

CAPITAL FACILITIES INVENTORY**FITCHBURG MUNICIPAL AIRPORT**

The City of Fitchburg operates a municipal airport on 335 acres off Airport Road in Fitchburg near the Leominster border. It is classified as a General Aviation, General Utility Stage II airport by the National Plan of Integrated Airport Systems (NPIAS). This means that it serves all small airplanes, and can also accommodate some larger aircraft with wing spans of less than 79 feet.

The airport was first constructed in 1919, and the Airport Commission, which administers all air operations in the city, was formed in the late 1920's. In 1940, the airport land was donated to the City of Fitchburg.

There are two runways at the Fitchburg Municipal Airport. Runway 2-20 is 3,505 feet long and 75 feet wide. Runway 14-32 is 4,508 feet long and 100 feet wide. Both runways are in excellent condition according to the latest Airport Master Plan. All taxiways are in good or excellent condition.

The terminal building houses a restaurant and airport administrative offices. Two Fixed Base Operators (FBOs) operate at the Airport, Fitchburg Colonial Aviation and Liebfried

Aviation, and one charter service, Bullock Charter. Several hangers are owned by the Airport and leased to private airport users. There are two 5,000 gallon underground tanks and one 10,000 gallon tank containing fuel at the airport.

The Airport has its own snow removal equipment, which is sufficient to meet the needs of the airport and assist with the city's roads during snowstorms.

The above information was obtained from the Fitchburg Municipal Airport's 1990 Master Plan Update prepared by Dufresne-Henry Engineers in April of 1991.

A significant portion of the area at the airport is within the 100 Year Flood Plain. See the "Environmental Constraints" map and the Natural, Cultural and Historic Resources element of this document for floodplain data. Development in this area is therefore restricted by state and federal law. Further information about Fitchburg Municipal Airport can be found in the Transportation and Circulation element of this document.

CEMETERIES

There are five cemeteries operated by the city's Cemetery Department. Cemetery Department offices are located on Mt. Elam Road at Forest Hill Cemetery. According to the Director of

Cemetery Operations, it appears that there is sufficient area remaining for burials until the year 2020 or so. There is currently insufficient storage area at Forest Hill Cemetery for the cemetery equipment. A listing of cemeteries operated by the city of Fitchburg is given below.

South Street Cemetery, located north of Walnut Street, is approximately .9 acres in size. This cemetery is the oldest in the city, and dates from the Revolutionary War.

Dean Hill Cemetery, 1.02 acres in size, is located on Caswell Road roughly 900 feet north of the intersection of Ashburnham Hill Road in northwest Fitchburg. This site was founded around 1800.

West Street Cemetery is located near the intersection of Caldwell and West Streets, and across the street from the Greek Orthodox Church. At 7,259 square feet in size, this is the smallest cemetery in Fitchburg, and dates from roughly the same era as Dean Hill Cemetery.

Laurel Hill Cemetery is located to the south of Kimball Street and overlooks downtown. The cemetery is just over 13 acres in size. Access to this cemetery is restricted to the entrance near the intersection of Charles Street and Franklin Street at the top of the hill.

Forest Hill Cemetery is located in the area bounded by Rollstone Road, Mt. Elam Road and Electric Avenue. This cemetery of just over 43 acres is the newest in Fitchburg.

Privately owned and operated cemeteries in the city include the **Jewish Cemetery** on Rollstone Road south of Vine Street, 5.2 acres; **Saint Joseph's Cemetery** south of Electric Avenue between Shea and Rollstone, 16 acres; and **St. Bernard's Cemetery** located west of St. Bernard Street and east of John Fitch Highway, 48.6 acres. No estimate has been made of the remaining capacity in these non-public cemeteries. However, the number of cremations performed has greatly increased in the last decade, decreasing pressure on all cemeteries.

CITY HALL

City Hall houses most of the administrative offices connected with managing city government. It is located at 718 Main Street, and contains roughly 26,400 square feet of finished area. The building was constructed in 1864 and expanded to the rear near the turn of the century. Work was done on the front steps and facade in the 1960s. The building was last renovated in the mid 1980s and is in generally good condition. Virtually all of the space in the building is fully utilized, and more is needed for city departments. One possible area for expansion would be the area above the second floor. This space is currently unutilized, but would require significant engineering to install weight-bearing joists to replace the existing inadequate rafters.

In addition, the parking lot in the rear of the building is insufficiently sized to handle employee and visitor parking. The parking deck is in need of structural repair. A second level is located underneath the City Hall lot, and is accessed via Boulder Drive. At this time, there is no access to this lot from City Hall, greatly decreasing its usefulness.

According to the Building Commissioner, several windows on the front and east side of the building were not replaced and require repair or replacement. In addition, the electrical system is seriously overtaxed and should be overhauled. Also, there is a problem with sagging floors on the southeast side of the building. The cause is unknown, but may possibly be due to excessive load on the second floor caused by a safe in the credit union.

FIRE DEPARTMENT

FIRE STATIONS

The Fire Department’s facilities consist of the following structures:

Central Fire Station, 28 Oliver Street and the **Fire Alarm Building**, 48 Elm Street. The Central Fire Station has 14,851 square feet of finished area, and the Fire Alarm Building has

2,958 square feet of finished floor area. The Central Fire Station is in poor condition, and the Fire Alarm Building is in fair condition. Both buildings are scheduled to be replaced by a new facility on North Street in 1998.

Summer Street Fire Station, 42 John Fitch Highway, 2,260 square feet of finished floor area, constructed in 1960, and converted to a fire station in 1980. The building is in excellent condition.

Oak Hill Fire Station, 231 Fairmount Street at the intersection of Oak Hill Road, 5,600 square feet of finished floor area, built in 1920. This structure recently was partially renovated with Community Development Block Grant funds, including new windows and doors, and a new side entrance fire escape. The building is in good condition.

FIRE EQUIPMENT

Currently four engine companies and two ladder companies are operated by the Fitchburg Fire Department. One engine and a ladder respond from the Oak Hill Station and one engine operates from the Summer Street Station. Two engines and one ladder respond from the Central Station.

One of the ladder trucks is on loan from the City of Boston, and needs to be replaced.

LIBRARY

The Fitchburg Public Library and Fitchburg Youth Library are located at 610 Main Street. Both buildings are relatively new and in excellent condition. The Adult Library is 45,000 square feet in size and was built in 1967. The Youth Library is 9,000 square feet in size and was built in 1950. The facility underwent a \$500,000 renovation in the early 1990s which included a roof upgrade and new heating equipment in the Youth Library.

The library needs to have the carpeting replaced and the fire and security system upgraded. At the present time the fire alarm system includes only heat sensors. In addition, there are no zones for the heating, ventilation, and air conditioning (HVAC) system in the Library, so it is not possible to reduce the heat in unused areas of the building. Lavatories for the youth library should be replaced for safety reasons.

In general, the size and structural integrity of the library are adequate. However, amenities to allow the Library to operate more efficiently would be appropriate.

PARKS AND PLAYGROUNDS

A complete list of parks and playgrounds is located in the Open Space and Recreation section of this document. The City has a total of 491 acres of dedicated park and playground land, and 142 acres of Conservation Land.

DRAINAGE AND SEWER SYSTEM

There is no inventory of the condition and extent of the drainage system, and no plans for extension into unserved areas. Infiltration of groundwater into the sewer system is a major problem. An I/I (Infiltration and Inflow) Study should be done to achieve a reduction of groundwater in the sewer system, which would reduce the city's costs at the plant to treat this water.

COMBINED SEWER OVERFLOWS

Combined Sewers are sewer lines that contain both sanitary waste and drainage water. A combined system will have Combined Sewer Overflows (CSOs). During rainstorms pipes containing sewage are subject to overflows, resulting in the introduction of waste into the rivers and brooks. Combined sewers are no longer legal. Information on their condition and location is currently being gathered by a joint effort between the Department of Public Works and the Office of the Planning Coordinator's GIS project, in support of a CSO Study currently being undertaken by the City with Dufresne-Henry Engineers. The third phase of the CSO Study was completed in 1997, and includes a complete inventory of the city's main sewer systems.



An antiquated sewer system threatens the Nashua River's health.

CATCH BASINS

A catch basin operations and maintenance plan will be developed as part of the CSO Project. Some information has been gathered by volunteers and entered into the GIS. However, it is incomplete.

SANITARY SEWERS

There are no plans for service extension to areas currently unserved by sanitary sewer. Among the areas of concern are Richardson Road and Scott Road, Oakdale Avenue, Ashburnham

Hill Road, Williams Road, Mount Elam Road, Ashby State Road, Kinsman Road, High Rock Road and other rural areas of Fitchburg. Often these extensions require pumping stations that impose an operational expense and maintenance requirements on the city. The costs per connection can be quite high, because of the distances between houses.

Recent legislation, often referred to as Title V, imposes new restrictions on owners of property with septic systems that make it much more difficult and costly to sell a home. Connection to municipal sewer has therefore assumed an increased importance in many parts of the city.

The John Fitch Highway sewer line is a known problem location. A video and written report regarding the condition of the John Fitch Highway sewer line was completed by the developer of the Candlewood Park Subdivision in the summer of 1995. This sewer line will require maintenance work or replacement prior to the construction of the new High School.

TREATMENT PLANTS

The city currently operates two wastewater treatment plants, the East Plant near the Fitchburg Airport and the West Plant in West Fitchburg on Princeton Road. Users, primarily private industry, pay for the West plant in direct proportion to its usage. The East plant is paid entirely by the city for residential and commercial users.

A 1968 Facilities Plan sized and located the existing East and West plants. No plans have been developed for the wastewater facilities since that time.

Currently under construction at the East Plant, a BACT (Best Available Control Technology) Project, to neutralize acids, remove all particulates in the air stream, and destroy VOCs (volatile organic compounds) and SOXs (sulphur compounds) for emissions control. An odor control project is pending, which will supplement the emission program under construction. This project will deal with all process locations, and not just stack emissions. These improvements are nearing completion at this writing.

According to the Director of Wastewater, their primary capital needs are the following:

- C A grit removal system is needed for the East plant (approx. cost \$2 million).
- C A mechanical sludge de-watering system is needed at the West Plant. An engineer has been hired to prepare cost estimates for the system.
- C I/I (Infiltration and Inflow) reduction in the sewer system. Infiltration of groundwater into the sewer system is a major problem. A TV inspection system has been purchased to review the condition of the lines by the city. Otherwise no work has been done.
- C Closure of two paper sludge disposal sites (West Plant

related) - no cost estimate available.

- C A sludge cake receiving system for the East Plant at an estimated cost of \$500,000.
- C Replacement of the East Plant flotation thickeners with a gravity belt system.

SOLID WASTE

The Fitchburg - Westminster Landfill is under the jurisdiction of the Fitchburg Board of Health, and is operated for the city by United Waste Systems of Massachusetts, Inc. United Waste Systems also operates a curbside and on-site recycling program for the city.

There are roughly five years of additional capacity remaining at the landfill before additional “cells” are required. The Department of Environmental Protection, which regulates municipal landfills in the Commonwealth, does not allow communities to develop capacities that would exceed a five year projected need, in case the technology changes to a more stringent standard, according to the Director of Public Health.

The city provides free rubbish pick up to all residents of properties with 8 living units or fewer in Fitchburg once a week. Curbside recycling bins are available to all households. Pickup of aluminum, glass, newspaper, and #1 through #7 plastics is carried out on a bi-weekly basis.

Recycling is growing in popularity among cities, who are interested not just in its environmental benefits, but in cost savings. Studies show that recycling is becoming increasingly cost effective, while the use of landfills and incinerators is becoming more expensive. Increased regulation of these environmentally harmful methods of waste management is driving up waste disposal costs for cities who rely on them. It is believed that the rising cost of traditional waste disposal systems will soon make an effective recycling program a necessity. The city of Worcester has been extremely successful in reducing the amount of its waste being landfilled by implementing an aggressive recycling program and a pay-per-bag schedule for trash removal. In this way, residents are only charged for the trash they send to the landfill, while recycling bins are collected for free. By providing a financial incentive to recycle, Worcester, which shares many demographic and economic characteristics with Fitchburg, has reduced the amount of trash entering its landfills by approximately 60%, and has become a model for recycling programs across the state. Studies indicate that the pay-per-bag system is the most effective at increasing recycling rates. However, some towns have seen an increase in illegal dumping since instituting a pay-per-bag system. A successful waste management system will require monitoring.



An expanded recycling program will be crucial to Fitchburg's economic and environmental well being.

Two hazardous waste collection days per year are held to allow households to dispose of hazardous materials. In addition, a waste oil collection facility, paint storage collection facility, and on-site recycling center are available at the landfill, which is located off of Route 31 south of the Fitchburg line in Westminster.

ROADS AND BRIDGES

Massachusetts Highway Department keeps a road inventory which it provides to the City of Fitchburg. This inventory has not been updated since 1989. A digital road inventory file showing pavement conditions in Fitchburg has been gathered by the Mass Highway Department and has been imported to the Fitchburg Geographical Information System. This information can be found in the map “Pavement Conditions.”

Significant information is available on the street layout plans for street improvements, which include information up to about 1987, and have been maintained by the Engineering Department. A joint effort between the Department of Public Works and the Planning Department’s GIS System is required to update this inventory to make it more accessible and retrievable. More information about the city’s roads and bridges can be found in the Transportation and Circulation element of this document. A complete listing of bridges in Fitchburg can be found in Appendix: Bridge.

STREETSCAPE

SIDEWALKS

There is no inventory of the location, type and condition of sidewalks and curbing in the city. The City’s Community Development Block Grant (CDBG) program has funded the

replacement of sidewalks in the following areas: Bemis Road between Water Street and the railroad underpass; Main and River Streets between the Upper Common and Broad Street; Laurel and Water Streets between South Street and Walnut Street; and Snow, Union and Day Streets near Main Street. The city’s Streetscape Action Plan, which specifies the order in which sidewalk improvements funded with CDBG funds are to be implemented, is currently being updated.

STREET TREES

There is no inventory or maintenance plan for trees located in the city’s public right of way. Street trees function as a natural air conditioner, keeping city streets cooler by providing shade. They also reduce sound levels, are attractive, retain and absorb rainwater, and reduce air pollution by reducing dust and airborne contaminants, using carbon dioxide and releasing oxygen into the air.

WATER SUPPLY

EXISTING WATER SUPPLY SYSTEM

The city utilizes ten water supply reservoirs which provide water to four separate pressure zones, or systems. The four systems are the Low, High, Scott and Oak Hill systems, and are summarized below.

The Low System is supplied by the northern reservoirs, located in northern Fitchburg and Ashby. They are the Ashby, Shattuck, Lovell and Falulah Reservoirs. Shattuck Reservoir distributes flow to the Low system through Lovell Reservoir and to the High system through the Overlook Reservoir.

The High System is supplied by the southern reservoirs. These reservoirs are located in the towns of Westminster, Princeton and Hubbardston. They are Bickford Pond, Mare Meadow Reservoir, Meetinghouse Pond and Wachusett Reservoir (also referred to as Wachusett Lake) The Overlook Reservoir is a distributing reservoir for the High system and is located in a central area of Fitchburg. This reservoir receives flows diverted from the Ashby and Shattuck Reservoirs.

The Scott System is supplied by the Scott Reservoir, a relatively small water supply located in a central area of the city. This reservoir supplies water to a limited high pressure area in the vicinity of the Burbank Hospital. The Scott system can also be served through a pipeline from Shattuck Reservoir.

The Oak Hill System is supplied from the High system. The Oak Hill system is served by a pump station and storage facility. This system serves the Oak Hill area, a location of higher elevation on the south side of the city. Water is pumped from the High system to serve this area.

OVERVIEW OF RESERVOIR OPERATIONS

The flow of water from the northern supplies begins at the Ashby Reservoir. Water from this point flows through Shattuck and Lovell Reservoirs and into the Falulah Distributing Reservoir. This gravity flow of water from the north serves the city's Low system. The flow from Ashby Reservoir is controlled at a gate house on the south side of the reservoir. This control gate is manually adjusted as required to control the flow of water through Shattuck Reservoir into Lovell Reservoir. Flow from Shattuck Reservoir is also diverted to Overlook Reservoir. Shattuck Reservoir is a proposed water storage reservoir that is currently used as a distributing reservoir.

The southern reservoirs provide the flow of water necessary to satisfy the water demands of the High system. A small percentage of this water is also diverted to the Low system through the Marshall Regulating Plant. Water from Bickford Pond, the furthestmost reservoir from the distribution system, must be pumped into Mare Meadow Reservoir, which in turn must be pumped into Meetinghouse Pond. Water from this point flows through a Pressure Reducing Valve (PRV) at the Westminster Plant and into the High system.

The flow of water from Wachusett Reservoir, controlled by an 8-inch PRV, combines with the flow from Meetinghouse Pond in the Westminster Plant.

Overlook Reservoir provides water directly to the High system. Water from this source can also be diverted from the High system to the Low system at the Marshall Regulating Plant. Overlook Reservoir is set at approximately the same gradient as the Westminster Plant and provides a small amount of water supply to the High system to equalize flows as system demands require. It receives this flow from the Ashby Reservoir through a 24-inch pipeline at Shattuck Reservoir.

The Scott Reservoir is utilized to provide the entire demand requirement of the smaller Scott system. Water from the Scott Reservoir flows through a 20-inch line to a closed connection with the 24-inch pipeline from Shattuck Reservoir to Overlook Reservoir. This pipeline intersection is located above the Scott Plant. At this point the flow from the Scott Reservoir is transmitted through a 12-inch bypass line through the Scott Plant. Water from Shattuck Reservoir continues to Overlook Reservoir through the 20 inch pipeline which passes through the Scott Plant without connection.

The Shattuck Reservoir has very little storage capacity and is an insignificant supply source. It serves to distribute flow to Overlook and Lovell Reservoirs.

SUPPLY AND CONTROL FACILITIES

The city's supply and control facilities include six pump stations, seven chemical feed and pressure regulation stations, an underground storage facility and seven reservoir gate houses.

PUMP STATIONS

1. Bickford Pond pump station is used to pump and meter water transferred from Bickford Pond to Mare Meadow Reservoir.
2. Mare Meadow Reservoir pump station is used to pump and meter water that is transferred to Meetinghouse Pond from Mare Meadow Reservoir.
3. Oak Hill Pump Station fills a large storage tank located off Franklin Road near Oak Hill.
4. Rollstone Pump Station is an emergency stand-by for the Oak Hill tank.
5. Princeton Road Pump Station is a booster pump for the Royal Plaza Hotel
6. Montachusett Pump Station functions as a booster pump for the Montachusett Industrial Park.

CHEMICAL FEED AND PRESSURE REGULATING PLANTS

1. Falulah Plant - chemical addition and flow metering for the water from Ashby, Shattuck, Lovell and Falulah Reservoirs.
2. Marshall Regulating Plant - For water transmission between the High and Low systems.

3. Westminster Regulating Plant - chemical addition, pressure regulation and flow metering for water from the High system.
4. Overlook Plant - Chemical addition and flow regulation for water from Overlook.
5. South Street Chlorination Facility - Supplemental chlorination for the High system.
6. Scott Plant - chemical addition, pressure regulation and flow metering for water from the Scott system.
7. River Street Regulating Facility - Pressure recording at a low elevation connection point between the High and Low systems.

RESERVOIR GATE HOUSES

Ashby (2), Falulah, Wachusett, Meetinghouse, Overlook, Scott Gate Houses are the intake points to the water system from each of the referenced reservoirs.

In addition, the water system has a water storage facility on Oak Hill near the Oak Hill Country Club that holds approximately 450,000 gallons. This facility provides water pressure for the Oak Hill System, the only portion of Fitchburg's water delivery area that is not fed by gravity flow from higher elevation reservoirs.

FILTRATION

The City is in the process of implementing water filtration to comply with the Safe Drinking Water Act. There will be two filtration plants, one in Westminster at Hager Park to service the high pressure system and one adjacent to Falulah Reservoir off Rindge Road to service the low pressure system. Final design documents were completed in the Spring of 1998 and ground breaking is scheduled to occur during 1998. All construction, including elevated storage tanks, should be completed by June of 2000. All work related to this effort will be funded through a 0% loan program recently authorized by the Federal Government and currently under development by the State Department of Environmental Protection.

WATER DISTRIBUTION SYSTEM

The first water mains were installed in 1870, and were made from cement-lined wrought iron. Shortly thereafter, the city standardized on unlined cast iron for water mains. In 1940, the city switched to cement-lined cast iron, and pipe installed after 1972 is cement lined ductile iron.

There are approximately 197 miles of water mains in the city of Fitchburg. Many of these lines have been replaced over the years. For the past ten years, Community Development Block Grant funds have been used to replace deteriorated water mains in the areas eligible for CDBG improvements. CDBG funds have

on several occasions been used to obtain matching grants from the state for replacement of water mains.

Since 1994, most water main replacement work has been funded by the city's Water Enterprise Fund, established to enable the Fitchburg Water Division to be self-sustaining by utilizing water usage fees to fund the costs of the water system. Under the Enterprise Fund, all water usage fees are dedicated to operating the water system. Several major water main replacement programs have been funded by the water enterprise fund since its establishment in 1994. A table in Appendix: Water Main, lists replacements and extensions of water mains, the work performed, the cost of each project, and the funding source. Total CDBG Funding equals \$2,265,630.00. Total State Funding equals \$227,979.00. Total Local Funding equals \$3,189,554.00.

WATERSHED

In 1993, the Office of the Planning Coordinator and the Water Division jointly prepared a watershed protection study that identified parcels of critical importance to the protection of the watershed. In this study, every parcel of land within 1,000 feet of the city's reservoirs in Ashburnham, Ashby, Hubbardston, Princeton and Westminster were mapped and ownership identified. Parcels of critical importance to the city were identified and prioritized according to various criteria. Further information about Fitchburg's watershed areas can be found in



Fitchburg is fortunate to have extensive surface water holdings.

the Land Use section and Open Space and Recreation section of this document.

SCHOOLS

In February of 1994, the School Building Needs Committee released its report on the condition of Fitchburg schools. Within this document are projections for elementary, middle, and high school enrollment for the year 2000, capacity analysis for each school facility, a general inventory of classrooms space, and an

analysis of the facilities available and the need for maintenance and capital improvements. As part of this last section, the firm of Knight, Bagge, and Anderson was hired to produce a report specifying the condition of the facilities and recommending long and short term improvements. An energy audit was also performed on each of the buildings. Short term is defined as those which should be done in 2-5 years, and long term in 5-10 years. Based on the above data, the committee produced recommendations for each of Fitchburg's schools buildings. In some cases, the capacity identified is lower than the actual enrollment at the school. This indicates that certain functions are being carried out in inappropriate space, or that the space is overcrowded. In most cases, the overcrowding is caused not by an increase in enrollment compared to the past, but by changing definitions of what is appropriate educational space, and by the introduction of special education (Sp.Ed.) programs and other specialized curricula which require smaller classes and thus take up more space per student. In January of 1997, the School Department provided an update on the condition of the schools to the Vision2020 Capital Facilities Working Group.

Goodrich Kindergarten Center, which sits on 2.8 acres at 111 Goodrich Street (Map 71, Block 42, Lot 0), adjacent to Goodrich Park (4 acres), was built in 1891 and renovated in 1986. The building is not handicapped accessible. Goodrich provided half-day kindergarten to 260 students in 1997, approximately 60% of Fitchburg's kindergarten total. At 14,400 square feet, there is

sufficient space in the school for 280 students, although not all of this space is ideal. The phys ed room was built as a cafeteria, one special education room was a cloak room, and the speech therapy room was basement storage space. The school lacks an art room, music room, library, and cafeteria. The nurse's station is in a converted coal bin. Knight, Bagge, and Anderson recommended \$35,000 in maintenance, \$67,500 in short-term improvements, and \$255,500 in long term improvements. The energy audit indicated that the current heating and insulation was adequate. The committee recommended incorporating the maintenance items into a 5 year plan. As converting the school to an elementary facility would require that large amounts of space be converted to support, as opposed to classroom, uses, and since the doubling of capacity allowed by half-day kindergarten would be removed, the Committee recommended that this school remain a kindergarten facility. As of January 1997, \$6500 in improvements have been made at the school, all in the area of maintenance.

The **South Fitchburg School** at 1011 Water Street (44,324 square feet, Map 140, Block 15, Lot 0) was built in 1900, and is directly adjacent to a 26.5 acre park. The building comprises 16,000 square feet on two levels, and includes a small playground area. South Fitchburg provided pre-K, kindergarten, and transitional education to 189 students in 1997. The building, which is not handicapped accessible, has sufficient space for 186 students. Some classrooms are considered too small for their

program usage. The speech therapy room is located in substandard space. The phys ed room is a former storage room and lacks windows that open. There is no music room, art room, or library. There is insufficient space for the special education classes, which are often held in the hallway. The nurse's station is located in a former storage area. The consultants identified \$28,000 in maintenance, \$31,000 in short term improvements, and \$155,000 in long term improvements. They also performed an energy audit, which identified \$16,500 worth of improvements. The committee recommended renovating the bathrooms and the heating system. The January 1997 report identifies \$6000 in maintenance, \$2000 in long term improvements, and \$16,500 in energy improvements which have been made to the school.

Crocker Elementary School is located on 16 acres at 200 Bigelow Road (Map 170, Block 5, Lot 0), one half mile off Mechanic Street, next to 190 acres of Audubon land. A playground is located behind the building, and parking in front. The building, built in 1964, comprises 71,000 square feet on two stories, and is not handicapped accessible. Crocker provides pre-K through grade 5 education, and had a 1997 enrollment of 541. The Report identifies the school's capacity at 600. Several spaces which were designed for specialized programs, such as the music room, are being used to house special education, Chapter I, English as a Foreign Language, and computer classes. A back hallway is used for speech and occupational therapy. Knight,

Bagge, and Anderson identified \$20,950 in maintenance, \$178,000 in short term improvements, and \$523,800 in long term improvements. The energy audit identified \$232,700 in heating improvements, most of which can be attributed to the subdivision of larger spaces into smaller rooms which lack heating controls. The Committee recommended adding space to provide for future growth in the elementary school population, replacing the roof and clock-and-bell system, installing cable or a satellite dish for television reception, extending the intercom to the cafeteria and music wing, adding lighting in the parking lot, and installing heating controls in the library and music storage room. The January 1997 report lists \$5650 in maintenance, \$3000 in long term improvements, and \$232,700 in energy improvements which have been made to Crocker.

McKay Elementary School is located on 20 acres at 67 Rindge Road (Map 5, Block 17, Lot 0), next to the conservation land around Falulah Brook. The building, which is owned by Fitchburg State College, was built in 1970 and comprises 79,000 square feet on two handicapped accessible levels. A varying amount of this space is used by FSC, and is not available for school usage. The site includes athletic fields, a climbing structure, play area, and ample parking. Operated by the Commonwealth, McKay provides pre-K through 5 education, and serves as a training center for Fitchburg State College Education majors. If only adequate and appropriate space were used, the school's capacity would be 575 students. In 1997, enrollment

was 614. Several areas designed as office space, storage, or observation rooms are used for Chapter I classes. The art room is currently located in a standard-sized classroom, limiting project work. Maintenance and improvements are funded by the state of Massachusetts and carried out by FSC. The continued operation of this facility by the college is the only recommendation made by the Committee.

Reingold Elementary School is located on just over 12 acres of land at 70 Reingold Avenue, near the intersection of Franklin Road and Depot Street (Map 100, Block 32, Lot 0). The handicapped accessible building, constructed in 1969, includes 75,000 square feet on two stories. The site boasts a small climbing structure, outdoor ball field, paved play area, and parking lot. In 1997, the school served 808 children in grades 1 through 5. The Committee identified its capacity at 680. The room for the hearing impaired, art room, and resource room are of insufficient size. Some Chapter I classes are held in a hallway. Ten rooms used for various types of classes, including Chapter I, Hearing Impaired, and lower grades, have no windows and poor ventilation. The music room and computer lab are currently being used for Chapter I due to increased enrollment. Art classes are held in an undersized room. A class for the hearing impaired is held in a locker room. The consultants identified \$15,700 in maintenance, \$163,500 in short term improvements, and \$406,000 in long term improvements. The energy audit identified \$50,000 in improvements. The Committee

recommended repairing the roof, performing both the short and long term recommendations of the consultants, reducing enrollment to 600, replacing the intercom, extending the fence, and installing a new rug in the library. The 1997 update reports that \$14,200 in maintenance, \$125,000 in short term improvements, and \$50,000 in energy improvements have been made to Reingold.

The **South Street Elementary Complex** is located on 12 acres at 366 South Street (Map 107, Block 33, Lot 0). Substantial renovations have been carried out at this site since the Committee's report. At that time, the site was composed of three separate buildings, which were originally the convent, high school, and elementary school for the Holy Family School. The facility has a total of 202,600 square feet of floor area, and capacity for 850 students. The buildings have since been linked and facilities upgraded. Fitchburg Access Television has offices and work space in the complex.

B.F. Brown Middle School is located on a 76,535 sq. ft. parcel at 62 Academy Street (Map 30, Block 18, Lot 0), adjacent to Lowe Playground (141,000 sq. ft.), giving the school an effective campus of 5 acres. Also adjacent are another small playground and the Fitchburg Art Museum. The old City Stables building is also on the site, and is used as a greenhouse for science classes. In 1997, B.F. Brown enrollment was 584 students in grades 6, 7, and 8. With 76,500 sq. ft. of space, the school's capacity was

identified at 482. One Chapter I class and one audio-visual room are housed in converted bathrooms. The computer lab is in a hallway. There is no space for guidance, conference, and music rooms. The Health Suite, cafeteria, and library are all undersized, and a language training program is held in the nearby High School building. The consultants identified \$47,500 in maintenance, \$335,000 in short term needs (complete window replacement), and \$821,000 in long term improvements. The energy audit identified \$275,000 worth of work to be done. The Committee recommended performing all short and long term improvements as well as the work identified in the energy audit, enlarging the office, library, and guidance areas, increasing cooperation between the School and Parks Departments to facilitate maintenance, replacing the boys' lockers, installing carpeting, improving ventilation in certain areas, and installing heating controls in the cafeteria, phys ed rooms, and guidance areas. According to the 1997 report, \$5200 in maintenance, \$10,000 in long term capital improvements, and \$275,000 in energy improvements have been made to the school.

Memorial Middle School sits on 16 acres next to Parkhill Park at 615 Rollstone Street (Map 104, Block 3, Lot 0). Built in 1967, the school has a large ground floor and smaller lower level, both of which are accessible to the handicapped. Gross square footage is 111,000, and the facility has a large athletic field in the rear and parking on the front and side. In 1997, Memorial's enrollment was 709 students in 6, 7, and 8. The Committee

identified the school's capacity as 625. As in most schools, many specialized classes, such as Sp.Ed. and bilingual, are held in rooms converted from storage, locker bays, and offices. In one case, the Sp.ed. room cannot be used during oil deliveries because of fumes from the fuel oil entering the room. Also, the library is smaller than the standard. Knight, Bagge, and Anderson identified \$32,100 in maintenance, \$313,500 in short term improvements (mostly roofing costs), and \$1,520,000 in long term work. The energy audit identified \$155,000 that should be spent. The Committee recommended that the improvements identified, including those identified in the energy audit, be completed; that a 5 year growth plan be developed for the school; and that the intercom system be replaced. As of January 1997, \$20,600 in maintenance, \$220,000 in short term improvements, \$80,000 in long term improvements, and \$155,000 in energy improvements have been performed at Memorial Middle School.

Fitchburg High School is located at 98 Academy Street (Map 30, Block 24, Lot 0) on 1.6 acres of land in the heart of Intown. The building, built in 1936, contains over 170,000 sq. ft. of space, and is not handicapped accessible. FHS's 1997 enrollment was 943, which is below its identified capacity of 1000. Several classes are held in converted storage space, heating and ventilation is inadequate in some areas, and the space assigned for the library, physical science, chemistry, biology, and phys ed programs are undersized. The lack of open space and athletic facilities seriously weakens phys ed and athletic programs. Two

rooms used for computer labs lack sufficient dust control and air conditioning, raising the possibility that the equipment will be harmed, necessitating an avoidable capital expenditure. The Committee identified \$20,500 in maintenance, \$35,000 in short term projects, and \$556,000 in long term work. The energy audit recommended \$730,000 worth of work, mostly for the installation of an independent heating system. FHS is currently heated by boilers located in B.F. Brown. The Committee recommended expanding the library/media services area, reconstructing the science labs; performing the heating improvements recommended by the consultants; repairing the roof, stage, gymnasium, and classrooms; investigating the auditorium balcony; and providing a work technology room to allow for the study of applied science. As of January 1997, \$17,500 in maintenance, \$5000 in short term improvements and \$730,000 in energy improvements had been performed at the High School.

The High School Annex is located on just over half an acre of land at 82 Academy Street (Map 30, Block 19, Lot 0), across Davis Street from the High School. The building, built in 1869, contains approximately 18,400 sq. ft. and is not handicapped accessible. The Annex is primarily used for High School classes, with one classroom devoted to B.F. Brown. The capacity of this facility is approximately 200, increasing the High School's capacity to approximately 1200. Many of the problems identified at the High School also apply to the Annex. Faulty heating controls are common, causing many classrooms to become unbearably hot in the winter. The consultants did not recommend

any maintenance or short term improvements for the Annex; instead, they recommended significant long term renovations be carried out. These items total \$1,599,500. Rather than invest this much money into the building, the Committee recommends closing the Annex when the development of new classroom space allows. The 1997 report identifies just \$40,000 in improvements which have been performed at the school.

The Hosmer School, located at 110 South Street (Map 68, Block 90, Lot 0), sits on $\frac{2}{3}$ of an acre at the corner of South and Nashua Streets. This facility, built in 1898 and renovated in 1987, is the home of the Bright Beginnings Head Start program, a federally-funded pre-school program for income-eligible children. The building has a small play area, and is not handicapped accessible. The Building Committee recommends that the facility continue to be used for this purpose.

The **Laurel and Rollstone Street Buildings** are located on 1.6 acres at the intersection of Rollstone, Laurel, and Charles Streets (Map 66, Lot 8, Block 0). Built in the 1860s, these schools were formerly used for elementary and Sp.Ed. classes, and are today used as storage space for the Fitchburg Public Schools. The Committee recommends that these facilities continue to be used for this purpose.

The Manpower Building is located on 26.6 acres at 44 Wanoosnoc Road (Map 147, Block 6, Lot 0), across from the intersection of Normandy Road. A large play structure built by

South Fitchburg parents and a ball field are adjacent to the site. The building houses the offices of the FLLAC Collaborative, a program for behaviorally/emotionally disturbed students, and two programs for students with intensive special needs. The Committee recommended that the building continue its current use, but noted that the site could also be used for pre-school or early childhood programs if necessary.

The city is in the process of designing a new High School, to be built off Ashby State Road, next to the City Forest. The budget for the project is approximately \$38 million, of which 80% will be reimbursed by the state. This school is intended to be a model high school, and should attract students from nearby towns, who will be able to choose their school under recently enacted "School Choice" legislation. Under this law, Fitchburg will receive \$5000 for each non-resident student. Construction will begin in the Fall of 1998. The building, which is expected to open in the Fall of 2000, will have approximately 230,000 square feet of floor area, and capacity for about 1400 students.

SNOW REMOVAL

The Department of Public Works coordinates the city's snow removal efforts. Approximately 80% of the work is performed by private contractors. The city plows main roads, and applies sand throughout the city. Residential areas are left to the contractors. Formerly, the city performed most of the work itself,

and used contractors as support. During the recession, however, decreased tax revenue resulted in serious cutbacks in the number of employees working for the DPW. While these cutbacks resulted in a smaller departmental budget, the savings were illusory. Contractors typically charge around \$60 per hour of work, compared to \$10 for city workers. Also, reliance on contractors is less efficient than using city workers. All DPW equipment is tied in to a central communications facility, allowing drivers and dispatchers to be in constant contact. Communication with contractors is reliant on a private system of pagers, cellular phones, and chance meetings. Another concern is turnover among drivers working for contractors, requiring a new set of drivers to learn their routes every year. The DPW estimates that it could add 20 more workers for its snow removal program without requiring the purchase of new equipment.

An informal system of "ambulance routes" receives special attention within hilly residential neighborhoods. The goal of this system is to keep one route passable at all times which allows downhill access to all points in the neighborhood. These routes were formulated years ago by the DPW, and have not been coordinated with other city departments.

CAPITAL FACILITIES GOALS AND OBJECTIVES

Consider multiple uses of the airport property, in accordance with the 1990 Airport Master Plan.

- Additional private sector air-related uses.
- Potential light industrial development opportunities.

Upgrade City Hall to meet the needs of the next century.

- Increase available space by building an addition or acquiring more square footage.
- Improve the existing structure including new windows and upgraded electric service.
- Provide adequate parking for City employees.

The City's fire department must be adequately funded so that it can grow with the City and ensure its safety.

- Provide modern equipment and training.

Ensure that wastewater treatment plants are adequately funded to meet their continuing critical capital needs.

Improve Fitchburg's ability to efficiently remove snow from its streets.

Increase the life of the municipal landfill, and protect air and water quality by increasing the amount of household waste which is recycled.

CAPITAL FACILITIES RECOMMENDATIONS

- C Create a development potential analysis of the airport property.
- C Develop five-year capital improvement program integrating facility needs for all major municipal services.
- C Create a street tree planting program and maintain a schedule.
- C Analyze all short- and long- term expenses and revenue sources to ensure service users are paying both long term depreciation expenses and facility expansion needs as well as operating and maintenance costs.
- C Coordinate individual capital facilities improvement projects with related elements of the master plan, for example;
 - a. Watershed protection land acquisition and water rates.
 - b. Transportation and streetscape (trees, lighting, signs, etc.) improvements and neighborhood and industrial economic development.
 - c. Open space trail systems with watershed protection planning.
 - d. Historic resource preservation with public facility improvements. (granite stone walls, stone arch bridges, pedestrian circulation systems--the rapids, etc.)
- C Eliminate the Combined Sewer Outflows.
- C Investigate watershed protection measures with watershed communities, as an alternative/supplement to the filtration systems.
- C Increase recycling among city residents and businesses by implementing a pay-per-bag program for waste disposal. Provide adequate resources for monitoring compliance.
- C Utilize betterment districts to fund infrastructure improvements where they are critical to the health, safety, and well being of city residents, such as sewer service in areas where septic systems are failing.