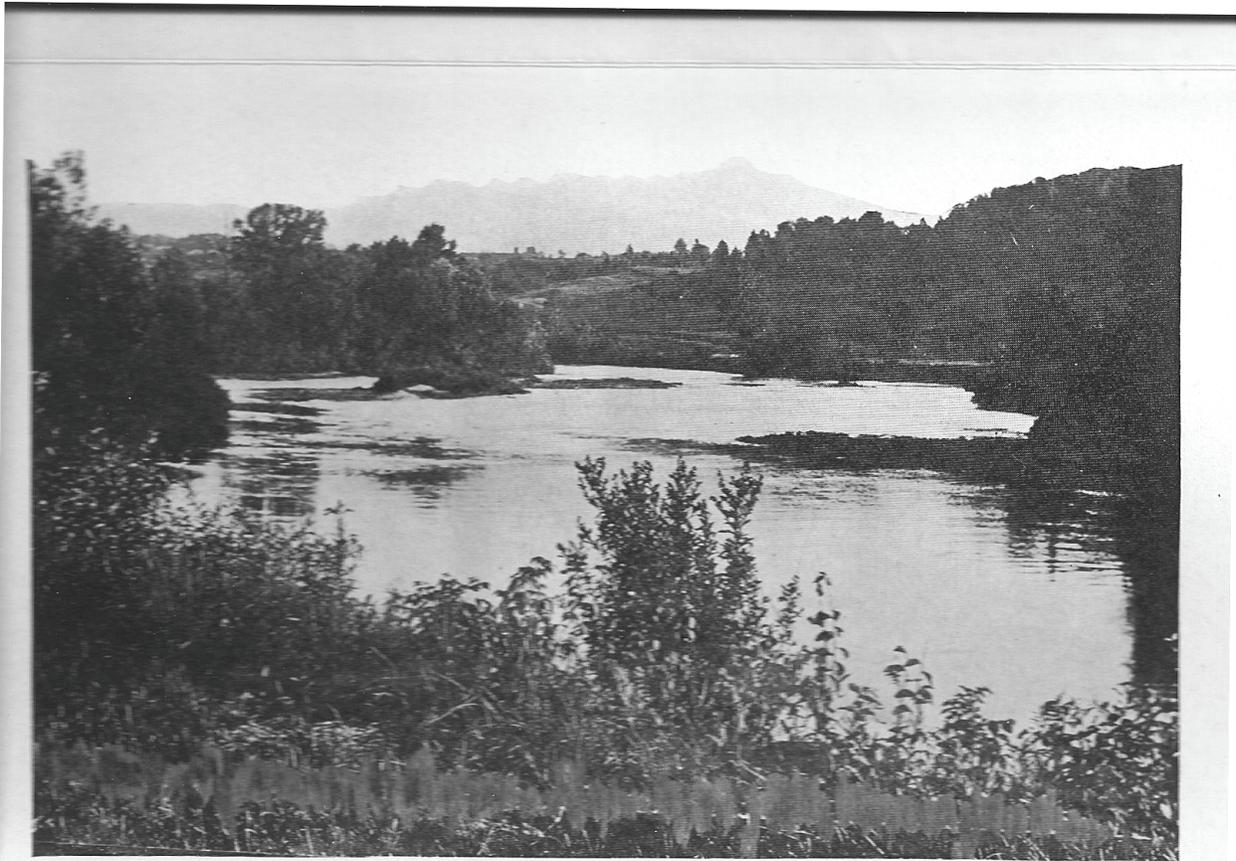


# Cambridge/Jeffersonville Infrastructure Report



MT. MANSFIELD AND RIVER, Cambridge, Vt.

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- Jeffersonville Sewer/Water Systems Map
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## **EXECUTIVE SUMMARY**

Approximately three miles separate the Villages of Cambridge and Jeffersonville—a pair of independent municipalities within the Town of Cambridge, Vermont. Despite their geographic proximity, the two communities have historically grown, developed and been governed separate from one another. While it remains true that all three municipal governments (Jeffersonville, Cambridge Village and Cambridge Town) have unique policies and priorities, they share a common set of long-term challenges. Most notably: the impact of recurrent flooding along Vermont Routes 15 and 108; regional development pressures associated with the growth of neighboring Chittenden County; and decades of sustained population growth. A significant factor in effectively confronting these issues will be managing public infrastructure, including streets, bridges, schools, libraries, public safety facilities, recreational amenities, and water and sewer systems.

The enclosed Municipal Infrastructure Assessment is intended to provide an inventory of existing conditions of all municipally owned infrastructure within the Villages of Cambridge and Jeffersonville. This assessment is accompanied by a summary of opportunities and recommendations to enhance existing facilities, and to promote economic development, village revitalization and broader wellbeing within the communities. Such investments are ultimately determined by a community's willingness and ability to pay for services. Nonetheless, having a detailed inventory of local infrastructure can serve as a community development tool in and of itself, by showcasing community assets and providing valuable data and context for future land use plans.

Information contained in this report can serve as the baseline for a strategic SWOT analysis—a common approach to planning and community development that analyzes the strengths, weakness, opportunities and threats facing a given community. While such attributes may seem readily apparent in some cases, the information and maps produced through this exercise will assist community leaders in thinking strategically about the long-term future of these vibrant village centers.

### *About Cambridge*

An historic New England village, Cambridge Village (formerly Cambridge Boro) was settled in the early-19<sup>th</sup> century along the banks of the Lamoille River and later incorporated as a municipality in 1908. The Village originally served as the civic and commercial center of town, but was gradually surpassed in this respect by Jeffersonville after the state highway network was completed in the mid-20<sup>th</sup> century. While Route 15 runs directly through the Village core, residences and businesses are buffered from highway traffic by tree-lined median strips, beyond which lie Main Street North and Main Street South.



Since 1960, when the Census began differentiating between Cambridge Village and Town, the village population has remained relatively flat. Overall, for the fifty year period between 1960 and 2010, the population grew from 217 to 236 residents, an increase of only 8-percent. By comparison, the population of Cambridge Town nearly tripled during the same time span. Despite only relatively modest growth, Cambridge Village continues to serve as an important center of activity for the surrounding community, with two churches, drug store, locally owned grocer and several other small businesses. Additionally, the Cambridge Regional Health Center, located on the western edge of the Village, provides a variety of out-patient and specialized health services to residents from across the region.



While the compact Village center is unlikely to experience extensive residential development, the proximity to Route 15 makes it a potentially desirable location for small and medium-scale commercial uses. The area is also surrounded by predominantly open lands that, if further developed, could spur growth and activity within the Village. Municipal infrastructure in Cambridge Village includes a public water system servicing approximately 120 households with a 100,000 gallon storage capacity.

### *About Jeffersonville*

Like Cambridge, Jeffersonville is also an historic New England village, settled in the mid-



19th century, located at the confluence of the Lamoille and Brewster Rivers. Between 1950 and 1990, the Village population remained relatively flat. Since 1990, however, Jeffersonville has seen its population grow by more than 50-percent, from 462 to 729 residents. The Village core consists of a charming mix of historic residences, small businesses and community facilities.

Jeffersonville's growth has been fueled not only by proximity to the state's largest labor market, but by its strategic location on the state highway network and nearby recreational amenities. The village center is located at the intersection of Routes 15 (northern Vermont's major east-west travel corridor) and 108 (connecting Stowe to Franklin County, through Smugglers' Notch State Park). The latter is a major seasonal tourist attraction; nearby Smugglers' Notch Resort also attracts tens of thousands of visitors annually.

Development pressures in and around Jeffersonville have been particularly acute within the last decade, especially lands adjacent to the state highways. Two large commercial developments proposed in 2011 at the intersection of Routes 15 and 108 in the center of the Village appear to foreshadow additional growth in the years to come. The Village of Jeffersonville has many assets (physical, geographic, and citizen-based) that make it an appealing place to live, work and invest. To this end, the Village manages a network of infrastructure, including a municipal water and sewer system, which create unique opportunities for local residents and businesses—both current and prospective.

# Jeffersonville



*Photo courtesy of Hugh List*



## JEFFERSONVILLE SEWER SYSTEM

The Jeffersonville Sewer System has a total capacity of 77,000, gallons per day (gpd). On an average day, the system currently treats between 30,000 and 40,000 gpd. About 50-60% of the system’s capacity is currently unused; meaning, if making a conservative estimate, about 35,000 gpd is available for future development. This represents a significant opportunity for new development within the Village and Service Area.

It may be easier to understand this unused capacity by visualizing it in terms of how it could be used for future development. A three bedroom single-family home uses approximately 420 gpd. Therefore, the system has enough unused capacity to serve approximately 83 new three bedroom homes. Of course, Jeffersonville contains many uses other than single family homes. The Table below provides a simplified picture of how much new non-residential development the unused capacity could allow.

### **Equivalent Wastewater Capacity for Residential and Non-Residential Uses**

<b>Business Type</b>	<b>Use equivalent 1-bedroom</b>	<b>Use equivalent 3-bedroom</b>	<b>Total potential</b>
Office	9 employees	28 employees	2,328 employees
Day Care Facility (1 meal)	1 care provider, 6 children	3 care providers, 18 children	249 care providers, 1,494 children
Doctor’s Office	2 staff, 7 patients	4 staff, 28 patients	332 staff, 2,324 patients
Retail store	9 employees	28 employees	2,328 employees
Restaurant, Tavern or café	4 seats	12 seats	996 seats

### *Wastewater Treatment Facility*

The Waste Water Treatment Facility is an “aerated lagoon” system constructed in 1989. The Facility consists of two primary structures. The “Main building” houses the chlorination room, administrative office area, laboratory facilities, bathroom, and garage area. The second building, referred to as the “Works” contains a comminutor, two 260 by 150 foot lagoons, 12 floating aerators, 2 submersible pumps, and one chlorine contact chamber. A sludge sled was purchased in 2008.

The plant treats influent (raw sewage) through a two part process. Primary treatment removes physical solids. The secondary treats biological contamination by exposing waste to an aerated bacterial process for a 45-60 day detention period. Harmful bacteria are finally killed in the chlorine contact tank at the end of the treatment process. After passage through the chlo-

rine tank, the treated effluent leaves the plant and is directly discharged into the Lamoille River. The treatment process causes sludge to accumulate in the lagoons. Sludge is stored in the sludge sled, dewatered, and then hauled to accepted landfills.

The Wastewater Treatment Facility is now over twenty years old. Components of the Facility will need to be replaced in the near future. Most notably the aeration system will need to be replaced in the next two to three years.

Operation of the Wastewater Treatment Facility is energy intensive. The Village Trustees have been investigating ways to make the plant more energy efficient and have considered renewable energy installations to offset some of the electricity costs.

The Wastewater Treatment Facility also houses office and meeting space for the Village Trustees. The office space is at capacity and will likely need to be renovated and enlarged or relocated in the near future.



### *Staff*

The Wastewater Treatment Facility is operated by a Plant Operator hired by the Village Trustees.

### *Collection System*

The collection system operates using positive pressure generated by three pump stations, located on Main Street, Church Street, and Route 15. The collection system is made up of about 3 miles of 8 inch PVC mains. 6 inch PCV service lines connect individual customers to these mains. Most lines were installed in either 1989 or 1990.

### *New Connections*

Any new connection to the system requires approval of the Jeffersonville Village Trustees.

## **JEFFERSONVILLE PUBLIC WATER SYSTEM**

Jeffersonville is served by a public water system managed and overseen by the Jeffersonville Village Trustees. New connections to the system require the approval of the Trustees. The System is depicted on Map 3.

### *Service Area*

The Jeffersonville Public Water system primarily serves residents and businesses within Jeffersonville. The waterlines also extend along Route 15 to Cambridge Junction and along Route 108 to Jeffersonville Heights. The system uses between 70,000 and 90,000 gallons of water per day.

### *Distribution System*

The distribution system consists of approximately 8 miles of water lines that are fed by two springs that yield between 60,000 and 140,000 gallons per day (GPD). The supply is buffered by two reservoirs that have a combined capacity of 750,000 gallons.

Both springs are located at about 1180 feet in elevation, allowing much of the distribution system to be gravity fed. The distribution system consists of a variety of pipe types and sizes, ranging from 4 to 12 inches in diameter. The older system primarily consists of 8, 6, and 4 inch mains. Newer portions of the system installed in 1984 or later consist of 12, 8, 6, and 4 inch mains. Many of the existing mains in the core of the Village are inadequately sized to provide sufficient water for pressurized fire hydrants. Similarly, inadequate water pressure has been experienced in the Jeffersonville Heights area. To date, the Village's priority has been to upgrade the existing distribution system prior to expanding lines to unserved areas.

36 hydrants are fed by the Village Water System. However, not all of these hydrants are capable of providing adequate water volume and pressure for fire protection. In general, the minimum size for a water main serving a fire hydrant is 8 inches. Map 4 depicts hydrants and the diameter of water mains serving them. Note the concentration of water mains less than 8 inches diameter in the village core and Jeffersonville Heights.

### *Well Source*

The Jeffersonville Water System is fed by two springs. "Spring 101" is located on Road 101 near Smugglers Notch Resort. This spring provides about 68 gallons per minute (gpm). The Edwards Spring is located in a woodland off Edwards Road and provides about 120 gpm. A chlorination facility is attached to the system. The watershed, wellhead protection areas, and location of the springs themselves are not in public ownership, though there are right-of-way agreements providing the Village with access to the springs. Even so, lack of ownership of the land surrounding the springs creates the potential for development that could potentially undermine the quality of the springs.

A reservoir is located at Jeffersonville Heights, east of Pleasant Valley Road in the southeast quadrant of the Village. The Jeffersonville Heights reservoir was constructed in the early 1900's. This reservoir has a capacity of approximately 250,000 gallons. The maximum water level is 667.1 feet. (The village elevation is approximately 460 feet.) A second reservoir is located on Steely Hill Road. This reservoir was constructed during a system upgrade in 1984. This reservoir has a capacity of approximately 500,000 gallons. The reservoir's maximum water level is approximately 719 feet. The storage capacity of these reservoirs is primarily reserved for fire protection.

The Village Trustees are considering conducting a hydrological analysis to determine future needs of the system.

## **PEDESTRIAN INFRASTRUCTURE**

### *Location of Sidewalks*

Sidewalks in the Village of Jeffersonville are primarily located within the Village Core. A total of about 4,300 linear feet of sidewalk is located within the Village. Existing sidewalks are depicted on Map 6. Sidewalks are located on both sides of Main Street from the intersection with Old Main Street. The sidewalk on the west side of the road continues around the corner and connects to Church Street, while the sidewalk on the east side terminates at Carlton Avenue/Route 108 Intersection. Sidewalks are also located along the north side of Church Street. A sidewalk is located on the east side of Maple Street. This sidewalk contains a short spur along Depot Street. However, this spur does not complete a full loop to Main Street. All sidewalks are asphalt surfaced.



All existing sidewalks are uncurbed, with the exception of a short segment in the vicinity of 134-146 Church Street. Sidewalk widths vary from three to four and a half feet. Most sidewalks are separated from the road by a grass or gravel buffer, though there are segments where neither a buffer nor a curb is present.

### *Condition of Sidewalks*

The information above is based on an inventory conducted in October 2011. The condition of existing sidewalks was also evaluated. Sidewalks were evaluated in 100 foot segments and rated on a scale of 0-30. These ratings were based on identified deficiencies in the sidewalk, including horizontal displacement, vertical displacement, drainage problems, surface deterioration, and obstructions. Sidewalks were assigned the following ratings based on their overall score:

0-2: Excellent	3-7: Good	8-14: Fair	15-19: Poor	20-30: Critical
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Most segments were rated as either good or fair. The sidewalk segment from 168 to 158 Main Street was rated as the most deficient sidewalk due to drainage, horizontal and vertical displacement, and overall surface cracking and deterioration. The segment from 60 to 70 Main Street (east side of the street) was rated as poor due to obstructions posed by parked cars. In a similar vein, while the overall segment is rated as fair, a short stretch of sidewalk between 31 to 55 Main Street (west side of the street) is significantly obstructed by parked vehicles. While on-street parking is present at other locations, the edge between parking and sidewalk in these areas is poorly defined, leading many automobiles to park on and obstruct the sidewalk. In both cases, it appears that the parked cars belong to customers of businesses within the Village. Any measures to address these obstructions should ensure that adequate on-street parking remains within the Village. This may be accomplished by better defining the edge of the sidewalk through curbing or striping.



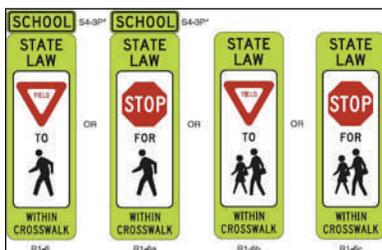
### Crosswalks

Crosswalks are located at major intersections, as well as at a midblock crossing of Route 108. The sidewalk aprons leading to these crosswalks are not ADA compliant due to the lack of imbedded “detectable warnings.” Line striping at most crosswalks is largely faded. While the Town/Village has the authority to restripe crosswalks on municipally managed roads and streets, VTrans approval must be granted before new crosswalks are striped. This approval is only granted if “warranted” by substantial existing pedestrian crossings, or if the crossing has been identified as an important route to school by the local School Board.



Crosswalks are most commonly demarcated with crosswalk signs and in-road line striping. The two most typical crosswalk signs are diamond shaped crosswalk signs and larger school crossing signs. Although there are several options for crosswalk striping, the continental design is recommended because research indicates that it is the most visible to drivers. This design is created with white longitudinal lines at a 90 degree angle to the line of the crosswalk. The lines should be approximately 12 in to 24 in wide and spaced 12 in to 24 in apart. This design is preferable to parallel markings, which are less visible to motorists.

Crosswalks can be enhanced in several ways, including:



- **In-Street Crosswalk Signs** can be installed at unsignalized pedestrian crossings to make the crosswalk more visible and increase driver yielding. In-street pedestrian crossing signs should be placed at the crosswalk in the street or on a median, but should not obstruct the pedestrian path of travel. In-street signs



can be permanently installed in the roadway or mounted on a portable base to allow them to be taken in and out of the street.

- **In-Road Warning Lights** are installed within a crosswalk. This system consists of a series of LED lights imbedded in the pavement beneath the crosswalk. When activated, the lights blink to alert motorists that a crosswalk is in use. In-road warning lights are often coupled with LED enhanced crosswalk signs. While effective, In-road warning lights are expensive, and if improperly installed, may be damaged by road plowing.

- **Rapid Flashing Beacons (RRFB)** consist of rectangular metal unit containing two LED lights installed beneath a crosswalk sign. When activated, the RRFB emits rapid, alternating bursts of light to warn motorists that pedestrians are crossing the roadway. RRFBs have been show to have rates of compliance (motorists yielding to pedestrians) in excess of 80%



### *Cambridge Greenway*

The Cambridge Greenway is a 1.3 mile long, packed gravel surface recreation path located in Jeffersonville. The path, which was built in 1996, begins west of Jeffersonville, runs adjacent to the Lamoille River passing underneath the Rt. 15 and Rt. 108 bridges, and ends at the historic Poland Covered Bridge in Cambridge Junction. Half of the path is located on a former spur of the Lamoille Valley Railroad.

This four season recreation path is used in the warmer months by walkers, runners, cyclists, and people walking their pets (leashes required). There are also multiple fishing access points to the Brewster and Lamoille Rivers. In winter, the path is used for cross country skiing, snowshoeing, and snowmobiles as part of the Vermont Association of Snow Travelers (VAST) trail network. Other than snowmobiles in the winter, no other motorized vehicles are allowed on the path with the exception of emergency and maintenance vehicles and motorized wheelchairs.



The path surface consists of fine crushed limestone with an average width of 6 feet and is generally flat with mileage posts placed every ¼ mile. Path users need to be aware of poison ivy located on the riverbank side of the path. Parking is available in the Village of Jeffersonville, a commuter parking lot off Rt. 15 at the mid-point of the path, and near the Poland Covered Bridge at the end of the path.

## PUBLIC BUILDINGS

### *Cambridge Town Office and Jeffersonville Post*

The Cambridge Town Office and Jeffersonville Post Office are located in a renovated mid-19<sup>th</sup> century building at 85 Church Street in Jeffersonville. The building was completely renovated in 1997. The Post Office is located on the first floor and the Cambridge Town Office is located on the second floor. Both floors are fully accessible with a 1,000 pound, two person elevator in the front of the building.



The building contains 6,684 square feet of floor area, divided between two stories. The Cambridge Town Office on the second floor contains three large rooms and one small room. A vault containing the Town Land Records and other vital documents is also located in the building. The Clerk has indicated the vault is currently sufficient for the communities' needs. The Post Office on the first floor is divided into two large rooms -- a lobby and a mail sorting area. A bank of mail boxes also serves as a partition between the lobby area and counter area.

The building is reported to have good natural light and a central HVAC system. An energy audit of the building has not been conducted. The Lister's card reports that the building lacks a sprinkler system, though one would not be required for a building of this size.

### *Jeffersonville Village Municipal Offices*

The Jeffersonville Village Municipal Offices are currently housed at the Wastewater Treatment Facility. The small office space is at capacity, and will likely need to be renovated and enlarged or relocated in the near future.

### *Cambridge Elementary School*

Cambridge Elementary School is located on School Street in Jeffersonville. The building consists of an "old building" constructed in 1912 with a 1914 addition, and a new wing constructed in 1986. The building was renovated in 2005. The building contains about 25 class rooms, a gymnasium, cafeteria, and library. The building's total square footage is approximately 64,000 square feet.



The building serves approximately 370 students. Unlike many other communities in Vermont, school enrolment in Cambridge is increasing. The building is also used by community groups for events and meetings. The gymnasium is used by a community basket ball league through the winter months. The Cafeteria can be converted into a multi-use room for meetings. However sound sometimes carries from the Gymnasium in the floor below.

A new roof may be needed for the Gymnasium and “old building” in the near future. The Gymnasium floor will also need to be replaced in the next five to ten years.

Efficiency Vermont conducted an energy audit of the building in 2010. This audit found that Cambridge Elementary School is one of the most efficiently built and operated schools that Efficiency Vermont has visited. The building uses about 19,000 gallons of fuel oil for heat and hot water each year. This represents about 0.3 gallons per square foot, about 30% less than the state wide average of 0.44 gallons per square foot. The School’s electric use is also 24% less than the statewide average.

### *Town Garage*

The Cambridge Town Garage is located at 173 Mill Street. The Garage houses all vehicles used by the Cambridge Highway Department. The main Garage building is 7,280 square foot (52’x140’) structure with six bay garage. The building also contains a small office and kitchen/break room. There are two other buildings on site -- a 1,200 square foot salt shed, and a 1,840 square foot storage shed



The garage facilities were substantially upgraded in 2009. No major repairs are anticipated in the next 5 to 10 years. However, barriers or an enclosed structure may be needed to prevent sand from running onto neighbors’ property or into the Brewster River, which is located behind the highway garage.

### *Varnum Memorial Library*

The Varnum Memorial Library is located at 194 Main Street in Jeffersonville. The Library is located within a one-story structure constructed in 1938. An addition was added to the rear of the building in 2006. The Library’s collection includes about 5,500 items, including books, audio books, DVDs, etc. In addition to holding and distributing books, the Library hosts community events, such as author’s visits and workshops. About 7,500 patrons use the Library each year. In addition to serving Jeffersonville and Cambridge, the Library also has patrons from surrounding communities such as Waterville, Belvidere, and Fletcher. The Library is equipped with several public computers and is a WiFi “hotspot” that provides free internet access to the public.



The Varnum Memorial Library is owned by a private non-profit organization called the Crescendo Club. The Library is funded through a combination of funds from the Crescendo Club and funds appropriated by the community at Town Meeting. The Library is overseen by a seven member Board of Trustees. Five Trustees are elected by the voters and two are officers of the Crescendo Club. The Library is staffed by two paid staff members, a Library Director, and Library Assistant. Volunteers assist in the day-to-day operations of the Library.

Like many buildings in Jeffersonville, the Library has no dedicated off-street parking. The Library is served entirely by on-street parking. On-street parking is not always sufficient for large events and is not available at times during the winter months when the roads are being plowed.

While the interior space of the Library is sufficient, the Library Director has indicated that it could be rearranged to provide better circulation, additional display areas and shelving for books, and more room for community events. Given its age, the old section of the Library is relatively drafty and could benefit from insulation and window retrofits. In addition, the Library's forced hot air oil furnace will likely need to be replaced in the near future. As of the drafting of this report, an Energy Audit of the Library has not been conducted.

### *Cambridge Fire Station*



The Cambridge Fire Station is located on Church Street in Jeffersonville. As of the drafting of this report, the current Cambridge Fire Station is located in a 50 year old building that does not meet modern safety codes and is insufficient to meet the community's needs. After investigating alternatives, the Town and Fire Department determined that the costs of renovating the building would exceed the costs of constructing a new building.

A new Fire and Emergency Operations Center will be constructed on the site of the existing fire station. The building will contain four bays and be capable of housing up to seven vehicles. The second story of the building will house a community room that can be used for trainings as well as community meetings and events.

### *Cambridge Rescue Building*

Cambridge Rescue operates out of a converted residents built in the 1960s. Cambridge Rescue has occupied this building since 1996. The building contains approximately 1,000 square feet of office space, split between the main floor and the basement. The Cambridge Emergency Operations Center (EOC) operates out of the basement of the building. The EOC is one of the best equipped in the state, and contains laptops, weather monitors and other digital equipment needed to coordinate emergency response during a disaster. The Rescue building also includes an attached two-day garage housing rescue vehicles.

The building is currently heated by a fuel oil furnace. Replacement of windows and other minor repairs may be needed in the next 2-3 years. As of the drafting of this report, an Energy Audit of the Rescue Building has not been conducted.



## **OTHER PUBLIC INFRASTRUCTURE**

### **Street Lights**

Street lights are currently located on Route 15, Main Street, Church Street, Maple Street, Depot Street, a portion of Route 108 (the Notch Road), and a portion of Upper Pleasant Valley Road. These street lights are leased from the utility company. All street lights in the Village are utility pole mounted “Cobra Head” fixtures. Bulbs appear to be of older, less energy efficient varieties.

New, more energy efficient street light fixtures which utilize LEDs exist. Both utility pole mounted fixtures and free standing light posts exist. Installing more efficient lighting would reduce the Village’s energy use and could potentially reduce operating costs.

In some areas, particularly along the main streets of the Villages free standing “period” style light posts and fixtures may be more in keeping with the character of surrounding structures. In addition to their aesthetic appeal, period style fixtures also contribute to the “streetscape” of a Village and send a visual cue to motorists that they are entering a populated area and should reduce vehicular speed. If placed on the green strip between a sidewalk and roadway, light posts can also provide pedestrians a sense of security by providing visual and physical separation between pedestrians and motor vehicles. Several models of energy efficient, LED period style fixtures are available.

### ***Parks, Recreation and Natural Areas***

#### **Brewster River Park**

Brewster River Park is a 13.9 acre parcel along the Brewster River used primarily for passive recreation. The park is owned by the Village of Jeffersonville. The park contains parking and a small picnic area and provides access to the Brewster River and surrounding hiking trails. A covered bridge is located in the park. In the past the park has been used by the Justices of the Peace to host weddings. The parcel once contained the Village Dump, which has since been closed.

#### **Town Recreation Fields**

The Town of Cambridge owns several recreation fields located between the Brewster River and Cambridge Elementary School. The fields are managed and maintained by the Recreation Board. The Fields include:

- The Williams Field, which was donated by the Williams Family, and is located next to the Town Garage. The field is primarily used for soccer and lacrosse
- A baseball field with two dugouts. This field is also used for soccer.

- The “lower fields” which are also predominately used for baseball in the spring and soccer in the fall. During the winter, an Ice Rink is installed on the lower fields by the Cambridge Rotary.



A small shed located on skids is used for equipment storage. Currently, much of the equipment used by recreational programs is stored at private residences or in rented storage space. In the summer of 2012, the Recreation Board intends to construct a larger, more permanent storage shed between the baseball field and Town Garage. The building will be constructed by students from the GMTCC. This building will provide a single, safe space to store equipment used by the various recreation programs in the Town.

The Fields drain and dry fairly well, which enhances their use during the spring. Fertilization and aeration of the fields has been deferred for several years, and will need to begin again in the near future to maintain the health of the fields. In the past, the recreation fields were used as parking for Town Meeting. This resulted in substantial damage to the fields. The condition of the fields has improved since that practice was discontinued several years ago.

### *Cemeteries*

#### **Jeffersonville Cemetery**

The Jeffersonville Cemetery is located on the west side of Upper Pleasant Valley Road adjacent to the Waste Water Treatment Facility. The Cemetery is 6.1 acres in size and is overseen by the Jeffersonville Cemetery Association. There are a total of 620 lots available in the Cemetery. The cemetery is currently in good condition.

# Cambridge Village



STREET VIEW, Cambridge, Vt.

*Photo Courtesy of Hugh List*

## **VILLAGE OF CAMBRIDGE PUBLIC WATER SYSTEM**

The Village of Cambridge is served by a public water system managed and overseen by the Cambridge Village Trustees. New connections to the system require the approval of the Trustees. The System is depicted on Map 5.

### *Service Area*

The Village of Cambridge Public Water System currently serves businesses and residents located on Route 15, North and South Main Streets, Pleasant Valley Road, Pumpkin Harbor Road, and Old Route 15. There are currently approximately 70 connections to the system. The system uses approximately 18,000 gallons of water per day and has a reserve capacity of approximately 100,000 gallons in its reservoirs.

### *Distribution System*

The current distribution system was installed in 1975. Mains are depicted on Map 5. The system consists of 84,000 feet of 8 inch PVC mains. Due to the fact that the wells are located at elevations significantly above the service area, no pump stations are required. The system is entirely gravity fed and maintains a pressure of approximately 70 PSI. There are a total of 15 fire hydrants on the system. However, the fire department has noted that the system may not have enough reserve capacity to extinguish a large fire, and that additional water would likely need to be shuttled in, particularly if a fire involved multiple structures.

### *Well Source*

Water is provided to the system by two wells. The main well is located on Bartlett Hill. The well is capable of yielding over 100 gallons per minute. However, the well is limited to 25 gallons per minute in order to minimize negative impacts on private wells located on Bartlett Hill. A backup well is located off Pumpkin Harbor Road. This backup well yields approximately 65-70 gallons per minute. Due to the quality of the well water, no chlorination is required.

The Village of Cambridge owns property surrounding both wellheads. The Village owns approximately 7 acres near the wrong way bridge in the vicinity of the Pumpkin Harbor well. The Village also owns 48 acres containing the well head protection area of the Bartlett Hill well. In addition, the Village owns approximately 68 acres of forested land surrounding the system reservoir located on the hill south of Cambridge Village. Given that the primary purpose of all the properties is to ensure protection of the wellheads and reservoir, they are not actively managed for forestry or recreation.

### **New Connections**

Any new connection to the system requires approval of the Cambridge Village Trustees. As of 2012 residential users of the system pay a flat fee of \$149 per unit per year, regardless of water usage. Most commercial customers are assessed as 2 units and thus pay \$298 per year, again, regardless of actual water usage. However, the Trustees reserve the right to require me-

tering for commercial customers whose operations are water intensive (for example, a car wash).

While Cambridge Village is served by a public water system, unlike Jeffersonville, it is not also served by a public sewer system. As a result, all businesses and residents rely on septic systems to treat wastewater. Even so, the availability of public water enhances development opportunities in Cambridge Village. One reason is that public water alleviates the need for each property to provide its own water supply. In areas with public water more area can be devoted to structures, septic fields, parking, and other infrastructure due to the lack of conflicting setbacks from private wells. This enables greater development densities and a more diverse range of uses. The availability of public water also greatly enhances fire protection, allowing quicker response, and increasing the likelihood a fire can be extinguished before the structure becomes fully involved. All of these factors allow more compact development within the Village than is feasible in areas not served by public water.

### *Public Sewer/Community Septic*

Most businesses and homes in Cambridge Village are currently served by private septic systems. Due to the age of homes and small size of lots in Cambridge Village, it is possible that some residents would have difficulty installing a modern system that complies with current environmental regulations should they need to replace or expand their existing septic systems. Given the cost and permitting involved in constructing a centralized, public sewer such as the one in Jeffersonville, it is unlikely that a similar system will be constructed in Cambridge Village. As an alternative to such systems, some communities have constructed community leach fields that serve numerous residents and businesses. An example (albeit an older system) can be found in the Village of Hyde Park. Soils on the north side of Cambridge Village may be favorable to this approach. Often, community septic systems and leach fields are part of a “decentralized” approach to wastewater treatment, in which lots that cannot support onsite septic connect to the community leach fields, while some larger lots maintain private septic systems. Funds for feasibility studies for decentralized wastewater treatment are available from the Vermont Department of Environmental Conservation.



## **PEDESTRIAN INFRASTRUCTURE**

The only official sidewalk in Cambridge Village is a narrow asphalt walkway along Lower Pleasant Valley Road from the Village to the Bridge. The sidewalk is degraded and overgrown in some areas. While there are no formal sidewalks on North and South Main Street, the separation from Route 15 provided by the Old Village Green provides some safety for pedestrians using these streets. Still, the situation is less than ideal, especially for children, as there is no defined separation between vehicular and pedestrian space. In some areas, such definition could be accomplished without extending the impervious surface of the Streets through use of line stripping or stamped asphalt.

## **PUBLIC BUILDINGS**

### *Cambridge Village Post Office*

The Cambridge Village Post Office is currently located in a privately owned structure on Mansfield Avenue (off Pleasant Valley Road), in Cambridge Village. A Civil War Monument, owned and maintained by the Village of Cambridge, is located on the grounds of the Post Office.



## **OTHER PUBLIC INFRASTRUCTURE**

### *Street Lights*

Street lights are located on Route 15, Old Route 15, and a portion of Pleasant Valley Road. These street lights are leased from the utility company. All street lights in the Village are utility pole mounted “Cobra Head” fixtures. Bulbs appear to be of older, less energy efficient varieties.

During public meetings, some residents expressed the opinion that the Village was over lit in some areas. While counterintuitive, over lighting can reduce the effectiveness of lighting, especially if it results in shadowing or glare, both of which can reduce visibility for motorists. Shadowing can also create security issues. In general, lower, more uniform lighting levels produce an evening environment that is both safer and more visually pleasant.

New, more energy efficient street light fixtures which utilize LEDs exist. Both utility pole mounted fixtures and free standing light posts exist. Installing more efficient lighting would reduce the Village’s energy use and could potentially reduce operating costs.

In some areas, particularly along the main streets of the Villages free standing “period” style light posts and fixtures may be more in keeping with the character of surrounding structures.

In addition to their aesthetic appeal, period style fixtures also contribute to the “streetscape” of a Village and send a visual cue to motorists that they are entering a populated area and should reduce vehicular speed. If placed on the green strip between a sidewalk and roadway, light posts can also provide pedestrians a sense of security by providing visual and physical separation between pedestrians and motor vehicles. Several models of energy efficient, LED period style fixtures are available.

### *Parks, Recreation and Natural Areas*

#### **Old Village Green**

The Old Cambridge Village Green is bisected by Route 15. The remaining, narrow green areas provide some buffer between Route 15 and the houses and businesses lining North and South Main Street. Numerous residents have expressed concern about the impacts of noise and thru-traffic on village homes. Provided soils are suitable, additional tree plantings and other landscaping could enhance the Green’s function as a visual buffer and sound barrier to Route 15.

#### **Cambridge Regional Health Center**

The Cambridge Regional Health Center is located on a 2.14 acre parcel owned by the Village of Cambridge. The land on which the building sits is leased to the Regional Health Center. In addition to the Health Center, the parcel also contains a community baseball field.

#### **Cambridge Village Fire House Park**

A small, 0.5 acre park located behind the Cambridge 360 recycling center building is owned by Cambridge Village. The parcel contains a swing set and small playground. The former Village Fire House is also located on the parcel. The structure is now used for storage for the landscaping contractor.



#### **Cambridge Pine Woods Natural Area**

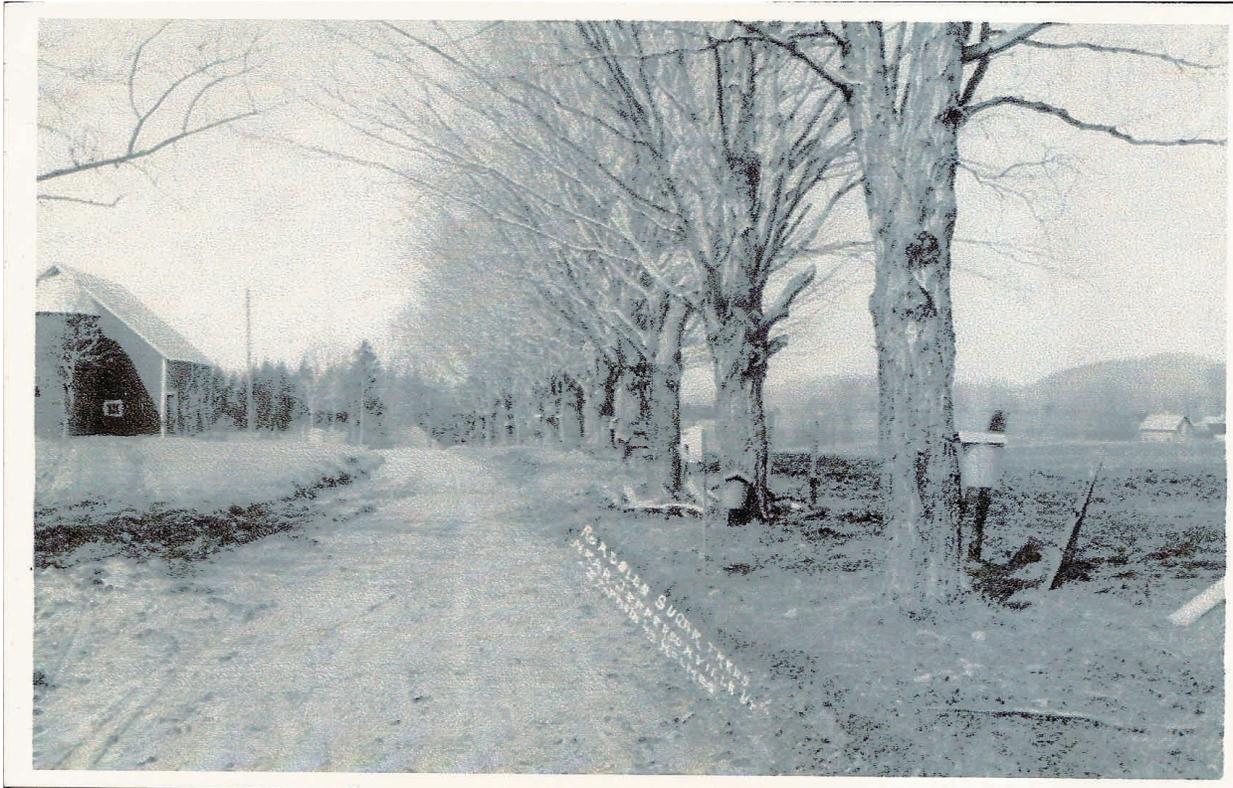
The Cambridge Pine Woods Natural Area, owned by the Vermont Department of Forests, Parks and Recreation, is located adjacent to the Mountain View Cemetery. Access is provided through the cemetery. The 22 acre parcel contains one of the few stands of old growth white pine and hemlock in the State of Vermont. No known harvesting has occurred in the area since 1860, so some of the trees are estimated to be over 250 years old.

### *Cemeteries*

#### **Mountain View Cemetery**

The Mountain View Cemetery is located on the west side of Bartlett Hill Road adjacent to the Cambridge Pine Woods Natural Area. The Cemetery is approximately 4.75 acres in size and is overseen by the Cambridge Cemetery Association. There are a total of 543 lots available in the Cemetery. The Cemetery is in good condition.

# *Beyond the Villages*



*Photo Courtesy of Hugh List*

## **INTER-VILLAGE PEDESTRIAN AND BICYCLE CONNECTIONS**

There are currently no formal connections between Cambridge Village and Jeffersonville for pedestrians and cyclists. Route 15 is the primary artery for automobiles. However, it largely lacks shoulders of sufficient width for pedestrians and cyclists due to the road's high traffic volumes. Pleasant Valley Road is a lower volume, more scenic route. However, it too lacks shoulders or formal accommodations for cyclists. Facilities could be constructed on both roads to provide for an intra-village connection.

The planned Lamoille Valley Rail Trail is anticipated to be a four-season, multi-use recreation path built on the rail bed of the former St. Johnsbury and Lamoille County Railroad. Once fully complete, the Rail Trail will run from Sheldon Junction to St. Johnsbury. The Rail Trail will pass through Jeffersonville, providing a potential connection for pedestrians, cyclists, and other users between the Village and other communities in Lamoille County. A second idle rail bed – the Burlington-Lamoille Rail Bed -- runs through both Cambridge Village and Jeffersonville, eventually merging with the Lamoille Valley Rail Trail. This rail bed could also be converted in a multi-use trail to facilitate pedestrian and cyclist connectivity between the two villages.

There are three general types of bicycle facilities. The first is a formal bike or multi-use path. These paths are usually designed for pedestrians as well as cyclists. Multi-use paths are physically separated from a road and are designed for two-way traffic. As a result, multi-use paths are usually between 8 and 12 feet wide. The Lamoille Valley Rail Trail is an example of a multi-use path.

The other two types of bicycle facilities are both designed for on-road application. These include dedicated "bike lanes" and "Shared Travel Lanes". A bike lane is a widened, paved shoulder dedicated to bicycles. VTrans refers to these as "Paved Shoulder Bicycle Facilities." The *Vermont Pedestrian and Bicycle Facility Planning and Design Manual* recommends shoulder widths of between 3 and 5 feet for dedicated bike lanes, depending on road conditions and motor vehicle speed. VTrans recommends the establishment of dedicated bike lanes when traffic volumes exceed 1,000 AADT. "Bike lanes" would be the most appropriate way to facilitate cyclists on Route 15, given the speed and volume of traffic and prevalence of trucks on the state route.

A "Shared Travel Lane" is a roadway in which there is no delineation between vehicular traffic and bicycles. Signage and pavement markings alerting motorists to the presence of cyclists, as well as public education, can greatly enhance the use of "bicycle routes." VTrans only recommends shared travel lanes where traffic volumes are less than 1,000 AADT. However, they have been established successfully in some areas with higher traffic volumes. Speed also plays a role in the applicability of Shared Travel Lane, as higher volume roads with low speeds may be safer for Shared Travel Lanes than high-speed rural roads. Shared Travel Lanes may be appropriate on Pleasant Valley Road, provided safety issues such as vehicle speed and sight distances can be addressed.

## **PARKS, RECREATION AND NATURAL AREAS**

### *Town Transfer Station*

The Cambridge Transfer station is located on a parcel between Route 15 and Route 104 located adjacent to the Cambridge Industrial Park. In addition to the transfer station, the parcel contains 126 acres, most of this land is forested. Currently, the Town does not actively manage this forestland, and is concerned primarily with environmental monitoring of the former land-fill. In the late 1970s and 1980s there was consideration of constructing a community swimming pool and recreational facility on the property, but these plans never materialized.

## **CEMETERIES**

### *South Cambridge Cemetery*

The South Cambridge Cemetery is located on Edwards Road off Route 108 south of Jeffersonville. There are approximately 300 lots in the 0.85 acre Cemetery, most of which are filled. The Cemetery is overseen by the South Cambridge Cemetery Association. The Cemetery is currently in poor condition.

### *North Cambridge Cemetery*

The North Cambridge Cemetery is located on Pollander Road off Route 108 north of Jeffersonville. The cemetery is 3.1 acres in size; however, its hilly terrain means some of the area is unsuitable for grave sites. The Cemetery is overseen by the Town of Cambridge. There are 400 lots available. The Cemetery is in good condition.

### *Hopkin's Cemetery (Valley Cemetery)*

The Hopkin's Cemetery is 0.6 acres in size located on Bryce Road. The Cemetery contains about 150 lots. Lots are no longer being sold within the Cemetery. The Cemetery is overseen by the Town of Cambridge and is in good condition.

### *Smillie Cemetery*

Smillie Cemetery is located on Route 109 north of Jeffersonville. There are less than 50 lots on the 0.2 acre Cemetery. Lots are no longer being sold. The Cemetery is overseen by the Town of Cambridge and is in fair condition.

### *East Cambridge Cemetery*

The East Cambridge Cemetery is located on Route 15 east of Jeffersonville. The cemetery is 0.3 acres in size. No lots are available within the Cemetery. The Cemetery is overseen by the Town of Cambridge and is in fair condition.

### *Gibbins Cemetery*

The Gibbins Cemetery is located on Route 104. The cemetery is publicly owned, but is located behind a private home and largely maintained by the resident.

## **HISTORIC SITES AND BUILDINGS**

### *Historic Buildings*



The Town of Cambridge, Village of Jeffersonville, and Village of Cambridge each contain numerous historic structures that contribute to the character of the community. Portions of Jeffersonville are within a Historic District, and numerous structures within the Village are listed on the State or National Historic Register. (Note that this listing does not place restrictions on a private property owner).

Map 9 contains information regarding the Jeffersonville Historic District and buildings on the Historic Register. According to the Vermont Division for Historic Preservation:

“Jeffersonville’s architecture is highly unusual in that the predominant style is a transitional Greek Revival/Queen Anne. More than a third of the district’s contributing structures fall into this category, and were probably the work of a single builder over the years 1875-95. His distinctive technique was to use a traditional, usually gable-fronted plan with corner pilasters and side hall entrance, all holdovers from the Greek Revival Period. All other detail, particularly the use of turned porches, was eclectic Queen Ann in style.”

This unique architectural history could be used as a tool to promote the Village as a destination for tourists heading to Smugglers Notch by, for example, creating “Walking Tours” through the Village in collaboration with local businesses and the Historical Society.

Many of the historic buildings in Cambridge and Jeffersonville are privately owned. Therefore, much of the cost of upkeep of historic structures falls on private property owners. There are several State and Federal programs, including grant loans and tax credits, available to assist private property owners in maintaining historic buildings. Additional information can be obtained from the Vermont Division for Historic Preservation. (<http://www.historicvermont.org/>)

### *Village Center Program*

“Village Center Designation” is part of a statewide program to recognize and encourage local efforts to revitalize Vermont’s Traditional Village Centers. A community can receive “Village Center Designation” by submitting an application to the Vermont Downtown Program. The application primarily consists of a map of the proposed Designated Village Center. The Designated Village Center usually contains the civic and commercial core of a village. Vil-

lage Center Designation places no restrictions or obligations on private property. Maps 1 and 2 contain maps of potential Village Center boundaries for Jeffersonville and Cambridge Village, respectively.

Owners of commercial and multifamily properties within a Designated Village Center are eligible for several tax credits to restore or protect historic features of buildings and for code and safety improvements. Property owners who do not have the tax liability to use a tax credit directly may sell the credit to a bank in exchange for cash or for adjustments to a mortgage. Only buildings built before 1983 and located in the Designated Village Center areas may apply for tax credits. Government facilities, religious buildings, and single family homes are not eligible for these tax credits.

Tax credits available as of the drafting of this report are listed below:

- **10% State Historic Rehabilitation Tax Credit** – This credit applies to the costs for substantially rehabilitating a certified historic building and can piggyback onto the 20% Federal Rehabilitation Tax Credit. This credit applies to all costs in rehabilitating a building, including exterior and interior improvements and code compliance. There is no maximum award. However, no more than \$450,000 can go to projects in any one municipality
- **25% Façade Improvement Tax Credit** – This credit applies to the rehabilitation of a building façade. The maximum award is \$25,000. However, the credit cannot be used for a building that is eligible under the 10% historic credit above.
- **50% Code Improvement Tax Credit** – This credit applies to the cost of bringing a building into compliance with State building codes, to abate hazardous materials, or to redevelop a contaminated property. It includes a maximum award of \$12,000 for a platform lift, \$50,000 for sprinkler systems, \$50,000 for elevators, and \$25,000 for the combined costs of all other qualified code improvements, including hazardous material abatement and contaminated sites redevelopment. This credit can be used in conjunction with the other credits, as long as the applicant does not request credits more than once on an eligible expenditure.

In addition to these tax credits, many State funding programs, such as the Transportation Enhancements Program, Municipal Planning Grant Program, and Community Development Block Grant Program, give preference to projects located in Designated Village Centers. Some private entities, such as the Preservation Trust of Vermont, also give preference to projects located in Designated Village Centers.

## **RECOMMENDATIONS**

### *Jeffersonville Sewer System*

- Replace and modernize the wastewater treatment plant aeration system.
- Conduct an energy audit of the wastewater treatment plant. Identify opportunities to increase energy efficiency and/or generate electricity on site.
- Inventory and identify other treatment plant components that will need to be replaced in the next 5-10 years.
- Investigate upgrades to the Village Trustees office space.

### *Jeffersonville Public Water System*

- Upgrade all existing water mains with diameters less than 8 inches. Give priority to undersized mains serving fire hydrants in areas with the highest existing population density. Prioritize upgrades to existing water mains over service area expansions.
- Consider developing a formal policy for future water hookups and line extensions.
- Consider creating a Wellhead Protection Ordinance to guard against inappropriate development in the wellhead protection area of the two wells providing water for the Village system.
- Consider public purchase or easement over land in the wellhead protection area of the two wells providing water for the Village system.

### *Cambridge Village Water System*

- Consider developing a formal policy for future water hookups and line extensions.
- Consider conducting a feasibility study for a community leach field or decentralized wastewater treatment system for Cambridge Village.

### *Pedestrian Infrastructure*

- Identify, design, and construct highest priority new sidewalks, particularly those servicing Cambridge Elementary School
- Work with the School District to define highest priority road crossings for students on Route 108 and other State Highways.
- Consider upgrading school related crosswalks and signs to improve safety and enhance visibility to motorists.
- Reduce obstruction of sidewalks caused by parked cars while maintaining sufficient on-street parking for Village businesses by better defining the edge of sidewalks through use of curbing and/or striping.
- Install ADA compliant ramps and “detectable warnings” at all existing and new crosswalks.
- Develop and upgrade trailhead and parking facilities for the Lamoille Valley Rail Trail and Cambridge Greenway.

- Conduct an alternatives analysis on various potential inter-village connections for pedestrian and cyclists.

### *Public Buildings*

- Develop a Capital Budget including anticipated repairs for publicly owned buildings.
- Conduct Energy Audits of all publicly owned or publicly affiliated buildings.
- Include low cost energy efficiency retrofits as part of the annual building maintenance budget, particularly those with a payback period of two years or less.
- Pursue resources such as grants, bonds, and low interest loans to fund higher cost energy efficient retrofits.
- Consider development of municipal/public parking areas in Jeffersonville to serve both public buildings and commercial establishments within the Village. These public parking areas should be within convenient walking distance of key village services and amenities.

### *Other Public Infrastructure*

- Measure lighting levels in Cambridge Village and reorganize fixtures to produce more uniform lighting through the Village.
- Upgrade or replace street lights and lighting fixtures in public parking areas with new, energy efficient models.
- Investigate if any existing cobra head street lights should be replaced with “period style” lighting fixtures.
- Research and, if feasible, implement, tree planting and other landscaping within the Old Cambridge Village Green to enhance the physical appearance of the Village and provide a buffer between North and South Main Street and commuter traffic on Route 15.

### *Historic Buildings*

- Provide informational resources to owners of Historic Buildings on voluntary resources to maintain these structures.
- Apply for Village Center Designation for both Cambridge Village and Jeffersonville. Promote the resulting tax credits to building owners, and assist in completing application for these tax credits.
- Promote Jeffersonville’s unique architectural heritage. Consider creating “Walking Tours” through the Village in collaboration with local businesses and the Historical Society.

## SUMMARY OF OPPORTUNITIES TO ENHANCE INFRASTRUCTURE

Each section of this report contains a list of recommendations for future upgrades and investments in infrastructure. Prioritization and implementation of these recommendations will ultimately be at the discretion of municipal officials and the voters. A variety of funding mechanisms are available to fund Infrastructure Enhancements. A non-exhaustive summary of funding options is contained below.

### *Capital Budgeting*

A Capital Budget refers to a multi-year (usually five years) outline of future public infrastructure investments. A capital budget allows a community to spread major expenses over several fiscal years. This prevents spikes in spending and the local tax rate and can also allow a community to make large investments that it could not afford in a single year. In addition, capital budgeting can be a tool for raising match funds for grants. Capital budgeting can also allow a community to pay a larger portion of a major expense with “cash,” thereby lowering the total funds borrowed and reducing associated interest payments.

The first step in developing a Capital Budget is inventorying existing infrastructure and identifying future needs, repairs, and upgrades. This report provides the foundation for this step. The community then identifies which capital improvements should be made in the next five years. This requires prioritization by the community. In some cases, a need may be critical (such as replacing infrastructure that is failing). However, in many cases, this process involves choosing between equally important and pressing needs. For this reason, it is important to involve the public and consider the goals and policies found in the Municipal Plan when determining which investments should be included in the Capital Plan.

Once infrastructure investments have been identified, the costs are then divided over the next five years. Each fiscal year, a set amount of funds for each project is transferred from the general fund into dedicated “reserve funds.” Usually, these transfers are shown as line items in the annual budget. In order to stabilize local tax rates, many communities seek to establish fairly consistent rates of capital expenditures from year to year.

The legislative body of the municipality (Selectboard or Village Trustees) must hold at least one public hearing on the proposed Capital Budget. The legislative body may then adopt the Capital Budget by a majority vote. Note that municipalities must have a confirmed Town Plan in order to adopt a Capital Budget. (See 24 VSA §4443). Adoption of a Capital Budget does not require approval of the voters. However, the annual expenditures outlined by the Capital Budget are included within each annual budget, and must be approved by the voters accordingly. In addition, some reserve funds require approval of the voters before they can be established.

Municipalities with approved Capital Budgets are also authorized to collect “impact fees” from new developments. (See 24VSA §5200-5206). Impact fees are designed to “require the

beneficiaries of new development to pay their proportionate share of the cost of municipal and school capital projects which benefit them and to require them to mitigate the negative effects of construction.” Under the statute, capital projects that can be funded with impact fees include any physical betterment or improvement, including furnishings, machinery, apparatus or equipment for such physical betterments or improvements, preliminary studies and surveys related to any physical betterment or improvement, land or rights in land, or any combination of these. Impact fees must be based on a reasonable formula and should be equal to or less than the portion of the cost of a capital project that will benefit or is attributable to a development. A municipality collecting impact fees must provide annual accounting of fees collected and how they were spent. If fees are not spent on an identified capital project within six years, the owner of the property from which they were levied may petition the municipality for a refund.

### *Grants*

#### **Town Highway Structures Program**

(80% State – 20% Local; or 90% State – 10% Local if certain incentive criteria are met ) – See the Handbook for Local Officials for details. Projects may address repair or replacement of bridge spans over 6 feet, culverts with a diameter of 3 feet or larger, causeways, or retaining walls on Class 1, 2, or 3 Town highways. \$170,000 project cap. Application deadlines vary by District.

#### **Transportation Enhancements Grant Program**

Transportation Enhancement activities offer communities the opportunity to expand transportation choices. Activities such as safe bicycle and pedestrian facilities, scenic routes, beautification, and other investments increase opportunities for recreation, accessibility, and safety. Eligible applicants include municipalities, State agencies, not-for-profit organizations, and Federal agencies. Funds can be used for planning, feasibility studies, engineering, property acquisition, staff time, and construction.

Transportation Enhancements are most often used for sidewalk design and construction but can also be used for other pedestrian and bicycle facilities, pedestrian and bicycle safety and education activities, acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs, including Tourist and Welcome Centers, landscaping and scenic beautification, historic preservation, rehabilitation and operation of historic transportation buildings, structures, or facilities, preservation of abandoned railway corridors, control and removal of outdoor advertising, archaeological planning and research, mitigation of highway runoff, provision of wildlife connectivity, and establishment of transportation museums.

Vermont’s Transportation Enhancement grant awards are a minimum of \$10,000. Awards are capped at \$300,000 in Federal funds.

Contact Vermont Agency of Transportation, Local Transportation Facilities: (802)828-0583

## **Vermont Recreation Trails Program**

The Recreation Trails Program (RTP) is a Federal assistance program of the Federal Highway Administration that provides funding for the development and maintenance of recreation trails, trailside amenities, and trailhead facilities. Both motorized and non-motorized trail projects may qualify for assistance. The program is administered at the State level through the Vermont Agency of Natural Resources, Department of Forests, Parks and Recreation, in cooperation with the Vermont Agency of Transportation.

Municipalities and non-profit organizations may receive a grant for up to 80% of the total cost of a recreation trail project. Project sponsors may apply for grants up to \$20,000.

### **Community Development Block Grant – Implementation.**

Community Development Block Grant Funds administered by the Vermont Community Development Program can be used to provide water, sewer, and other infrastructure serving economic development or housing. The project must show a direct benefit to low-to-moderate income households. For example, the infrastructure must serve an affordable housing development or a business that is creating jobs likely to be filled by low-to-moderate income individuals. (Note that this program can also be used to provide direct funding for affordable housing, as well as loans to private businesses).

Grants range from \$50,000 to \$1,000,000. Municipalities must make a municipal contribution toward the cost of projects to construct or improve these facilities. No match amount is prescribed, but the contribution will bear on the competitiveness of the application.

Any Vermont town or incorporated village or a consortium of such entities is eligible to apply. However, the majority of projects are a coordinated effort between the municipalities, community groups, and local or State non-profit organizations. In order to be eligible for the VCDP, a municipality must have an adopted Municipal Plan. Grant applications are reviewed by a nine member citizen board appointed by the Governor. Applications are reviewed on a rolling basis throughout the year.

Contact : Vermont Community Development Program: 802-828-3211

## **USDA Rural Development Water and Waste Disposal Grant Program**

Water and Waste Disposal Grants may be made to develop, extend, or improve water and wastewater systems, including solid waste disposal and storm drainage, in rural areas. An eligible applicant can be a public body (town, village, special purpose district) or a non-profit association serving a community with a population of 10,000 or less. Applicants must also show that they are unable to afford commercial credit.

Eligible projects include water improvements (source, storage, distribution, treatment, meters), sanitary sewer (collection, treatment, combined sewer separation, storm sewers), solid waste disposal (transfer station, incinerator), new systems, renovations, expansions, purchase of

an existing system or "buy-in" fees to existing systems. Grants are available to supplement loans when: (1) the service area is determined to be low income and (2) the projected user rates will be unreasonably high.

Contact: USDA Rural Development, (802)-828-6032.

### **USDA Rural Development Community Facility Direct Grant Program**

The USDA Rural Development Community Facility Direct Grant Program provides grants to assist in the development of essential community facilities in rural areas and towns of up to 20,000 in population. Grants are authorized on a graduated scale. Applicants located in small communities with low populations and low incomes will receive a higher percentage of grants. Grants are available to public entities such as municipalities, counties, and special-purpose districts, as well as non-profit corporations and tribal governments. In addition, applicants must have the legal authority necessary for construction, operation, and maintenance of the proposed facility and also be unable to obtain needed funds from commercial sources at reasonable rates and terms.

Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety, and community and public services. This can include the purchase of equipment required for a facility's operation. A grant may be made in combination with other USDA Rural Development financial assistance such as a direct or guaranteed loan, applicant contributions, or loans and grants from other sources.

The amount of grant assistance for project costs depends upon the median household income, the population in the community where the project is located, and the availability of grant funds. Grant assistance may be available for up to 75% of project costs. Grant funding limitations are based on population and income, economic feasibility, and availability of funds.

Projects will be selected based on a priority point system. Projects that will receive priority are those that: serve small communities - with the highest priority going to projects located in a community with a population of 5,000 or less; serve low-income communities with the highest priority going to projects serving communities with median household incomes below the higher of the poverty line or 60% of the State non-metropolitan median household income; and/or Provide healthcare, public safety, or public and community services.

Grant funds cannot be used to pay any annual recurring costs, including purchases or rentals that are generally considered to be operating and maintenance expenses; to construct or repair electric generating plants, electric transmission lines, or gas distribution lines; to provide services for commercial sale; to pay costs to construct facilities to be used for commercial rental where the applicant has no control over tenants and services offered; to construct facilities primarily for the purpose of housing State, Federal or quasi-Federal agencies; or to finance recreational facilities or community antenna television services or facilities

Contact: USDA Rural Development, (802)-828-6044

### **The Preservation Trust of Vermont -- Community Forestry Project**

The Preservation Trust of Vermont offers grants of up to \$10,000 for tree planting within Designated Downtowns and Designated Village Centers. Grants are made to municipalities or non-profit citizen groups. Recipients are required to provide a 1:1 cash and/or in-kind match. Trees can be planted on public lands such as public rights-of-ways, parks, greenbelts, and around public buildings. Trees may also be planted on private property in the absence of an adequate public right-of-way, provided the community obtains a written easement from the landowners.

Contact: The Preservation Trust Of Vermont: 802-343-0595

### **Cultural Facilities Grant Program**

The Cultural Facilities Grant Program is administered by the Vermont Arts Council in conjunction with the Vermont Historical Society, the Vermont Museum & Gallery Alliance, and the Vermont Division for Historic Preservation. The program awards grants on a competitive basis to assist nonprofit organizations and municipalities to improve community facilities used to provide cultural activities to the public. The purpose of the program is to enhance or expand the capacity of an existing building to provide cultural programming. Grants range from \$1,000 - \$20,000 and require a 1:1 cash match.

Contact Vermont Arts Council (802) 828-5425

### **Recreational Facilities Grant Program**

The Recreational Facilities Grant Program provides competitive grants to municipalities and nonprofit organizations to stimulate the creation and development of recreational opportunities in Vermont communities. The program requires a 3:1 match from the recipient and caps awards at \$25,000. This program requires that there be demonstrated community support, both financial and grassroots.

Contact: Department of Buildings & General Services (802) 828-3519

### **Human Services and Educational Facilities Competitive Grant Program**

The Human Services and Educational Facilities Grant Program awards matching grants to municipalities and nonprofit organizations for capital costs associated with the major maintenance, renovation, and development of facilities used for the delivery of human services and health care or for the development of educational opportunities in Vermont communities. The program requires a 3:1 match from the recipient and caps awards at \$25,000.

Contact Department of Buildings & General Services (802)828-3519

## **Historic Preservation Grant Program**

The Vermont Division for Historic Preservation offers 50/50 matching grants through a competitive process to assist municipalities and nonprofit organizations in restoring important historic buildings across the state. Grants of up to \$15,000 are awarded by the Vermont Advisory Council on Historic Preservation to help preserve and repair buildings that will promote the public's awareness and appreciation of Vermont's cultural heritage. Town Halls, municipal buildings, churches, historical societies, granges, and many other kinds of buildings have been funded. Eligible work includes restoration and repair of roofs, structural elements, windows, foundations, and other components of historic buildings.

Contact Vermont Division for Historic Preservation (802): 828-3043

## ***Bonds/Loans***

### **Vermont Municipal Bond Bank**

The Vermont Municipal Bond Bank (VMBB) is an instrumentality of the State of Vermont, administered by a Board of Directors that includes the State Treasurer and four members appointed by the Governor. Municipal applicants sell their bonds to the VMBB. The Bond Bank pools or combines the municipal bonds into one large bond issue which is then sold by the VMBB in the public municipal bond market. Pooling of bonds allows smaller communities to issue bonds that on their own, may be too small to attract investors

### **State Infrastructure Bank**

The State Infrastructure Bank (SIB) program operated by the Vermont Economic Development Authority in conjunction with the Vermont Agency of Transportation and the Federal Highway Administration is available to assist in the construction or reconstruction of highways, roads and bridges, and certain facilities related to rail transit. This program also provides funding for the purchase of commuter vans. 1% fixed rate for loans to municipal-type borrowers. Loan term may not exceed 30 years with repayment commencing no later than five years after completion of project; required borrower equity contribution to project is 10-20%.

Contact the Vermont Economic Development Authority (VEDA), 802-828-5627

### **Public Water System Planning and Final Design Loans**

The Vermont Department of Environmental Conservation may make loans for planning and design work needed to be eligible for public water system construction loans. Eligible applicants include municipalities and not-for-profit non-community water systems serving less than 10,000 people.

Contact Water Supply Division: 802-241-3425

### **Public Water System Construction Loans**

The Vermont Department of Environmental Conservation may make loans to municipalities and certain privately owned water systems for construction, repair, or improvement of a public water system to comply with State and Federal standards and protect public health. Eligible applicants include public community water systems and not-for-profit non-community water systems.

Contact Water Supply Division: 802-241-3425

### **Water Source Protection Loans**

The Vermont Department of Environmental Conservation may make loans to municipalities for purchasing land or conservation easements in order to protect public water sources.

Contact Water Supply Division: 802-241-3425

### **Municipal Pollution Control Loans**

The Vermont Department of Environmental Conservation may make loans to municipalities for facilities planning and final design, facility enlargement, refurbishment, general pollution control, stormwater projects, Municipalities to re-loan to homeowners for repair/replacement of their on-site systems. Projects that may be funded include refurbishment projects, combined sewer overflow projects, phosphorus removal projects, dry weather flow projects, enlargement projects, sewer line replacement projects, sewer line extension projects, stormwater and non-point source pollution abatement projects, water/energy efficiency or environmentally innovative projects, and other related projects.

Contact Facilities Engineering 802-241-3742

### **USDA Rural Development Water and Waste Disposal Loan**

Water and Waste Disposal loans may be made to develop, extend, or improve water and wastewater systems, including solid waste disposal and storm drainage, in rural areas. An eligible applicant can be a public body (town, village, special purpose district) or a non-profit association serving a community with a population of 10,000 or less. Applicants must also show that they are unable to afford commercial credit.

Eligible projects include water improvements (source, storage, distribution, treatment, meters), sanitary sewer (collection, treatment, combined sewer separation, storm sewers), solid waste disposal (transfer station, incinerator), new systems, renovations, expansions, purchase of an existing system or "buy-in" fees to existing systems. In Vermont, terms are limited by state law to 30 years for sewer and 40 years for water improvements. Grants are available to supplement loans when: (1) the service area is determined to be low income and (2) the projected user rates will be unreasonably high.

Contact: USDA Rural Development, (802)-828-6032

### **USDA Rural Development Water and Waste Disposal Loan Guarantee Program**

The USDA Rural Development Water and Waste Disposal Loan Guarantee Program can guarantee loans made by private lenders to build or improve essential public use facilities such as water and sewer facilities, storm sewers and solid waste facilities. Loan funds can be used for construction and non-construction costs including land, equipment, engineering services, legal services, capitalized interest, and initial operating funds. Non-profit corporations and public bodies such as municipalities, counties, and special purpose districts and authorities are eligible. Projects may only benefit rural areas or incorporated communities of up to 10,000 population.

There is no maximum dollar amount. The amount loaned is usually determined by the amount needed to meet the borrower's needs and its ability to handle the repayment schedule. Interest rates (fixed or variable) and terms are negotiated between the borrower and lender. Maximum term of 40 years, state statute, or the useful life, whichever is less. Balloon payments are prohibited.

The maximum percent of guarantee is 90%, and the lender must retain a minimum of 5% of the total loan amount. The retained amount must be from the unguaranteed portion of the loan. A one-time guarantee fee equal to 1% of the guaranteed portion of the loan is due at the time the guarantee is issued. Rural Development can only guarantee taxable debt instruments.

Contact: USDA Rural Development, (802)-828-6032

### **USDA Rural Development Community Facilities Direct Loan Programs**

The USDA Rural Development Community Facilities Direct Loan Program can make loans to develop essential community facilities in rural areas and towns of up to 20,000 in population. Loans and guarantees are available to public entities such as municipalities, counties, and special-purpose districts, as well as to non-profit corporations and tribal governments. Loan funds may be used to construct, enlarge, or improve community facilities for health care, public safety, and public services. This can include costs to acquire land needed for a facility, to pay necessary professional fees, and to purchase equipment required for its operation.

For the direct loan program there are three levels of interest rates available (poverty, intermediate, and market) each on a fixed basis. The poverty rate is set at 4.5%. The market rate is indexed to rates determined by the U. S. Treasury Department. The intermediate rate is set halfway between the market and the poverty rates. Eligibility for these different interest rates is determined by the median household income (MHI) of the area being served and the type of project. The intermediate and market interest rates are adjusted quarterly.

Contact: USDA Rural Development, (802)-828-6044

## **USDA Rural Development Community Facilities Loan Guarantee Programs**

The USDA Rural Development Community Facilities Loan Guarantee Program can guarantee loans made and serviced by lenders such as banks, savings and loans, mortgage companies which are part of bank holding companies, banks of the Farm Credit System, or insurance companies regulated by the National Association of Insurance Commissioners. The program may guarantee up to 90% of any loss of interest or principal on the loan. Loan funds may be used to construct, enlarge, or improve community facilities for health care, public safety, and public services. This can include costs to acquire land needed for a facility, to pay necessary professional fees, and to purchase equipment required for its operation.

For the guaranteed loan program, the interest rate is the lender's customary interest rate for similar projects. The interest rates for guaranteed loans may be fixed or variable and are determined by the lender and borrower, subject to HCFP review and approval.

Contact: USDA Rural Development, (802)-828-6044

### *Tax Districts*

#### **Special Assessment Districts**

24 VSA Chapter 87 (§3251-3271) authorizes the creation of "special assessment districts for the purchase, construction, repair, reconstruction, or extension of a water system or sewage system, or any other public improvement which is of benefit to a limited area of a municipality to be served by the improvement..." A special assessment (additional tax) is applied to all properties within the Special Assessment District and is used to cover the cost of a specific improvement. Establishment of a Special Assessment District requires a majority vote of all voters within a municipality, unless all owners of property within the district consent in writing to the special assessment.

Special Assessment Districts are most often used when the benefits of a capital improvement go primarily to residents of a specific area of a community. Such districts may be less applicable in Cambridge and Jeffersonville as the water and sewer service areas are already largely separate municipalities. However, a Special Assessment District may be applicable if infrastructure improvements, such as water or sewer line extensions, are made into areas of Cambridge outside Village limits. In general, funds generated by Special Assessment Districts can only be used to cover capital costs. However, Special Assessment Districts can also be used for operating expenses within the designated area.

#### **Tax Increment Financing**

Generally, a TIF District is established by a municipality around an area that requires public infrastructure to encourage public and private real property development or redevelopment. The property values are determined at the time the District is created, and the property taxes generated by that original value continue to go to the taxing entities (municipality and State). The municipality incurs debt to build public infrastructure, the real property development and

redevelopment occurs, and for a twenty year period of time, 75% of the incremental municipal and State property taxes that are generated are used to pay the infrastructure debt and 25% continues to go to the taxing entities (municipality and state). After the twenty-year property tax retention period, 100% of the property taxes generated go to the taxing entities.

A municipality may create a TIF District by following statutory requirements and may utilize **only** municipal property tax revenues. (24 VSA § 1891- 1901) If the municipality requires the utilization of incremental state education property tax revenues, further statutory requirements apply, including the requirement to apply to the Vermont Economic Progress Council (VEPG) to obtain approval of a TIF District Plan and a TIF District Financing Plan. After approval of a TIF District Plan and TIF District Financing Plan by VEPC, the municipality must obtain a single vote by the legal voters of the municipality to authorize the local legislative body to pledge the credit of the municipality up to a specified maximum dollar amount for all debt obligations to be financed with incremental education tax revenues. Note that current statutory language is unclear as to whether VEPG approval is needed if the TIF District utilizes only municipal property tax revenues.

If VEPG approval is needed, the following criteria must be met:

**1. But For:** Unless the TIF District is located within a designated growth center under 24 VSA §2793c, VEPC must determine that the new real property development would not have occurred or would have occurred in a significantly different and less desirable manner but for the proposed utilization of the incremental tax revenues. If the TIF District is located within a designated growth center under 24 VSA §2793c, it is deemed to have complied with the **But For** requirement.

**2. Process requirements:** VEPC must determine that each applicant has met a set of process requirements including public hearings and development of a TIF District Plan and a TIF Financing Plan.

**3. Location criteria:** Project must meet **one** of the following location criteria:

a. The development or redevelopment is compact, high density, and located in or near existing industrial areas;

b. The proposed District is within an approved growth center (under 24 VSA §2793c), designated downtown, designated village center, or new town center (under 24 VSA, Chapter 76A, §2793a); or

c. The development will occur in an area that is economically distressed, which means the area has experienced patterns of increasing unemployment, a drop in average wages, or a decline in real property values.

**4. Project criteria:** The project must meet three of the following five criteria:

**a. Extraordinary Debt:** The development within the District clearly requires substantial public investment over and above the normal municipal operating or bonded debt expenditures.

**b. Affordable Housing:** The development includes housing that is affordable (as defined by 10 VSA §6001(29)) to the majority of the residents living within the municipality and is developed at a higher density than at the time of application.

**c. Brownfields Redevelopment:** The project will affect the remediation and redevelopment of a brownfield located within the District. "Brownfield" is defined as an area in which a hazardous substance, pollutant, or contaminant is or may be present, and that situation is likely to complicate the expansion, development, redevelopment, or reuse of the property.

**d. Business Development:** The development will include at least one entirely new business or business operation or expansion of an existing business within the District, and the business will provide new, quality, full-time jobs that meet or exceed the prevailing wage for the region as reported by the Vermont Department of Labor.

**e. Transportation Enhancements:** The development will enhance transportation by creating improved traffic patterns and flow or creating or improving public transportation systems.