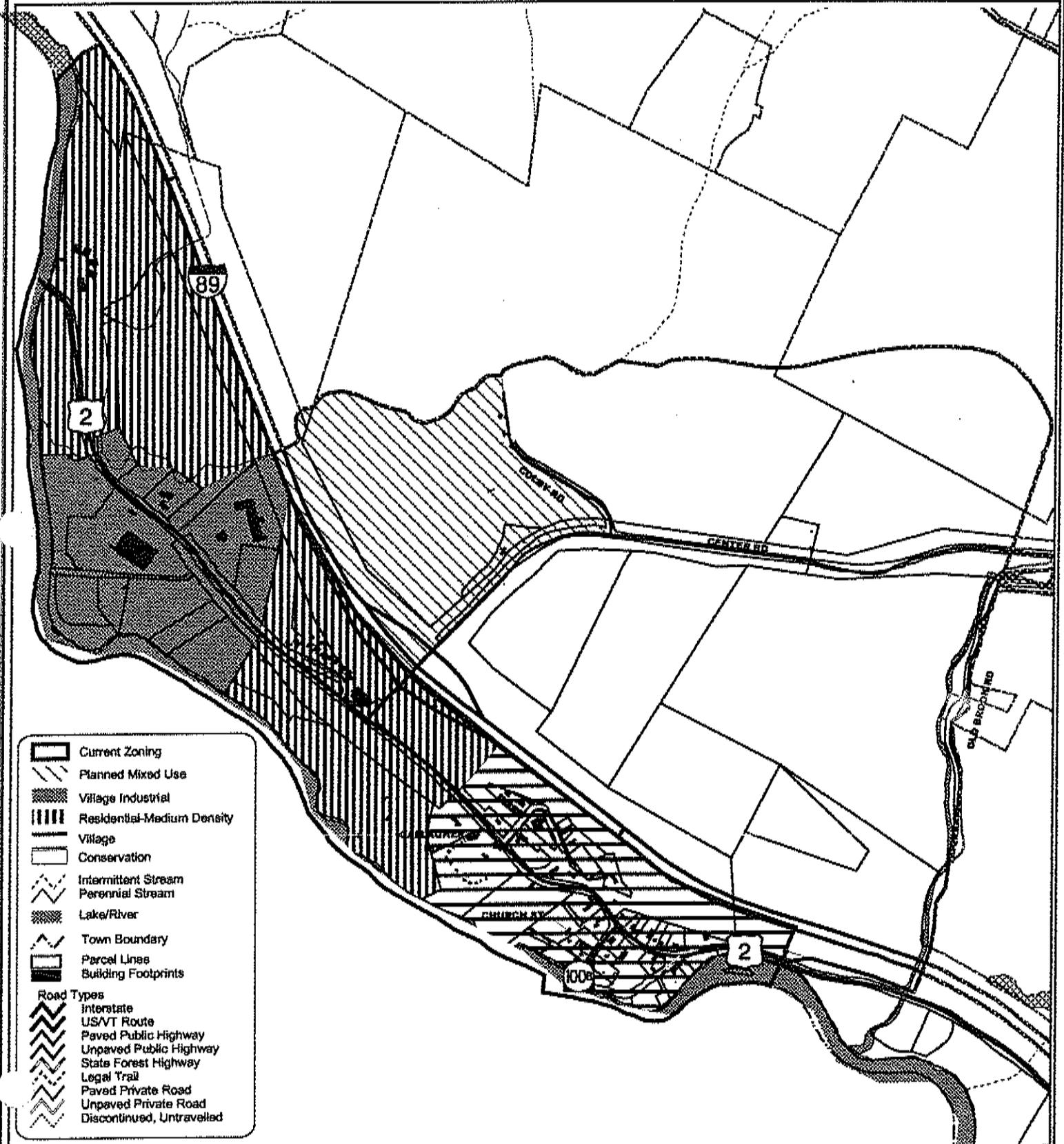
Source:
Land Use/Land Cover: 1:6,000 and 1:40,000 CVRPC Data, 1995.
Surface Waters: 1:5,000 CVRPC Surface Waters Data, 1995-1998.
Parcel Lines: Middlesex Parcel Data, 1990.
Road Data: E-911 Road Data, VCGI, 2000.



This map is for planning only.
This map may contain errors and omissions.
This map is only as accurate as the original source materials.

Created by K. Fuller, CVRPC on 3-16-01.
k.fuller@middlesex.gov 1h AD

Middlesex Village Study: Proposed Village Zoning



- Current Zoning
 - Planned Mixed Use
 - Village Industrial
 - Residential-Medium Density
 - Village
 - Conservation
 - Intermittent Stream
 - Perennial Stream
 - Lake/River
 - Town Boundary
 - Parcel Lines
 - Building Footprints
- Road Types**
- Interstate
 - US/VT Route
 - Paved Public Highway
 - Unpaved Public Highway
 - State Forest Highway
 - Legal Trail
 - Paved Private Road
 - Unpaved Private Road
 - Discontinued, Untravelled

Source:
Proposed Zoning: Middlesex Zoning, 2001.
Surface Waters: 15,000 CVRPC Surface Waters Data, 1995-1996.
Building Footprints: Digitized from 1:25,000 Orthophotographs, 2001.
Parcel Lines: Middlesex Parcel Data, 1990.
Road Data: E-911 Road Data, VCS, 2000.



GIS
This map is for planning only.
This map does not establish laws and regulations.
This map is only as accurate as the original source
materials.
Created by K. Fuller, CVRPC on 3-14-01.
C:\town\middlesex\town\14-01

**Middlesex Village Survey
Summary of Results
March 23, 2001**

Please indicate whether you agree or disagree with the following statements, which are included in the current Town Plan?

	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
a. The Village needs to become a central focal point for activities within the Town.	5	3.7%	3	2.2%	22	16.3%	75	55.6%	30	22.2%
b. Middlesex Village should remain the center for town government for the Town.	2	1.2%	4	2.5%	5	3.1%	93	57.1%	59	36.2%
c. Steps should be taken to protect the historic character of the Village.	4	2.5%	11	6.9%	17	10.7%	78	47.8%	51	32.1%
d. The Village should be the central shopping, employment and growth center within the Town.	9	5.6%	35	21.7%	24	14.9%	66	41.0%	27	16.8%
e. The Village should have high density affordable housing.	2 4	15.0%	36	22.5%	29	18.1%	53	33.1%	18	11.3%
f. The Village should have a Town Common or other location for gathering and socializing.	9	5.7%	21	13.2%	14	8.8%	62	39.0%	53	33.3%
g. The Village should allow for light industrial development.	1 3	8.1%	33	20.6%	18	11.3%	79	49.4%	17	10.6%
h. Development within the village should be guided through new land use and zoning regulations.	1 2	7.4%	14	8.6%	28	17.2%	64	39.3%	45	27.6%

(2) Should the Town encourage or discourage the expansion or construction of additional State-owned facilities in Middlesex Village?

Encourage: 23 – 14.4%; Discourage: 51 – 31.9%; Depends/not enough information: 74 – 46.3%; No Opinion: 12 – 7.5%

(3) The western end of the Village, between the state Park & Ride and the Route 2 bridge over the Winooski River to Moretown, is presently zoned as part of the Village District. Several industrial uses and state facilities, including a transportation maintenance facility and State Police barracks, are located in this area. Would you support changing the zoning to encourage additional industrial uses in this area?

Yes: 78 – 49.4%; No: 40 – 25.3%; Don't know: 36 – 22.8%; No Opinion: 4 – 2.5%

(4) The area north of I-89 (Exit 9— see map on following page) is designated as an industrial zoning district in the current Middlesex zoning bylaws. With regard to this area of town, what is your opinion regarding the following statements?

	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
a. Industrial uses should be encouraged.	36	23.4%	39	25.3%	15	9.7%	48	31.2%	16	10.4%
b. Highway-oriented commercial uses (e.g. gasoline stations, fast food restaurants) should be encouraged.	58	37.4%	50	32.3%	11	7.1%	33	21.3%	3	1.9%
c. Large scale retail stores that would serve a regional market (e.g., large supermarket) should be encouraged.	63	40.6%	42	27.1%	17	11.0%	27	17.4%	6	3.9%
d. A mix of residential and small scale commercial uses should be encouraged as an extension of the village.	15	9.7%	15	9.7%	17	11.0%	87	56.5%	20	13.0%
e. High density (village scale) residential development should be encouraged.	23	14.6%	54	34.4%	24	15.3%	43	27.4%	13	8.3%
f. The current or future landowners should be permitted to use the land in any manner they choose.	47	29.7%	51	32.3%	21	13.3%	21	13.3%	18	11.4%
g. Land uses should be restricted to low density residential uses consistent with other residential districts.	11	7.4%	35	23.5%	31	20.8%	53	35.6%	19	12.8%

(5) Do you agree or disagree that the following uses should be encouraged to locate/remain in Middlesex Village?

	Strongly Disagree		Disagree		No Opinion		Agree		Strongly Agree	
a. Municipal Facilities open to the public (town offices, library)	1	0.6%	4	2.5%	8	5.0%	76	47.8%	70	44.0%
b. Municipal Facilities closed to the public (fire department, town garage)	6	3.9%	27	17.8%	18	11.8%	62	40.8%	39	25.7%
c. Post Office	0	0.0%	11	7.2%	23	15.0%	73	47.7%	46	30.1%
d. Retail Stores	6	3.8%	19	12.1%	21	13.4%	82	52.2%	29	18.5%
e. Business and Professional Offices	4	2.5%	16	10.0%	21	13.1%	89	55.6%	30	18.8%
f. Restaurant	4	2.6%	7	4.6%	14	9.3%	95	62.9%	31	20.5%
g. Recreation Facilities	5	3.2%	21	13.5%	19	12.3%	76	49.0%	34	21.9%
h. Home Based Businesses	1	0.7%	11	7.2%	24	15.7%	90	58.8%	27	17.6%
i. Light Industry/Small Scale Manufacturing	12	7.9%	26	17.1%	20	13.2%	78	51.3%	16	10.5%
j. Heavy Industry/Large scale manufacturing	61	36.5%	59	35.3%	15	9.0%	25	15.0%	7	4.2%
k. Single-family Homes	1	0.6%	8	5.1%	22	13.9%	97	61.4%	30	19.0%
l. Multi-family Housing (apartments)	15	9.6%	26	16.6%	16	10.2%	76	48.4%	24	15.3%
m. Elderly Housing	3	1.9%	10	6.4%	22	14.1%	92	59.0%	29	18.6%

(6) Regarding retail development in and around the Village, should limits be placed on the type and size of individual retail stores to prevent large (big-box) development on vacant land zoned for such uses?

Yes: 121 – 77.1%; No: 25 – 15.9%; Don't know: 7 – 4.5%; No Opinion: 4 – 2.5%

(7) Do you believe the existing Village zoning district boundaries (see map) are:

Too big – they should be reduced: 30 – 22.1%; Too small – they should be expanded: 27 – 19.9%
 Just right as they are: 71 – 52.2%; Other: 8 – 5.9%

(8) Should the Town provide additional infrastructure (e.g., community water supply, sewage collection and treatment facilities) to serve existing and future uses in the Village?

Yes: 26 – 17.2%; No: 22 – 14.6%; Only if paid for by the users: 57 – 37.7%; Need more information: 46 – 30.5%

(9) From the list below, please indicate which public improvements the town should consider making in Middlesex Village? (please circle all that apply)

Sidewalks (Route 2 & 100B): 63 – 45%; Village Green/Playground: 87 – 62.1%; Public Water System: 38 – 27.1%
 Path connections: 59 – 42.1%; Transit Service: 55 – 39.3%; River Access: 94 – 67.1%
 Park & Ride improvements: 20 – 14.3%; Sewage Collection: 31 – 22.1%; Community Center: 58 – 41.4%;
 Landscaping/beautification: 56 – 40%; Other: 12 – 8.6%

10) The town recently acquired the Morse parcel behind the Town Office (between Town Hall and General Store) for public uses. What suggestions do you have, if any, for the future use of that parcel? (please circle all that apply)

Public Parking: 27 – 18.9%; Community Center: 53 – 37.1%; New Fire Station: 30 – 21.0%; Parkland/Playground: 97 – 67.8%; 9 – 6.3%

A VISION FOR OUR VILLAGE

MIDDLESEX COMMUNITY FORUM SUMMARY

March 14, 2001

Considerations in drafting a Village Plan:

- We need more green space, and river access.
- We should take advantage of the river as a resource, with more access.
- The Village could become more of a center for the town, with more services and businesses.
- Living in town makes me feel somewhat disconnected from the Village.
- Options for the new town property should be evaluated.
- The "haunted house" could be used for affordable housing, and space for the Historical Society.
- The Village is too small to be all things to all people, but it could be more vibrant.
- Provide a more pedestrian orientation, green space, and river access.
- What would the Narrows be like without a dam?
- We need more housing, including alternatives to single family dwellings.
- The impact of new development on the historic and residential character of the Village is a serious concern.
- Recognize that Route 2 is a state road, maintained by the state.
- Consider village residents when developing a plan for the village.
- Preserve and enhance the historic district, and provide more services.
- The increasing amount of traffic on Route 2 makes it dangerous for pedestrians and children waiting for the bus.
- Identify where we want to go as a village over the next 20 years, and how it relates to the town, before we do a detailed village plan. We need to define its function and purpose.
- It's important for the Village and Town to have a plan and zoning.
- Water, sewer, public transportation and beautification are needed ~ in that order.
Aesthetically, the Village is going down hill.
- The church, several years ago, looked into handicapped accessibility and then uncovered water and sewer issues. We need to deal with water and sewer in order to keep the church and other businesses in the Village.
- Concentrate growth in the village ~ keep it out of the mountains.
- Water and sewer are critical to the vitality of the Village.
- We need to look for more tax base, businesses.
- Growth is inevitable. We need to plan ahead in order to manage it.
- A post office or a central gathering place would strengthen the Village's identity.
- We need to resolve the conflicts existing in the current zoning. For example, no industrial uses are allowed within the industrial district, and there are no residential or mixed uses allowed in commercial and industrial zones.
- The interchange area could be good for bringing in new business, but it needs to be planned.
- A lot of money is going by on the interstate that could support growth in the tax base.

- Minimum frontage and lot size requirements are too small and will encourage too much housing ~ these should be increased.
- Break the traffic flow and reduce speeds on Route 2 into and through the Village.
- We'll be taxed out of Middlesex.
- The "town center" is the school ~ that's where the money should go.
- The Selectboard really wants to know what residents want for the Village, and the Colby property north of I-89. The interchange is here, it's not going away.
- There are a lot of diverse views. We need a compromise that everyone can live with ~ as a community we face a real challenge.
- We need to look at the fiscal side as well.
- Act 60 doesn't currently support development or growth in the tax base.
- The Selectboard shares these concerns ~ that's why they commissioned the water and sewer study.
- With an aging population, public transportation will become more important.
- It's a concern that the residents of the town may be willing to sell out the village in favor of an expanded tax base and lower taxes.
- It's easier to reach consensus on what we don't want ~ like big boxes, or to look like Williston.
- We need to solicit input from Village residents.
- We need a park, a community center, a post office ~ a nice town center.
- The town center is not necessarily the Village.
- Make the village more environmentally friendly.
- Develop creative parking off of, and screened from, the road. It should be nice looking.
- An art center or gallery would help bring in tourist dollars.
- Provide traffic safety through design.
- We need to respect the people who live in the Village.
- Develop a consensus-based plan that balances tax base with growth management.
- We need a dry hydrant system.

**MIDDLESEX COMMUNITY FORUM:
SMALL GROUP SUMMARIES
March 14, 2001**

Appropriate Land Use	Group 1	Group 2	Group 3
Religious Institutions	H, W		
Creamery	N, W		
Food Processing	N, W		
Train Station	H		H
School	W		
Historical Society Home/Museum	H	H	H
Day Care	H, W	H	H, W
Affordable Housing	H, N	H	H, N
Bed & Breakfast/Small Hotel	H, W, N	H	
Cultural Facilities	H		H
General Store (not convenience store)	H	H	H
Public Facilities	H, W, N		H
Light Industry	N, W	W	W
"Clustered" Housing	N	N	N
Fire Station	H, W, N	H	H
Restaurant	H	H	H
Sidewalks/Pedestrian Safety	H, W	H	
Open Space (improved parks; village green)	H, W, N	H	H
Elderly Housing	H, W, N	H	H
Small Tourist Attractions/Amenities	W, N	H, N	H
Post Office	H	H	H
Professional Office	H, W, N		H, W, N
Underground Utilities	H, W, N		
Recreation Facilities (paths, biking, swimming)	H, W, N		
Housing/Residential Development	N	H, W, N	N
Teen/Community Center	H		
Agriculture & Forestry (open space)	N, W	N	N

**H = Historic Village (East of Center Road);
W = Village West of Center Road;
N = Land North of the I-89**

Appropriate Land Uses (continued)	Group 1	Group 2	Group 3
"Small-scale Retail		H	H
Agriculture Education Center	N, W		
Home Businesses		H, W, N	H, W, N
Lumbermill		H	
Garage/Automobile Repair			H
Comments			
Good design is as important as type of use.	✓	✓	✓
Scale is important, especially re: commercial uses.	✓	✓	✓
Impacts of development should be considered.	✓	✓	✓
Inappropriate Land Use	Group 1	Group 2	Group 3
"Heavy" Industry	✓	✓	✓
Large Scale Retail (Big Boxes)	✓	✓	✓
Strip Development		✓	
Additional State Facilities		✓	✓
National Franchises/"plastic" stores	✓		✓
Large Traffic Generators		✓	✓
Quick-stop convenience stores	✓	✓	✓
Shopping Malls			✓
Truck Stops	✓		
Radio Towers	✓		
Prison	✓		
Car Dealerships	✓		
Bars	✓		

**MIDDLESEX COMMUNITY FORUM:
SMALL GROUP SUMMARIES
March 14, 2001**

Suggested Uses for the Morse Property	Group 1	Group 2	Group 3
Park/Village Green	✓	✓	✓
Fire Station (access onto Route 2)	✓	✓	✓
Allow value to increase then sell it	✓		
Parking	✓		
Suggested Uses for existing Town Hall/Fire Station	Group 1	Group 2	Group 3
Remove Fire Station/Expand Parking		✓	✓
Expand Town Hall		✓	
Convert Fire Station to a Community/Teen Center	✓		
Suggested Uses for River-front parcel	Group 1	Group 2	Group 3
Canoe/Fishing access			✓
Open space/recreation			✓
Suggested Uses for other Public Land	Group 1	Group 2	Group 3
Convert VTrans site (east of new bridge) to river park			✓
Purchase/protect Colby property for open space		✓	
All Town-owned land should be clothing optional	✓		

Middlesex Village Study Area Alternative Zoning Standards

Land Use ¹	Village	Industrial (Welch Park)	Mixed-Use	Med. Density Residential
Permitted Uses, denoted with a "P," may be approved by the Zoning Administrator, although all uses other than 1 and 2 family dwellings and agriculture must receive site plan approval by the Planning Commission; Conditional Uses, denoted with a "C," must be approved by the Board of Adjustment, and may also require site plan approval from the Planning Commission.				
Accessory Apartment	C		C	C
Accessory Use	P	P	P	P
Agriculture/Forestry	P	P	P	P
Automobile Service Station (inc. gasoline sales)	C			
Bed & Breakfast	P		C	P
Boarding House	P			P
Contractor's yard		C		
Campground	C		² C	
Day Care Facility	P	C	C	C
Extraction of Earth Resources			C	C
Freight/Trucking Terminal		C		
Hotel	C			
Industrial Use (outdoor)		C		
Library	P	C		
Machinery & Transportation Sales, Service &		C		
Manufacturing/Industry (enclosed)	C	C		
Mixed Use	C	C	² C	
Multi-Family Dwelling	C		² C	
Museum	C			
One & Two-family Dwelling	P		P	P
Professional & Business Office (public & private)	P	C	² C	
Public Utility	C	C	C	
Railroad Siding & Shed	C	C		
Recreation Facility (indoor)	P		C	
Recreation Facility (outdoor)	P	P	P	P
Religious Institution	P			
Residential Care Facility	C		² C	
Restaurant (drive-through prohibited)	C			
Retail Store/Commercial Establishment (excluding	C			
Sawmill/Lumberyard	C	C	C	
School	C			
Town Offices/Facility	P	C		
Warehouse (enclosed)	C	C		

**Middlesex Village Study Area
Alternative Zoning Standards (continued)**

District	Minimum Lot Size	Minimum Lot Size	Front Setback ³ (from centerline)	Max. Lot ⁴ Coverage	Minimum Lot Frontage
Village	1 unit/1 acre; 1 unit/½ acre w/ water or sewer 1 unit/¼ acre w/ water & sewer	¼ - 1 acre (see density)	35'	75%	40'
Industrial	N/A	½ acre	50'	20%	100'
Mixed Use	1 unit/½ acre	½ acre or as permitted in PUD/PRD	45' from town/private road 125' from Center Road	10%	80' town/private road 500' Center Road
Med. Density	1 unit/2 acres	2 acres	75'	5%	200'

- ¹ Exempted uses (e.g., home occupations, home child care) not shown in table.
- ² Use should be allowed only within a Planned Unit Development (PUD) approved by the Planning Commission (or Development Review Board).
- ³ Building setbacks, including side and rear, especially in the historic village, should be carefully considered relative to existing settlement patterns and setback distances.
- ⁴ Lot coverage includes all impervious surface (e.g. buildings, parking areas, driveways); no coverage standards is included in the current Middlesex Zoning Bylaw.