

Section 9

Smart Growth Management

PURPOSE

The purpose of this section is to identify the current efforts of West Springfield to encourage smart growth in new developments undertaken by both private developers and by the Town. Smart growth focuses on balancing economic development with environmental protection and social well-being. The goal of smart growth management is to create a unique sense of place (i.e., community character) by:

- Expanding the range of transportation, employment, and housing choices
- Equitably distributing the costs and benefits of development
- Preserving and enhancing natural and cultural resources
- Promoting public health.

INTRODUCTION

New development and redevelopment continues in West Springfield. The community is challenged to balance development and its economic benefits with protection of the environment and wise use of natural resources.

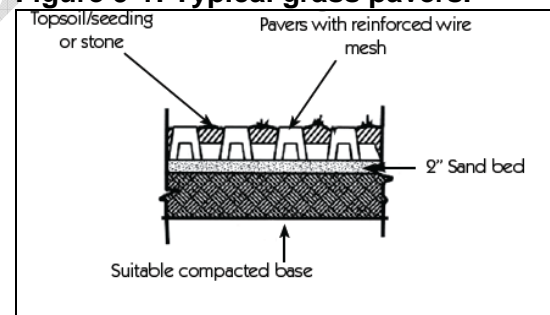
Smart growth techniques include:

- Mix land uses to encourage people to live where they work and shop
- Encourage compact development
- Minimize impervious surfaces
- Encourage walkable communities
- Design buildings to fit the neighborhood character
- Reuse brownfields and existing structures
- Reduce light pollution

Some specific smart growth techniques that can be incorporated into new development or redevelopment are described below.

Low Impact Development (LID): is using nature to manage stormwater close to the source. LID designs include open drainage swales, landscaped rain gardens, green roofs and minimizing impervious surfaces.

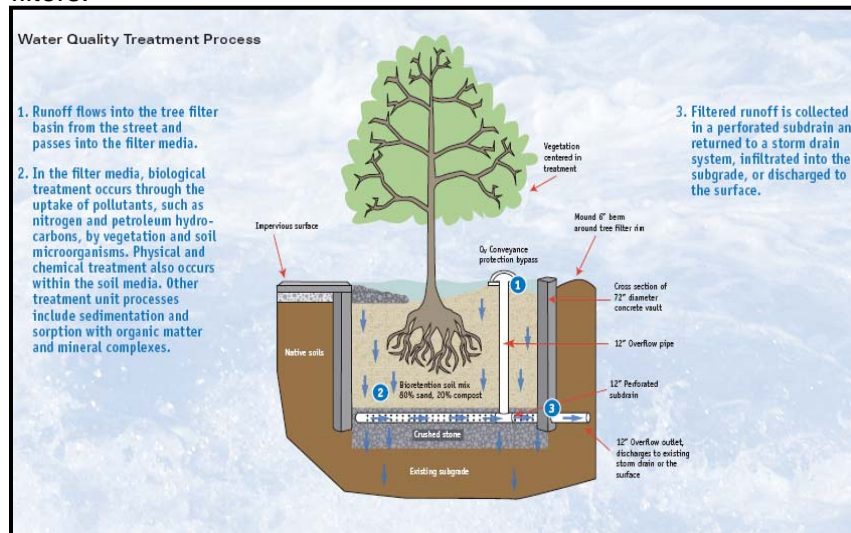
Figure 9-1: Typical grass pavers.



Source: Typical installation of grass pavers, Hastings Pavers Checkerblock

Urban Forestry: is the care and management of trees in the urban environment. Urban forestry includes street trees, maintaining existing forested areas, and encouraging tree planting on public and private properties in densely developed areas.

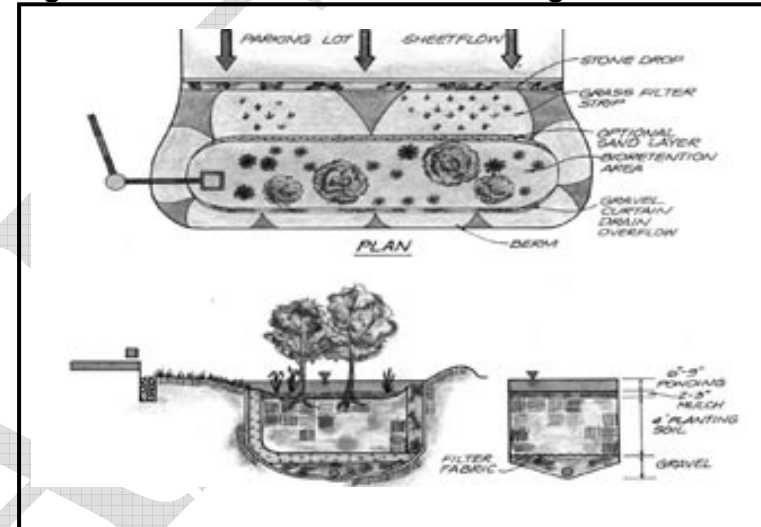
Figure 9-2: Typical cross section of manufactured tree box filters.



Source: UNHSC Design Specifications for Tree Box Filter, University of New Hampshire Stormwater Center

Leadership in Energy and Environmental Design (LEED): is an accreditation process that certifies projects based on their incorporation of green building practices including: selection of sustainable sites (i.e., brownfields, or sites near public transportation); water efficient landscaping; green roofs; local building materials; efficient building energy systems; and low indoor air contaminant emitting building materials.

Figure 9-3: General construction of vegetated swales.



Source: Fact Sheet #5, Vegetated Swales, Massachusetts Low Impact Development Toolkit

Smart growth techniques can result in the reduction of greenhouse gas emissions, use of clean and renewable energy sources, incorporation of energy and resource conservation practices, and protection of open space and the natural environment. This section looks at the options for West Springfield to promote smart growth practices in private developments and in municipal projects.

WEST SPRINGFIELD TODAY

West Springfield is a developed community with limited undeveloped green space. Redevelopment outpaces new

development. West Springfield regulates development primarily through its Subdivision Rules and Regulations and the Zoning Ordinance. Development is further regulated by state requirements that are enforced at the local level such as the building code and the Wetlands Protection Act.

Zoning Ordinance

The Zoning Ordinance regulates new development and redevelopment throughout West Springfield. The town is divided into twenty zoning districts that define allowed uses, dimensional requirements and performance standards for development. In addition, overlay districts have been defined to further protect natural resources including rivers, water supplies, and floodplain. Development requirements include stormwater management and landscaped buffers.

Section 10-9 of the Zoning Ordinance, entitled Regulation with respect to Energy Use and Conservation, provides specific requirements for the development of wind mills.

Subdivision Rules and Regulations

Subdivision Rules and Regulations regulate and set design standards for creation of new development lots and new roadways. These standards include minimum right-of-way widths, pavement widths, sidewalk requirements, and stormwater management.



Photo 9-1: New subdivision, Tighe & Bond, May 2008

Massachusetts Sustainable Development Principles

The Commonwealth of Massachusetts has developed the following set of ten “Sustainable Development Principles”.

1. Concentrate development and mix uses
2. Advance equity
3. Make efficient decisions
4. Protect land and ecosystems
5. Use natural resources wisely
6. Expand housing opportunities
7. Provide transportation choices
8. Increase job and business opportunities
9. Promote clean energy
10. Plan regionally

The state is encouraging communities to implement these principles. This is accomplished in large part through the Commonwealth Capital program, which requires municipalities to submit an application identifying the

sustainable measures integrated into zoning, planning, housing, environmental, energy, and transportation. The Commonwealth Capital score is including in project ranking for various grant applications, including the following:

- [Public Works Economic Development Program](#)
- [Transit Oriented Development Bond Program](#)
- [Water Transportation Capital Funding Program](#)
- [Small Town Road Assistance Program](#)
- [Community Development Action Grant Program](#)
- [Massachusetts Opportunity Relocation and Expansion \(MORE\) Jobs Capital Program](#)
- [State Revolving Fund](#)
- Local Acquisitions for Natural Diversity ([LAND, formerly Self-Help](#)) Program
- Parkland Acquisitions and Renovations for Communities ([PARC, formerly Urban Self-Help Program](#))
- [Drinking Water Supply Protection Grant Program](#)
- [Coastal Pollutant Remediation Grant Program](#)
- [Alternative Energy Property Program](#)
- [Municipal Sustainability Grant Program](#) (formerly the Solid Waste Management & Recycling Technical Assistance & Regulatory Development Program)
- Off-Street Parking Program (EOAF)

The Town of West Springfield recently submitted its Commonwealth Capital application for 2009. The highest score possible is 140 points. In past years, West Springfield has scored in the middle of the pack, with scores of 73 in

FY2006/2007 and 71 in FY2005. No application was submitted for FY2008.

Public Facilities

The town has many opportunities to incorporate smart growth tenets. As noted in Section 8 - Public Facilities, the Town maintains several buildings (see Table 8-3). The Town is weighing options related to the rehabilitation or expansion of existing buildings or new construction to enhance the municipal office building, the high school, certain elementary schools and the library.



Photo 9-2: DPW truck, Tighe & Bond, June 2008

In addition, the Town maintains a fleet of vehicles, including vehicles used by the Fire Department, Police Department and Department of Public Works. Opportunities for use of more efficient vehicles, or alternative fuel sources, such as biofuels, should be considered to lessen the Town's overall reliance on fossil fuels.

Incorporating LEED Requirements

West Springfield generally supports new businesses, and there are many opportunities to redevelop vacant and abandoned lots. One concern with incorporating smart growth into new regulations is the cost to businesses. Several studies have analyzed the additional cost of LEED certification. Based on various studies, LEED certifications cost an additional 1.5% to 3% in soft costs, which include design costs and LEED documentation, and an additional 3% to 8% in construction costs, for a total of approximately 4.5% to 11% increased costs for LEED certification.^{1,2,3} The upfront capital costs are generally paid back in cost saved. The financial benefits of green developments include lower energy, waste disposal, and water costs; lower environmental and emissions costs; lower operations and maintenance costs; and savings from increased productivity and health.

¹ GSA LEED® Cost Study, Final Report, dated October 2004, prepared by Steven Winter Associates, Inc., prepared for the U.S. General Services Administration <http://www.wbdg.org/ccb/GSAMAN/gsaleed.pdf>.

² The Costs and Financial Benefits of Green Buildings A Report to California's Sustainable Building Task Force October 2003, Principal Author: Greg Kats, Capital E, <http://www.cap-e.com/ewebeditpro/items/O59F3259.pdf>.

³ Analyzing the Cost of Obtaining LEED Certification, April 16, 2003, Prepared for The American Chemistry Council, Prepared by Northbridge Environmental Management Consultants, http://www.cleanair-coolplanet.org/for_communities/LEED_links/AnalyzingtheCostofLEED.pdf.

PAST PLANNING

While past planning has not focused specifically on smart growth, many plans have incorporated smart growth ideas. These include the 1998 Open Space and Recreation Plan (OSRP), the draft 2008 OSRP, Community Development Plan, as well as the Westfield River OSRP and Westfield River Five Year Watershed Action Plan. A brief summary of these documents and the smart growth related goals are provided below.

1998 OSRP, Beals and Thomas, Inc. and Draft 2008 OSRP, Town of West Springfield

Both the 1998 and the draft 2008 OSRPs identify a range of open space and recreation goals for the Town. The goals have remained consistent, with the draft 2008 plan introducing a goal for urban forestry. The goals that incorporate smart growth tenets include:

- Protect and maintain existing natural resources including water resources, wetlands, forests, and wildlife habitat.
- Pursue and participate in regionally responsible environmental issues and policies.
- Develop and strengthen the Urban Watershed Forestry program to reduce urban forest loss and protect water quality in the Town of West Springfield.

West Springfield Community Development Plan, PVPC

The Community Development Plan supported the recommendations of the 2000 Master Plan and the OSRPs in

the areas of Open Space, Housing and Economic Development. Smart growth related goals included:

- Preserve and acquire open space
- Seek opportunities for green spaces and parks in neighborhoods
- Restore and reuse older housing units and commercial and industrial buildings
- Provide housing near job centers and transit.

Westfield River Open Space and Recreation Plan, 2003, Pioneer Valley Planning Commission

The Westfield River OSRP studied the entire Westfield River watershed, which extends across 23 communities and encompassing 330,000 acres. The smart growth related goals for the watershed are:

- Preserve the rural, scenic, and historic character of the Westfield River watershed
- Protect natural resources, unfragmented forest blocks, and significant habitats
- Maintain the integrity of aquatic ecosystems and protect quality of all surface and groundwater drinking water sources
- Recognize, maintain, and protect remarkable river and stream corridors
- Preserve agricultural lands and encourage environmentally sound agricultural practices

Westfield River Five Year Watershed Action Plan, 2006, Pioneer Valley Planning Commission

The 2006 action plan builds off of the 2003 Westfield River OSRP, incorporating the goals of the 2003 plan, and further identifying priority projects in the watershed. The three identified priority projects that encompass West Springfield and address smart growth ideas are:

- Implement growth management strategies that focus on revitalizing downtowns, and encouraging growth in previously developed areas.
- Implement a stormwater pollution reduction program including developing LID bylaws.
- Public education and outreach – Sense of Place campaign that focuses on promoting awareness of the Westfield River and best management practices, and on engaging local schools in river education and outreach.

PUBLIC INPUT

Public Forum

The Master Plan public forum held in July 2008 included several break out groups. The discussions touched on some of the tenets of smart growth management, including:

- Expand public transportation
- Consider adding bike lanes to major transportation routes
- Preserve the “neighborhood feel”
- Include design standards in the Zoning Ordinance
- Reuse vacant structures for new commercial uses

- Develop standards to improve landscaping and or the design of buildings
- Focus more commercial and office development downtown and in walking distance from residential neighborhoods
- Focus development where residents can walk to town services, businesses and recreational areas.
- Use existing developed areas through redevelopment, infill and bike access.
- Encourage developers to comply with specific design requirements for projects that will enhance the town's character
- Require gathering and open space in new residential developments

Townwide Survey

In addition, a Survey was conducted during the Master Plan process that asked residents about housing, land use, open space, public facilities, economic development, transportation and the municipal government. See Appendix A for a copy of the Survey, a detailed memorandum describing the responses and a summary of the participants and distribution. Relating to smart growth management, 54% of respondents were interested in learning more about recycling and 68% were interested in learning about energy efficiency.

SMART GROWTH CHALLENGES/NEEDS

Fuel prices have increased significantly in the recent past. Increased energy costs strain municipal budgets and may force tough decisions to meet budget shortfalls. Smart growth and energy efficiency have made their way into newspaper

headlines and everyday discussion. Many citizens are looking to the government to lead the way in incorporating energy efficient designs.

Incorporating smart growth practices can increase the initial soft costs (e.g., design and LEED documentation costs) and construction costs of a project. It is often difficult for developers or the municipal funders to accept the increase in initial costs. However, studies indicate that savings in operations, such as fuel costs, are reduced over the life of the project and exceed the initial outlay. Businesses are also using “being green” in their marketing efforts.

WEST SPRINGFIELD TOMORROW

As the public becomes more aware of our impact on the environment, they will push for better public and private developments that conserve energy and natural resources. Incorporation of smart growth techniques may have higher upfront costs, but operation and maintenance costs decrease due to energy savings.

Section 6-5 of the West Springfield Home Rule Charter and Ordinance 106 establishes a Buildings and Other Facilities Planning and Construction committee (planning and construction committee). This seven member committee includes six members appointed by the mayor. The mayor is directed to seek persons having experience in the fields of architecture, engineering, construction, real estate or law. The seventh member of the committee is designated by the school committee.

The planning and construction committee is responsible for monitoring the physical condition of all municipal buildings and other facilities. The committee meets with representatives of municipal agencies to evaluate the need for building renovations or new construction and assists in the request for proposal (RFP), bidding and construction phases. As defined in the Home Rule Charter, the planning and construction committee is responsible for all work in connection with the project including site planning, surveying, engineering studies, architectural plans and specifications and the supervision of construction. The committee oversees consultants and contractors hired to design and construct municipal facilities.

This committee should require that energy conservation and other smart growth practices are considered for implementation in the renovations and new construction of municipal projects.

RECOMMENDATIONS

There are many methods to incorporate smart growth management techniques into public and private projects in West Springfield. Goals and strategies to encourage smarter growth are summarized below.

Goal 1: Incorporate smart growth management requirements into Town regulations.

1. Incorporate LID requirements into Subdivision Rules and Regulations.

2. Consider incorporation of LEED requirements in the Zoning Ordinance as a requirement or to provide development incentives for LEED developments.
3. Set performance standards for developments to incorporate the natural landscape and preserve vegetation.
4. Expand Section 10-9 of the Zoning Ordinance to include provisions for other renewable energy sources and to promote additional energy conservation practices.
5. Explore Dark Sky Initiative and other ways to limit light pollution.

Measurement of Progress: Incorporation of smart growth requirements into town regulations and enforcement of such in new developments.

Goal 2: Incorporate smart growth principles in municipal facilities planning.

1. Require new municipal buildings or renovations to meet LEED standards.
2. Conduct energy audits at municipal facilities and implement recommendations.
3. Include renewable energy technologies such as solar, biomass, or wind, into new buildings and renovations.
4. Improve efficiency of Town vehicles.

Measurement of Progress: Improvements to public facilities to make them more energy efficient.

Goal 3: Educate the public about smart growth practices.

1. Continue to offer residents rain barrels or compost bins.
2. Sponsor educational and informational session of smart growth topics including energy efficiency, constructing rain gardens and recycling.
3. Distribute educational materials highlighting the benefits of energy and resource conservation on the town web site.
4. Explore regional and national campaigns such as Sense of Place and Dark Sky Initiative.
5. Include school population in education efforts.

Measurement of Progress: Residents incorporating smart growth practices into their lifestyles.